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Dr. Fenwick's Case of Fibro Cystic Bronchocele.

CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Introductory Lecture delivered at the Opening of the Fortieth Session of the Medical Faculty of McGill University, and the Inauguration of the New College Building. By WILLIAM WRIGHT, M.D., L.R.C.S.E., Member of the Surgical Society of Ireland, Professor Materia Medica in the University, One of the Medical Staff of the Montreal General and University Lying-in Hospitals, &c.

GENTLEMEN,—I thank you for your warm reception, and, in acknowledging it, let me assure you that the joy of meeting is mutual. Your Professors are as happy as you are at the introduction now taking place on this the first day of the session. And in return for your applause, which we accept as your greeting, I have great pleasure, in their name, in extending to you a most cordial welcome.

This day begins a future which, we trust, will enrich you with an abundant harvest of professional usefulness, and when a little while has rolled by we hope to place in your hand the sickle by which its golden fruit may be gathered into your garners; or, to change the figure, we trust that before a long while we shall bind you round our necks with our other esteemed jewels in the long lace of graduates who are our sons in Medicine.

May the morning you first crossed these halls of learning be ever a red-letter one in your life's calendar. May enthusiasm so swell at the remembrance of the time spent here that you will be eager to exclaim: we hail from McGill! And may others read the great fact in your superiority, so that they too will be constrained to confess that from McGill, and McGill only, could you hail!

This day, again, will ever appeal to our hearts because it marks a new era in our position. We now inaugurate the stately building wherein we are met. It has been built by the Governors of the University, out of the funds at their disposal, at a cost of \$27,000. They have placed it exclusively as a free gift in the

hands of the Medical Faculty. Long will the memory of their liberality be green. Whenever we look round we read in every part of the substantial structure their good will towards us and the munificent scale by which our wants should be met. *Si videres monumentum, circumspice*. As part of the College buildings, it forms a handsome wing, being, where medicine should always be, conspicuous in the company of the learned. No more healthy, no more picturesque site could have been chosen. And the edifice, as one of the many splendid others that adorn the base of the mountain, combines for its purpose, as much as they do for theirs, the *ornate* with the *utiliter*. In proof of the last you will find in the internal arrangements that accommodation, convenience and comfort have all been carefully studied.

The building is 80 feet front by 84 feet 8 inches deep, and 48 feet high, to the top of the cornice, with a further elevation of 7 feet in the roof. The latter is a half mansard, broken up by three pediments, and covered with slate. The walls are solidly built, and are all of cut stone. The architects were Messrs. Hopkins & Wily.

On the east side, facing University street, is the students' entrance, leading into the basement. The lobby lands into a passage which, like the other halls, is 12 feet wide. On its left is a waiting-room, 30 feet by 32 feet 6 inches, furnished with chairs and tables. It is intended for resort during the intervals between lectures, where you may fill up your notes or otherwise profitably occupy yourselves. A strip is partitioned off and fitted to serve as a cloak room. On the right are the apartments of the caretaker, and on this floor are also spare rooms, closets, furnace and fuel cellar. The apartments having floors are based with concrete.

On the south side is the main entrance, facing Sherbrooke street. Having ascended the flight of stairs in front and crossed the lobby, you first meet two apartments, one on either side, which, when fitted up, cannot fail to command the admiration of every intelligent observer. One measures 30 feet by 34 feet; the other, 32 feet 6 inches by 30 feet. And your expectations concerning them will be the more raised when I add that our worthy Dean has personally contributed \$1,000, under the stipulation that the sum shall be disbursed in furnishing them for a Library and Museum respectively. Behind these are the Chemical class-room, with the Professor's room; the former 30 feet by 46 feet, seated to hold 190 comfortably; and the Laboratory, 32 feet 6 inches by 32 feet, for the Practical Chemistry class. It is provided with furnace, balance room, and all other necessary requirements. This floor, "the ground floor," is also approached by a short stairs running up from below.

On "the first floor," or one above the last, is the General Classroom, on the right hand side of the landing. It is 33 feet wide by 43 feet 2 inches deep. It has 11 tiers of seats, arranged as in the other class-rooms, in trilateral shape, with desks and backs, regularly graded, and able to contain 208 persons. Into it two doors open, the uppermost one being exclusively for the convenience of students. Close by are two side rooms, one for the use of professors, the other for the *Materia Medica Cabinet*. On the opposite side is another class-room, the Anatomical, 32 feet 10 inches by 43 feet, and seated for 180. It is supplied with seven tiers of seats, and is well lighted with front and side windows and glazed skylight. Behind is the Dissecting room, 56 feet 10 inches long, and 30 feet 2 inches broad, provided with sink, lift, as well as all other essential appointments, and having its floor covered with lead. At its end are two small rooms, one for the Professor, and the other, which opens into it, for the Demonstrator.

The building will be warmed by hot water in circulation through coils and pipes of iron. Fittings are placed wherever gas may be needed. Means have been devised to ensure sufficient ventilation, and the acoustic adaptation of the Lecture rooms has also been regarded. In short, the whole is so designed that, when completed, the equal will not be found in any other medical school in the Dominion.

Medicine was a mere chaos till six hundred years before the Christian era, or a little earlier. Then the attempt was made to bring it into *Cosmos*, or under the comprehension of philosophy. The *Asclepiades* were the true originators of the science, and in helping on the work Pythagoras was famous.

Eight hundred years more passed by, however, before medicine was so digested, or so trimmed, as to be able to be publicly taught in a systematic manner. Then the Philosophical school or sect, which had in the meanwhile flourished, was superseded by the Empirical, under the guidance of Serapion and others; and then, the third century having dawned, there sprung up the first institution for medical education. It was founded at Iondisabour. It brought up many eminent men, among others, some centuries after, was Rhazes, the Prince of Physicians; but its teachings were soon opposed by those of the Methodics, and afterwards by the Dogmatics and others; for of it, as of others, it is true, "*nec scire fas est omnia.*"

The attendance upon some of the ancient colleges far exceeded that upon any single one in modern times; perhaps from there being not so many then as now to divide the palm. That of Bagdat, with which was associated an infirmary and labo-

ratories, numbered as many as 6,000 students at one session, in the latter part of the eighth century.

In the eleventh century one of the most celebrated was the University of Salerno. Its medical lectures were very numerous attended during the Crusades, the place being then a fashionable resort. It awarded its degrees to students of seven years standing.

I shall not steep you in the Cimmerian gloom which rested upon later endeavours to diffuse professional learning, as it rested upon whatever else was calculated to ennoble mankind, till the middle of the fifteenth century; nor, pleasant though the task might be, trace the subsequent establishment throughout Europe, in the sunshine that succeeded, of medical schools which still continue to win the admiration of the whole world; but I propose to engage in what, I trust, will be to you still more agreeable. I propose to turn your attention from foreign seats of learning and bygone days to our own; for, as of the patriot and his country, so of the Alumnus and his college it may be sung,

“Such is the ” *Alumnus*’ “boast where’er we roam;
His first, best ” college “ever is at home.”

Before 1824 a few occasional lectures had been given in Montreal, but without the order, or regularity, or union that was afterwards manifested. In that year four of the most competent practitioners resident here, viz., Drs. Caldwell, Robertson, Stephenson, and Holmes, associated themselves to deliver, annually, courses of lectures upon certain branches of medicine. The school, thus initiated, was conducted with signal ability from the first. Many were its struggles, but the wisdom and energy of its brave founders triumphed over all. It was named the Montreal Medical Institute. Its pupils had the advantage of walking the General Hospital, which had been opened two years previously. Its powers were limited, however, to those of extra-academical bodies. This institution is of a peculiar interest to us. It was the child to the man of which the present one is father. Four years ended its nonage. Then it was grafted as a flourishing scion into the University of McGill College, of which it afterwards constituted the Medical department. It now had the privilege of procuring, for successful competitors, the *summos honores*, in the form of the degree of M.D. Its first graduate was William Logie, in 1833; he was the harbinger bud of the wreaths of flowers that blossomed in succeeding springs. Its usefulness was greatly promoted by the formation of a Library and Museum, which its Faculty made more extensive year by year. It began with four chairs, viz., Practice of Medicine, Midwifery, Chemistry and *Materia Medica*,

Anatomy and Surgery. With the exception of a suspension during the rebellion which broke out in 1837, the lectures were delivered unremittingly every year. The last two chairs named were subsequently divided, so that Chemistry, Anatomy, and Materia Medica were taught separately. Surgery, however, was only released from its old bond to be joined to a new one—Midwifery. In 1842 the union was severed and each consigned to its own guardian. In November of the following year the efficiency of the school was materially increased by the opening up of the University Lying-in Hospital, which afforded students the opportunity of attending cases of labor. Two years afterwards four branches were added to the previous ones taught. They were: Institutes of Medicine, Medical Jurisprudence, Botany, and Clinical Medicine with Surgery. In the next session Clinical Medicine and Clinical Surgery were so distributed as to be taught by separate lecturers. Since then the only addition to the Curriculum has been in Practical Chemistry, which has now been taught for two years.

From the origin of this Faculty to this the fortieth year of its existence, it has enlisted twenty-six lecturers or professors, including its founders. Upon fourteen of these honoured men time has executed his commission :

“ He undermines the stately tower,
Uproots the tree, and snaps the flower;
And sweeps from our distracted breast
The friends we loved—the friends that blest.”

The last we have had to mourn the loss of has been Dr. Fraser, and because the last, I feel that no apology from me is needed while paying a short tribute to his memory, that it may be the more surely preserved among us.

William Fraser was born in Perth, Scotland, I believe, in the year 1814. After having completed his general education he entered upon the study of medicine, which he pursued, chiefly, in Glasgow, attending lectures both at the University of Glasgow and also at the Andersonian University. He was remarkable for the ardour, industry and perseverance he displayed in attaining to a knowledge of his profession. His tenacity of application and constancy in learning were such as if he had “set his life upon a cast,” and was resolved that by no fault or shortcoming of his should there be any “hazard of the die.”

Upon the outbreak of cholera at Roseleith in 1832 he was sent down to the parish by the late Dr. Lawrie, his Professor of Surgery, to officiate in a temporary infirmary opened for cases of the

epidemic then raging. I mention this incident because it shows the high opinion entertained of him at that early time, judging him worthy to be trusted with a post of responsibility, And I mention it for another reason. Roseleith is the native place of our Dean, and there he made his acquaintance. As they then grasped their right hands of fellowship for the first time, neither one nor other had a glimpse of the brilliant future that awaited them in a far-off land, across a thousand miles wide bridge of sea, where they were to be colleagues for more than a quarter of a century, to supply the wants of the Dominion and parts which far outly her borders with troop upon troop of skilful and accomplished practitioners.

In 1834 young Fraser received the license of the Faculty of Physicians and Surgeons, Glasgow, which is a double qualification, the same as the Medical degree of our University. It entitles the holder to the position, with all the privileges of a general practitioner in that city, so that with it he can there practice Physic, Surgery and Midwifery. Fraser, however, used it more as an honour than a power. Having heard of Canada, where "worth by poverty depressed" rises not so slow as in the mother country, he left home and came out here. Soon after his arrival in this city he was made Apothecary or House Surgeon of the General Hospital, or rather both, for in those days the offices were fused together and held by one person.

While gathering experience of disease in its protean forms in this new situation, he decided upon extending his theoretical acquirements by re-attendance upon lectures. With this view he matriculated in this University, followed the courses, and, having qualified, graduated in 1836.

The graduation class of that year contained another member of high distinction—I mean Dr. William Sutherland, our Emeritus Professor of Chemistry. Dr. Fraser seemed to be so drawn towards him that an intimacy sprang up which time served to brighten, the tendrils of his heart being ever ready to cluster round the charms of a social, manly, philosophic nature. And whenever memory recounts the pleasures of a by-gone oratory that fell in brilliant gleams upon admiring pupils, or a physician to whom the hearts of his sick were gratefully knit in warm affection, or a friend who tenderly felt for another's smart and could cheer the lonesome way with his winsome words, then will it recount some of the graces of a Sutherland!

Having obtained license to practice in Lower Canada—which can be got by proving ownership to one's degree—Dr. Fraser gave up the hospital and engaged in private practice. He realized the fond

dreams of hope, and from a slender perch climbed up to an uppermost branch to rejoice in all the pleasures which first-class success could yield. Ever ready to heed the call of the sick, to act upon the rule, "*labor omnia vincit*," and to do the best for his patients, he took, at the flood, the tide in his affairs which led on to fortune, and after thirty-six years toil he was worth £40,000 or £50,000.

In 1845 he was chosen to fill the chair of medical jurisprudence. I had the benefit of his maiden course, together with your able Professor of Medicine and four others whom I can recall. It was new and not obligatory retrospectively, and for these reasons the attendance was so thin. Here he gave the first marks of aptness for lecturing that after years only rendered more prominent. I well remember the zeal with which he threw himself into his work, the pains-taking he exhibited in its discharge, and the faithfulness with which he carried it through to a satisfactory close. His aim was to afford his class a clear, curt, well-digested view of his subject, abreast with the progress of the day.

In 1847 he was elected by the Board of Governors one of the medical staff of the hospital. Though that year was a very busy one for doctors, owing to the spread of an extensive epidemic of Typhus or Ship Fever, imported by emigrants who had suffered from famine consequent upon the failure of the potato crop in Ireland, Dr. Fraser shewed himself equal to the emergency. In other outbreaks, as those of cholera in 1849 and afterwards, he was always under arms and effective in the path of duty. His patients had great confidence in his wisdom, and his humane treatment won their esteem. He was fond of Surgery, and as an operator was daring, bold and resolute. He was also fond of trying new remedies in order to determine their real merit, or ascertain some new point in their action.

In 1849, yielding to the wish of the Faculty, he was translated to the lectureship of Institutes of Medicine, which he filled during the twenty-three years following. He here displayed the characters that were so marked in his former post, but more developed by the training he had there received. Thousands of students have borne away his teachings, and with their deep science have drunk in the spirit of inquiry they caught from him, and profited by the example of diligence he set before them.

Dr. Fraser had a lofty idea of the dignity of medicine. He was a stern foe to empiricism under every guise, and a strong upholder of rational medicine. To his mind its pillars were Physiology and Pathology; or they were the streams through which the fountain was to be supplied. Partiality, however, did not close his eyes to

the inestimable value of Clinical study. He was a useful member of the several Medico-Chirurgical Societies that rose and sank during his career; and he occasionally contributed original articles to the local journals. The first was in the *Montreal Medical Gazette* for May, 1844, about a case of Ovarian Tumor. In the same journal will be found his account of a case of Castration, and one of Spasmodic Croup. In the *British American Journal* he published two papers, one on Erysipelas treated by Venesection, and another entitled, "Observations on Fever prevalent among Emigrants." In the *Medical Chronicle* he wrote upon "Galvanism in Paralysis of the Bladder," "Amputation of the Forearm," "Strychnine in Cholera," and "Perineal Section in Stricture of the Urethra." In this journal and in those that succeeded it, several hospital cases are reported under his name, treated by him, but written by others who had watched them.

For several years Dr. Fraser was a Governor of the College of Physicians and Surgeons, Canada East; and a Member of the Natural History Society of this city.

And here the sable line must end this rude sketch. His long life of activity, having been embittered by Prostatic Hypertrophy for some time, at length urinary infiltration set in, and in a few days more, on the 24th of last July, he was removed from among us

"To that mysterious realm where each shall take
His chamber in the silent halls of death."

"Until the daybreak and the shadows flee away."

We deeply deplore the breach made in our ranks. We have done our best towards its repair. The admirable way in which your new Professor of Institutes managed his former offices flatters us with the florid hope that you will soon realize his appointment to have been the best that could have been made. The blank he has left, in turn, Dr. Ross, a gold-medalist, fills. He brings with him the Clinical experience he gained during the years he was in the hospital, where he won for himself garlands of praises.

A feature of this school is, she does not forget her students, nor pass them over for strangers. Her chairs are her highest prizes, and when her own can fill them she glories with maternal pride in drawing them still closer to her bosom. Of her eleven Professors eight have been her offspring, and these eight have sat at the feet of one whom they still thank for his invaluable lessons. That one is the acknowledged Nestor of Canadian Medicine, beyond whose professional opinion there is no appeal. But to them he is far more; he is as a fond father whom they dearly love, a sincere an'

faithful friend in whom they delight; and while he is these, that one is also the one whom they esteem as their Dean!

As motion causes heat, heat light and chemical action, chemical force electricity and magnetism, so in the progress of this school several other schools have started up; or, rather, I should say, as life-force, by acting on matter, brings out these cosmical forces, so our existence has been followed by the birth of others. That is what I should have said, for life-force has its origin from no other force, nor into it can no other be turned, nor can it be merged into any other. And that is just the case with this school. It owes its start to no other in the Dominion; no other can take its place; and it has lost nothing by developments, on the contrary, "*crescit crescendo.*"

The relation of medical schools to universities in this country is unlike what it is in the great model institutions of the British Isles. There, there are few universities and many schools. Here, every school is part of a separate university. I do not object to many schools. I would always rejoice to find many were needed, and would gladly welcome the efficient. But I hold, and very strongly too, that nothing is more calculated to make them engines of destruction than to constitute each one a faculty of a distinct university. Legislation could not inflict upon a people a greater evil than to multiply bodies having unlimited power to grant degrees to whom they please, and as they please, without hindrance or supervision, where, as in Canada East, such degrees procure for their holders a license to practice, without further examination, however great may be the measure of their incompetence. Through its university each medical school has this unlimited power, and, having it, there is to be apprehended the liability that the maintenance it could not expect because of its sterling worth or established reputation, it will seek to acquire through the lavish exercise of the power unwisely placed in its hands. Especially is this to be expected when competition springs up late in the day. And while it lasts, such a school may show its disregard or sacrifice of the health, or happiness, or life of the public, by periodical drains of incompetent physicians whom it sends out to deal with these essentials upon which the security and prosperity of a country necessarily depend.

What you want in a respectable medical school is: firstly, that it shall have abundant opportunities for imparting a practical acquaintance with diseases and injuries through actual observation and clinical teaching. For this an hospital is indispensable. In the mother land it is the hospital originates the school. The school is the school of the hospital, and from it gets its worth.

There no eminent men would presume to teach medicine who were destitute of the resources of an hospital.

What, again, you want in a useful medical school is an extensive library, where the periodical literature of different places may be referred to; where the classics of the profession may be consulted; where there are some thousands of volumes of standard books; and where the works last issued are annually added.

What you want, further, in a reliable school is that it should be thoroughly equipped in means of illustration. It ought to have a museum largely stocked with both Anatomical and Pathological preparations. The latter to be so varied as to comprise, with the more common, the rarer lesions; in short, such a display as can only be accumulated gradually, after tens of years of collection. And in addition to these there should be as many series of the best executed plates or drawings, as well as such varied objects, or models, or instruments as are generally serviceable.

As you pursue your studies you will find them very entertaining. You will find our abode is on a crust twenty-three miles thick, the cooled scum of molten blazing rock beneath, one hundred and sixty times hotter than red-hot iron; and our life is a vortex of changes, kept up by tearing from milk, or flesh, or fruits the atoms of our anatomy to make good the piece-meal wear of what we once called ourselves. You will find that we are kept warm by our unlocking the sunshine from the cellars of food or fuel in which it has been stored after it has ridden upon its beam through space that would take a railway train two hundred and thirty years to cross; and that we are ever in motion, travelling with the earth, with a speed sixty-eight times as great as that of a bullet fired from a rifle.

Your studies will also fill you with interest, as they show you how wonderfully you are made; as they lead you, stage by stage, through the work of building the human frame, from the time of the fertilized ovum cradled in the Graffian vesicle onwards; as they point out the outlay of myriads of nerves, of vessels—blue, red, white and colorless—meandering in leashes over mountain-like organs, valley-like dips, and plain-like surfaces; as they trace the finger of design: as they give every measure even down to the 1-400th part of a line; and as they tell of every function.

Medicine, however, chiefly commends itself because of its utility. It points out the laws of health; how to stamp out the decimating plague, to cause the air or water of a town to be pure, and to promote the salubrity of its people. It takes you on the wings of contagion to its strong holds; shields from its venom; tracks it in its progress; and fits you to enter the lists against its sure of victory. It gives you power over the ills to which flesh is

heir. It takes you where Flora spreads her treasure, and down the mines of the earth, and into the noisy shop of the factor, and many a place besides, to cull remedies. It learns you what they can do, when to use them, and how to give them. It speaks of the insane root that takes the reason prisoner; of Kecksy or Conium that killed Socrates; of the finger of Hermes, which is the anima articularum; of the Masch Allah, or "gift of God," that first provokes pleasure, then lulls to rest; of one that in fractional parts arches back the body into the rigid locks of death; of another that relaxes every part; and of very many more. It arms you with the surgeon's skill and strength when the question is what has been the injury, when the cry for relief is importunate, and when if the right aid be not afforded the case must be lost. It enables you to staunch life's current in its wasteful flow; to rid the air-pipe of the struggler for breath from its foreign body; and in countless other ways to prove the friend of distressed humanity.

Marvel not that such a science, such an art should be richly strewed with encomiums. Let me read you two or three. One of the oldest says: "Honour a physician with the honour due unto him." "The skill of the physician shall lift up his head, and in the sight of great men he shall be in admiration. Give place to the physician. Let him not go from thee for thou hast need of him." Among the Romans, Cicero was exuberant in his praises of the profession. According to him, "nothing brings man nearer to the gods than in giving health to his fellow-creatures." And in more modern times Dr. Johnson, the leviathan of English literature, thus beautifully records the memory of a practitioner:

"When fainting nature call'd for aid,
 And hovering death prepared the blow,
 His vigorous memory display'd
 The power of art without the show.
 In misery's darkest cavern known,
 His useful care was ever nigh,
 Where hopeless anguish pour'd his groan,
 And lonely want retired to die."

These are a few of the inducements that prevail to urge you to attain the object before you. The path is made easy in proportion to the thoroughness of your previous education. Where that has been liberal it is the best preparative to future study. The higher the preliminary training the more easily will you acquire your professional learning, and the more surely will it be remembered. When possible, a collegiate course in Arts should be added to the instruction of the Grammar or High School. The benefit conferred is not merely the grasp of a larger field of information, but, also,

the better culture of the mental faculties, whereby knowledge will be more efficiently apprehended, retained, and turned to profit. The tentacula by which it is secured will become more expanded, effective, and polished. Graduates in Arts should, therefore, be able to acquire the profession sooner than others, and upon the belief that such is the case they are granted the benefit of one year off from the four which in other cases must be spent in the study of medicine. And while urging the advantages of the highest preliminary education, permit me to point to the superior opportunities this university affords to those in search of such a gain, and also permit me to add that they are opportunities for which, in a great measure, the Dominion is indebted to our learned Principal, whose successful labours in elevating education among us, and promoting its diffusion in its varied departments, have won for him the gratitude of all by whom they can be appreciated.

Once entered upon the study of medicine act out the note of Lucretius, "a falling drop at last will cave a stone." Avoid the mistake of attempting too much. The celerity that makes the ocean cable or circular saw valuable will kill the student. Impatience is one of the giants he has to war with. The last lecture, the capping day, the start in life, the first fee, all seem so far off that the desire is to draw them nearer, to shorten time, and pile on studies. A forcing system is apt to be instituted. The most jejune compendiums, the most condensed notes are most pondered. Such a plan may help to pass an examination, but it will fail in after life. What is got by it will be like snow,—quickly gathered and quickly melted away. In winter you may not have time for much more, but in summer you have, and then your reading should extend to the best modern authors on important subjects, and your time be largely spent in the hospitals. Your memory is to be the infirmary from the resources of which your patients are to be treated *secundum artem*, and therefore you cannot too richly store its cells. Depend upon it, a year or so more, when this is the object, will not eventually be regretted. In my time it was not unusual to study five years, and when I look across the almost quarter of a century that has lapsed since my five ended I have no regret because they were so many.

Again,

" Like an inverted cone

Wants the proper base to stand upon,"

do not invert the order of your studies. Another error to be shunned is to study the final branches before the primary. It is the loss of method, and that is a cause of imperfection. Even

haste is here no excuse. Though these be the days of electric speed and steam force; yet, in their haste there is method. The telegraph message and river propeller run their course in order. So, whatever be the haste to get through medicine, the student should go, like them, right, straight through his course, in the proper way, without either slip or skip. Get such an acquaintance with the rudiments that they shall be the firm scaffolding or frame of the edifice you are to surround and fill in with all that will complete its structure. Undoubtedly you will have knotty things to master, but be not faint-hearted. What others have accomplished you can achieve. They were just as raw and verdant at the start. But they won the victory in time, by constant application, diligence during lectures, and persevering study. Therefore, "*ni desperandum.*" The same means will as surely carry you through. If "*perge et prospera*" be your watchword you will cross the Alpine ridges of ignorance with a splendid array of forces, and be so able to marshal your army of medical lore as to meet any move on the chess board of disease and accident. Do not drop what is hard but study it the harder. And though but two courses be exacted, fail not to add a third on the branch you feel to be to you as the heel to Achilles.

At your lectures, be punctual, be regular, be constant, be exemplary. It is a bad prognostic to see a young fellow who has paid out his father's money, got, usually, after much toil on the old man's part, instead of reaping the advantages it procures for him, lounging the time about the college premises or sauntering through the streets. I know of no student who was attentive at his lectures, with a fair share of intelligence, that was ever plucked. A chronic system of neglect, however, will inevitably ruin any one. Be diligent in every useful way. At your lectures carry off all the information you can. From the wordy flood poured forth make rivulets on paper from which the brain may drink in afterwards; otherwise the whole will slide over both ears unheeded and uncaught. Often try to recall what you have learned, digest it, sink it deep into your mind, and from time to time hold an assize with yourself as to your proficiency, by constituting yourself both the examiner and the examined.

It is often said of a physician, his popularity is due to his manners. While, then, you are preparing for his position, attend also to their culture. As you would have them by and bye, so you should trim them now. Let the shadow that falls from you upon others be gentle, kind, and genial. Let it not be coarse nor repulsive, for the sick you will have to attend may be of delicate feeling, cultivated taste, and refined minds. Let it leave no remembrance

of vulgarity to wound the tenderest nature. Let it always be humane and sympathizing. Let it not exhibit any kindred with a spirit of vandalism that delights in wanton wrong. Let it not mar its influence by any occasional burst of rowdyism or wild puerile folly. And while the shadow that falls from you has these traits, let it also have a quiet, grave cast. Your manners should cast such a shadow, for the business of the physician is no sport, impending death is no joke, the responsibility of having a man's life in your hands is no farce, the guilt of not having done all you should have done is no trifle.

As nothing is harder to escape than the snares of bad habits, once their coils have been spun, so medical students should not form habits unsuited to practitioners.

In no other profession than the medical is there greater need for a man to be sober. Unless the upper decks be kept clear for action his wits are not fit to meet an engagement. If I could gain the ear of an inebriate who prefers intemperance to reason I would tell him to aim to be almost anything but a drunken doctor; I would tell him that as such sooner or later he will inflict injury, and reduce himself to penury. Who more unfit than him, when muddled or half mad, to rule where every hope lingers upon his words; where bleeding hearts look to him to save a dying mother; where his groggy fingers try to impart news to his maudlin brain or to shake out its behests? Who that could avoid him would have him?

Now for a few words on smoking. I do not say "thou shalt not smoke tobacco," after the authorities of Berne, who caused these words to be written on a tablet of their church; nor will I uphold to your imitation the pattern of Dr. Parr, who, unless asleep or eating, was usually found burning the weed; but I advise those of you who will smoke to do so at the right time and in the right place, and so that it will not enfeeble your energy nor fog your mind. Dissection would be finer if, while being done, the hand were not weakened by the narcotic. The atmosphere of the class-room would be more pure and bracing, more conducive to attention and memory, if it were not soiled with deadening nicotine.

Set a proper estimate on the worth of life. No study can be too great which will enable you to save life or make it more enjoyable. These are the objects of medicine; these are the merits you must affirm you have before you can be enlisted into her ranks. Before you can be graduated you will have to swear "*coram Deo*," that you possess "*omnia ad ægrotorum corporum salutem conducentia*," in other words, that you are masters of the skill and art which com-

duce to the recovery of the sick. What a motive is this to urge upon you to turn your advantages to the best account; to give the full benefit of all the resources science places within your reach to your patient, who looks to you, under the Great Physician, to prolong his days and avert the calamity his death would cause. Be no respecter of patients. Treat all alike. Destitution may mask the noblest front. Some physicians were once consulting over a loathsome looking object on the pallet of an hospital, and when their prescription was given, it was added in Latin, "let the experiment be made upon the vile body." Instantly the mass of woe started from disguise, and in the same tongue remonstrated, "let not that body be called vile for which Christ died."

Think highly of your profession; think of it as honourable and noble, as useful and God-like. Its fields are ripe with opportunities to grace a life of true religion. There are rare chances for being unspotted when gold would tempt to purloin or to pay unnecessary visits, or to needlessly officiate, or to speak falsely. There where there is "a constant interruption of pleasure" self-denial can shine out in full splendor. There may be kindled the flame which will cause your breasts to burn with fellow-feeling, tender pity, and kind compassion. There may be sown broadcast the seeds that will richly store your garners with the praises of benevolence, humanity, and philanthropy. And there can be conferred such acts of charity as may well challenge others to excel them in being more disinterested and less ostentatious.

Be heroes in the strife. Your reputation is not to be won at the cannon's mouth, nor your breast adorned with valor's clasp; but a heroism may glisten in your eye the world's brave heroes never knew. When pestilence causes the eagle eye of the soldier of the forlorn hope to quail, or his lion heart to fail, then, like one of old, you may stand between the living and the dead. Your spirit is not to be fired by the carnage of a nation, nor the wails of the bereaved, nor the triumphs of might over the weak, nor the panegyrics of the press; but, by prospects of recovered health, and happiness, and prosperity, by promptings of conservatism, and by kind concern at human pain.

Let your life be as a sun of wisdom shining out upon the world to which your influence extends; let it be unsullied by a cloud of suspicion against your worth or sincerity; and when the crimson of the sunset sky paints the evening, when you shall no more go forth to work, then, in the night that follows, the bright stars that have treasured up the light of the past will shine forth to welcome you home to "the mountain of myrrh and to the hill of frankincense."

A Case of Fibro Cystic Bronchocele. Removal of the Right Half of the Thyroid Body. By GEORGE E. FENWICK, M.D., Professor of Clinical Surgery, McGill University.

(Read before the Medico-Chirurgical Society of Montreal, October 19, 1872.)

MR. PRESIDENT AND GENTLEMEN,—It has recently been observed that during the last fifty years little or no advance has been made in the treatment of Bronchocele, and when we examine the records of surgery, as well as standard works on that subject, the enquirer cannot but feel disappointment at the small amount of information to be obtained concerning Goitre. It is possible that disease of the thyroid body being, as a general rule, chronic, extending in many cases over years, give rise to slight suffering or deformity, that it has failed to attract that amount of interest amongst surgeons which its importance frequently demands. We may remark that if little has been done towards the treatment of Bronchocele, that considerably less has been done to bring prominently before the profession the various conditions of the thyroid body observed in disease, or to definitely classify those conditions.

If we except a paper published in the London *Lancet*, which was read before the Hunterian Society, last January, by Mr. Morell Mackenzie, the accounts met with in standard surgical works, on the subject of Bronchocele are very meagre.

Sir William Fergusson, in the last edition of his work on Practical Surgery, published two years ago, makes a few general remarks on tumours of the neck, which, he states, are commonly connected with the thyroid gland, so well known under the term Bronchocele, Goitre, Derbyshire Neck, &c., &c.; but there is no attempt at classification. Mr. Erichsen, in the last edition of his excellent treatise on the Science and Art of Surgery, describes four distinct forms of enlargement of the thyroid body: Simple Hypertrophy, Cystic Bronchocele, which may be either single or multiple, Pulsating Bronchocele, and an acute form, in which latter the thyroid body becomes rapidly enlarged, and which, from the non-expansion of the fascia of the neck, presses injuriously on the subjacent parts, thereby threatening death from asphyxia. In Vol. V., Second Edition, Holmes' Surgery, will be found a very elaborate article from the pen of Mr. Holmes Coote, but there is no definite classification.

Mr. Morell Mackenzie divides the subject into seven distinct varieties, which, however, he states are to be regarded as different stages of development of the same disease, "sometimes progressive, sometimes retrograde." He excludes Exophthalmic Goitre, as being a disease of an entirely different nature, and one in which

the goitre forms an unimportant part of a neurosis. The varieties mentioned by Mr. MacKenzie, and which have all come under his observation, are as follows: First, Simple or Adenoid; second, Fibrous; third, Cystic; fourth, Fibro-Cystic; Fifth, Fibro-Nodular; Sixth, Colloid; Seventh, Vascular. This division of the subject is based on the observation of two hundred and eleven cases which have come under the care of Mr. Mackenzie during the past four years. Without in any way calling into question the accuracy of this division, it appears to me that there is here an unnecessary refinement of this subject, which, for practical purposes, is to be regretted, as it is apt to lead the observer into error.

I will not more than allude to the causes of Bronchocele, as the evidence on this head is far from being definite. The causes commonly assigned, as the continuous use of snow water, or of water impregnated with calcareous or earthy matter, is by no means satisfactory. This theory has arisen from the frequency of the occurrence of this disease under such peculiar conditions. Cretinism and Goitre very frequently exist together. They have been observed to prevail in deep valleys, where the sun shines only during a part of the natural day. The condition of the air is unhealthy from stagnation, and the soil is damp and unproductive, added to which, the population are poor, and are further deteriorated by frequent intermarriage. Under such conditions we can alone expect to see humanity in its worst form; nor need the observer feel surprised at meeting a race physically and mentally degenerate. It is a matter of observation that cases of goitre and idiocy in the young have greatly improved in body and mind by removal to a more healthy locality.

In the simple variety of Bronchocele there is an increase of the normal gland structure; it, however, has a tendency to undergo change, more especially if the disease is left to itself. This change, according to Mackenzie, consists in the deposition of fibrous tissue. This fibrous growth may be partial or general, and in some instances cysts are developed. The contents of these cysts are generally clear, limpid serum; in other instances the fluid is dark and grumous, loaded with cholesterine, fat globules, and blood corpuscles. Speaking from the experience I have had, which is limited, in all the cases that I have tapped, the fluid was of the character of a specimen which was removed from a Cystic Bronchocele in the case of a man who was under treatment at our hospital, and in which my colleague, Dr. D. C. MacCallum, removed some z^{xxvi} . of fluid.

With regard to treatment in simple Goitre, iodine appears

to be a specific in the endemic variety. In sporadic cases it is frequently unavailing. In weak anæmic subjects, iron, in some form, should be given, and proper hygienic means resorted to. Counter irritation is highly spoken of, and in some cases beneficial; but in some exceptional instances it has appeared to aggravate the malady. Tr. Iodine, both simple and compound, and the Iodide of Lead have been used with benefit. In India a common practice, and one said to be never-failing, is the application of the Bin-Iodide of mercury ointment, exposing the part, after its application to the direct rays of the sun. Electrolysis has also proved of service. In the other varieties of this disease Iodine appears to exert no influence when externally applied, nor is it of any benefit when given internally. Various methods have been tried for the relief of the malady in this form: incisions into the structure of the tumour, the use of the seton, tapping cysts when they exist, and injecting them with Iodine, Perchloride of Iron, or any other irritant.

Mr. Mackenzie states, in regard to Fibrous Bronchocele, that it varies in size from that of a fist to that of a child's head; it is firm, dense, smooth, unyielding, and is apt to change its condition, becoming fibro-cystic, though the tumour remains stationary for years, but may at any time, and from no apparent cause, assume an active disposition. It attacks either lobe, the isthmus, or the whole gland simultaneously. As a rule, it does not create much disturbance of the general health, except from pressure on the trachea; and in one form of this variety, called Suffocative Goitre, the lateral lobes of the thyroid body appear to grasp the trachea so that the calibre of that canal has been found, after death, very considerably diminished; enlargement of the lateral lobes has also, in some instances, so pressed upon the trachea and œsophagus as to interfere, not only with the act of breathing, but with that of swallowing; and one case is mentioned in which the jugular vein was so pressed upon as to occasion distressing congestion of the head.

These facts all point to the necessity of early interference in such cases; not to allow the disease to assume such a size, and to form such extensive connections as that treatment can only be of a palliative nature. Hitherto setons have formed the principal means used by the surgeon; their insertion is not unattended with danger. Cases are mentioned where death has occurred from hæmorrhage; and in one instance reported, the patient died during the operation of passing the seton, from air getting into a large vein which had been opened.

The question of removal with the knife of the entire mass, or a

large portion of the mass, has engaged the attention of surgeons, and I think that if the subject is fully and carefully considered, this operation will not be decried as inadmissible in modern surgery. It is as well to consider that the thyroid gland is a vascular body without ducts, situated in the vicinity of the great vessels and nerves in the front of the neck, being itself supplied by four and sometimes five arteries of considerable size and free anastomosis, and having in front of it a plexus of veins terminating in three large vessels which open into the internal jugular, and vena innominata. This hurried description of the anatomy of this body will convey some idea of the difficulties to be encountered in an attempt at removal; but although the risk to the life of the patient is so great when the disease has assumed large proportions, yet I am of opinion that it would be greatly lessened were surgeons to decide on early removal. Bear in mind that it is not in every case of enlarged thyroid that I would counsel early removal, but in those fibroid masses which are unaffected by sorbifacients, whose tendency is to steadily increase and sometimes take on that acute form of rapid enlargement, whereby the patient's life is jeopardised. Again, in cystic disease of the thyroid I do not think there is advantage in removal of the mass, because other methods of treatment are open which are equally efficacious and far less hazardous.

Mr. Mackenzie recommends tapping the cyst and injecting it with the Perchloride of Iron, and his results are very encouraging; but although in true cystic goitre the success of his treatment has been unparalleled, yet in cases of large fibroid masses he has failed, except partially, in giving relief.

These remarks are introductory to a case which came under my notice during the past summer, and in which I removed the greater part of the thyroid body. I am indebted to the Clinical clerk, Mr. Hockridge, for the notes of the case, which are as follows:

Marie M., aged 21 years, a French Canadian, was admitted into the Montreal General Hospital on the 23d May, 1872, with an enormous fibro-cystic tumour of the thyroid body. She is a robust, healthy looking young woman, and is the second child of a family of twelve. The tumour commenced to grow when she was three years of age, and attained its present size when she was about seventeen, since which time she says it has appeared to remain stationary. It consists of three lobes, a huge central mass, and two lateral, measuring $17\frac{1}{2}$ inches in circumference. There is considerable pulsation of the arteries, evidently communicated by the carotids, and the veins look large and tortuous. The lobes

feel perfectly distinct, are very heavy, weighing, apparently, several pounds, and the whole mass is raised in the act of swallowing. When seen by Dr. Fenwick he stated that the removal of the tumour by operation might be accomplished, but at great risk of the life of the patient. On the 29th May the central mass was tapped with a small trochar, and about $\frac{5}{8}$ ij of bloody serum was drawn off. The cyst was then injected with $\frac{3}{4}$ iv of Tinct. Iodine, two other punctures were made at points which felt like cysts, and but a small quantity of fluid of the same character removed, and about $\frac{3}{4}$ i of Iodine injected into each. In a few days the patient had recovered from the effects of an attack of iodism, consequent on the injection, and she left the hospital. As, however, the patient suffered from increased difficulty in breathing, she returned to the hospital on the 7th June, and a consultation of the hospital staff was summoned for the following day. The patient declared her determination of submitting to the operation, as she said that her life, under existing circumstances, was a burthen to her. The patient was removed to the operating theatre and placed under the influence of chloroform, and Dr. Fenwick, assisted by Drs. Fraser, Howard, Reddy, and the House Surgeon, Dr. Roddick, proceeded to the removal of the mass.

The method adopted in the performance of the operation was that recommended by Professor Green, of Portland. The incision was made in the median line, extending the whole length of the tumour to the upper part of the sternum, getting down at once to the tumour, and dividing what Green terms its "fascia propria." There was no difficulty then in enucleating the mass; it was rapidly turned out with the finger, the dissection being carried outwards. In getting to the posterior edge the veins appeared large in size, being spread out and at the same time incorporated in the mass of the tumour. It was at this point that the difficulty arose, in continuing the dissection with the finger backwards, the veins seemed to tear like paper, and the effusion of blood was sudden and enormous in quantity. This, however, was controlled after some difficulty, and ligatures applied. The superior and inferior thyroid arteries which appeared small were ligated; the mass was found to extend in the interspace between the trachea and œsophagus, and the latter was exposed for about three inches of its extent. Coming to the pedicle, which appeared adherent to the side of the trachea, and which was about the size of two fingers, it was decided to cast a ligature around it and remove with the knife the tumour. This being done no further hæmorrhage occurred. The edges of the wound were brought together by eight interrupted sutures and the patient removed to bed. The tumour was nodulated,

composed of three distinct masses, the central one of which, when cut into, consisted of a cyst which held about six ounces of fluid. Before opening the cyst the tumour was found to weigh 2 lbs. 14 oz., and consisted almost entirely of hypertrophied gland structure intermixed with fibroid tissue. An hour after the operation, the report states, the pulse was 90, regular, but weak. The girl complained of great thirst; brandy and water with beef essence had been ordered, but was rejected, there being considerable irritability of the stomach. Iced champagne was substituted for the brandy.

Six o'clock in the evening the patient still very weak. The pulse had risen to 120, was weak and flickering. An enema of beef tea, $\bar{3}$ ij, with brandy, $\bar{5}$ ss, was ordered to be repeated every half hour. The champagne was retained, and was agreeing well with the patient. Towards midnight the pulse rose to about 150, as did likewise the temperature of the body, which went up to 106°. As she seemed restless and uncomfortable, with no inclination to sleep, half a drachm of Tr. Opii was given in camphor water. This had the desired effect of allaying the restlessness which existed, and she slept between the intervals of administering the nourishment and stimulants. The tendency to vomit was also arrested, so that on the following morning she had very much rallied from that alarming state of prostration which had followed the operation. From this time she made a rapid recovery. Considerable suppuration followed, the wound filling up and closing by granulation. The ligatures separated and came away; three on the 20th June, the twelfth day, three more on the day following, and the last ligature separated on the 14th July, being the thirty-sixth day after the operation. Slight secondary hæmorrhage followed the separation of the ligatures, but was easily controlled. The wound had entirely closed by the 29th July, on which day the patient left the hospital.

With regard to the operation itself I feel convinced of its feasibility, but would remark that if called upon to perform a similar operation I should proceed somewhat differently, as I think it would be better to separate the mass first from its central attachment, dissecting beneath the tumour from the median line, by which means the operator would arrive at the origin of its vascular supply and thus avoid much of the effusion of blood which, to a certain extent, is unavoidable.

I cannot do better than conclude this paper with a note of warning given by Professor W. Warren Green, of Portland, Maine, to be found in the January (1871) number of the *American Journal of Medical Science*: "If it is beyond all question determined, in any

“ given case, that such an operation gives the only chance for
 “ snatching a fellow-being from an untimely grave, be it remem-
 “ bered that an accurate anatomical knowledge, and a perfect self-
 “ control under the most trying ordeal through which a surgeon
 “ can pass, are indispensable to its best performance.

To the Editor of the CANADA MEDICAL AND SURGICAL JOURNAL.

DEAR SIR,

During a recent holiday trip to the other side of the Atlantic, I took the opportunity of visiting a few of the larger hospitals of London, and the renowned Edinburgh Infirmary, taking a few imperfect notes of what I witnessed in the treatment of disease, which, with your permission, I beg to submit to the readers of your valuable journal, with the hope that they may not be uninteresting to them, but especially to those who have never travelled even so far.

Soon after my arrival in Edinburgh I found my way to the Infirmary, where I was cordially received by Mr. Meredith, Dr. Watson's House Surgeon, who pointed out to me all the cases of interest, medical and surgical, and through whom I had the opportunity of studying Mr. Lister's Antiseptic treatment in its purity, and I certainly was favourably impressed with what I saw.

Mr. Lister, as many of your readers doubtless know, at present uses almost nothing but the carbolic gauze, and the one to forty watery solutions, either in spray or as lotion. The gauze is prepared in immense quantities by an Edinburgh apothecary, with resin, but in what manner, or in what proportions, I could not ascertain, nor do I think it is known outside of his laboratory. It has a faint odour of the acid, but on digesting a small piece in water the latter rapidly becomes impregnated and the acid taste is soon apparent. Mr. Lister performs all his operations, even to a simple incision, under “Carbolic Spray,” generated either from a mammoth Richardson's syringe, worked with the foot, or an apparatus on the same principle, having a handle, &c., resembling the ordinary, air-pump. All dressings, likewise, are applied under the spray, so that the atmosphere surrounding the part is constantly charged with the antiseptic. He applies the gauze, on all occasions, in the manner of eight folds, placing between the seventh and eighth a piece of carbolized oil silk of equal size with the folds, and securing the whole with a gauze bandage. The oil silk prevents the discharges from appearing on the outside and becoming decomposed. I was asked to examine a large portion of dressing from the opening in a case of empyæma, that had been on for two days,

and which was saturated with pus, but I positively failed to distinguish any odour excepting that of the acid. I had almost forgotten to mention that the gauze is applied in a perfectly dry state.

Among the other cases treated by Mr. Lister I was shown one of varicose veins, in which he had injected a strong solution of carbolic acid with marvellous results. A very fine cast of the limb had recently been taken, which showed all the veins standing out prominently, by reason of the firm coagulation that had taken place. I regret that I should have forgotten the strength of the fluid injected, but I am inclined to think it was about one to ten of the watery solution. Mr. Lister washes the walls of all his wards with a preparation of carbolic acid, and whether that is the cause, or whether it is owing to the quantities used in the dressing, certain I am that they have a remarkably sweet odour, so to express it, which is still more noticeable from the number of surgical cases they contain.

The Infirmary itself is a very dingy, antiquated structure, occupying a large area, and appearing, from its general surroundings, more like a prison or house of correction than an hospital. It seems to lack entirely that bright, cheerful character which is so much to be sought for in institutions of this kind. A new Infirmary has, I understood, long been talked of, and is now in process of erection, as the site is secured and the foundation laid, but for want of funds the directors are compelled to postpone operations for the present.

Soon after my arrival in London I fell in with Dr. Brosseau of this city, who kindly piloted me through that mighty metropolis to the various hospitals and other places of interest. He purposes spending some months between London and Paris, in the pursuit, chiefly, of surgical knowledge. I also met Dr. Osler, one of this year's graduates of our McGill University, who is walking the hospitals and preparing to take the Royal College of Surgeons degree. I heard of three or four other McGill men but failed to see them. I have no doubt they will all give a good account of themselves when the occasion serves, and continue to reflect credit on their *alma mater*.

At Guy's Hospital I was fortunate, on one occasion, in witnessing two operations performed by the celebrated surgeon Mr. Bryant; one, amputation of the lower third of the thigh; the other, excision of the hip joint. The first case was diagnosed one of osteoarthritis, but on opening the knee-joint with the hope of excising, the soft parts were found extensively diseased, consequently the limb was amputated. Mr. Bryant pointed out a remarkably dark,

pulpy condition of the synovial membrane covering the tibia which he had seldom seen so well marked, but which was the best indication of malignant disease. The stump was dressed simply with dry lint, enveloped in cotton wool, and the whole supported on a broad wooden splint. There was nothing remarkable in the excision of the hip, excepting that the wound was not closed in any part, but, on the contrary, stuffed from the bottom with wet lint, so as to cause granulations towards the surface. Mr. Bryant advocates early excision in these cases, and I was led to believe that this opinion was rapidly gaining ground among the London men. It is certainly more reasonable to think that excision, of all other operations, would be more successful where the patient is in comparatively good health than where he is run down by long-continued suppuration, producing amyloid disease and innumerable other troubles.

Moorfield's Ophthalmic Hospital interested me not a little. I was most fortunate in my visit here. The surgeons in attendance were Mr. Lawson and Mr. Cooper, each performing four or five operations, with a description of some of which I would like to occupy a few moments, especially as they were in many respects remarkable.

First.—Case of double Congenital Cataract in a child of three years. Mr. Lawson introduced a needle, and after a very rough handling of the lens succeeded in breaking it up, but the tough capsule still remaining as a foreign body, and resting against the iris where it was certain to produce more or less mischief, he determined on removing it, which he did by simply making an incision with a broad needle in the cornea, just at the margin of the pupil. This, he stated, had lately been his invariable practice where the capsule was likely to act so much the part of a foreign body. The other eye he left untouched for the present.

Second.—Case of aggravated Glaucoma under the same surgeon. He made the usual incision for an iridectomy, but could not by any manœuvre draw out the iris on account of its brittle character, failing which he enlarged his incision and extracted the lens.

Third.—A man who presented himself also to Mr. Lawson, on whose right eye the latter had some month previously performed keratonyxis, but several bands of capsular matter still remained. Mr. Lawson introduced a "stop" needle at one side of the cornea, but failing to sever the obstruction he entered a needle at the opposite side, and by crossing the points, in a second the pupil was free and the man saw clearly. Although apparently nothing in itself, this little dodge might, I think, often be resorted to, not

only in similar cases but where the needle operation is made difficult by a tough capsule.

Fourth.—Case under Mr. Cooper of double Congenital Cataract in a child, resembling, in every particular, the one first described. Mr. Cooper here also used the needle, but failed to make the slightest impression on the capsule, after using what appeared to me almost unwarrantable force. He withdrew the needle, closed that eye, and proceeded immediately to extract in the other, leaving the aqueous humour to accumulate in the first, and there also extract subsequently.

Fifth.—Under Mr. Lawson a case of foreign body, thought to be a particle of iron, lodged in the eye, having entered at the corneal margin, producing traumatic cataract and considerable irritation. Mr. Lawson, in remarking on the case, stated that if he failed to find the foreign body during the operation for extraction which he was about to perform, he would, at the same sitting, remove the entire eye-ball in order to anticipate further destructive action and consequent ill effects to the other organ which would be inevitable. The man being prepared for the sacrifice, the operation, by Graefe's plan, was proceeded with, and on introducing the knife it grated on the foreign body, and when the lens was removed it was found embedded near its margin. The result, of course, was most gratifying, and the lesson taught could not easily be forgotten. The plan spoken of respecting the removal of the eyeball, in cases where the foreign body cannot be discovered, is the one almost invariably adopted by the surgeons of Moorfield's.

In the other operations witnessed there was nothing to note. To my great surprise I found them using ether in fifty per cent. of the operations in this hospital, but I learned that the innovation was of very recent date, and could be attributed to a visit of Dr. Jeffreys, of Boston. They give it very rapidly "choking off" the patient, as the Yankees term it.

Mr. Bader, Ophthalmic Surgeon of Guy's Hospital, was unfortunate in having a death from chloroform during one of his operations, while I was in London. I was horrified at the careless manner in which chloroform is administered at many of the London hospitals, although at Guy's they are certainly a little careful. In many places it is thrown in alarming quantities on an ordinary linen rag and administered without any attention being paid to the pulse and very little to the respiration.

At St. George's Hospital I made the acquaintance of Mr. Brodhurst, the Orthopædic Surgeon, who took some trouble to show me his many cases of deformity of every imaginable part and in all stages. I was very much interested in his apparatus for the

treatment of spinal curvature. It is most ingenious, though rather complicated, and could not readily be understood from an ordinary description. I would recommend those who are interested in this important branch to invest in Mr. Brodhurst's book, of which a second edition is now in press. It is an excellent treatise on the subject, and, indeed, well worthy of perusal by all. I noticed that all the hip-joint cases, in the early stage, were treated with the extension by weight and pulley, but applied in the simplest manner, without any long side-splint, and, indeed, in many cases without a bandage, the straps of soap plaster being kept in position by a strip or two of adhesive plaster encircling the leg. The child may sit up in bed and amuse itself so long as the weight is doing its work. I found that in London the use of the tenotome in hip-joint disease is a thing of the past, if, indeed, it ever found much favor there.

St. Thomas's is certainly the Prince of Hospitals. I was sorry to learn that the finances of this noble charity are already in a straitened condition, so much so that the managers have been obliged to close two of the buildings. The city corporation taxes alone of this hospital amount to the fabulous sum of three thousand pounds per annum, but there is, I believe, a law-suit at present pending between the two bodies on this very point. The opinion current is that the hospital is altogether too extravagant and can never be supported so as to work it satisfactorily. I was here introduced to Mr. Sydney Jones, one of the Assistant-Surgeons, and of whom I came to think a very great deal as a surgeon and a teacher. I saw in the wards then under his care some ten or twelve hip and knee-joint excisions in various stages of cure. Some of them were certainly most admirable results. He uses for the knee cases the ordinary gutter splint, with a moveable portion opposite the joint to facilitate the dressings, and the hip excisions are put on a side splint having a bracket opposite the joint for the purposes of dressing likewise. A few of the hip cases, I found, had been operated on late in the disease, and the result, of course, was not at all satisfactory. One child was dying from extensive gangrene following excision performed two days previously. The urine was tested in my presence and found to contain a large percentage of albumen, which would, no doubt, account for the unfortunate occurrence.

Among the Canadians and Americans in London St. Thomas's seems to be the favorite hospital, as I met here some eight or ten from both sides of the line. The Canadians were, with one exception, from Ontario.

At St. Bartholemew's I saw Savory and Holden operate, but both the cases were trivial—the one being a cystic tumour in Scarpa's space, the other a fatty tumour on the outside of the thigh. I was much impressed with Savory's appearance and manner as an operator, and the few remarks he made on his case were pithy and easy of comprehension by the merest beginner. Savory has the reputation of being the stiffest examiner in the Royal College of Surgeons, but this peculiarity seems to increase rather than lessen his popularity among the students, on the principle, I suppose, that conciliation is better than force.

Charing Cross and King's College are among the smallest of the metropolitan hospitals. The latter is situated in a densely crowded locality near Lincoln's-in-Fields, and in its immediate neighbourhood is a public market, a condition of things, I should say, very detrimental to surgical cases. In fact, they were just recovering from an outbreak of hospital gangrene which had taken off some of Sir William Fergusson's pet cases. The hospital, however, is admirably equipped, and the nursing is done by the Sisters of St. John's House, an institution now becoming well known for the training of nurses.

The Brompton Hospital for Consumption is well worth seeing more on account of its admirable construction than from anything to be learnt from the cases. It is a large brick building, constructed, in shape, like the letter H, with spacious grounds for the use of the patients, and is heated and ventilated in the most approved manner. I could learn here nothing new, either in theory or practice, respecting phthisis. Imagine two thousand gallons of Cod Liver Oil consumed under one roof in a year. I was startled when this fact was communicated to me by the amiable House Physician who showed me through. I doubt not too much of this good thing may do harm, or Brompton stomachs must be stronger than I have been accustomed to meet under similar circumstances. Lead, Turpentine, and Gallic Acid are the sheet-anchors in hæmoptysis. Although they were beginning to use Ergotine hypodermically with moderate success, they do not depend on the latter remedy in severe cases.

Now, in conclusion, allow me again to impress on the student of medicine the advantages to be derived from a visit to London, the great surgical centre where, according to the elder Stromeyer, live the best surgeons in the universe. Besides, the facilities for comfortable and cheap travel afforded by our excellent Allan's line of steamships is another inducement which, I hope, will be taken ample advantage of by all desirous of so extending their professional knowledge.

With many sincere wishes for the success of your admirable journal, believe me,

Yours sincerely,

T. G. RODDICK, M. D.,

House Surgeon, Montreal General Hospital.

MONTREAL, 12th October, 1872.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Chronic Eczema of the Extremities treated by Local Applications of Potassa Fusa, in Combination with Alteratives Internally. Under the care of DR. MACCALLUM. Reported by Mr. D. A. CARMICHAEL.

O. S., aged 42 years, American, unmarried, a robust looking man, was admitted to the Montreal General Hospital, April 20th, 1872, suffering from a troublesome eruption which was pronounced to be Eczema.

History.—About ten years ago the eruption first appeared on the legs, and in a short time extended over the whole of the upper and lower extremities. He went under treatment at the time, from which he derived much benefit, the eruption entirely disappearing. Continued well for a number of years, when the eruption again made its appearance, consequently worse in character, and in October, 1871, he again sought medical advice, but without any good result following; and in the following April of the same year he was admitted to the Montreal General Hospital, where he remained for a period of four months, when he was discharged cured. Continued well from that time up to date of admission. The second time he remained in hospital for some months, the eruption obstinately resisting treatment, sometimes disappearing temporarily from one part to grow worse in others.

July 3d.—*Present Condition.*—The eruption extends over both upper and lower extremities, consisting of vesicles in some parts and crusts in others, set on a red and slightly inflamed base, and the itching of the eruption being very intense in character. Its principal site is the inner surface of both upper and lower extremities; but very few vesicles or crusts being seen on the external or posterior aspect of the limbs, though on the legs it was pretty

evenly distributed, and in some parts where the eruption had disappeared the skin was thickened and indented, and presented an appearance much like elephantiasis. There were fissures at various parts in this indurated skin, from which a thin fluid distilled, and the whole was intensely itchy. General health seems good, and his appearance indicates a robust constitution.

Ordered Potassa Caustica, grs. v.; Aquæ, ℥j.; to be brushed lightly over the eruption once daily. Also, was ordered to be taken the following mixture :

℞ Hydrarg Bichlor, grs. iv.
 Liq. Arsenic, mxv.
 Acid Hydrochlor dil., ℥jss.
 Aquæ ad., ℥viii.
 M., ℥ss., ter die.

He was placed on milk diet, which afterwards was increased to full diet. The treatment was continued during the remainder of his stay in hospital, the Solution of Caustic Potassa being gradually increased in strength from five grains to twenty grains to the ounce of water. The constitutional treatment was steadily persevered in, and in a short time improvement was noticed, the eruption becoming paler in color, less intense itching, and fewer vesicles or crusts being formed. The hypertrophied condition of the cellular tissue gradually disappeared, and the integuments were restored to their natural healthy appearance.

On the 1st of August he was discharged from the hospital cured.

Phlegmasia Dolens. Under the care of DR. MACCALLUM. Reported by Mr. W. R. BIGELOW.

A. S., aged 32 years, a native of Bristol, England, was admitted to the English Hospital on July 23d, 1872, suffering with Phlegmasia Dolens.

History.—Was born in Bristol, England; been in Canada ten months; parents living; married thirteen years and had seven children; no previous trouble in confinement; was confined in July, 1871, at Point St. Charles, and delivered of a seven months child; cross presentation; had rheumatic fever one month before last confinement; on July 10th, noticed a hard, white, painful swelling which, commencing with the feet, gradually extended to the thigh; Dr. Rodger applied four leeches to the calf of leg.

Upon entering the hospital the left leg of the patient presented a hard, swollen appearance, but with no tension of femoral vein; the pain was intense and continuous; diffuse chloasma of forehead and thoracic region. The leg was enveloped in bran.

July 24th.—Patient placed under care of Dr. McCallum, who ordered one limb to be enveloped with cotton wool and covered with rubber cloth, and prescribed the following mixture :

R Liq. Am. Acet., ʒiij.
 Liq. Opii. Sed., ʒj.
 Aq. ad., ʒvj.

A tablespoonful to be taken every fourth hour. Milk diet.

July 25th.—Patient doing well ; leg dressed in cotton wool and wrapped in a rubber sheet.

July 26th.—Same ; profuse perspiration of affected limb.

July 27th.—Changed bandage and elevated limb.

July 28th.—Manifest improvement ; swelling greatly diminished.

July 29th.—Former prescription abandoned and the following substituted :

Quin. Sulph., grs. j. }
 Liq. Opii. Sed., mx. } ter die.
 M.

Chloasma disappearing.

July 30th.—General improvement ; patient allowed one pint of beer.

July 31st.—Leg of nearly normal size.

August 1st.—Limb re-bandaged in flannel ; cotton wool.

Extensive Tuberculization of Lungs. A Well Marked Tympanitic Note in Percussion over Left Lung the Day Previous to Death. No Perforation of Lung Discovered at Post Mortem Examination. Under the care of DR. MACCALLUM. Reported by Mr. W. EWING.

E. C., aged 19 years, admitted into the Montreal General Hospital, 27th June, 1872, complaining of a cough. She had never been troubled with it until February last, when she contracted a cold from exposure after being in a warm room. When first attacked she had a chill which continued to the time of her entering the hospital. After the first attack she gradually became worse until the 1st of April, being obliged then to remain in bed. When she entered the hospital she was troubled with night sweats and continual coughing at night. No diarrhoea attended these symptoms. Her mother, brother, and aunt died of phthisis.

Physical Signs.—Depression of the chest, (chiefly on the right side) ; prominent clavicles and depressed supra and infra-clavicular spaces. On percussion, well marked dullness was found over the greater part of both lungs. Auscultation discovered inter-

mediate bubbling rales in the right lung, accompanied by well marked pectoriloquy.

The patient was put under the following treatment: Quin. Sul., grs. ii., ter die., and Cod Liver Oil.

Continuing to grow worse. Another examination was made. In both lungs were found bubbling rales and well marked dullness on percussion. Vomiting set in, which was checked by Bismuth Tris. Nit., ζ i., in six powders; one every four hours. Claret was given, but Port Wine was substituted. Senegæ Ext. Fld., ζ ii. Ammoniaë Carb., grs. xxxvi. Aquæ ad., ζ vi. ζ ss. every 4 hours was also given. From an inflammatory condition of the mucous membrane of the throat she could not take food, but beef juice and brandy were injected per rectum; very little, however, was retained.

The most peculiar feature of the case occurred on the morning before her death, (July 28th). A highly tympanitic note was heard on percussion over the axillary, infra-axillary and mammary regions of the left side.

At the post mortem examination both lungs were found to fill the cavity of the chest; there was no effusion of fluid into the pleural sac; on close examination no perforation could be discovered; there was slight adhesion of the apex of the left lung; a large amount of yellow serum was found in the pericardium; no signs of recent inflammatory action were found; both lungs were highly congested and thickly studded with tubercle; there was no signs of pleurisy; the pleural cavity contained no air from perforation; cavities were found in both lungs; all the other viscera were normal, with the exception of the liver, which was slightly enlarged.

Proceedings of Societies.

ANNUAL MEETING OF THE MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Meeting held October 5th, 1872.

The Second Annual Meeting of the Medico-Chirurgical Society was held on the evening of Saturday, October 5th, some twenty-five of the members being present.

The meeting being opened the President, Dr. Peltier, read a short *résumé* of the work done during the year, naming, *seriatim*, the papers read, and by whom. They are as follows: Dr. Kennedy,

case of Brain Laceration; Dr. Howard on Thoracic Aneurism; Dr. Sewell on Abdominal Aneurism; Dr. Fenwick on Ligation of Anterior Interosseous Artery; Dr. Girdwood, case of Supposed Criminal Abortion; Dr. David on Locomotor Ataxy; Dr. Hingston on Re-Vaccination; Dr. Reddy, case of Embolism of Middle Cerebral Artery; Dr. Trenholme, Irregular or Spasmodic Contraction of the Uterus; Dr. Drake, case of Erratic Erysipelas; Dr. Fenwick, case of Recurrent Fibroid; Dr. Gardner, Cerebro-Spinal Meningitis; Dr. Howard, cases of Cerebro-Spinal Meningitis; Dr. Reddy, cases of Cerebro-Spinal Meningitis.

The Treasurer submitted a report showing a healthy financial condition of the Society.

The election of officers for the ensuing year was then proceeded with, and resulted as follows:

President, - - - - - Dr. R. P. HOWARD.
First Vice-President, - - - - - Dr. ROBERT CRAIK.
Second Vice-President, - - - - - Dr. JOHN REDDY.
Secretary-Treasurer, re-elected, Dr. T. G. RODDICK.

Council:

Drs. FENWICK, GODFREY, and SCHMIDT.

A resolution tendering the thanks of the Society to the retiring officers being carried, the meeting adjourned.

MEETING HELD OCTOBER 19TH, 1872.

This evening was held the regular meeting of the Society, in their rooms, University street, the President, R. P. Howard, M.D., in the chair.

After preliminary business had been transacted the President addressed the meeting as follows:

GENTLEMEN,—It is quite unexpectedly that I find myself placed in the honourable position of President of this Society, and as it was not sought by me, I conclude that the vote of this Society must be regarded as an evidence of its intention to adopt military usage and grant promotion to its members upon the ground of seniority rather than of merit. I own that it is not as pleasing a reflection now as it would have appeared twenty years ago, when one often wished to look a little older. It is, however, another illustration of the truth that anticipation is often more pleasurable than realization. I don't know how other of the senior members of the Society may have felt, but I confess to the *weakness* hav-

ing now and then assailed me of wishing to be again young, and to be, like many present, just beginning my career in medicine. I may be wrong in my previsions, but judging from the history of the last twenty-five years, the opportunities and advantages to be enjoyed by medical students during the coming quarter of a century will place them far beyond our present highest standpoint. Reflecting that within the time that has elapsed since my student days, the department of Diagnosis has been enriched by the Ophthalmoscope, the Laryngoscope, and the Thermometer, instruments of so much practical value that one wonders what we should now do without them. Reflecting that the domain of Pathology has been extended and illumined by the remarkable facts connected with the rôle of the vaso motor nerves in many morbid processes; by the demonstration and elucidation of the process of embolism, and its many important relations to local and general disease; of the process of the migration of leucocytes, and its relation to inflammation, and even to normal and abnormal nutrition; and of the subject of the inoculation of tubercle in animals, and the new lines of research suggested thereby as to the origin and nature of consumption. Reflecting that it has been further illumined by the propounding, if not proving of the doctrines of the local infection of cancer and tubercle, and even of all inflammatory products; of the local origin of malignant growths; of the dependence of so-called pyæmia upon the presence of either material or septic agents in the blood; of the intimate relation existing between pyrexia and the consumption of tissue and disturbed nervous control; and by the more accurate and philosophic views of the nature of such processes as inflammation, elimination, degeneration: and of the nature and pathology of such diseases as epilepsy, asthma, neuralgia, insanity, paralysis, cerebral softening, and heat exhaustion; and that it has been further extended by the description of several important diseases that had been previously overlooked or misinterpreted, as leucocythemia, Addison's and Hodgkin's disease, cerebro-spinal fever, locomotor ataxia, trichinosis, visceral syphilis, the several affections of accommodation of the eye, astigmatism, and the various diseases of the retina and of the optic nerve. Reflecting that the department of Therapeutics has been improved by the introduction of many new agents, amongst which may be mentioned chloroform, bromide of potassium, sumbul, chloral, carbolic acid, atropia, and Calabar bean; but more especially by the ascertained value of electricity in many forms of paralysis and neuralgia, of bromide of potassium in epilepsy and some forms of insomnia, of large doses of iodide of potassium in tertiary syphilis and lupus, of chloral in tetanus, of the cold bath

in hyperpyrexia, of opium and rest in inflammatory affections generally, and secondary to none in importance, by the practice of the hypodermic method of administering drugs. Reflecting upon these marks of progress, witnessed by myself, I feel safe in asserting that the student of twenty-five years hence will occupy a position of advantage over us that we can now form no reliable estimate of. And I have made no allusion to the remarkable advances that have been made in Chemistry and Physiology during that period, and have passed over the wonderful improvements in Surgery: which embrace amongst other things, those triumphs of Conservative Surgery now familiar to us in excision of joints, in extirpation of ovarian and other tumors, in the cure of aneurism by compression instrumental and digital, by flexion and galvanism, in the revival of the distal operation for aneurism of the subclavian and innominate artery, in the ingenious and successful application of distal compression for aneurism of the mesenteric and iliac arteries, and even the abdominal aorta of itself; in the substitution of lithotrity for lithotomy in adults; in the performance of iridectomy for many eye diseases. And not only these conservative feats, but many others of a different nature, perhaps not so brilliant, but quite as useful; such as the application of the weight and continuous elastic extension in the treatment of fractures and diseases of the joints; in the reductions of dislocations by the so-called rotatory or manipulating methods; the setting of fractures with plaster, starch, gum, and other immoveable materials; the employment of carbolized and catgut ligatures, and the resulting immediate healing of wounds without suppuration; accupressure and torsion of bleeding vessels; the galvanic cautery in the cure of fistulae, *noevi*, etc. But enough of this.

One of the most important uses of such a Society as ours appears to be to be that it tends, or should tend, to prevent those of us who are solely engaged in general practice from becoming careless observers and mere routinists. There is much temptation to this induced by the constant wear and tear of general practice, and a regular attendance upon, and interest in the meetings of this Society would, I think, induce habits of reflection upon one's daily experience, and result in closer observation and better appreciation of the facts transpiring in our practice. We should also be more or less stimulated to contribute our respective mites to the treasury of medical knowledge, and great good would result to ourselves and probably to the "Ars Medica." As members of the medical profession in this, the largest Canadian city, we owe it to ourselves and to the profession to cultivate, carefully

and industriously, the extensive field of observation we possess. It is time that, at least the *nucleus* of a Canadian school in medicine should be formed, and that the doings and sayings of Canadians should be respectfully spoken of and acknowledged in other lands. This Society may do something towards bringing about so desirable an object, and with your permission I will suggest some points that have occurred to me in this connexion: That the members of the Society should make it a *rule* to take accurate notes of important or unusual cases *while under observation*. That during the prevalence of epidemic disease they should, as far as possible, keep *tabulated* records of the cases of such disease coming under their observation, paying special attention to the origin, severity, duration, and mode of treatment of such cases. That the younger members, enjoying more leisure than their seniors, should always have under close observation, and should record, from day to day, the facts of one or more examples of some common disease, employing, in their investigation, the thermometer and the microscope, and analyzing the urine, with a view of reporting to the Society such case or cases when of sufficient interest; and especially for the purpose of accumulating accurate and complete observations of disease. Few reports of cases are complete and exhaustive, and it requires not only a well improved mind but habits of observation which can only be acquired by diligent self-training, to see and apprehend all the facts of any case. The reading of a *well reported* case of any disease, however commonplace, without any original comment or reflection, ought to be gratefully received by this Society, and its author would merit its thanks. Half a dozen such reports upon any one disease would certainly add something to our knowledge of it. I may remind, if not inform, the younger men that they enjoy opportunities of seeing many more cases of epidemic disease, and even of some local affections, than they may when they shall have been ten or twenty years in practice. The poor of the community are the most numerous class, and for that reason, if no other, the larger proportion of persons attacked during an epidemic belong to that class and it is the class in which you must find your chief employment at the beginning of your career. You will frequently see two or three cases of small-pox, cerebro-spinal fever, and even of inflammation of the lungs or dysentery, for one seen by the older men. If you make it a practice to take careful notes of your cases you will be in a position to contribute some of the most valuable papers to the Society, while earning a reputation that must bring its material reward by-and-by. The older members should now and then "take

stock" of their experience, and carefully analyze the results of their trials of certain drugs or certain modes of treatment, and should take pains to note, carefully, the many cases of unusual interest which their enlarged opportunities bring before them. It would be interesting, as well as instructive, to hear the report of a case of embolism, or of embryotomy, or of invagination, or of excision, or of bimanual version. Were the older members to occasionally write out the medical history of an entire family which they had watched for twenty years, particularly in connexion with the subjects of rickets, consumption, cancer, and the like; or the medical history of an individual or of a number of individuals who had had years before an attack of pneumonia or chorea, or rheumatic fever, or anal fistula, or syphilis, what important light might be thrown upon many dark spots in Pathology. That every member, and particularly those connected with the hospitals, should endeavour as often as possible to lay before the Society morbid specimens, whether obtained post mortem or during life. Nothing would be more instructive, and in no other way can busy practitioners hope to keep up and enlarge their knowledge of morbid anatomy.

Finally, I would suggest that when a paper is to be read upon any important subject, the members who intend to take part in the discussion of it should take pains to prepare themselves by the careful study of the subject. In this way much valuable time might be saved and unprofitable and vague discussion be avoided.

I thank you, gentlemen, for the honour you have conferred upon me in electing me your President.

Dr. Fenwick then read a communication on the subject of bronchocele, illustrating his paper by a case which came under his care, and in which he had removed the entire right half of the thyroid body; (this paper will be found amongst the original matter.) After giving a general *resumé* of the history, causes, and treatment—both medical and surgical—of bronchocele, he discussed the propriety of early removal in that form of the disease which is unaffected by internal remedies.

This gave rise to a lively discussion, in which several members participated.

Dr. Hingston asked why, in the case detailed, the operation had been performed? He had seen the woman shortly before she had been admitted into Dr. F's hospital, and he came to the conclusion that it would be extremely hazardous to risk the operation of removal of the mass. When he saw the case the symptoms did not appear to be urgent; therefore he would ask his friend Dr. F. why perform so dangerous an operation? Was it justifiable?

Dr. Trenholm stated that in his reading on the subject the operation was condemned, and that in any case if the jugular vein passed through the tumour its removal was impossible.

Dr. Bessey spoke of the causes of goitre, but did not throw any fresh light on the subject.

Dr. Reddy remarked that he was present at the operation and assisted at it. He believed in this instance that it was justifiable, because the woman had been suffering from distressing breathing, more especially at night; so much so as to alarm those who slept in the same ward.

The President was of opinion that the operation was of so dangerous a character that it should be reserved solely for cases in which the disease had produced symptoms dangerous to life. He admitted that the skill and courage of modern surgeons had proved the propriety of performing formidable operations that had been formerly condemned—the extirpation of ovarian tumours for example. But the cases are not parallel. While ovarian tumours, if not removed, almost invariably progress till they destroy life, that cannot be said of bronchocele—it but seldom proves fatal—it cannot be said to have that tendency. The causes of bronchocele are not yet understood and in the theory now most in vogue, that it is due to some quality of the water used in drinking, such as an excess of lime salts, he objected that in that case men should be as frequently as women the subjects of bronchocele; yet, in Canada the disease was far more common in women than in men. The same fact had been noticed in other countries. Of Dr. Morell Mackenzie's patients there was one male to seven females. Now, this important fact appeared to disprove that goitre depended upon certain qualities of either water, food or air. Some relationship appears to exist between the development of the reproductive organs and goitre. That affection frequently sets in at puberty in both sexes, and is very rarely met with before that period, and seldom, if ever, begins after the cessation of menstruation; and in his experience it does not continue to grow after that period. Copland and others had noticed the connection between bronchocele and the disorder of the uterine functions. The speaker had several times been struck with the apparent dependence of goitre upon frequent child-bearing. He was not aware whether others had observed the same. Iodine is useful in simple bronchocele, unless when very chronic—not at all in the cystic form—and often fails.

Dr. Fenwick, in reply, said that if placed in a similar position he would feel inclined to act in the same manner in which he had acted in the case detailed. He could not see why surgeons shirked

responsibility in cases which undoubtedly demanded all the resources of surgical skill to accomplish; but he would admit that he would not lightly assume the responsibility of so grave an operation, as he fully recognized the importance and difficulty of the procedure. He would simply say the hæmorrhage in the case was something he had never before witnessed, but it was altogether venous. To Dr. Trenholm he would state that in this case the external jugular was imbedded in the substance of the tumour, in the greater part of its course, and was consequently removed. However, the case did well; the woman recovered without a bad symptom; she had, it is true, a slight attack of erysipelas which gave him some concern, but with this exception no further trouble occurred, and he hoped at a future meeting to be able to show the patient to the members present.

The meeting then adjourned.

Reviews and Notices of Books.

The Urine and its Derangements, with the Application of Physiological Chemistry to the Diagnosis and Treatment of Constitutional as well as Local Diseases; being a Course of Lectures delivered at the University College, London, by GEORGE HARLEY, M.D., F.R.S., Fellow of the Royal College of Physicians, &c., &c. With illustrations. Philadelphia: Lindsay & Blakiston. 1872.

"Chemistry," it is remarked in the preface to this work, "has become a very important handmaid to medicine, since there are few forms of disease to the diagnosis and treatment of which it may not in some way be subservient; whilst for the due investigation of others, as the entire class of urinary affections, it is absolutely indispensable." The truth of this remark is amply illustrated throughout these lectures, whilst at the same time the intimate connection between the chemical constitution of the urine and the physiological or pathological condition of the secreting organs are never lost sight of. The first two lectures are occupied by a description of the normal constituents of the urine, the variations in them consistent with health, the influence of the most commonly varying conditions in life upon them, and the most approved methods of conveniently analysing and testing for the most important ingredients. In the following chapters these

ingredients are taken up and discussed *seriatim*, the arrangement adopted making the matters treated of very clear and easily understood. After each one has been described and the process of analysis required for it given: then, a special division is devoted to the Chemistry of the same; another for the Physiology, and another for the Pathology, and generally a fifth section is added for the treatment of the diseased conditions in connection with its presence or absence. The immediate juxtaposition of the bearings of each branch of medical science upon a given point makes the matter extremely systematic, avoids all confusion, and shows, distinctly, the relation of each with the other. Sections X. and XI. are devoted, respectively, to the important subjects of Diabetes Mellitus, and Albuminuria, and occupy nearly one-half of the book. Of the first of these subjects, the author truly observes: "In no department of experimental research have results of greater value to the Clinical physician been recently obtained than in that connected with the study of animal saccharine matter. Within the last few years—indeed, since 1848—an entire revolution has taken place in our ideas of the physiology and pathology of Diabetes: and although we have still much to learn before we can completely unravel the skein of laws regulating the formation and destruction of sugar in the animal economy, we have, nevertheless, reason to congratulate ourselves upon that which has been already achieved, and be sanguine in our expectations of what science may yet accomplish." The subject of sugar in the urine is then fully explained in all its bearings, together with all the most recent discoveries concerning it, and the results of most of the novel methods of treatment which have been recommended in this most fatal disease, which, unfortunately, we are bound to still rank amongst the now reduced list of "incurables." The chapter on Albuminuria will especially repay perusal. This subject, which, particularly to the student, at the beginning presents such peculiar difficulties, and which often is rendered peculiarly obscure by the very attempts to throw light upon it, is here exhibited in such a form as can scarcely fail to attract the attention, and at the same time to cause itself to be fixed in the memory. Much of this is due to the sound and practical division of Albuminuria which is presented to the reader at the outset. Dr. Harley divides Albuminuria into *primary*—(cause originating in the kidney), and *secondary*—(cause not originating in the kidney). The *primary* is then subdivided into the temporary and permanent—(Bright's disease), and the *secondary* into four subdivisions, according as the presence of the albumen is due to derangements of the digestive or nervous systems, or from organic disease, or from general affections.

This book is one which we can confidently recommend to all students and junior practitioners who desire to acquire a good, practical, and thoroughly useful knowledge of the common urinary affections, and the means to be employed for ascertaining their presence.

A System of Surgery; Pathological, Diagnostic, Therapeutic, and Operative. By SAMUEL D. GROSS, M.D., LL.D., D.C.L., Oxon; Professor of Surgery in the Jefferson Medical College, Philadelphia, &c., &c. Illustrated by upwards of fourteen hundred engravings. Fifth edition: greatly enlarged and thoroughly revised; in 2 vols: Imperial, 8vo; Vol. I., pp. 1,098; Vol II., pp. 1,170. Philadelphia: Henry C. Lea. 1872.

This work is too well known and highly appreciated by the profession generally to require, at our hands, an extended review; we must, however, remark that this, the fifth edition, may almost be regarded as a new work, as many of the chapters have received, at the hands of the very eminent author, a thorough revision. We have on a former occasion expressed our views as to the practical character of this excellent treatise. As the author states in his preface, this work must be regarded as embodying the results of a large personal experience, of extended reading, and much reflection. It sets forth the science and art of Surgery as the author himself understands it, and as he has for so many years conscientiously taught it. The subjects of inflammation, and its results have received more attention in this than in former editions, because "of the conviction, grounded upon long and close observation, that there are no subjects so little understood by the general practitioner." Professor Gross is decidedly a sceptic as to the vaunted use of antiseptic dressings in Surgery. Although freely admitting the correctness of the views advanced by Pasteur and others concerning the existence of low forms of organisms, yet he does not admit that living disease-producing germs, have been satisfactorily proven, and he states that experience has convinced him, beyond a doubt, that "abscesses may be opened, that wounds—as those made in the removal of tumours—may close, and that compound fractures may unite as rapidly without as under the use of antiseptic agents." These remedies he has, therefore, of late employed, "not to prevent, but merely to arrest the process of putrefaction, and to destroy its products." These views are correct so far as they go, and although not by any means a follower of Lister, yet we freely admit that faithfully employed antiseptic dressing of wounds has yielded surprising results in the hands of many able surgeons.

The author acknowledges the aid received from Dr. S. W. Gross in re-casting several portions of the work, to Dr. William Thomson for his aid in revising the section on Disease of the Eye, and to Dr. Barnes, Surgeon-General United States Army, for the use of many wood-cuts which are to be found illustrating the subject of gunshot wounds.

Upwards of six hundred engravings in this edition are original and new. Indeed, the present edition has received such careful revision as to enhance its value and render it second to none as a work for reference on the subject of which it treats.

BOOKS RECEIVED FOR REVIEW.

The Science and Practice of Medicine. By WILLIAM AITKEN, M.D., Edin.; Professor of Pathology in the Army Medical School. Third American from the Sixth London edition. Greatly enlarged, remodelled, carefully revised, re-written; adopting the new nomenclature and following the order of classification of diseases published by the Royal College of Physicians of London. With additions by Meredith Clymer, M.D., (Univ. Penn.) ex-Professor of the Institutes and Practice of Medicine in the University of New York, &c., &c. In two volumes, with steel plate map and one hundred and eight wood-cuts. 8vo. Vol. I., pp. 1,056. Vol. II., pp. 962. Philadelphia: Lindsay & Blakiston. 1872.

Epidemic Cerebro-Spinal Meningitis, with an Appendix on Some Points on the Causes of the Disease, as Shown by the History of the Present Epidemic in the City of New York. By MEREDITH CLYMER, M.D., (Univ. Penn.) Fellow of the College of Physicians of Philadelphia, formerly Physician to the Philadelphia Hospital, ex-Professor of the Institutes and Practice of Medicine, University of New York, &c., &c. 8vo., pp. 59. Philadelphia: Lindsay & Blakiston. 1872.

The Thames Shipping Inspection Committee, at its concluding meeting at the Guildhall, endorsed all the arrangements that had been entered into with the Admiralty and the Privy Council for providing a cholera hospital on the river, and for ensuring the prompt isolation of any case of the disease which might be imported.

At Malmo a post-mortem examination of the King of Sweden disclosed a chronic inflammation of the entire alimentary canal, with sporadic ulceration. Milk had for a long time been the only nutriment his Majesty could take.

CANADA

Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1872.

SEWER CLEANSING AND VENTILATION.

At a recent meeting of the Social Science Association held in Plymouth some most interesting and instructive papers were submitted which all tended to show that what has been termed the great sewage question remains unsettled. From a perusal of a synopsis of the various papers read at that meeting, we are forced to admit that all the various schemes for working sewage matter so that it can be utilized have failed. Air, water and food are essential to the continuance of animal life, but if the air be vitiated, the water polluted, and the food unwholesome the most disastrous results follow. The necessity of sufficient breathing space for the maintenance of animal life has been time and again proved since the little experiment at Calcutta of cramming 146 prisoners into a dungeon of 18 feet square, whence in the course of a few hours 23 only came forth alive. But space is not the only requisite for the maintenance of health, the air itself should be pure, at least sufficiently so to ensure a due performance of those functional changes necessary to sound health. We have before alluded to the condition of our sewers, the absence of what we consider a proper system of sewer ventilation. Our sewers are ventilated it is true, but they are ventilated at the street corners so that in reality it would be far better if they were open, than, as at present, partially closed.

We have spoken of the generation, in enormous quantities, of most noisome sewer gas which under the present construction is unavoidable. The whole of this gas or a large proportion of it passes into the atmosphere at the gratings of our street corners, thus affecting the air of our city. How injuriously this acts can be calculated by reference to our bills of mortality. What is to prevent our Corporation utilizing the many tall factory chimneys which are to be met with in our city, or at the higher levels of the city, erecting shafts sufficiently high to get rid of the sewer gas, without injuriously acting on the air of our dwellings?

We have noticed that various schemes have been proposed to utilize our city sewage and individuals have offered for a consideration to relieve us of the nuisance. Before anything is attempted it would perhaps be better for our Corporation to wait and see the results of various experiments which are engaging scientific men abroad.

It is computed that the best means of purification of sewers is flushing them with water and it has been stated that to be efficient about 30 gallons per head per day are necessary. This would give a daily consumption in our city of over four million gallons, but if we cannot secure the necessary quantity of water or if it is unequally divided we must then adopt other measures to remedy an evil which is becoming a reflection on our civilization.

But have we not at hand the means of flushing the sewers without being forced to use the water of our reservoir. What is to prevent the utilization of the waste water from the canal. On several occasions we have noticed the Craig street sewer emptied out by buckets, the mass of filth dumped down in the middle of the street to be lazily removed by carts, thereby arresting at various points the street traffic and contaminating the air of the locality with the stench of sewer gas. Indeed if we remember right on one occasion there was nearly a fatal accident occurred; one of the workmen employed, who in descending into the sewer was almost asphyxiated by the gas. The Craig street tunnel is in construction no credit to the engineering skill of those who built it, and we think it could be greatly improved upon by sinking it deeper and giving it an outlet at the foot of the St. Mary's current, and then if the waste water of the canal was allowed to flow through it continually we would be enabled to get rid of all the greater part of our sewage matter without as at present retaining it in the sewers where it is constantly fermenting and generating a highly poisonous compound.

We believe that nearly all the sewers in the upper part of the city lead down to the Craig street tunnel, which is the principal artery in our system of drainage. It is we believe of size enough for the purpose but if it were six feet deeper and had a sufficient fall from west to east with an exit at Hochelaga, and furthermore a continuous stream of pure water flowing through it, the difficulty would be solved, and the air of the whole city greatly improved.

EPIDEMICS AND METEOROLOGY.

We copy the following portion of the Report of the Philadelphia County Medical Society on Epidemics and Meteorology, for 1871, because the subject is of great import; for there can be no

doubt that atmospheric changes have considerable influence on the state of the public health, even though the manner and extent of their operation cannot be truly ascertained. Most medical men admit that there are varieties in the state of the atmosphere with which the prevalence of disease are conjoined, so that the said disease may be referred to its agency; and further, that it is possible that there may be different states of atmosphere which act as specific stimuli, and produce their corresponding peculiar diseased nervous actions; having, as it were, a joint cause, and being further varied by the particular state of the constitution and other circumstances of the patient.

Even contagious diseases break out at very uncertain periods, and often without any obvious cause. Small-pox rages for a time throughout whole tracts of country; at others there is scarcely a case to be met with. The same may be observed of Scarlatina and Measles. This is not merely the effect of accidental introduction. It is more probably due to some quality in the air, whereby it is fitted for the conveyance of infectious matter, or the effect of a peculiar state of the atmosphere which renders the body more susceptible of infection than ordinary.

Be it as it may, the subject of epidemics connected with meteorology deserves more attention in the Dominion than it has hitherto received; and we hope the careful reading of the following extract may induce the faculty to well consider the subject of the Meteorology of the City of Montreal, and its relation to the prevailing diseases amongst us:

“The careful and extended meteorological observations now made by means of the telegraph in various portions of the world, should increase our knowledge of the causes of disease, more especially of those fearful epidemics which destroy so many of the human race. Even by the study of the simple agents, as, for instance, heat, cold, the winds, etc., much is learned of their influence for good or evil on mankind. This is no fancy sketch, for already an intimate acquaintance with the winds shows what an important part they play in a medical point of view, in controlling humidity and cooling an intensely heated atmosphere; at other times in dissipating miasma, by carrying it to the upper regions, so that man is not affected by it. Numerous observations by careful physicians prove that the east wind induces biliary derangement, with depression of spirits, while all have felt the bracing influence of a northwest wind; and again, the south or south-west wind induces languor of both body and mind. The barometric indications should be carefully noted, for the indications of increased or diminished atmospheric pressure

" causes diseases of the brain, heart, or lungs; for in the first it
 " produces fatal apoplexy, in the second, capillary engorgement
 " and severe hæmorrhage by exudation, which can all be avoided
 " by preventing the patient from taking protracted or severe exer-
 " cise. Hygrometric observations proper, or the study of the wet
 " and dry bulb thermometer, show the moisture or dryness of the
 " air, its effects upon croup, diphtheria, &c., and the great alter-
 " ations in size which epithelial and ligneous structures undergo
 " by the addition or subtraction of it. Intense heat, either from
 " the sun's rays or from a heated room, produces heat-apoplexy,
 " or thermic fever, frequently followed by local congestion of the
 " lungs or brain, and may even terminate in sudden death. Intense
 " cold causes paleness of the surface, with fainting, also coagula-
 " tion of the fluids of the body in the extremities, and death.
 " Still more fearful results are known to follow the combination of
 " cold and moisture on large numbers of individuals, even when
 " the thermometer does not fall much below the freezing point."

" Electricity, in the form of lightning, is a cause of disease and
 " death, and it is believed by good and careful observers that a
 " number of diseases are produced, either by the sudden abstrac-
 " tion or slow subduction of electricity from the body."

" By examining the clouds as originally classified into cumulus,
 " cirrus, etc., in conjunction with the use of the rise and fall of
 " the barometer, valuable information may be obtained by the
 " physician as to whether he should allow a patient to pass into
 " the open air for exercise, recreation, or travel."

A NEW TEST TO PROVE THE PRESENCE OF ACTUAL DEATH.

In a recent number of Virchow's Archives, Dr Hugo Magnus of
 Brislau contributes a paper in which he proposes a new sign of the
 presence of actual death which is of interest to students of medico-
 legal science. It is claimed to be a positive and unerring sign of death
 and at the same time requires no medical or surgical lore in its
 application. It is based on the presence or absence of the circula-
 tion of the blood. Various methods have from time to time been
 employed such as opening a vein or artery or Brachet's method of
 puncturing some of the capillaries, these however have never been
 regarded with favour and consequently have fallen into disuse.

Dr. Magnus test is as follows :

" If a limb of the body — a finger is best for the purpose — be
 constricted by a strong ligature, quite tightly, there will, if the
 subject be yet alive, be seen a reddening of the constricted
 member. First the part in question becomes red, and then the

red colour becomes darker and darker, and deeper in hue, till it is finally converted into a bluish-red, the whole limb being, from its tip to the ligature which encircles it, of a uniform colour, except that at the region immediately round the ligature itself there is to be seen a narrow ring, which is not bluish-red, but white."

DEATH OF DR. JOHN DICKSON.

It is with regret and deep sympathy for the friends that we announce the death, by cholera, of Dr. John Dickson, son of Dr. J. R. Dickson, of Kingston, C. W. This promising young man studied for one or two years at McGill University, after which he graduated at the University of Queen's College, Kingston, from thence he proceeded to London, England, where he pursued his studies, and subsequently received an appointment, after an excellent competitive examination, as Staff Assistant Surgeon. We copy the following extract from the *Broad Arrow* of September 14, 1872:

"While on duty at Allahabad, India, Staff Assistant Surgeon Dr. Dickson was attacked, on the 11th ult., and for some hours was doing well, but a relapse set in and he expired on the morning of 13th, and was buried the same evening.

"The funeral was attended by all the officers of the station; the band of the Second Battalion, Nineteenth Regiment, and a firing party of the same regiment attending.

"General regret is felt at his untimely end, as he was a favourite with all who knew him, skilled in his profession, amiable in his manner, and a perfect gentleman. He is really a loss to the service and the department he belonged to."

Medical News.

VENTILATION OF LAW COURTS.

The following appears so appropriate to our own ill-ventilated court rooms that we copy it from the *Lancet* of October 12:

"The death of Justice Willes by his own hand is generally, and we think truly, regarded as the result of mental aberration consequent upon physical disease incurred, or at least intensified, by secondary causes. Among these the bad ventilation of the law courts in which he spent so much of his intellectual activity is undoubtedly one. Why it is that these places of resort should, as

a rule, be well-nigh poisonous to their inmates from their foul air is a mystery to the medical mind. Dr. Angus Smith in his classical work on 'Air and Brain,' records a visit to a London court which at the moment of entering was extremely warm and unpleasant, and after some minutes intolerable. He stayed long enough to collect specimens of the air, which he found, on analysis, to contain a smaller amount of oxygen than any place above ground, 'except the gallery of an extremely crowded theatre at half-past ten at night.' But, he adds, the court air was still worse than that of the theatre, its temperature being very high, and the organic matter from perspiration in proportion. A handkerchief which had wiped from one of the windows a little of the animal steam by which they were dimmed smelt offensive afterwards. Law reform is a large subject, but the improvement of the courts in which it is administered ought to find a place in its programme. We are afraid to think of the valuable lives which may be slowly yielding to influences like those so disastrous to Justice Willes—bad air breathed during mental strain of the severest kind. How long will it be before the judge on the bench is as well off in the matter of oxygen as the prisoner in the gaol?

BEQUESTS, &c., TO MEDICAL CHARITIES.

Mr. Joshua Satterfield, of Alderley, bequeathed £10,000, free of legacy duty, to endow or benefit a Convalescent Home in the neighbourhood of Manchester. The National Orthopædic Hospital, Great Portland street, has received a second £1,000 from "E. D." The executors of the will of Mr. Thomas Dutton have, in the exercise of a discretionary power, given £250 to the endowment fund of the Blackburn Infirmary. The Infirmary of Epilepsy and Paralysis has received a second £1000 from "G. S." Mr. Edward Cad-dick has given a second £200 to the endowment fund of the West Bromwich District Hospital. The General Hospital, Birmingham, has received £200, under the will of Mr. G. Smith. G. S. Rotherham, Esq., has given £100 towards the funds of the Convalescent Home, Stillorgan, near Dublin.

[We publish the above as an illustration of the princely liberality of those who are able to assist the charitable institutions of London. We wish a few liberal hearts would do as much for some of our charities.—ED.]

The Report of the Oxford delegates on the "unattached" student scheme states that a careful student can get through his Oxford career for a sum not exceeding £50 a year.

Sir William Hamilton has suffered so severely at Simla from dengue that he shortly intends coming to England.

Monthly Summary of Meteorological Observations taken at No. 26 Beaver Hall, Montreal, by THOS. D. KING:

AUGUST, 1872.						SEPTEMBER, 1872.					
Day of Month.	Daily Mean Temperature, 7 a.m., 2 p.m., 9 p.m.	Daily Mean Humidity between 7 a.m. & 9 p.m.	Daily Mean Barometer corrected to sea level.*	State of the Weather.	Quantity of rain gallons per acre.	Day of Month.	Daily Mean Temperature, 7 a.m., 2 p.m., 9 p.m.	Daily Mean Humidity between 7 a.m. & 9 p.m.	Daily Mean Barometer corrected to sea level.*	State of the Weather.	Quantity of rain gallons per acre.
1	65.8	51.6	30.06	Clear	....	1	64.1	60.5	29.94	Clear	....
2	69.1	72.2	29.99	Rain	9275	2	59.9	67.6	94	Rain	5949
3	62.5	83.9	30.02	Cloudy	....	3	53.1	60.8	30.07	Clear	....
4	66.3	60.8	22	Clear	....	4	55.6	60.4	92	Clear	....
5	72.1	52.7	24	Clear	....	5	61.7	71.3	29.93	Cloudy	....
6	75.1	61.8	14	Rain	67	6	63.8	73.5	96	Hazy	....
7	75.8	62.7	15	Clear	....	7	71.9	87.0	90	Rain	47508
8	78.6	68.2	16	Rain	3573	8	71.0	85.6	96	Rain	14352
9	80.4	58.1	10	Clear	....	9	64.7	72.0	30.25	Cloudy	....
10	73.3	76.0	29.99	Rain	9161	10	65.2	81.1	30	Rain	inapp
11	70.6	66.6	30.12	Rain	226	11	64.9	89.7	24	Rain	....
12	75.3	58.3	13	Clear	....	12	72.3	86.5	95	Cloudy	....
13	76.9	71.6	01	Rain	2714	13	65.1	88.5	29.98	Rain	15270
14	73.1	85.5	9.98	Rain	3393	14	60.3	76.8	30.24	Rain	3958
15	75.3	72.1	30.03	Rain	4639	15	59.0	72.2	27	Clear	....
16	72.4	65.8	19	Clear	....	16	57.4	85.9	07	Rain	2375
17	71.3	76.5	05	Rain	2714	17	59.9	89.4	01	Cloudy	....
18	72.9	74.5	10	Rain	6559	18	59.7	80.4	29.93	Rain	3438
19	73.8	62.6	24	Clear	....	19	58.7	87.5	74	Rain	13835
20	74.8	65.7	29	Clear	....	20	56.8	76.6	90	Cloudy	....
21	78.2	63.9	12	Rain	....	21	55.6	68.3	30.01	Clear	....
22	75.8	83.3	29.88	Rain	8144	22	65.9	73.0	94	Cloudy	....
23	75.0	50.0	30.02	Clear	....	23	59.2	66.8	32	Rain	inapp
24	74.1	53.8	07	Clear	....	24	63.9	87.6	21	Rain	27261
25	75.9	57.9	03	Hazy	....	25	69.1	75.7	05	Rain	9275
26	76.1	62.9	02	Clear	....	26	60.2	70.5	01	Cloudy	....
27	71.8	68.5	29.97	Rain	4825	27	59.9	73.0	29.99	Clear	....
28	68.9	49.3	30.10	Clear	....	28	54.1	74.9	16	Cloudy	....
29	66.9	55.9	29.97	Clear	....	29	57.1	74.7	29.95	Rain	6787
30	57.9	83.3	64	Rain	22141	30	54.4	74.5	96	Cloudy	....
31	56.7	80.5	29.70	Rain	3393	..	....	....	....	....	....
MEAN	72.0	66.3	30.05			MEAN	61.6	76.5	30.03		

AUGUST.

Extreme Range of Temperature.....	41.3
Highest point of Thermometer on Friday, the 9th.....	92.3
Lowest point of Thermometer on Saturday, the 31st.....	51.0
Extreme Range of Barometer.....	6.74
Highest Reading of Barometer on Tuesday, the 20th.....	30.35
Lowest Reading of Barometer on Friday, the 30th.....	29.61
Extreme Range of Humidity (Saturation 100).....	63.4
Greatest Moisture in the air on Thursday, the 22nd.....	96.5
Least Moisture in the air on the 28th.....	33.1
Whole amount of rain in the month.....	3.703 inches
General direction of the wind.....	Variable

SEPTEMBER.

Extreme Range of Temperature.....	39.7
Highest point of Thermometer on Saturday, the 7th.....	85.0
Lowest point of Thermometer on Wednesday, the 4th.....	45.3
Extreme Range of Barometer.....	6.66
Highest Reading of Barometer on Tuesday, the 10th.....	30.35
Lowest Reading of Barometer on Thursday, the 19th.....	29.71
Extreme Range of Humidity (Saturation 100).....	54.8
Greatest Moisture in the air on Friday, the 13th.....	97.2
Least Moisture in the air on Sunday, the 1st.....	42.4
Whole amount of rain in the month.....	6.668 inches
Greatest amount of rain in 24 hours on Saturday the 7th—thunderstorm—	2.130 in.
General direction of the wind.....	Variable

* Not for Temperature.