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CANADA

MEDICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

On the Past, Present, and Future of the Faculty of Medicine of McGill University. An Introductory Lecture delivered at the opening of the Session 1866-67, by ARCHIBALD HALL, M.D., Edin., L.R.C.S.E., Professor of Midwifery and the Diseases of Women and Children, McGill University; Honorary Fellow of the Obstetric Society of London; Associate of the College of Physicians of Philadelphia, &c., &c., &c.

GENTLEMEN,—The delivery of the introductory lecture to a course, marks, in a most incontestable manner, the lapse of time, and reminds me that this is the *thirty-first year* since this annual duty has devolved upon me. During this long period of time, in which Dr. Campbell, our present esteemed Dean of Faculty, and myself, have been associated—what changes have taken place in it! Not *one* of the early founders of this School now remains. They have all gone to the "mountains of myrrh, and the hills of frankincense, until the day breaks, and the shadows flee away;" but "though dead, they yet speak," and in unmistakable language they tell *us* to be diligent while "*our day*" lasts. Such thoughts impel me to deviate from my customary plan of lecture, and to devote this one to a sketch of the Past, the Present, and the Future of our Faculty; and I trust that the narrative may prove of some interest.

It feels strange to review scenes long passed away, bespeaking, as it does, the mutability of all sublunary affairs. But if there is one point more than another which is most forcibly proclaimed, it is the unswerving fidelity of the early founders of this School of Medicine to their self-imposed task—one undertaken with the merest shadow of remuneration, and which has now culminated in the fact that their work has prospered in a remarkable degree; and that this School is undoubtedly the first one in

British America, and its lectures may unquestionably vie with those of Great Britain, while I believe them superior to those of most, if not all, of the Colleges of the United States. I speak this with no sentiment of egotism. I but repeat what is now a trite remark. But now to our task.

In the year 1813, died one of the merchant princes of this city, the Hon. Jas. McGill, bequeathing for the endowment of a University or College, to retain perpetually his name, the property known as Burnside, consisting of a dwelling and appurtenances thereon erected, with adjacent land to the extent of about forty-six acres. This property was valued at the time at £5000; but over and above this bequest he also left the sum of £10,000 in money, intended apparently for the endowment of Professorships. There were two stipulations in the will: the one that the residuary legatee, Francis Desrivieres, should enjoy the whole for a limited time; and, secondly, that unless the University was put in operation within ten years, the whole bequest should revert to the residuary legatee. It is now necessary to remark that in the year 1801 a Provincial statute organized "The Royal Institution for the Advancement of Learning," but the Institution was not constituted until the year 1819. The trustees under the will now demanded the bequest from the legatee for the purpose of handing it over to the Royal Institution, an application which was refused by him—the refusal ending in a protracted law suit, which was not terminated until after the lapse of some sixteen or seventeen years. In the meanwhile, the Royal Institution applied to His Majesty George the Fourth for a Royal Charter, which was granted in the second year of his reign, 1821, and thus established the University with full powers. In this connection, I should observe that it was the intention of His Majesty George the Third to have established two Universities in this Province—one at Quebec, and the other in this city; and that Mr. McGill merely contemplated in his noble bequest the endowment of a college in the latter. This intention appears never to have been carried out in Lower Canada, although by the persevering energy of the venerable Bishop of Toronto, the University of Toronto became established in the Upper Province, and most richly endowed with Crown lands. Such was the intention of His Majesty, however; and the intention was also to have endowed these in a similar manner; but, as already observed, from what cause soever, it was never realized, thus furnishing another example of the truthfulness of the Scottish poet's observation, that—

> "The best laid schemes of mice and men
> Gang aft aglee."

We have now to consider another circumstance which exerted a marked influence on this School, and, in truth, mainly contributed to its establishment. I now allude to the erection of the Montreal General Hospital. In the first annual report of that Institution, I find the following:—"In the year 1819, from the increase in the population of this town, the Hotel Dieu Nunnery was found to be inadequate to the reception of the indigent sick; an inconvenience further augmented by the great influx of emigrants from the United Kingdom, some of them labouring under fevers of a contagious nature, and other diseases, that were not admissible into that hospital." Accordingly that year a subscription was taken up for hiring a house to serve as an hospital; and the report further says: "That though this was only on a small scale, the good effected by it was, after one year's trial, so evident, that it was deemed an object highly desirable to erect a building, which might give permanency to the establishment." Accordingly ground was purchased, subscriptions were opened to raise the sum of £2200, the estimated cost of the building, and in January, 1821, a special committee, appointed for the purpose, entered into contract for the erection of the edifice now known as the Montreal General Hospital. Like most other large buildings, the actual cost of its erection exceeded the estimate by the large amount of nearly £1500, but it was finished for the reception of patients in the year 1822; and that there must have existed an urgent necessity for its erection, is proved from the fact, that between May, 1822, and May, 1823, 421 indoor, and 397 outdoor patients received medical assistance from its officers. The medical gentlemen who thus early gave their services were Drs. Robertson, Caldwell, Holmes, Loedel, Stephenson, and Lyons.

With an hospital at their command, in which clinical instruction might be afforded, the thought was now conceived to establish a school of medicine in connection with it; and the following extracts from the early "Minutes of meeting" of the Faculty will prove the best introduction to what follows. On October 20th, 1822, a meeting of the medical officers of the hospital was held, consisting of "W. Robertson, W. Caldwell, A. F. Holmes, J. Stephenson, and H. P. Loedel, for the purpose of taking into consideration the expediency of establishing a medical school in this city," in which it was unanimously resolved "that the considerations which seemed to warrant so desirable an object should be drawn out and laid before the next meeting of the Board, to be held on the 27th of the same month, and that Drs. Stephenson and Holmes be appointed a committee for the said purpose." Such then was the actual commencement of this School of Medicine; and I imagine that it will prove a

matter of no little curiosity to see upon what reasons their conduct was subsequently based, a fact in which not themselves alone were immediately concerned, as far as we may gleam from the subsequent proceedings, but one in which other eminent individuals of this city were at the time intimately interested, doubtless from the influence which it might exert upon their own children at the time. At a meeting of the same Board, held on October 27th, 1822, the same officers present, the subjoined resolutions were adopted:—

"The medical officers appointed by the President and Directors of the Montreal General Hospital having seen the great difficulties which the student in medicine in this country has to encounter before he acquires a complete knowledge of his profession; knowing the great inconvenience resulting to many from the necessity at present existing of spending several years in a foreign country to complete a regular medical education, and being convinced of the advantages which would result from the establishment of a Medical School in this country, have met to consider of the possibility of founding such an institution in this city. After due deliberation, they conceive that the following considerations warranted an endeavour to promote so desirable an object:

"1st. There can be but one opinion concerning the utility and necessity of a School of Medicine in this Province, seeing that the condition of Medicine in many parts sufficiently attests the want of opportunities of medical instruction. Such an Institution will tend very much to remove this growing evil, by the facility it will afford of acquiring medical knowledge.

"2nd. There can be little doubt that students from different parts of this Province, as well as from Upper Canada, and probably from the adjoining States, would eagerly profit by the opportunities thus afforded of acquiring a sound medical education. Those who might not intend to pursue their studies at a foreign University would be enabled to obtain an adequate knowledge of all the useful branches of medicine, while those who, after attending this Institution, might wish to enjoy the advantages of study in other countries, would be better able to benefit by them.

"3rd. They consider that the Montreal General Hospital is an Institution which much favours the establishment of a School of Medicine in this city. It affords the student a facility of acquiring a practical knowledge of physic never before enjoyed in this Province, an advantage which will be greatly enhanced by the establishment of lectures on the different branches of the profession.

"4th. If such a plan should be carried into effect, a pecuniary benefit

would result to the funds of the Hospital, highly advantageous in their present state.

"5th. They are further encouraged to attempt the formation of a medical seminary, when they reflect that the Medical School of Edinburgh, the basis of which they would adopt for the present Institution, now justly considered the first in Europe, is of comparatively recent formation, it being little more than one hundred years since medical lectures were first delivered in that city. And the early history of the Royal Infirmary of Edinburgh is not dissimilar to that of the Montreal General Hospital.

"6th. In the event of the establishment of a Classical and Philosophical Seminary in this city, the two institutions would be materially benefitted.

"7th. To ensure the success and permanence of such an institution, it would be highly desirable that the persons composing it should be associated by Royal Charter or act of incorporation.

"8th, and lastly. Should such a desirable object be attained, the following gentlemen, in furtherance thereof, have agreed to deliver lectures on the several branches of the profession:

Anatomy and Physiology,.....Dr. Stephenson.
Chemistry and Pharmacy,.....Dr. Holmes.
Practice of Physic,.....Dr. Caldwell.
Midwifery and Diseases of Women and Children,...Dr. Robertson.
Materia Medica,.....Dr. Loedel.
Botany,.....Dr. Holmes.
Surgery,.....Dr. Stephenson.

"It was finally resolved that the foregoing resolutions and opinions be forwarded to His Excelleney Lord Dalhousie (then Governor in Chief) for his consideration."

On the 30th November, 1822, a letter was received from His Excellency, through his secretary, Mr. Cochrane, approving, among other matters, "of the scheme proposed by the medical officers of the Montreal General Hospital for connecting with that establishment a medical school for giving a course of lectures in the different branches of medical science." The letter further remarks that "His Excellency will readily give his support to this desirable object, and will do all in his power to assist the endeavours of the medical gentlemen who have come forward in so liberal a manner."

On the 4th February, 1823, at a meeting of the gentlemen aforesaid, it was resolved to issue an advertisement, to be published in the princi-

pal Upper and Lower Canada newspapers, announcing the organization of the "Montreal Medical Institution," and the intended delivery of a course of lectures during the subsequent winter. I will read you the advertisement, which, before publication, was sent to the Governor-in-Chief for his approval, which was cordially granted, and which was the first public announcement of a course of medical lectures in this Province:—

"MONTREAL MEDICAL INSTITUTION.

"The medical officers of the Montreal General Hospital having seen the great difficulties which the student of medicine in Canada has to encounter before he can acquire a competent knowledge of his profession; knowing the inconvenience resulting to many from the necessity at present existing of spending several years in a foreign country to complete a regular medical education; considering that the recent establishment of the Montreal General Hospital affords the student a facility of acquiring a practical knowledge of physic never before enjoyed in this Province, and that this advantage will be greatly enhanced by delivering courses of lectures on the different branches of the profession, held a meeting to consider the practicability of founding a medical school in this city.

"The circumstances which rendered the success of such an institution probable, and the measures intended to be adopted for carrying the same into effect, having been submitted to His Excellency the Governor-in-Chief, he was pleased to signify his entire approbation of the plan.

"It is therefore resolved to deliver lectures on the following branches of the profession, to commence on the second week of November next ensuing:

Anatomy and Physiology,.....J. Stephenson, M.D.
Chemistry and Pharmacy,.....A. F. Holmes, M.D.
Practice of Physic,..... .W. Caldwell, M.D.
Midwifery and Diseases of Women & Children,.W. Robertson, Esq.
Materia Medica, ...H. P. Loedel, Esq.
Surgery,.....J. Stephenson, M.D.

"In the course of the summer, 1824:

Botany,.....A. F. Holmes, M.D.

"Montreal, February 4th, 1823."

We thus observe, that in its origin, from its very commencement, this school was literally established under vice-regal auspices. The earliest session, however, of which I can trace a record, was that of the year following, viz., 1824-25; and had in attendance but twenty-five students, a number which scarcely augmented for years. This fact was anything

but flattering or encouraging; but the indomitable perseverance thus early displayed, under most discouraging circumstances, speaks most highly in praise of these early founders of the school. Like in our days, so in those, they were met with an opposition, in the establishment of a French Canadian school. There can be no question but that an opposition in any walk of life, or in any enterprise, may prove not only healthy, but useful, and especially if based upon generous principles; but in this case the motives, so far as we are permitted to judge, would appear to have been very much the reverse, as it was based upon a national peculiarity, that of difference of language. Looking at the subject now, in its broadest point of view, and considering the peculiar circumstances in which every one practising in Lower Canada is placed, a knowledge of the French language appears to me as indispensable to an English student, as that of the English is to a French one. The law of 1847 demands a knowledge of both languages on the part of every student. To say the least, it is but the educational accomplishment of every gentleman; and to base an opposition upon such a pretext, is but a paltry excuse for a more hidden reason. The effect, however, was not advantageous to either party. The Institution became weakened, while the French School acquired no increase of strength. The Institution, however, despite of all obstacles, "pursued the even tenor of its way;" and in 1828, to prevent the lapse of the bequest to the residuary legatee, and as it was found impossible to fill up the chairs in the several faculties of Law, Arts and Divinity, the Montreal Medical Institution became the Faculty of Medicine of the McGill University, a position which it has ever since held. During the few years which had now elapsed, the only change of moment was the retirement of Dr. Loedel from the chair of Materia Medica (in fact, he never discharged its duties), and the substitution of Dr. Lyons in his place. The tickets of the lecturers were acknowledged in Edinburgh, but at the ratio of two courses for one of that University; and as in those days it was a customary practice for every young man whose parents could afford it to complete his studies in some European school, and this chiefly the Edinburgh one, a high tribute was thus awarded to the labours of the lecturers. From this period, however, the tickets were accepted at par.

In the year 1843 was founded the University Lying-in Hospital, the domestic control of which was placed under a Committee of Ladies who kindly undertook the supervision, while the professional duties were discharged by the Faculty of Medicine of the University, the Professor of Midwifery being the attending Physician, there to exemplify by practice the principles inculcated in his class-room. This Institution

has been very successful, and has effected a vast amount of good by the relief of an immense amount of suffering and distress, which, except for its existence must have been encountered. Originally intended for married women, its advantages have been extended to others. Last year 128 patients were admitted and partook of its advantages, while, since its establishment, upwards of 3000 patients have availed themselves of them. All that we want now is a new and proper edifice, erected upon principles recognized as imperative in the construction of all Hospitals, based upon the better acknowledged rules of Hygiene of the present day; and, when this takes place, which I trust will be in the course of another year or two, we shall hear less of the incursions of puerperal diseases, which have been unfortunately too frequent in the rooms of the private dwelling, which for years past has represented its "local habitation."

The origin of our library, now a very fine one, and containing upwards of 4000 volumes, deserves a passing notice. It was founded by a resolution of the members of the Medical Institution on the 27th August, 1823, and is the property of the members of the school collectively, who, by agreement, debarred themselves from all capability of personally alienating their right or interest in it. To exhibit the judicious foresight and care of the founders of the school, I will transcribe the rules by which they bound themselves, the fruits of which we are now reaping. They are few in number, but concise:—

"1. The library is exclusively the property of the members of the Institution collectively.

"2. No member can transfer his share in the library.

"3. The library cannot be dissolved without the unanimous consent of the members.

"4. Any member of the Institution dying or resigning his situation, loses all right as proprietor of the library.

"5. Any person becoming a member of the Institution, becomes likewise a proprietor of the library, with rights equal to those of an original proprietor, provided he pay to the treasurer one-half of the amount of subscription paid by the original proprietors; and

"Lastly. Should the Medical Institution be dissolved, the library shall still remain, unless dissolved by unanimous consent. In case of the dissolution of the Institution, it may be lawful for the proprietors to admit a greater number of proprietors, and new-model the library."

And finally, at a meeting of the members, held on the 6th October, 1824, the minutes furnish the following information in regard to the Institution and the Library: That each member should pay to the

treasurer the sum of £7 10s. for contingent expenses; that each member pay annually to the library the sum of £2 10s.; that students pay a fee of 10s.; and that the profession in the town be notified of the existence of a Library, and that every member of it may avail himself of its advantages by paying the annual fee of £1 1s. At present no fee is demanded from the student, and its exclusive sources of maintenance and enlargement are the matriculation and graduation fees. I have only to say that the Library was the late Dr. Holmes' especial care and pleasure, and its present condition is mainly, if not entirely, due to the self-denying exertions of that most estimable friend and colleague.

In 1828 I began the study of medicine, and at the session of 1831-32 I was a student of three years' standing. The latter year was a memorable one for Canada, and especially for the city of Montreal. The population of this town was that year 30,000, when the epidemic of Asiatic cholera broke out, and carried off in less than three months 3000 of the inhabitants. During that memorable summer, both students and physicians, all worked hard both by night and by day. During the day, in conjunction with a fellow student of the name of Logie, the first graduate of this University in 1833, I had charge of and attended the Cholera sheds, two long wooden buildings at Point St. Charles, while we alternately slept every week at Dr. Robertson's house to do his night work, as he was so hard wrought with professional duty during the day, that he was glad to seek and obtain as much repose at night as possible. I never can forget the still quietude of the town, when called out during the night to visit for the doctor some new and unfortunate case. Nothing broke the calm serenity of the summer night, while walking or riding through the streets, except the occasional clatter of the feet of some man running for professional aid, or the pitiful cry of another labouring under the disease, and calling for assistance. The arduous duty of that summer proved too much for the constitution of Dr. Caldwell, and I heard in Edinburgh, to which place I had gone that autumn to complete my studies, of his decease from typhus or typhoid fever. Dr. Racey, a young physician, filled up the vacancy; but his connection with the Faculty ceased in 1836, when he returned to Quebec, his native place, and Dr. Campbell and myself were associated with some alteration of the chairs—the former lecturing on Surgery, and myself on Materia Medica, doing, in fact, that session Dr. Holmes' duty, so far as that branch was concerned. Repeated alterations have taken place in the composition of the Faculty since that period of time, the object of them all having been the gradual extension of the curriculum, with a proportionate augmentation of the staff, so that from the original five who composed it, the number has

now increased to nine or ten, the object of this increase having been to develop more thoroughly each branch of medical study. and to harmonize the system of instruction here more intimately with that of the schools in Great Britain.

The next important circumstance connected with the College was its formal opening in 1843, and a pamphlet now before me contains the address of Dr. Bethune, Principal, on the occasion. The organization of the College appears now to have been completed, with the exception of the Faculty of Law. Among other matters, he observed that "a Professorship has been established in the Faculty of Medicine, with a competent number of lectureships in its various branches, and the Governors entertain a strong hope of being enabled shortly to establish a professorship in the Faculty of Law. In the Arts, professorships of Classical Literature, and of Mathematics and Natural Philosophy, have been established; and to all these appointments have been made, with the exception of Mathematics and Natural Philosophy." A professorship was also established in Divinity, which gave rise to a vast deal of acrimonious discussion, and was one, among other causes, which led to an amendment of the charter in 1852, with the abolition of the Divinity chair. These are matters, however, with which *we* have nothing to do. I will only, in conclusion of this division of our subject, say that, with the exception of some three years, at the time of the rebellion in 1837, the sessions of our faculty have been regularly held. Commencing in 1825 with twenty-five students, it was not until the year 1844 that the number became increased to fifty. Since then its numbers have steadily progressed, and the matriculation register of this year exhibits the large number of 181, while the number of graduates settled over the Province, and in foreign countries, some of whom are practising with distinguished success, is upwards of 400. I need not say that the success which attended our efforts created great opposition. I have already alluded to the French School of Medicine, established simultaneously with the foundation of this School, and which continued in operation for many years, but it was succeeded, if I remember rightly, after a temporary suspension, by the present one, which was founded in 1843, and incorporated by an Act of the Provincial Parliament in 1845. This was succeeded by the Incorporation of the St. Lawrence School of Medicine in 1851; but the latter, in the course of a few years, was discontinued, from the want of support, and soon "paled its ineffectual fire."

The last subject which I desire to notice in regard to the past history of our Faculty is the relative position of this School of Medicine and the French School of Medicine; and I am the more anxious to notice it, as

the facts connected with it have been a good deal misrepresented. I must notice the restless activity of the members of the French School, who regularly every session of the Legislature, since its Incorporation in 1845, had applied for the power of granting diplomas, a measure which, in the interests of the Profession, we felt it our duty to oppose—as experience has universally demonstrated this fact, that, in accordance with the number of Institutions possessing the power of granting degrees or diplomas, so has the profession degenerated; while another very powerful argument against the delegation of any such power consisted in the fact that the same privilege could not have been justly withheld from every other school of medicine existing and to exist. In order to put an end to the wrangling, which was continually going on, in the year 1847 an alliance was entered into between the two Schools, by which the School of Medicine became virtually the French Department of the Faculty of Medicine of McGill College. The terms of the agreement were embodied in a paper, copies of which were mutually interchanged; and I will take the liberty of quoting certain portions of it.

The third clause states "that the students of the School of Medicine shall be entitled to become candidates for graduation at McGill College, fulfilling only the requirements necessary to bring them within the class of students of the University, which are, first, matriculation during one session, and, second, during that session, having taken out any two of the six-months courses required by the curriculum, which together form an *annus medicus.*

The fourth clause states that "the examination of the students of the School of Medicine for the degree shall be conducted by the Lecturers in that School, but shall be held within the College, and in the presence of the Medical Faculty, and generally be in accordance with the statutes of the Medical Faculty.

"Fifth. The students of the School of Medicine thus obtaining the privilege of becoming candidates for the Degree, the School of Medicine will cease to grant certificates of qualification."

[I should here remark, parenthetically, that the School was in the habit of going through the farce of examining such students as presented themselves to the Lecturers, granting them a regular Diploma, pocketing a fee for it, and this without the slightest legal authority.]

The sixth, seventh and eighth clauses relate to the mutual enjoyment or use of the respective libraries; that the class fees should be the same in both Schools; and that the graduation fees accruing from their students should be paid over to the School of Medicine, for the sole use of its library.

During the three years in which this arrangement was in operation, fourteen of the students of the School of Medicine availed themselves of its advantages—advantages superior to any which it could have obtained from the Legislature. In 1850 the Members of the School virtually annulled the agreement with the Faculty in again renewing their agitation for an alteration of their Act of Incorporation, so as to enable them to issue certificates of qualification. On the 26th August, 1850, at a meeting of the Faculty, the following minute will at once explain the proceedings:—"The question of the late proceedings of the School of Medicine, as regards their attempt to procure an alteration of their Act of Incorporation, by which the agreement between it and the Medical Faculty was virtually annulled, was then considered; and the Secretary was directed to write to the Secretary of the School of Medicine, informing him that, in consequence of the School having virtually withdrawn from their engagement, especially in reference to their granting a certificate, the Faculty will no longer continue to them the privilege of examining their students seeking graduation, nor of receiving the graduation fee as formerly; *but that no abridgment of the privileges of the students will take place.*" Upon the strength of this resolution, whatever the Lecturers of that School may say, the student enjoys the same privilege now that he had before the breach of faith took place. All that was done by us was to withdraw from an alliance with parties who could keep no faith with us; but as it would have been unjust to punish the students for what was no act of their commission, their relationship with the University has been ever since maintained by the Faculty, although not one since 1850 has taken advantage of this opportunity, doubtless from some misconception or misrepresentation, one of which actually occurs in the answer of Dr. Meilleur in the "Report of the Special Committee on the Laws relative to the practice of Physic, Surgery and Midwifery in Lower Canada," dated October, 1852. Dr. Meilleur's report concludes with "an extract from the registers of the Montreal School of Medicine and Surgery." I will merely quote as much as suits my present object and to save time:—"A certain number (fourteen) were examined by the Professors of the said School, and the rest by those of McGill College" (not one was examined by any Lecturer of the College, although one, and sometimes two of them were present, and who were usually indifferent to the proceedings), "in pursuance of an arrangement entered into between the School and McGill College, but *which arrangement was broken by McGill College, since the request made in* 1851 *to the Legislature by the School of Medicine and Surgery, in order to obtain the right of granting to its pupils a certificate which the Provincial Board would be bound*

to receive without requiring the possessor to submit to further examination." This extract from the register of the school was signed by Drs. Munro and Boyer, and is a thorough condemnation; but it told only a *part of the truth,* by no means the *whole truth;* and I feel assured that if the students of that school only knew the privileges to which they are even now entitled, quite a number during the last sixteen years would have availed themselves of them. Such then, gentlemen, is the last relationship of the Medical Faculty to the School of Medicine, a school which has now effected an affiliation with Victoria College. For what purpose? To obtain for its students a collegiate honour, one which they could have obtained at any time from our own University at a less expense than by a visit to Cobourg.

Such, gentlemen, is a sketch of the *past* history of the faculty of Medicine of this University. It is chequered at the best, and exhibits a protracted struggle in favour of the Profession, with whose best interests it has been always identified. The present class, as well as those of preceding years, attests in the most marked manner that its labours are appreciated. As Professors, the present members of the Faculty pretend to nothing more than a faithful delineation of those branches of medical science which have been severally committed to their trust; and if our College has enjoyed a name second to that of none in British America, or even on this Continent, it is simply attributable to the fact, that its Professors have done their duty—a fact moreover demonstrated by the numbers present this day.

But what shall I say of the present and future of the Faculty? No change whatever has been made in the curriculum for the degree, except as regards the classical attainments of the candidates for it. This again is a move in the right direction: one which I have long wished to see. There can be no doubt of the truth of the saying, that the more highly educated a young man is before commencing the study of Medicine, the better prepared his mind will be to profit by the lectures. Of this there can be no doubt. The General Council of Medical Education and Registration of Great Britain required a few years ago a severe test on the part of a candidate, and the Upper Canada Act, passed during the last session of the Legislature, has adopted very nearly the same scheme. To these we have been compelled to conform. Among the requirements is a knowledge of the Greek language. I must confess that none can compare with this one in beauty or sublimity. Its study is most seductive; and when I remark that by far the greater portion of our medical terms are Anglicised compounds from its words, its importance to an educated physician can scarcely be overrated. In fact,

a single word derived from the Greek language will be found to be more expressive, and to convey to the educated mind ideas which no word in the English language would be adequate to effect, and which a whole sentence would be required sometimes to convey. No, gentlemen, if there is any truth in the old quotation—

> "A little learning is a dangerous thing;
> Drink deep, or taste not the Pierian spring."

The Graduates of this University *must not* be inferior in mental culture to those of any other University. In this, as in other matters "*nulli secundus*," must be as it has ever been, our motto; and although, it may seem difficult to acquire that primary educational knowledge which is now demanded, and however much its utility may be doubted, this would never be questioned by a scholar, that a perusal of some of the old authors is in reality in leisure moments a source of extreme and unalloyed pleasure.

Time now warns me to be brief. What shall I say of the future? Judging from the past, a splendid future lies before this Faculty; but to secure it, everything depends upon the present. If we are true to our duties, the future can be easily foreshadowed—one of unwavering success; but if recreant, then the opposite condition must follow. But let me trust that the same energy will be exhibited in the future as in the past; and that in subsequent years, when *we* are gathered to our fathers, our young men may point to this City, as we do now to Edinburgh, and pronounce it, as well from its edifices as from its educational establishments,—the modern Athens of Canada. "So mote it be."

REVIEWS AND NOTICES OF BOOKS.

A Treatise on the Principles and Practice of Medicine, designed for the use of Practitioners and Students of Medicine. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine in Bellevue Hospital, Medical College. Second edition revised and enlarged, Philadelphia: Henry C. Lea, 1867; Montreal: Dawson Bros.

It was only last spring that the first edition of Dr. Flint's work made its appearance, and we are now called upon to acknowledge the receipt of a copy of the second. The preface informs us that four months from its first appearance, a second edition was called for. We heartily congratulate Dr. Flint upon this very marked verdict—which the profession have

given upon his work, a verdict which we believe few medical authors ever receive. Several portions of the work have been re-written, numerous additions have been made, which enhance the practical utility and value of the work. As might have been anticipated epidemic cholera has received a good deal of attention, and information derived from its appearance in New York during the past year, is brought down to the month of October, 1866. A report is introduced from Dr. Dalton, who was appointed by the Civic Government of New York, in view of the approach of the epidemic, principal executive medical officer for the city. From it we learn that the first case occurred on the first of May, the second on the following day, and the third on the 6th of May. No more occurred till the 4th of June, when the disease re-appeared, and for a considerable time, numerous cases occurred daily. The report also states that the original development of the disease was not distinctly traceable to any particular emigrant passenger nor any particular lot of baggage, nor merchandise, but it followed the arrival in the harbour of infected emigrant ships.

Hygienic measures were liberally and faithfully employed, and with much success in diminishing in many instances, and in one or two altogether extinguishing the disease, as is evidenced by the following letter which appears at page 475, from Frank H. Hamilton, M.D.

"No. 64 MADISON AVENUE, New York, Friday, Aug. 10, 1866.

"*Sir:* The first case of cholera occurred in the workhouse on Blackwell's Island on the 28th of July, the last case on the 6th of August. The epidemic continued, therefore, nine days, during which period, of about 800 inmates, 123 died.

"You know the building very well. It is admirably constructed for the purposes for which it is designed, and, so far as my observation extends, it is always perfectly clean. Until now, the inmates have been as healthy as this class of people are usually found to be."

"The explanation of the rapid propagation and fatality of the disease after it once had gained admission was believed to be mainly confinement and crowding. It was observed that the cholera was for several days exclusively among the women. The women had the smallest apartments, were most crowded in their cells, and, with few exceptions, were employed within the building in close contact with each other during the day. The men were employed mostly in the quarries, out of doors."

"On Wednesday, when the epidemic was at its height, the 1st of August, I gave my pledge to the Board of Commissioners and to Mr. Schultz, President of the Board of Health, in your presence, that I would

drive the cholera from the workhouse in from three to five days. I said this in no spirit of boasting, but in simple reliance on the well-known and established laws of hygiene. The Commissioners executed literally and promptly every order which was given by the Committee.

"The epidemic began to decline from the the day they were fully carried out, and on Monday last the pledge was redeemed. The following is a summary of the sanitary means adopted:—

"The inmates were distributed as far as the vacant places in the building would permit; the cell-doors were left open at night; the night-buckets were supplied with disinfectants and left outside; the women's cooking-rooms were converted into hospital wards, and the women were kept out of doors from morning until night; corn-meal and molasses were taken from the diet table; coffee, tea and vegetables were added; at night each inmate was required to take, whiskey one ounce, water three ounces, tincture of capsicum fifteen drops. [These people are our city vagrants, and probably are habitually intemperate.] A variety of disinfectants were employed freely and constantly in every vessel and closet which received the excreta; even the excreta from the stomach were disinfected immediately after they were received into a vessel or fell upon the floor; stoves were placed in each hospital ward to insure a draught; all windows were kept open day and night; the clothing taken from cholera patients was sent directly to the boilers; a ward was established for patients with the diarrhœa, and the value of this measure is shown by the fact that of the large number received into this ward only one died. It was difficult, however, to persuade these poor creatures to report themselves at this stage of the disease."

Dr. Flint lays great stress upon prompt attention being paid to the premonitory diarrhœa, which, he believes, is present in the great majority of cases. He says: "This premonitory diarrhœa is amenable to simple measures, and if effectually treated, there is reason to believe the supervention of cholera is prevented. Giving the results of my own experience with respect to this fact, in 1849, for three months I prescribed for as many private patients with the premonitory diarrhœa or cholera, as my physical endurance would permit, my practice being chiefly among the prudent classes, and I had during this epidemic but ten cases of cholera in private practice. During the epidemic of 1852, I had about the same number of cases of cholera in private practice; in not a single case had I been called upon to prescribe for premonitory diarrhœa, and I prescribed for hundreds of persons with simple diarrhœa, not one of whom had an attack of cholera." Under the head of treatment, there is little that is new mentioned. The hypodermic administration of morphia was tried as

Bellevue Hospital, and on Blackwell's Island. The vomiting, cramps and purging were generally, very promptly arrested; recovery, however, followed in but a small proportion of cases. Many of the cases when seen were in a state of collapse, and many attacked had been patients in hospital suffering from other diseases, so that the field experimented upon, was anything but a favourable one. We believe that further experience will prove this method a valuable adjunct in the treatment of cholera.

Under the head of epilepsy, our author says: "Since the first edition of this work was written I have known several cases of epilepsy in which this remedy (bromide of potassium) has prevented the recurrence of the paroxysm. My colleague, Professor Barker, has found this remedy successful also in preventing the paroxysms. He is accustomed to prescribe it in doses of thirty grains, three times daily, and to insist upon its continuance for a long period." While recently in Edinburgh, Dr. Warburton Begbie, now lecturing upon the practice of medicine in the Edinburgh University, informed us that he placed great reliance on this salt in epileptic attacks. He mentioned one case, a leading member of the Scottish Bar, who from epileptic attacks had been obliged to retire to private life—the fits occurring so frequently, and often seizing him when engaged in public duties. He placed him on half drachm doses, three times daily, of the bromide of potassium, and with the most marked success. There has been no recurrence of the paroxysms for upwards of a year, and the patient has once more been able to resume his public career.

Altogether we consider this second edition of Dr. Flint's work an improvement on the first, and can cordially recommend it to our readers.

The following is the proposed scale of pay in the recommendations forming the basis of the Warrant for the Army Medical Officers, which General Peel has promised to issue at the commencement of next year. The increase of pay, however, will not commence until April next:—Under 5 years' service, 10s. a day; above 5 years, 12s. 6d.; above 10 years, 15s.; above 15 years, assistant-surgeons, 17s. 6d., surgeons, 20s.; surgeons-major above 20 years, 24s.; above 25 years, 27s.; deputy inspector general of hospitals, above 20 years, 30s.; above 25 years, 32s.; above 30 years, 35s; above 35 years, 37s.; inspector-general of hospitals, above 20 years, 40s.; above 25 years, 45s.; above 30 years, 47s.; above 35 years, 50s. In addition to this, the Warrant will, of course, give those privileges of relative rank which were conceded by the Warrant of 1858, and has since been most improperly withdrawn.

PERISCOPIC DEPARTMENT.

Surgery.

THE ROYAL LONDON OPHTHALMIC HOSPITAL (MOORFIELDS).

The propriety of establishing Special Hospitals has been much discussed, and though the general verdict has been against them, still certain exceptions are almost universally made, and amongst such may be placed Ophthalmic Hospitals. Yet we must not only acknowledge, but we ought to keep constantly in mind, the truism that the ocular apparatus is a physiological unit of the whole organism. Whilst, then, its diseases and accidents require special skill there are great objections to the narrowing of any one's mind to the study of the physiology and pathology of the eye, as of a complex optical organ liable to get out of order. At the special Hospital about which we now speak, it is a rule, without an exception, that each member of the staff is, or has been, a member also of the staff of one of the large general Hospitals. Thus the narrowness that special study might foster is rendered next to impossible. Still, the variety of diseases and accidents to which the eye is liable renders the study of them very extensive, and sufficient to employ most of the time and intellect of a goodly number of surgeons. From their minute investigations and particular experience the members of the profession at large can profit. and become enabled to treat with greater advantage such cases as come under their care.

We purpose in this article to bring before our readers some account of the Royal London Ophthalmic Hospital, Moorfields, and of the work that is carried on there.

This institution is held, we believe, to be the father of similar ones. It was founded in the year 1804, and for the first eighteen years its home was in Charterhouse-square. At this time it was known by the name of the London Eye Infirmary. In the year 1822 it was removed to its present site.

It makes up forty beds for in-patients, sixteen being allotted to women, and twenty-four to men. The number of beds seems small, and at the present time is not sufficient for the large number of patients that apply for relief. However, as the length of stay in the Hospital is generally short, a great many are admitted in the course of a twelvemonth; thus last year there were 839 admitted as in-patients, and of these 742 were operated on. Indeed, few patients are taken in except for operation.

Now, if diseases of the eye are to be thoroughly worked out at a special Hospital, we think it would be very desirable that more cases of actute cerebral disease, in which optic neuritis so often occurs, should be admitted. There is a vast amount of Ophthalmic Medicine in Physicians' practice, and if some of our dexterous ophthalmoscopists would frequently visit the Medical Wards of our large Hospital they would supplement the knowledge they acquire at a special institution in a very valuable degree. As has been remarked elsewhere, the differentiation of medical practice requires more scientific integration. Ophthalmologists require to see the ophthalmic aspect of severe diseases of the nervous system in which amaurosis dwindles to an incident; and Physicians should use the ophthalmoscope more frequently, in order that they may not ignore altogether ocular symptoms of great value in diagnosis and prognosis.

The wards contain only a few beds each; three are devoted to males, and three to females. The wards are lofty and comfortable; the walls are painted a pale green colour, and light is nearly excluded by green Venetian blinds. The fire-places are surrounded by high wire guards—a necessary precaution to prevent the patients falling into the fire, as there is so little light, and many of them cannot see, or are not allowed to uncover their eyes.

The operating theatre is on the first floor, and is necessarily rather small, there being only two rows on each side of the area in which the operating couch is placed. As the operations are mostly of a very minute character in a very narrow field, visitors can see nothing of them unless they are very near to the patient.

There is a waiting-room adjoining the theatre, in which patients are seen who are in the house, and who cannot be brought down stairs. This room is used on Sundays as a chapel.

The plan of the out-patient department is as follows:—There is a waiting-room for the men and another for the women; the patients pass from these as required into a very large lofty room, which is lighted by two bow windows extending nearly from the floor to the ceiling. The surgeons sit at desks with their backs to the light, and see all their patients in this room. Against the walls are suspended some of Jaeger's and Snellen's test types, with which to test patients' sight for distance. Boxes containing convex and concave lenses are placed on ledges under the windows. These glasses are numbered according to their focal distance, instead of being arbitrarily numbered as is usually the case at opticians'. Boxes of glasses thus numbered are to be got at Doublett's, of Moorgate-street, or at Pillischer's, Bond-street.

A short passage (which serves also as a waiting-room for patients who

are to have their eyes examined with the ophthalmoscope) leads to the opthalmoscope room. This is a dark, gloomy looking chamber, which has no window in it; its walls are papered black, and it is divided into five compartments, each of which forms what we may call an ophthalmoscope box. Each compartment contains a table and two seats—one seat for the Surgeon, the other for the patient. The necessary light is obtained from an argand gas burner at the extremity of a jointed arm, so that the light can be moved up or down, or from side to side.

Besides the obvious necessity for such a lamp in Ophthalmic Hospitals, we think it most desirable that there should be in every physician's out-patient room of our general Hospitals a gas lamp for ophthalmoscopy and laryngoscopy. We may here digress to mention the kind of apparatus the use of which we advise. A lamp giving a bright light, and admitting of easy movements both perpendicular and horizontal, is required. As fulfilling these conditions most conveniently, we recommend an argand gas burner of porcelain, the jets of which are exceedingly small and very close together. The burner should be supported by a double armed gas bracket, admitting of horizontal and of vertical movements. The horizontal action is very commonly seen, and the arrangement for effecting it is easily made, but the perpendicular movement requires a rack apparatus to oppose the tendency of the arm to sink. This rack runs between the two tubes which constitute the attached arm of the bracket, and though desirable even when no lens is employed it becomes absolutely necessary when a condensing apparatus is fixed at the free extremity of the bracket—as is the case in laryngoscopy. A lamp of this kind is in use in the out-patient department at the London Hospital, and it is found to be very useful. There is a gas-lamp for the ophthalmoscope in the room adjoining the operating theatre of this general Hospital, in which room lectures and ophthalmoscopic demonstrations are sometimes given by the Surgeons. We learn that at the Leeds General Infirmary much ophthalmoscopic work is done in the Medical out-patient-room. We know of but one large metropolitan Hospital in which there are conveniences for this kind of clinical investigation. There is a gas-lamp in the out-patient room at the National Hospital for the Epileptic and Paralysed, and the ophthalmoscope is frequently used as a means of investigation. But in general Hospitals, as we have already remarked, ophthalmoscopic work in the wards is even more important, and here a paraffin hand-lamp is perhaps the best that can be employed. Before we end this digression, we may remark that a good portable lamp—one that can be carried to the homes of poor patients—is a desideratum.

Adjoining the ophthalmoscope room is the room which contains the

Hospital library of ophthalmic works and plates, and also the museum, in which are many valuable preparations showing different changes in the eye. Most of these preparations have been put up by Mr. Bader, the curator.

As the want of additional room has been much felt, the Committee have, during the past year, covered in which glass two small yards, converting them into rooms, in which notes can be taken of cases, and in which minor operations can be performed.

For some time the Committee have had under consideration the question of enlarging the Hospital by building a new wing, and a sum of money has already been collected towards defraying the expense, but hitherto the work has not been commenced, partly on account of the present site being possibly required by one of the railways.

Besides the Consulting Physician, the Physician and the consulting Surgeon, the staff consists of four Surgeons and five Assistant-Surgeons, who attend the Hospital twice a week each. To assist them and to take notes of particular cases, Clinical Assistants are nominated by the Medical board, and on the approval of the committee are appointed for a year, but are eligible for re-election. They are selected from the pupils of the Hospital, and during the term they hold office, have an opportunity of becoming intimately acquainted with diseases of the eye and their treatment. The practice of the Hospital is attended by a good number of students from the metropolitan Hospitals. Yet it is a matter of great surprise to us that more students do not attend the practice. Here they can learn to diagnose and to treat diseases of the eye very accurately, and they can get their knowledge quickly. In those Hospitals where there are special eye departments this attendance may not be necessary, but for students at those schools where there is no one appointed to teach diseases of the eye, a visit to some special Hospital is a matter of necessity for completeness of Medical education.

A great many Practitioners from the country, as well as Medical men from various parts of the world, avail themselves of a visit to London to add to their knowledge of ophthalmic science.

About three years ago the surgical staff instituted evening demonstrations with the ophthalmoscope; these are held once a week, on Fridays, whilst the course lasts. Arrangements are made with a few patients to attend on these evenings, the cases selected being typical of certain forms of disease. Besides the examination of the eyes, there is a short lecture by one of the staff.

These demonstrations are becoming more and more numerously attended. Many practitioners and students, who are prevented by their other

occupations from attending in the morning, avail themselves of the opportunity thus offered to make themselves practically acquainted with the use of the ophthalmoscope. The demonstrations have been conducted by Messrs. Wordsworth, Streatfeild, Hulke, and Hutchinson, and lectures have been given by each of these gentlemen.

It may be useful to some of our readers who have no opportunity of visiting the Hospital, to inform them that the staff issue a publication called the "Royal London Ophthalmic Hospital Reports," which contains papers by themselves and by other ophthalmologists, and also by physicians and others who are not ophthalmologists. This publication, like its fellow, the *Ophthalmic Review*, is a very useful one, and is very ably conducted. It may be well to say that it is in no sense a commercial venture; on the contrary, we believe it devours the whole of the fees from the pupils the staff would otherwise receive. It contains usually papers of a general as well as of a special interest. By the expression of "general interest" we do not mean that any of the papers are not on eye subjects, but that some of them have an interest far beyond ophthalmology. We may instance Hulke's papers. "On Retinal Degeneration in Bright's Disease," and Hutchinson's recently published cases of herpes zoster about the eyelids.

Considering that there are several eye Hospitals in London, and that many of the general Hospitals have established an ophthalmic department, it is somewhat startling to find the large attendance of patients at this single institution. Last year over 16,000 new cases were registered, involving nearly 80,000 attendances. Many of the patients come up by railway from the neighbourhood of London, but some come from distant counties. We heard of one man some time ago who walked all the way from Wales to have the advice of one of the Surgeons. He intended to walk back, but he was enabled by a grant from the Samaritan Fund to return by rail.

Every now and then people apply for relief who are able to pay for Medical attendance. Once a patient was discovered to be a lady, who came in her carriage, but left it in Finsbury-circus. This is, no doubt, one of the evils of special Hospitals. Persons think that they will get better advice at these institutions than from their ordinary Medical man; and though they may give a handsome donation to the funds of the institution, they forget that they take up the time that the Surgeon only intends to devote to the really indigent. This last phrase—REALLY INDIGENT—is printed in bold type on the heading of the Hospital letter, but these words do not stare out of countenance many patients who come in silk dresses. But the evil is not confined to special Hospitals.

The House-Governor of a large general Hospital told us the other day that "ladies" used to send their servants to secure and keep for them early places in order that their own valuable time might not be wasted in waiting for the Assistant-Physician or Surgeon. He believed, however that the Committtee had put a stop to that practice.

From the House-Surgeon's report we find that about a quarter of the patients are affected with diseases of the conjunctiva. One form of ophthalmia which is very prevalent seems to be the same that affects our army and large bodies of people, like workhouse schools. It is encouraged by over-crowding, bad feeding, and by many using the same towels; constantly various members of the same family are patients, and many of the children catch it at school from their playmates. We have mentioned ophthalmia rather to speak of its effects than to make any observations on the disease itself. The treatment of the condition known as pannus, produced by a granular state of the lids following ophthalmia, is one of the great advances recently made in Ophthalmic Surgery. The condition of a patient thus affected is very pitiable. He would, perhaps, be strong and healthy, but is debarred on account of blindness from earning his living, and many a soldier has been discharged from the army in this state with a blind pension. Since the introduction of the treatment of such cases by inoculation many have been restored to fair sight who thought themselves hopelessly blind.

The matter for inoculation is generally obtained from children suffering from ophthalmia neonatorum. The effect is more severe if the matter be taken in the early stage before treatment than in a later, after lotions have been used. Thus the Surgeon is able to set up a more or less severe inflammation, as he thinks best. Gonorrhœal matter is sometimes used instead. There is some danger that the inflammation produced by inoculation may be so severe as to cause perforation of the cornea; but in Mr. Bader's report on the cases inoculated from October, 1857, to October, 1862, he states that out of 170 inoculated eyes two corneæ only were entirely lost, and but ten became perforated during suppuration. Those who attend the Ophthalmic Hospital may sometimes see there a man who was some years ago discharged from the army as incurably blind. Mr. Critchett inoculated this patient's eyes, and he became able to see to read and write. In consequence of old corneal opacities, which inoculation will not affect, Mr. Critchett had also to make him an artificial pupil. Where the structure of the cornea is normal, the results are sometimes most brilliant. A short time back we saw an old patient who came to show himself. He had formerly been led to the Hospital as a blind man. His eyes were inoculated, and now they appear

as healthy and sound as possible. All the granulations have disappeared, and the palpebral conjunctiva has the pale colour of health.

As inoculation can only be used where the cornea is entirely vascular, another method is now frequently employed in cases of partial pannus. This is called Syndectomy. The operation consists in removing a tolerably broad ring of conjunctiva and subconjunctival tissue from round the cornea, so as to cut off to a certain extent the supply of vessels to the cornea. If benefit does not result from the operation, it seems to be of use in lessening the intensity of the inflammation if the eye be afterwards inoculated, and it reduces the danger of perforation of the cornea. Syndectomy was introduced by Furnari, of Paris. He gave an account of this operation in 1862 (*Gaz. Médical*).

We find that the most numerous classs of patients that attend this Hospital, next to those of diseases of the conjunctiva, are injuries to the eye. Upwards of 1000 of these were treated during last year. Mr. Lawson, in a paper published in the reports of this Hospital, has pointed out that the mechanics in and around London who suffer most severely from injuries to the eye are engineers and boiler-makers, and that a large number of these accidents might be prevented if the men could be persuaded to wear protectors made of plate-glass. Though often only particles of metal are lodged on the cornea, yet not unfrequently the globe itself is penetrated, and damage more or less irreparable is done. If the fragment has buried itself in one of the deep structures, there is great danger of the other eye being affected and destroyed by sympathethic ophthalmia, unless the injured eye is removed.

We saw an interesting and typical case of this class of injury at the Hospital the other day. The man was struck on the eye by a piece of metal; the particle penetrated the cornea, and wounded the lens. As it was doubtful whether there was any foreign body in the eye, an attempt was made to save it. The lens became cataractous, and was removed. Subsequently, a low form of inflammation came on, and symptoms of sympathetic ophthalmia appeared in the sound eye. This showed pretty clearly that a foreign body was lodged in the eyeball, and the globe was accordingly excised. On a section being made a small fragment of metal was found buried in the ciliary processes. Three weeks after the operation all sympathetic irritation had left the sound eye, and the man, who before could only read No. 4 of Jäger's test-types, could read No. 1.

Sometimes cases are seen in which the eye narrowly escapes being lost. Some time ago a man came to the Hospital for a wound of the conjunctiva. On examination, a large piece of iron was found lying between that structure and the sclerotic. The force had evidently not been suffi-

cient to make it penetrate the globe, but enough to make an opening in the conjunctiva, and to enable it to travel a little way beneath it.

The variety of cases of accidents that come under treatment are very numerous. In some the surface of the eye is damaged, perhaps by molten lead, by lime, or from the explosions of gunpowder. In others the globe is ruptured, or the lens is dislocated, by a blow. Injuries are too commonly seen from the flying off of pieces of gun-caps made of inferior metal, and especially those used in firing at targets for nuts.

A large number of patients are admitted into this Hospital who are suffering from cataract. Last year 283 eyes were operated on for this affection, and the record of the method of treatment is interesting. It is as follows:—

By extraction by large flap	29
Ditto, with iridectomy	8
By extraction by traction instrument, with iridectomy .	152
" " curette (soft cataract)	15
" " suction instrument	38
By solution	41

By this we see that the traction operation is very largely practised. Modifications have been made in the original method known by the name of Waldau's (Schuft's) operation. Mr. Critchett and Mr. Bowman have each altered the shape of the spoon. In Mr. Critchett's instrument, instead of having a lip all round, the end only is slightly recurved, so as to be somewhat slipper-shaped. It has the advantage of passing more easily behind the lens, and it does not take up so much room as the original instrument.

Mr. Bowman has introduced two modifications, which he thus describes in the *Hospital Reports*. In one "the body of the spoon is very nearly flat from side to side, a little concave forwards from end to end, and the incurvation of the end is, in fact, a continuation of this concavity, though inclined to it at an obtuse angle. Where the end joins the side of the spoon, this incurvation gradually ceases, and the sides, except towards the end, have no edge above the general level. The whole is as thin as possible consistent with due rigidity, and the breadth about half or a third that of the lens."

The second form "is nearly flat from side to side, and but slightly concave from end to end. The end has a very thin, though not sharp edge, only slightly incurved, and the concave surface at the end is roughened by transverse lines." This instrument Mr. Bowman considers preferable where, from the entire absence of soft surface matter,

there is the least room for the insinuation of an instrument between the lens and its capsule. In other cases the former spoon is suitable.

Recently we have seen Mr. Bowman remove with a syringe any circumferential matter that has been left after the extraction of the nucleus, if the matter be soft enough. By this means he saves the frequent introduction of the spoon, and so lessens the danger of bruising the iris.

The results of the traction operation seem to be very good, and many eyes that would be unfavourable for the old flap extraction are successfully treated in this way. Moreover, it is a boon to be able to administer chloroform, which is unadvisable in the old method on account of danger to the eye in case of vomiting.

Soft cataracts are frequently removed by the syringe after they have been broken up by a fine needle. This method has partly superseded the old plan of treating them by solution or linear extraction. The suction instrument used is a glass syringe, to which is adapted a tubular curette. The Profession is indebted to Mr. Pridgin Teael, jun., of Leeds, for this useful addition to our means of dealing with cataract.

Among the operations most frequently performed is iridectomy. This is done in some cases of inflammation affecting one or more of the structures of the eye—as corneo-iritis, choroido-iritis, or recurrent iritis. Artificial pupils are sometimes made in this way, and sometimes by the method introduced by Mr. Critchett and called iridesis. In this operation a piece of the iris is drawn out, and is secured by a small ligature of fine silk instead of being cut off with a pair of scissors. Recently we saw Mr. Bowman make an artificial pupil in a slightly different way from either of these operations. He punctured the sclerotic with a broad needle about a line from the margin of the cornea, and then passed it into the anterior chamber very obliquely, thus converting the opening into a small canal. He then drew out a piece of the iris with a blunt hook, and left it in the wound instead of cutting it off or ligaturing it. The result was very good. In his observations afterwards he said that this was merely an old method modified by making the incision very oblique.

A large number of cases of glaucoma are treated by iridectomy. Probably no mode of treatment has excited more discussion than this, and it is strange that the *rationale* of its effects has not been satisfactorily explained. To produce a good result, two points have to be carefully attended to—1st, to remove a large enough piece of the iris; and, 2nd, at the same time to take away its whole breadth, thus including its ciliary border.

In acute glaucoma, iridectomy seems like a specific in arresting the disease and restoring the patient's eye to sight. Such good results are not expected in the more chronic forms of glaucoma, but these are usually more or less benefited if the operation is done early enough; at any rate, it reduces the tension to a normal standard, stops the further progress of the disease, and even if improvement does not take place in the amount of vision, it is found generally to preserve for the patient what he had at the time of the operation, which otherwise would have been gradually extinguished. It is not found advisable to operate on glaucomatous eyes that have been lost some time, as there is great danger of hæmorrhage occurring between the choroid and sclerotic, and there is no hope of restoring any sight. Such eyes, if painful, are generally excised.

Some cases of detached retina have been treated by puncture, as proposed by Professor A. von Graefe.

The site of the detachment is previously made out accurately by the ophthalmoscope, and then a fine needle, such as is used in the operation for congenital cataract, is passed through the sclerotic into the vitreous chamber at the spot. A second needle is then introduced at a little distance from the first; the handles are now made to cross each other; by this means their points are seperated, and a larger opening is made in the retina. On withdrawing the needles, a small quantity of the subretinal fluid may be seen escaping from the punctures under the conjunctiva. At present a very large number of these operations have not been done, but in several cases marked improvement has followed.

A great many patients apply on account of strabismus. In a large majority of these the strabismus is convergent, and the truth of Donder's observation that this form of strabismus is due to hypermetropia is constantly verified. Until Donder's investigations, squinting was frequently ascribed to irritation from worms, from cutting of the teeth, etc. Usually the operation that is adopted in these cases is that which has been called the Moorfields operation, in which the tendon is divided subconjunctivally through a small opening in the conjunctiva at its lower border. This operation was introduced by Mr. Critchett. Occasionally Graefe's method is employed instead. Here a small conjunctival opening is made over the tendon, and the hook that is used has a shorter curve and a bulbous extremity. Both eyes are operated on, or only one, according to the amount of convergence.

These operations are a great improvement on the old plan of dividing the tendon through a large incision in the conjunctiva; this was often followed by a sinking in of the caruncle and divergence of the eye from excessive retraction of the divided tendon, which attached itself to the

globe far back. Such cases come every now and then to the Hospital, and are greatly improved by a re-adjustment operation, which is done in the following way:—

A vertical incision is made in the conjunctiva, a little distance from the inner margin of the cornea; a flap is dissected back towards the caruncle, and is made to include the tendon; a piece of this flap is then cut off, the size being regulated according to the amount of the divergence; this being done, the edges of the wound are brought together by four silk sutures, care being taken that the tendon is included in these by the needles being passed through it; they are also made to take up the outer piece of conjunctiva close to the cornea; all the sutures are passed before either of them is tied, and whilst this is being done, the eye is rolled inwards by a pair of forceps by an assistant. By this operation the tendon is attached to the globe more forwards, and the general appearance of the patient is much improved.

Great advances have been made in the treatment of other affections of the eye besides those we have alluded to in these observations, and it is since the invention of the ophthalmoscope than an exact diagnosis has been possible in cases in which the cause of the defect of sight was formerly more or less obscure, and especially in those diseases which used to be vaguely classified under the name of amaurosis.

The frequency of ophthalmic diseases should induce the various examining boards to require from their candidates proof, at least, that they have attended a three months' course of special ophthalmic practice, and so have made themselves acquainted with the ordinary diseases of the eye, and have learned to use the ophthalmoscope. We repeat that it is simply impossible for ordinary students to learn enough of ophthalmology for practical purposes unless they learn in a special department in their own general Hospital or at some ophthalmic Hospital. We hope that each of the large Hospitals will soon establish ophthalmic departments and eye wards.

We hope in a few weeks to give a further report from this Hospital. We shall then relate cases, in more detail, from the practice of each of the staff.—*Medical Times and Gazette.*

PARALYTIC ECTROPIUM SUCCESSFULLY TREATED BY OPERATION.

By Haynes Walton, Esq., Surgeon to the Central London Ophthalmic Hospital, and to St. Mary's Hospital.

Ectropium, or the turning out of an eyelid, is certainly one of the serious affections of the ocular appendages; but it is by no means so com-

mon as the opposite state, entropium, or the turning in of the lid. In aggravated cases, and especially when both eyelids are everted, the eyeball may suffer from exposure and want of necessary moisture. In the ordinary, or less severe states, and where only one eyelid is everted, disfiguration and flowing of the lacrymal secretion over the cheek are the immediate evils. But in every degree there is a remote risk of injurious effects of inflammation of the eyeball, from inability of the eyelids to wipe off or brush aside intruding particles. The exposed palpebral conjunctiva is always unnaturally and highly vascular, and so is frequently the ocular also.

The causes of ectropium may be referred to three classes. The first class includes abscesses about the orbit, usually at the circumference; burns, scalds, chemical injuries, ulcerations, either simple or specific, as from syphilis, lupus, slounging after erysipelas, wounds, contusions, and surgical operations.

The second class includes eversion from disease, and thickening of the conjunctiva without tarsal disease.

The third class is ectropium from palsy of the portia dura—hemiplegia fascialis, by which the orbicularis palpebrarum muscle, among those that are palsied, no longer acts, and the power of closing the eye is lost; the upper eyelid cannot be depressed, while the lower falls down and turns outwards, becoming more everted in process of time. There are degrees of the paralysis here, just in fact as is witnessed in paralytic affections in other parts of the body.

The paralytic ectropium, the only one of which I shall treat, is the rarest of all. I am induced to make it the subject of a short communication, because I have lately treated a marked example most successfully by operative surgery; and I am not aware of any recorded instance of similar practice; nor do I know of any case having been so treated.

A gentleman, aged 24, was sent to me by Mr R. Reid, in January of this year, on account of a distressing and increasing ectropium of the left lower eyelid from facial paralysis on that side, which occurred in childhood. It is unnecessary to speak of the condition of the face. The ectropium produced much deformity, as the margin of the eyelid was very much depressed, and the conjunctiva was thickened and projecting, and very vascular. But a more annoying result was the constant flow of tears and mucous secretion over the cheek, roughness of the skin, and some excoriation.

After a short examination I was convinced that I could render essential benefit, and my patient readily assented to my proposal of treatment. Chloroform having been given, I removed a strip of the diseased con-

junctiva along the entire length of the eversion; and I may mention tha I effected this by making two incisions with a scalpel, in the form of a ellipse, and dissecting away the isolated bit. It is by the contractio that ensues from this loss of substance that the eyelid is braced up, an in ordinary cases of ectropium I generally excise as much of the conjun tiva as is permanently exposed, and that effects the desired end. Bu here the lengthening of the tarsus, and the total loss of muscular suppor to it, required something more to be done; and also, the undue raisin of the upper eyelid was another obstacle to success. To overcome thes complications, I shortened both tarsi by removing a portion of each a the outer canthus, taking away conjunctiva as well, and brought th wound together by stitches.

It is not necessary to give a detailed account of the progress. It wil answer every purpose merely to tell that the repair was rapid, and as ef fectual as it was possible. The eyelids are nicely bound up, and the star arising from the prominence of the eyeball, and the exposure of it is al most overcome; so little indeed remains, as not to be noticed by a casua observer. The punctum lacrymale in each eyelid having been returned to its proper position, the tears are thoroughly conveyed away through the proper channels. Withal, there is no trace nor mark of the use o the scalpel.

ABSENCE OF KIDNEY.—Mr. W. Symonds of Ross (*Lancet*) examined a man who had died from typhus, and found entire absence of the right kidney, athough the right suprarenal capsule was then natural and healthy. The left kidney weighed 7½ ounces, and was healthy.

CASE OF HERPETIC ERUPTION IN PART OF THE DISTRIBUTION OF THE SECOND DIVISION OF THE RIGHT FIFTH CEREBRAL NERVE.

By JAMES PAGET, F.R.S.

A wish expressed by the editor of the JOURNAL for the publication of cases of this kind induces me to offer the following. I attended the patient in consultation with Mr. Tayloe of Clapham.

A gentleman, between 25 and 30 years old, in good general health, was twice exposed to severe cold on October 22nd, and in the evening had a slight shivering, and some pain as of neuralgia in the right side of his face. Next day, he felt pretty well; but the neuralgic pain was severe, and gradually increased. Morphia was taken for its relief.

On October 25th, the right side of the face was much swollen; and there appeared on the right side of the upper lip and of the nose, and on

the right cheek, a copious herpetic eruption. At the same time, numerous small white blisters appeared on the right half of the roof of the mouth and the adjacent part of the gum and cheek. The pain at this time was very severe; it reached "from the lip to the eye," and was attended with twitching of some of the muscles of the face. The patient's general health was not greatly disturbed.

The eruption, after passing through the usual stages of herpes, began to fade about November 5th, leaving thick dark scabs, like those of declining confluent variola. On the hard palate, in the place of a scab, was a thick layer like a diphtheritic membrane. The crust and the membrane cleared off in about a week, leaving the surface of the skin dusky red and deeply scarred and pitted. The swelling of the skin and of the mucous membrane, which had coincided with the eruption, gradually with it disappeared.

On November 18th, twenty-six days from the commencement of the disease, one of the bicuspid molars of the right side of the upper jaw fell out; on the next day, another; and in a few days later, the canine and both incisors. They all appeard to have been sound till the time of their death and separation. The loss of the teeth exposed a corresponding dead portion of the alveolar border of the jaw, which separated and was removed on December 5th. It included the sockets of all the teeth that had been lost. After this, all the structures that had been diseased healed, and no harm remained, except some disfigurement by the scars.

In the case just related, the herpetic eruption was arranged in exact coincidence with the surface-distribution of the infraorbital, anterior dental, and anterior palatine branches of the right superior maxillary nerve (second division of the right fifth cerebral nerve). It agreed with all the cases that I have seen of unilateral herpes arranged on the plan of branches of the fifth cerebral nerve, in that the eruption was preceded by extremely severe pain like that of tic. It equally resembled those cases, and was unlike the herpes zona or shingles, which is arranged according to the distribution of spinal nerves, in that the eruption was followed by well-marked pitted scars. It is, so far as I know, unique in having necrosis as a consequence of the intense inflammation of the palate and gum.

To the wish of the editor, with which I have thus complied, I would add another: that some good observer would collect and study all the cases in which the plan or process of organic disease is manifestly determined, as in these cases of herpes, by disease or injury of cerebro-spinal nerves or nervous centres. Much as the subject has been argued, a work of this kind seems greatly needed. To some, the facts that healthy

nutrition may go on in parts whose nerves are all divided, and that organisms and textures void of nerves are nourished as well or as ill as any others, seem enough to prove that nerves have nothing to do with the matter. To others, half pathology is "nervous."

Well-collected cases might settle this difference, and determine what is the true range of the influence of disturbances of cerebro-spinal nerve-force upon organic processes. It is certain that nutrition may go on in a total privation of nerve-force, such as we suppose in a part completely separated from nerve-centres by division of its nerves; but a question not fully answered is, in what degrees and manners nutrition may be affected by disturbances of nerve-force.

The best collection of cases useful for the inquiry is in the admirable work on *Gunshot and other Injuries of Nerves* by Dr. Mitchell and his colleagues in the Military Hospital of Philadelphia. And for a contribution, however small, I add this case.

A gentleman, after many years marriage, became subject to herpes of the glans after every sexual intercourse with his wife. He suspected her, and for several days lived apart from her. Then, one night, he had a seminal emission during sleep; and on the following morning found the usual herpes; the result, I suppose, of an excited nerve-force.

Midwifery and Diseases of Women and Children.

POST-PARTUM HÆMORRHAGE ON THE ELEVENTH DAY AFTER DELIVERY. DEATH.

By John Homans, Jr., M.D., Boston. (Communicated for the Boston Medical and Surgical Journal.)

Mrs. McS., a resident of Charlestown, a strong and very fleshy woman, 43 years of age, expecting to be confined in January, 1867, was seized with convulsions on the 11th of the present month. She had miscarried once, and had borne eight living children, so that she was now in her tenth pregnancy. Her previous labors had been short and easy, lasting about two hours, and on the fourth day after her confinements she had resumed her household duties; but, before her last baby was born, her lower extremities had been swollen, and she had had a "fit" after delivery. During her present pregnancy she had been perfectly well, except that her hands had at times felt numb. On the morning of Dec. 11th she went to Boston, feeling perfectly well; she made some purchases in the city, and came home in the afternoon. Soon after her return, about four o'clock in the afternoon, she went to her room, lay down on

her bed, vomited and became convulsed. A physician was called, and she was bled, losing at the time of the bleeding and subsequently about a pint and a half of blood. I saw her at 11, P.M., and was informed that up to that time she had had seven fits. Between the time when I arrived and noon of the next day she had seven more fits, some of them very severe, biting of tongue, &c., &c., followed by stertorous breathing. Her urine was found to be highly albuminous, and contained many granular and waxy casts of the tubules of the kidney. Ether was administered, and controlled the convulsions in a measure. The labor pains were feeble, the os dilated very slowly, and at 9, A.M., Dec. 12th, was the size of a dollar, and hard. Warm water was thrown into the cavity of the uterus through a catheter passed by the side of the child's head, and half an once of castor oil was given by the mouth. The oil operated freely during the afternoon. She had been wholly unconscious since the first convulsions, but could swallow. At five o'clock in the afternoon, the os being well dilated, the pains being insufficient to expel the child, the head not yet having entered the pelvis, and there being no prospect of its doing so, the long forceps were applied. Delivery of the child (the sounds of the fœtal had not been heard for fourteen hours) was safely accomplished. The placenta followed twenty minutes afterwards, the uterus contracted firmly, and there was no hæmorrhage.

Dec. 13th.—Is recovering her senses, and recognizes those around her. Pulse 100, soft. Urine, drawn off, is albuminous, and contains casts.

14th.—Is improving. No flooding. Urine still contains casts, albumen, and many crystals of uric acid. Ordered to remain in bed. Has some diarrhœa: to take Dover's powder. Abdomen natural to the feel.

16th.—Is perfectly herself; voice quite hoarse; does not remember events of the last three weeks. Urine slightly albuminous; no casts could be found.

22d.—Feels very strong, and has with difficulty been persuaded to keep her bed; has a good appetite; digestion natural. Urine contains a *trace* of albumen; no casts, and many healthy pus-corpuscles.

On the morning of Dec. 23rd I was called to visit her, but found her dead. I learnt that she had come down stairs during the afternoon of the 22nd, feeling very strong and well. While she was sitting in the kitchen, a boy was brought in who had fallen through the ice of a neighbouring pond. Mrs. McS. was very much agitated and alarmed at the sight. She retired to bed at 6, P.M., and at 8½ flooding suddenly occurred to an alarming degree, and caused much exhaustion. A neighbouring physician was called, who prescribed, and the flooding ceased. A

second attack came on some two hours afterwards, and patient died at 3½, A.M., Dec. 23d. I was summoned, but the messenger did not reach me till after the death of Mrs. McS. No autopsy was made.

I can find in the obstetrical works and essays which I have examined, but *one* case in which *post-partum* hæmorrhage occurred *ten days* after the expulsion of the placenta. Dr. Collins states that during his Mastership of the Dublin Lying-in Hospital, a period of seven years, among 16,414 cases of labor there were but *forty-three* cases of hæmorrhage *subsequent to the expulsion of the placenta.* Of these, but *three* occurred later than *twelve hours* after the expulsion of the placenta. One was on the *fourth day,* one on the *fifth,* and one on the *tenth.* The case above described occurred on the *eleventh.* The woman referred to by Dr. Collins as having hæmorrhage on the tenth day. " had frequent discharges of blood from the uterus for the first ten days, and on the tenth, the discharge becoming profuse, some coagula were removed from the cavity of the uterus, and the discharge ceased." The sudden occurrence of fatal uterine hæmorrhage, as late as the eleventh day after the expulsion of the placenta, without previous warning, and when the patient might fairly have been called well, seems to me extraordinary.

December 24th, 1866.—*Boston Medical and Surgical Journal.*

Medicine.

ON THE TREATMENT OF RHEUMATIC FEVER.

By J. Birkbeck Nevins, M.D. Lond., Liverpool.

At a time when there appears to be a growing tendency to consider that it is a matter of indifference whether anything at all is done in rheumatic fever, except to keep the patient quiet in bed and supply moderate nourishment, I propose to lay before you a plan of treatment which I have adopted for many years, with the general result, as it has appeared to me, of: 1, speedily relieving the patient's most urgent symptoms; 2, shortening the general duration of the case; and 3, securing restoration to strength with less tendency to heart-complications or relapses than usual.

I shall illustrate the general features of the treatment by relating very briefly the last case treated in this manner, which occurred last month, and therefore has the advantage of not being a selected one, but merely the last under observation.

The fundamental principle to be attended to is the one pointed out by Dr. Herberden above a hundred years since, when he recommended the

employment of cinchona, in consequence, of the resemblance betweeu rheumatic fever and ague, as shown in the rigors, hot and sweating stages in both diseases, and the tendency to periodicity observed in the nightly exacerbations of rheumatic fever; and, acting upon this analogy, he recommended the employment of cinchona in the treatment of rheumatic fever as well as of ague. Since his time, this remedy has been used from time to time; but it has not taken the firm hold upon the profession which it deserves, in consequence of the omission of various adjuncts, which it will now be my object to lay before you, as they were employed during the progress of the case to be related.

Case. W. J., aged 45, a delicate looking man, steward of a steamship, had been suffering from rheumatic pains for a fortnight, but had gone about his work with difficulty until two days before his arrival in Liverpool, during which he was confined to his berth, unable to help himself in any way. He was carried on shore, and I saw him in the evening. He was unable to turn in bed, or to move hand or foot, except his left hand a little, though even that was acutely painful. He had no sleep for two days or nights; tongue furred; lithates in urine: pulse moderately excited, but no distinct heart-symptoms; not much sweat.

Treatment. He was immediately ordered a vapour-bath of vinegar, with subsequent cold douche in bed, and ten grains of Dover's powder, which was followed by two hours of sleep, and such abatement of pain, that he said he was easier the next day, though still unable to move his limbs or to turn in bed. He was also at once ordered two grains of quinine and five grains of iodide of potassium, to be taken four times a day. He had, on a subsequent night, a second Dover's powder, and this was all the opiate taken during the illness. The opium, therefore, formed a very insignificant part of the treatment; and this I have found to be the case almost without exception.

The remedies to which I attach importance are:

1. The vapour-bath, and subsequent cold douche; and
2. The combined quinine and iodine.

In this case the bath was given in bed, for the patient could neither turn in bed nor move his limbs; and it will generally be necessary to give it in bed, in the first instance, in any case deserving the name of rheumatic fever; and it is so easily administered, that no difficulty can arise to prevent its employment in every case.

Two large pieces of coarse flannel (common scouring cloths answer the purpose admirably) are to be soaked in common vinegar; about a pint being necessary for each cloth. Two common bricks are then to be heated nearly red-hot in the fire, folded up in these flannels, and placed on

two plates. The patient being stripped, one plate is to be put a little distance from one knee and the other a little distance from the opposite shoulder, and the patient is to be covered over with the bed-clothes. In a few minutes, he is surrounded by a most refreshing steam-bath, which produces a warm, agreeable perspiration, that may be kept up for twenty minutes or longer, if the bricks retain their heat sufficiently.

As soon as it is decided to remove them, the patient, still in bed, is to be very rapidly mopped all over with towels wrung out of cold water, then immediately wiped dry with dry towels, supplied with a warm shirt or flannel garment, and covered with a fresh dry sheet, etc., or with blankets alone, as may be most agreeable to him.

The effects of this bath are a speedy relief of the acute pain, and frequently easy sleep for a time; an abatement of the offensive and distressing acid sweats; and a general state of greater comfort.

The cold water application immediately on the removal of the hot vapour is very important; as it prevents the continuance of an enfeebling perspiration after the hot bath.

The manner of removing the patient's bed garment is a point of importance in cases of such painful helplessness as rheumatic fever; and it is accomplished without pain to the patient or difficulty to the nurse by an extremely simple contrivance. The clothes must be torn down the back from top to bottom; and when this is done they can be removed and replaced as easily as a child's pinafore, without even lifting a limb of the patient or disturbing him in bed. By this means, fresh, clean, dry clothing can be applied without difficulty once or twice a day, according to the amount of sweating; and the sufferer is relieved from the discomfort of his damp, offensive garments.

This bath may be repeated twice a week; and during seventeen years that I have been in the habit of adopting it, I have scarcely ever had to use it a third time in bed; the patient, after the second bath, being almost invariably able to sit up and have the third in a chair.

When he is able to sit up, a steam-bath can be given with great ease by putting a bucket of boiling water under a chair, the seat of which is sufficiently protected to prevent the patient from being scalded, whilst he is sitting upon it surrounded by blankets; and, by putting a red-hot brick into the water in the course of ten minutes, the steam is kept up, as by this time it generally begins to abate from the original boiling water.

A jug of cold water may be poured over the patient when the blankets are removed, or he may be wiped by cold wet towels, as is most agreeable to his own fears or feelings, and he must then be clothed and sit up for a few hours.

The second part of the treatment upon which stress is laid, is the combination of moderate—*i. e.*, two grain doses of quinine with five grain doses of iodide of potassium from the first. The theoretical grounds on which quinine was first proposed have been already mentioned; and the general experience of the profession will suggest the explanation of the probable benefit to be looked for from the addition of the iodide.

We will now return to the history of the case.

After using the bath and taking the Dover's powder, he slept two hours, and was easier.

Second day of treatment—Tongue rather dry. Two glasses of wine daily in addition to his medicine.

Fourth day—Sleeps moderately, and takes food moderately. Very uneasy from lying so long unable to turn in bed. Can move one arm a little. Repeat the vapour-bath, and continue the quinine and iodide.

Next day—fifth—Can sit up in bed, and move his arms so as to change his night-shirt in the ordinary way.

Seventh day—Walked down stairs, with a little help.

Tenth day—Had a steam-bath in his chair.

Eleventh day—Walked a mile and a quarter.

Twelfth day—Went down to the office.

Sixteenth day—Called upon me just before going to sea.

Such is an outline of the plan of treatment which I have practised habitually for the last seventeen years. During this time, the cases have been numerous which have been thus treated; and the results have been so satisfactory, that I have always returned to this method, although I have given a fair trial to the alkaline and to the lemon-juice treatment. I have not tried the do-nothing method; nor have I ever relied upon opium alone; and bleeding and mercurials I have no experience of.

During this period, I have only had occasion four times to apply a blister for heart-symptoms; and there has not been any instance of troublesome cardiac affection. What has become manifest on these four occasions has readily yielded to slight blistering, and a continuance of the quinine and iodine.

When the disease previous to admission has been of a more chronic or frequently repeated character than in the case above related, the improvement has not been so rapid as to amount to complete recovery in a fortnight; and where there is much gouty complication, the case will probably be more lingering. But, after endeavouring to ascertain without partiality what method of treatment is most beneficial to the patient suffering from rheumatic fever, I am increasingly impressed with the conviction that the plan now advocated possesses the advantage of—

1. Relieving the patient's suffering most speedily, both as regards pain, loss of rest, and sweating;

2. Of most quickly restoring the patient to strength, for it is extremely rare for him to be confined to bed more than a week, or to be confined to his room for more than a fortnight; and

3. Of securing extraordinary freedom from heart-complications, or liability to relapses.

[In the discussion which ensued upon this paper, Dr. Falconer of Bath, showed some tracings made by the syphgmograph in some cases of rheumatic fever, which showed that, whilst the power of the heart at the commencement of the attack was generally about equal to the natural standard, it fell as the disease progressed to such a degree as to exhibit, by tracings, a loss of nearly half its strength. He thought that this loss of muscular power in the heart might account for those cases in which the patient dies after apparent recovery from rheumatic fever, and yet, after death, there is no apparent disease of the heart discoverable. These observations (which have been carried on by Dr. Falconer without any correspondence with the author of the paper) have a very important bearing upon the plan of treatment advocated in it, the principle of which is directed from the first to supporting the energy of the muscular and nervous system by the administration of quinine, in conjunction with the agents described; which are followed by an early cessation of exhausting pain, sweating, and loss of rest, and a remarkable immunity from heart-affections.]—*British Medical Journal.*

ON THE TREATMENT OF CHOLERA BY STRYCHNINE.

By George W. Balfour, M.D.

Whatever tends to increase our capability of coping with so formidable a disease as cholera cannot be uninteresting to the profession at any time, but must be specially interesting at the present moment, when we are still labouring under an epidemic most severe in its character, if not, as yet, very wide-spread in its dimensions.

The bromides of potassium and ammonium, the chlorate of potass, and the saturated tincture of camphor, have all been tried without any marked success, and have left only the impression that as yet no advance has been made on former plans, and that the best treatment for cholera is still a large dose of opium early enough; and God help those who pass into the stage of complete collapse, for then all human remedies seem alike useless. The treatment, however, which I am about to recommend may be used with great hope of success even in cases of the most complete collapse, and, even where not successful, it relieves the most painful

symptoms—the cramps—and remedies all the worst features of the disease. It is, however, no new and hitherto untried remedy, for it was long ago recommended by M. Abeille, who states that it modifies advantageously and rapidly the phenomena of cholera by its influence on the sensitive nerves. In the algide stage it excited reaction nineteen times out of twenty-three cases, and there were ten recoveries.

Though long lost sight of in this country, strychnine was employed with marked success during a comparatively recent outbreak of cholera in Japan by Assist. Surgeon W. Hensman, of the second battalion of the 20th Regt.; and the attention of my brother, John Balfour, I.G., having been directed to it, he resolved to give it a fair trial in an outbreak of cholera at Leven, Fifeshire, where he is now in charge. He writes me that he has seen nothing which so speedily relieves the urgent symptoms, or gives such hope of snatching many a serious case from the verge of the grave. The cramps soon cease, the purging and vomiting are mitigated, and in those cases in which the pulse has been imperceptible for hours, it is again felt at the wrist, while the complexion changes from the horrible dull-blue tint to the natural healthy colour, the urine being also generally secreted at once. The urgent symptoms are, in fact, immediately relieved, and though it does not cure every case, this treatment holds out a fair prospect of more favourable returns under circumstances more propitious than could be supplied in a small country town of 2,700 inhabitants, with one medical practitioner to attend upon all the cholera patients, no hospital, and a defective supply of nurses. As it is, 15 out of 24 well-marked cases thus treated have died; but many of them would have succumbed under all circumstances, even to a disease less formidable than cholera, as three were between seventy and eighty years of age, two more above sixty, another had long-standing disease both of the chest and womb, and several others were greatly deficient in bodily strength and stamina.

The general plan of treatment adopted is to place hot bottles round the patient and cover him with an ample supply of blankets: a large sinapism is then applied over the whole abdomen, and, in adults, left on for an hour. If the disease be not too far advanced, a drachm of laudanum is then administered (chlorodyne was employed at first, but was found too irritating to the stomach), ice to suck is allowed *ad libitum*, and small quantities of soda water if desired. Should this treatment have a good effect, the patient is conducted to recovery in the ordinary way; but should vomiting recur, or collapse come on, strychnine is had recourse to, a solution being employed containing one grain to the ounce, and of this a drachm and a half to two drachms is given to an adult for

the first dose, and subsequently a drachm every hour and a half or two hours, until the physiological effects of the drug (twitching of the muscles) manifest themselves; these are always accompanied by marked amendment. The subsequent treatment hitherto adopted has been the administration of quinine and nourishing soups in small but increasing quantities. It is believed, however, that the continuance of the strychnine in smaller doses and at longer intervals would be more beneficial in the more dangerous and severe cases. As it is, complete recovery has taken place in many patients in whom the symptoms had been of the most deadly character, the pulse having been in some of them more than four hours absent from the wrist; and in them no stimulants were administered, at least until convalescence had fairly set in.

The type of the disease at Leven has been of the very worst character attended by comparatively little vomiting and purging; as a rule, the cramps not severe; but the patient struck down and sinking as from some overwhelming dose of poison.

The treatment of cholera by strychnine, then, seems to hold out a fairer prospect of success than anything hitherto tried, while it promises two great and eminent advantages: 1st, even where it does not cure, it always relieves the symptoms; and, 2nd, though useful even in the most advanced stages of the disease, its action is not interfered with, but rather assisted, by the previous administration of opium, which the united experience of, I believe, almost all those medical men who have had any experience of the disease has shown to be the most useful remedy in the earlier stages of cholera; for the researches of Brown Séquard, Bonnefin, and others have shown that morphia and opium act on the spinal cord precisely as strychnine does, and, when administered together, one-half of the ordinary dose of strychnine is sufficient to produce the same effects as double the quantity administered without opium. Were I to hazard a theory as to the *modus operandi* of strychnine in cholera, it should be based on this correlation subsisting between it and opium, and I would say that as all the symptoms of cholera collapse point to a cessation of all the acts of vital nutrition, and consequently of the circulation, throughout the frame, wholly independent of drainage by evacuation, and often most marked where there are no evacuations, depending apparently in such cases upon the charge of poison being sufficient at once to overwhelm the nervous system, and thus prevent that reflex action of the sympathetic and cerebro-spinal systems on each other upon which, according to all our present knowledge, these vital acts seem to depend, so then our best hope of cure would appear to lie in some drug which should so stimulate the cerebro-spinal system as to enable it to respond to

the feeble efforts which the sympathetic must continue to exert while life remains. In the earlier stages of cholera, and in less severe cases, opium from its stimulant action on the cerebro-spinal system, is well calculated to attain this end, while its astringent action is rather an advantage in those cases in which the drainage from evacuation tends to be excessive; the hypothetical benefits of elimination being at variance with our practical knowledge of this disease, and manifestly inconsistent with the theory of zymosis and with all that we know of the history of diseases of this class. In more advanced or more severe cases, strychnine, the most powerful cerebro-spinal stimulant known, seems theoretically that agent most likely to be useful, and I think that the facts I have just related warrant my recommending it to my professional brethren as likely under favourable circumstances even to exceed their highest expectations. —*Lancet.*

ON THE TREATMENT OF HEMOPTYSIS WITH INHALATIONS OF LIQUOR FERRI SESQUICHLORATI [SESQUICHLORIDI].

BY DR. P. Q. BRONDGEEST.

Translated from the *Nederlandsch Archief voor Genes-en Natuurkunde*, Deel ii 2e by Wm. Daniel Moore, M.D., Dub. et Cantab., M.R.I.A.

The local treatment of morbid affections of the air passages, by the inhalation of fluids in the state of vapour, has lately been very extensively adopted. In no department can we, however, point to such excellent results as in the treatment of hemorrhage of the respiratory passages by means of styptic inhalations. The most important observations on this subject are undoubtedly those of Fieber, both on account of the fulness of detail with which they are communicated, and of the success with which the treatment was crowned. We fully endorse what Fieber says as to the value of this method: "If the mode of treatment by inhalation by means of pulverisers had," he says, "no other merit than that of rendering possible the direct application of hemostatics to the bleeding points or their immediate vicinity, this would suffice to ensure it an honorable place in therapeutics. Not only is one of the most dangerous symptoms often directly removed by the inhalation of styptics, but the dictates of humanity to free the patient from an affection which renders him most uneasy, and fearfully rouses phthisical patients in particular from the consoling illusion of improvement, which nature lends them to lighten their sickness, are most rapidly and effectually fulfilled."

Fieber's observations led me to form the resolution to adopt this mode of treatment when opportunity should present itself.

I shall now communicate the results obtained in three cases.

For pulverizing the fluid Bergson's well-known apparatus was employed, which on account of the facility of using it and its portability deserves to be preferred to any other.

Case 1.—On the 3rd Nov., 1861, I was called to see Heer de H., aged 57, the head of an extensive stonecutting establishment, who had for a year previously been under my care for pulmonary tuburculosis. The patient from time to time expectorated small calcareous concretions, and daily a large quantity of yellowish sputa, sometimes mixed with slight streaks of blood. From the physical examination of the chest, I inferred the existence in the apex of each lung of a cavity, according to my opinion in process of healing; in favour of which were the facts that the dulness on percussion was not extending; that the cavernous râles were very weak, sometimes not perceptible; and that, moreover, as has already been mentioned, calcareous concretions were expectorated, while the sputa appeared to me to be thick, and but slightly purulent. I found the patient lying in bed in a state of great anxiety and exhaustion. Those about him informed me that an hour and a half previously, while sitting in the watercloset and straining violently, he had suddenly thrown up an enormous quantity of blood, at the same time they showed me a spittoon half filled with bright red blood. Before my arrival the patient had been put to bed, and the discharge of blood had ceased, only some bloody phlegm was now brought up. The pulse was very small, and below the left clavicle strong râles were audible. I prescribed alum with laurel water internally, and cold compresses to the left side of the chest. In addition, I forbade his speaking, and recommended light diet, and that he should, as much as possible, avoid moving.

During the three following days his state was rather favourable; there was no fever, the sputa expectorated in the course of the third day were only very slightly tinged with blood.

In the night between Sunday and Monday I was called to him at half-past two. The person who awoke me stated that spitting of blood had again taken place. I brought with me Bergson's Inhaler and a solution of one drachm of sesquichlorate [sesquichloride] of iron in eight ounces of distilled water, as I suspected that it would be necessary to make the patient inhale this fluid in the form of vapour. I found him coughing and each time bringing up bright red blood, while a considerable quantity was already in the spittoon. With the greatest care he was lifted out of bed and placed in an easy position in a chair. The inhalation of the styptic was commenced, and was continued with many intermissions, until the patient expectorated only bloody phlegm. During the inhalation

he coughed but little, the hemoptysis was not for a moment aggravated by it. I left him, advising that every two hours he should very slowly make thirty inhalations. Next day I found that no further hemoptysis had taken place, only bloody sputa were expectorated, which continued for four days, while a solution of one drachm of crystallized sesquichlorate of iron in six ounces of distilled water was used for inhalation, a decoction of rhatany being at the same time prescribed for internal use. The patient's strength, however, diminished very much, so that on Friday morning—that is the fifth day after the second attack of hemoptysis, I advised that the inhalations should be discontinued, the more so as they appeared not to be so necessary, the sputa having already begun to be less bloody. At two o'clock in the afternoon of the same day the patient suddenly raised himself upright in the bed, which was immediately followed by violent spitting of blood. When I visited him two hours later I found him in a sad state, very depressed, crying, exhausted, with a small pulse, complaining of oppression, with a glass half filled with blood at his side, and bringing up blood from time to time. In the left infraclavicular region very loud râles were again perceptible. As taking the patient out of bed was not to be thought of, I caused him to inhale for a considerable time, while in bed, the solution of one drachm of sesquichlorate of iron in six ounces of distilled water, until the spitting of blood had ceased, and to continue this every two hours. At half-past eleven in the evening I found him breathing very much oppressed, with loud râles, so that I thought I should not find him alive next morning. The inhalations were continued every two hours during the whole night. The following morning I was very much rejoiced to find that no more spitting of blood had occurred, and that after the inhalations only bloody phlegm was expectorated. The red colour of the sputa disappeared, the strength gradually increased, and now, after the lapse of six weeks, no hemoptysis has taken place. Although still keeping his room, the patient is already beginning to discharge some duties of an administrative nature, and is getting into a state similar to that he was in before the first hemoptysis occurred.

Case 2.—Miss M., aged 35, a native of Neufchatel, in Switzerland, governess in the family of F., at the Bilt, near Utrecht, came to consult me in the month of May for a laryngeal affection. She complained of sore throat, cough, shortness of breathing, and want of sleep. She had daily an attack of fever. She was very anxious about her state, as her father had died of laryngeal phthisis. On laryngoscopical examination I found that the signs of a chronic laryngeal catarrh, general redness, and slight mucus secretion were present; no ulcerations were perceptible.

In the infra and supra-clavicular regions was a very feeble respiratory murmur; the sound on percussion was clear; the resonance of the voice presented no difference on either side. I prescribed the use of sulphate of quinia, and at night a morphia powder. After some days she returned and informed me that she had in the morning spit blood, about two teaspoonfuls, and that this had taken place also some months before. Her former attendant assured her that this was not connected with any injury to her health, and therefore she paid little attention to it. Again, examining the chest, I observed neither râle nor crepitus; the heart's impulse was very strong, and the cardiac sounds were distinct and audible over the whole chest.

I suspected that the cause of the hemoptysis lay in a tubercular process in the lungs, although I had observed no decisive physical signs in favour of this view. I made her use, for a week, inhalations of tannin dissolved in water, but without any apparent effect, for which reason I replaced this solution with one of a drachm of crystals of sesquichlorate of iron in ten ounces of water, as she could not inhale a strong one. I advised her to continue this for a week, making fifteen inhalations three times a day. The spitting of blood soon ceased. I made her continue the inhalations for some time, and heard no more of the patient until the end of the month of May, when she again called on me and stated, that after having spent some time at the Hague, where she had taken much exercise and had exceedingly fatigued herself, the spitting of blood had returned. I found her very much emaciated; her pulse was weak, and her face very pale. I advised her to continue the inhalations steadily, with a solution of one drachm to eight ounces of water; the result was that the spitting of blood soon ceased again. Seeing her once more in August I found her state remarkably improved; she had for two months had no return of the spitting of blood. Towards the end of August it recommenced, which she communicated to me in writing, whereupon I again sent her the inhalation apparatus. In a letter dated September 22nd, she again gave me a report of her state. On this occasion the hemoptysis had been very obstinate, nevertheless it finally yielded to the diligent use of the inhalations, which she continued for a considerable time after its cessation. "Now I feel," she wrote to me, "very well and I can do much without being fatigued; it even appears to me, that I can breathe much more freely than I have for a long time been able to do." From this period I heard no more of her; but, as she has not since got the inhalation apparatus from me, I may infer that the hemoptysis has for four months not returned.

Case 3.—Miss C. N. de T., aged 25, applied to me in the month

May, on account of hemoptysis, from which she had suffered during the preceding six months. She seemed not to think much of her illness, for she required persuasion to induce her to seek for medical aid. She expectorated blood at very irregular periods. At one time the hemoptysis occurred every day, at another there was an interval of fourteen days. The quantity amounted to half a teacupful; the blood came up with a slight cough. Her chest was very flat, but no certain signs of pulmonary tuberculosis existed. After she had inhaled for some time, about fourteen days, a solution of crystallised sesquichlorate of iron in distilled water, the hemoptysis ceased. It has not returned during the last six months. Liquor stypticus, internally administered, had no effect.

The cases here communicated prove that very obstinate bleeding from the air-passages may be arrested by the inhalation of a solution of chloride of iron. They, moreover, show that the inhalation in itself does not give arise to any temporary aggravation of the symptoms, and that if some precautionary measures be taken (to have the solution not too concentrated, and the distance of the patient from the inhaling apparatus not too short), neither is the cough excited by it. I believe that where medical assistance is called to a case of dangerous hemorrhage from the air-passages, this mode of treatment should be immediately employed, and that every physician ought to have the proper apparatus ready at hand, by means of which he can control such a dangerous symptom, and by so doing, probably save or prolong many a life.—*Dublin Medical Press and Circular.*

PHYSIOLOGICAL PROPERTIES OF THE AMYL COMPOUNDS, FROM DR. RICHARDSON'S REPORTS.

On inhalation of nitrite of amyl, great stimulation and increased action of the heart follow. The author could make any number of person's hearts quicken ten beats per minute by the aid of nitrite of amyl vapour.

Acetate of amyl (essence of pears) was an excellent antiseptic.

Pure ether was preferable as an anæsthetic to the following:—acetic æther, hydrochloric æther, nitrite of amyl, amylene, or chloroform.

Nitrite of ethyl, like nitrite of amyl, was one of the most powerful excitants of the heart. Amylene and æther produce their effects by virtue of two acts—by suppressing oxidation of the blood in the lungs, and by the extraction of caloric from the blood. This latter point was

advanced as a new and more simple explanation of the action of the substance named, than had been before suggested. That the modification of symptoms produced by the change of form of a simple amyl or ethyle compound into a nitrite, turned upon the introduction of nitrogen into the composition, and by this introduction the anæsthetic action is destroyed, and is replaced by disturbance of muscular action, especially of the heart. In this respect the nitrite compounds represent immediately, in an exaggerated degree, the action of strychnine, theine, nicotine, and analogous alkaloidal substances, of which nitrogen forms an elementary constituent.—*Medical Press and Circular.*

THE COLOUR OF MAN.—In the Physiological Section of the British Association for the Advancement of Science, Dr. John Davey read a paper on this subject. After enumerating the varieties of colour of the human race, and their connexion with latitude and climate, he proceeded to the consideration of the probable causes to which the difference of colour was to be referred. Of these, he placed first exposure to the sun's rays; next, warmth of climate and an average high temperature throughout the year, under the influence of which there appeared to be a tendency to accumulation of colour in the system, as indicated by the little difference of colour of the arterial and venous blood under the exposure of a high temperature. He adverted to hereditariness or ativism as deserving of attention in considering the colour of races, and more especially its importance as to the great question of unit of difference of race *ab origine;* how, if climate should be found to have greater effect than blood in modifying colour, unity might be inferred, and *vice versâ.*

NEW YORK STATE INEBRIATE ASYLUM.—Up to 1864 there had been 7245 applications for places in this institution at Binghampton, from every State in the Union, and from Europe, Mexico, and the British Provinces, 520 of whom were opium eaters. There were 39 clergymen, 8 judges, 197 lawyers, 226 physicians, 340 merchants, 680 mechanics, 466 farmers, 240 gentlemen, and 805 women. One of the opium eaters, a lawyer, who had filled a highly responsible office, in one year drank 3200 bottles of M'Munn's preparation of opium. In one day he drank twenty bottles, equal to ten thousand drops of laudanum. Patients at this asylum are received for not less than a year, are watched, controlled, and medically treated. The expectation is that at least 70 per cent will be radically cured. It was stated at the recent Temperance Convention at Saratoga, that the names of 1300 rich men's daughters are on the list of applicants for admission to this asylum.

Canada Medical Journal.

MONTREAL, JANUARY, 1867.

REPORT OF THE PUBLIC VACCINATORS FOR THE YEAR 1866.

We publish below the report for the year 1866 of the Physicians who fill the office of Public Vaccinators for the city of Montreal. It demonstrates beyond a doubt the very great benefit which has resulted from the Act under which they hold their appointment, the deaths from variola having decreased from 363, in 1864, to 51 during the past year. We would like to know if the other cities embraced in the Act have taken steps to put it into force; and if so, we would have much pleasure in publishing the result of its working. We intend returning to this subject in our next number:

The undersigned, Public Vaccinators for the city of Montreal, beg leave to report for the information of the City Council, the result of their labours for the past year. In the number of children vaccinated there is a falling off compared with the previous year of 208, which may be accounted for by the fact that small-pox was a comparatively rare disease, and those who only rush to have their children vaccinated when danger is nigh, have neglected to avail themselves of the safeguard which vaccination affords. They regret that this class of persons is a large one, and would suggest that some means be taken (as is allowed by the Act under which we hold our appointment) to compel them to have their children vaccinated, for so long as this precaution is not taken, so long will small-pox claim yearly a number of victims from our midst. An examination of the mortality returns show that fully five-sixths of the deaths from small-pox are among children under ten years of age—a very strong argument in favor of every possible means being taken to have every child vaccinated at all events within the first six months of its birth. Few seem thoroughly to realize the value of vaccination as a safeguard against this disease, and the terrible responsibility which rests upon them, should their unvaccinated child contract small-pox and die. Although they cannot state with exactness the number of deaths which occur among unvaccinated children (no proper regis-

ter being kept) yet it is beyond question that the per centage is very large. Not only then is there an individual interest at stake to insist upon vaccination, but also a public one, for every fresh case of small-pox is a focus from which to radiate the infection. In England so great is the responsibility of parents who neglect to have their children vaccinated considered, that within the last six months Dr. Lankester, one of the Coroners for the City of London, has held inquests upon the bodies of children who have died of small-pox, and unvaccinated. In each case the verdict of the Jury held the parents to a strict account for their neglect. Notwithstanding the horror then with which this disease i held by all classes, it is singular that so many parents still neglect to take ad vantage of the opportunity offered by the public vaccinators.

Having said so much on the dark side of the picture, the Vaccinators have much pleasure in drawing the attention of the City Council to the fact that ever since they received their appointment, and the Act became tolerably well known and understood, a steady yearly decrease has taken place in the number of deaths from small-pox. This is most conclusive evidence of the good results of the Act, and is most gratifying to them, as they are sure it must be to the public. In 1864 the number of deaths from small pox was 363; in 1865 they decreased to 85, and the past year they have still further diminished—only numbering 51. Were the Vaccination Act made applicable to the country districts, as well as to the large towns, still greater benefits might be anticipated, for not a few of the cases of small-pox terminating fatally, and included in our annual City mortality, (from the fact that they are interred in one of our cemeteries,) are from the numerous villages in the neighborhood of Montreal, where but little attention is paid to vaccination.

Since our aprointment in 1862, the total number of 3,436 children have been vaccinated by us, divided as follows:

St. James, St. Louis, and St. Mary's Ward.....	1,774
St. Ann's and St. Antoine.....	1,218
East, West, Centre, and St. Lawrence.....	444
	3,436

The Vaccinators beg respectfully to submit that the amount (25 cents) which they receive for every successful case of vaccination, is altogether inadequate for the time and trouble involved in the vaccination of the child, granting certificates, and keeping a correct register. In Great Britain a sum equal to 60 cents is allowed for each public vaccination; and they would respectfully ask the Council to increase their remuneration to 50 cents for each successful case of vaccination.

The whole nevertheless respectfully submitted.

(Signed)

J. L. LEPROHON, M.D.
FRANCIS W. CAMPBELL, M D.
A. RICARD.

Montreal, 15th Feb., 1867.