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# CANADA

# MEDICAL & SURGICAL JOURNAL

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Original Communications.

## MEDICAL HISTORY OF LOUIS DAVID RIEL DURING HIS DETENTION IN LONGUE POINTE ASYLUM.

By HENRY HOWARD, M.R.C.S.L., ENG.,

Medical Superintendent, Asylum St. Jean de Dieu, Province of Quebec.

According to my physical idea, an intellectual, moral man is a physiological man, a sane man, and a *non-criminal*.

According to my physical idea, all criminal men are either insane from pathological defect, or fools from teratological defect, of the psycho-physical organization, the *materia cogitans*.

According to my close observation of the insane, a large majority of them know right from wrong. Therefore, a man's knowledge of his idea of right and wrong is no proof of his sanity.

The law's definition of sanity and responsibility is, that a man who is a criminal, and knows right from wrong, is a sane man, and responsible for his conduct.

According to my observation, Louis David Riel had a perfect knowledge of what he believed to be right and wrong, but being a great criminal, and guilty of bad conduct, I considered him a fool, in virtue of a teratological defect in his psycho-physical organization.

I think his friends knew my idea of him; and therefore it was that they did not bring me to give evidence in his case when he was on trial. My evidence would have been that I believed him a teratological fool, but that, according to his idea, he knew right from wrong.

As I have already explained, I consider every criminal to be

either a fool or insane because of pathological or teratological defect in their psycho-physical organizations ; and most certainly I have known many persons *hung* for murder that gave stronger proofs of being insane or fools than was given by Louis D. Riel.

I wish law-makers were physiological men, and were governed in making laws by physical science or natural physiology ; then all criminals would be recognized as insane or fools.

As the Dominion Government has been justified in their conduct by a large vote of the House of Commons, and the Provincial Government has been justified by a large vote of the Legislative Assembly, I shall give the history of Louis D. Riel while he was under my care in the asylum of St. Jean de Dieu. What I am about to write is the truth. I am not guided by politics, nor by nationality or religion. I write it for the sake of physical science, and I am writing from notes that I have kept that cover nine pages of foolscap.

Now, in the registry books of Longue Pointe Asylum it is recorded that Louis David Riel was admitted into that institution under the name of Louis R. David on the 6th of March, 1876, and discharged from thence and sent to Beauport on the 15th of January, 1877. How that record was made I do not know ? The public has accepted it as a *true* record, and all the public-speaking that I have heard of, and all the newspapers that I have read, have all been acting under the impression that Louis David Riel was in the asylum at Longue Pointe from the 6th of March, 1876, to the 15th of January, 1877. Now, although I blame no one, I have to testify that the record is *not true*. On the contrary, Louis David Riel was discharged from the asylum at Longue Pointe and sent to Beauport on the 19th of May, 1876. So that instead of being in the asylum for ten months, he was only in it two months and thirteen days. During that time I was physician to the asylum, having no power in it to either admit or discharge patients, but simply prescribe for them ; yet it was by my advice that Louis David Riel, under the name of Louis R. David, was admitted into the asylum by the Mother Superior, as a Government patient, on the 6th of March, 1876, and by my recommendation to the Hon. Provincial

Secretary, he was sent to Beauport on the 19th of May, 1876. I am particular in pointing out that he was discharged at *my* recommendation, because in all other cases I could discharge no one, except advised by the Mother Superior, and Dr. Perrault had to sign the paper with me. But in this instance there was no legal form.

With the foregoing information, many gentlemen will be wonderfully surprised and regret their speech.

How did Louis D. Riel get admitted into the asylum of St. Jean de Dieu at Longue Pointe on the 6th of March, 1876?

On or about the 5th of March, 1876, the Rev. Mother Superior came into the office where I was and told me there was a gentleman in the other room who desired to get a patient admitted, but as there were serious circumstances connected with the case, she refused to admit him without my consent, and if I would go into the room with her she would introduce me to her visitor. I did go with her, and she introduced me to the gentleman who was making the application on behalf of one with whose antecedents and present condition he claimed to be entirely familiar. There was, at first, some hesitation with reference to the identity of the person in question. Finally, it was admitted that the individual was Louis Riel: and I was informed that his excitement was exhibited chiefly when political subjects were introduced, and that his friends were anxious to see him safely guarded till they could get him out of the country. His eccentricities had already produced such animosity amongst certain sections of the people, that fears were entertained for his life should he be left at liberty.

I at once cheerfully consented to the proposition to have Louis David Riel admitted into the asylum the following day under the name of Louis R. David, and said I would do all I could to have his secret kept from sisters, keepers and strangers, as if he were insane, and I faithfully did keep my word for nearly ten years, always, when spoken to of him, declaring him to be as mad as a loon.

Am I ashamed of what I did? Not a bit of it. I believed him to be guilty of the murder he was accused of, and I believed

every murderer to be either insane or a fool. The unfortunate man was not flying from justice ; he was evading fanatics, that, judging them by the press of that day, were prepared to imbrue their hands in his blood. Yes, under similar circumstances, I would conceal him again had he turned up a second time, or any other man similarly situated.

From the foregoing statement it will be seen that Louis D. Riel was placed in the asylum of St. Jean de Dieu as one of an uncertain condition of mind who required watching, and, for the time being, to protect him from his enemies ; and knowing all these circumstances, I recommended the Rev. Mother Superior to admit him into the asylum as an insane man. And to be just to the Mother Superior, she let me understand that she preferred not to admit him, and she always wished him removed.

#### HIS ADMISSION.

On the 6th day of May I was sent for in the part of the asylum I was employed, and told to come and see Mr. David, who had arrived. I went into the room and saw the following tableau : A fine, handsome-looking man of about 30 years old, standing about the centre of the room ; near to his right hand, Jean Baptiste, a keeper ; near to his left hand, William —, a keeper ; standing opposite to him, one of the Sisters, not the Mother Superior ; and on the floor, his leather valise.

I was struck with the man's appearance. He looked an upright, honorable gentleman, and judging him by his appearance, I would never have supposed he could be guilty of the crime of which he was accused, and at the moment, I felt great pity for him, and considered his friends should have done better for him than to send him into an insane asylum.

I walked directly up to him, to shake hands with him, and said, "I am glad to see you, Mr. David ; my name is Dr. Howard." He started back and said, "Why do you call me David ? My name is Louis David Riel," and thrusting his hand into the side pocket of his coat, he took from it a small prayer-book, and opening it at the fly-leaf, handed it to me, saying,

“Look at my name there, Louis D. Riel, written by my dear sister.” Quick as a flash of lightning, the Sister that was present snatched the book from our hands and tore out the fly-leaf, which she tore into pieces, saying, “You are only known here, sir, as Mr. David.” A terrible scene followed, and I believe if the guardians and I were not there, and she had not cleared out of the room, he would have torn her in pieces. For a few moments I certainly never saw a man more angry. When he calmed down, the poor fellow wept, and turning to me, said, “That was a gift given to me by my dear sister on my birthday, and in all my wanderings I always kept it near my heart.” I may here mention that after this every one in the asylum knew who he was, and he always spoke of himself as Louis D. Riel.

Some time after, the keeper William disappeared from the asylum, and John Batiste has lately died of smallpox.

After the row, Mr. Riel went to his room, and from that day to the last day I saw him, May 13, 1876, he and I were the best of good friends, and I learned to value him highly. As a proof that he thought well of me, I beg to quote the following, taken from the *Montreal Star* of August 8, 1885. The article is headed “*Riel Loquitur. The last day but one of the trial at Regina.*”—“Grateful to my captors for their kindness to me at the very time the newspapers were raging to devour me. I thank the glorious General Middleton for his testimony that I possess my mental faculties. I felt that God was blessing me when these words were pronounced. I was in Beauport Asylum. Dr. Roy, over there, knows it, but I thank the Crown for destroying his testimony. I was in the lunatic asylum at Longue Pointe, near Montreal, also, and would like to see my old friends, Dr. Lachapelle and Dr. Howard, who treated me so charitably. Even if I am to die, I will have the satisfaction of knowing that I will not be regarded by all men as an insane person.”

#### HIS EDUCATION AND RELIGION.

I found Riel a well read man. He was well posted in both Greek and Pagan philosophy, and it appeared to me he respected both better than he did Christianity; and he certainly spoke most respectably of Judaism, although he found fault with the

Jews for having crucified Christ. He certainly ridiculed Protestantism as all humbug, and was far from considering Catholicity what he considered it should be. He never appeared to me to be a sincere Catholic, and he certainly did not speak respectfully of bishops, priests, or nuns.

I never saw him contented or happy in the asylum. He always spoke to me as one deceived by his friends and forsaken by them, and he felt that he was a prisoner, and daily urged upon me to procure his release and have him sent out of the country.

Sometimes he made some strange, ridiculous statements, but in such a way that I always felt he was simply humbugging, and did not believe what he was saying. For example, he at one time called himself Christ, that was crucified on Calvary, and was at that time undergoing another crucifixion. Another time he told me that it was lawful for a man to have at the same time three wives.

I never could satisfy myself thoroughly as to whether this sort of talk was not acting a part or an hallucination. He generally spoke to me as intelligently as any one could. He was not by any means a cheerful man, nor could I say he was sad, considering his position and surroundings. In fact I found him a loving and loveable man, and a charming man in conversation.

#### INCIDENTS WHILE HE WAS IN THE ASYLUM.

One morning I found him in the cell naked, with the exception that he had on a long straight-waistcoat. He began to laugh at his ridiculous position. I asked him what was the matter, and he told me that his leather valise had been cut open the night before and his letters taken out of it, which proved to him that it was to rob him of these valuable letters that he was brought into the asylum; that the loss of them was to him the loss of friends and their support and protection. He named his friends. He told me, when he saw that he was robbed of his letters, he was very angry and made a row, and that he was immediately seized by the keepers and forced into the straight waistcoat. This was a very short time after his admission into the asylum. From that time till he left the asylum he was sad, and seemed

to be very suspicious of every one surrounding him, and particularly of his friends. He urged me to send him out of the asylum.

On another occasion, some time after, I found him in a similar position, restrained with the straight waistcoat. Before visiting him, I was told that while the priest was celebrating mass he rushed into the church with a long stick, used in the game of pigeon-hole, in his hand, and literally swept the candles, ornaments, etc., with it off the altar. When I visited him he was all smiles, and told me he did it to see how the Mother Superior would act when he played the brute, as she did not know how to act or treat him when he acted as a gentleman. I advised him to keep quiet and continue to act the gentleman.

Soon after this, late in the month of April, I went one morning into his room and found him stark naked, standing up against the wall with his arms extended as if crucified. He told me he wanted the nuns to see him. I told him to go to bed. He did so, and spoke to me quite rationally.

One morning, about the 16th or 17th of May, 1876, I went into his room and found him in a great state of anxiety. I had never seen him before showing such great fear, nor did I ever see him speak or act so intellectually. He declared he was afraid of being murdered, and drew my attention to the fact that during the night the bars were removed from his window that he might try to escape. I looked and saw that the bars were removed, and that he could have escaped without any trouble. He said, "If I escaped last night through that window, I would have been murdered. Say nothing about it. I won't speak of it to any one; but for God's sake try and get me away."

The mother superior had constantly spoken to me to write to the Hon. Provincial Secretary to have him removed to Beauport. She particularly spoke to me for the last week or ten days, as she had heard it reported that the Orangemen of Montreal had heard that Riel was in the asylum, and had threatened to come down and burn it.

I did not speak to her of the iron bars being removed, nor of my intention, but I wrote a very strong letter to the Hon. Provincial Secretary, begging of him to send an order at once to have Riel removed to Beauport, for I feared for his life. On



the 18th of May I shook hands warmly with poor Riel and bid him good-bye. On the 19th he departed, and I never saw him again. The keeper that placed him on the steamboat for Quebec that evening told me nothing more than that he called loudly for me when the boat was starting.

What I have written of poor Louis D. Riel I have not written for politicians nor for nationalists. I have simply written for the sake of imparting knowledge to the physical scientist or natural philosopher. I admitted Riel simply to protect him from his enemies, and for the same reason I recommended his discharge. I suspect his friends knew these facts, and that was why I was not brought to give evidence on his trial; because, if I were asked, "Did he know right from wrong?" I would have been obliged to answer "Yes." From his own statement on his trial, he was pleased to think I did not consider him *insane*. But I did consider him an abnormal man, a man with a teratological defect in his psycho-physical organization; and if he was guilty of the crime of which he was accused, and I believed he was, he was guilty because he was like all other criminals—not an intellectual man, but a fool, one of the millions of the immoral, criminal fools that I have already written of.

I found Riel to be a cautious, cunning man, and as responsible for his conduct as any other criminal; but I don't consider any criminal responsible for his conduct, for every criminal is such because of his abnormal psycho-physical organization.

While poor Riel was with me in the asylum, I have no recollection of ever speaking of him to any one but once—to two gentlemen, great friends of his, whom I overtook upon the road below the toll-gate. They were walking, and told me they were going down to see him. I took them down in my carriage. I told them he was as mad as a loon. They both laughed at me.

When I heard poor Riel was hung, I was very, very sorry. But I have known other men to have been hung that were greater fools than was poor Riel. I don't believe society should be troubled with criminal fools, but I do not believe they should be hung, although I see that the House of Commons in England has just rejected a motion to abolish capital punishment by a vote of 117 to 62. Well done, members of parliament, who don't

know the physical cause of physical defect : who don't know that a man is an immoral criminal because he is not a physiological man.

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## SKETCH OF THE EARLY HISTORY OF ANATOMY.

By FRANCIS J. SHEPHERD, M.D.,  
Professor of Anatomy, McGill University.

*(Continued from p. 398.)*

With the 16th century, we come to a period in which anatomy made marvellous progress, more than it had made for fourteen hundred years previously, and many good anatomists were produced. Early in the century, James Berenger of Carpi was professor of anatomy at Padua and afterwards at Bologna. He is said to have dissected over one hundred bodies, and made not a few discoveries. He correctly described the heart and great blood-vessels, brain, ear and larynx, and gave a very clear account, illustrated by woodcuts, of the abdominal muscles.

Berenger, although a celebrated anatomist, is better known as the introducer of mercurial inunction in the treatment of syphilis, a disease which at this period was spreading with great rapidity in Europe, and which was then of the most virulent type. The whole of Europe was alarmed, and Berenger's discovery lessened to a great degree the severity of the disease and calmed the fears of the people. By the use of his remedy he accumulated an immense fortune, which he left, on his death, to his patron, the Duke of Ferrara. At one time Berenger had to leave Spain because he was accused, as Vesalius was after him, of opening a living body in order to observe the movements of the intestines.

The French School of Anatomy arose in the early part of the 16th century, and all anatomical students are familiar with the names of the great men of that school—names such as Dubois (Sylvius), Etienne, the discoverer of the canal in the spinal cord, and others. It is a curious fact that the French anatomists knew nothing of what had been done in Italy by Mundino and his successors, but followed Galen closely and had a remarkable admiration for ancient authorities. They rarely dissected human

bodies, but contented themselves with such lower animals as dogs, cats, pigs, etc.

One of the most independent observers and investigators who lived during the first half of the 16th century is Michael Servetus, a Spanish physician. He was educated in medicine in the University of Paris under the assumed name of Michael Villeneuve. Servetus soon quarrelled with the Faculty in Paris, owing to the peculiar views held by him regarding astrology and divination. He early developed a taste for controversial theology, and discussed various theological questions with the leading Reformers, among others, Calvin, whose hatred he soon aroused. When Servetus published anonymously his great work, "*Christianismi Restitutis*," which was alleged to contain heretical doctrines, he afforded Calvin the long sought-for opportunity of condemning him as a blasphemer and heretic and most cruelly consigning an innocent and eminent man of science to the flames. It is in this condemned work we find the first clear account of the circulation of the blood through the lungs—that is, its transfer from the right to the left side of the heart, through the lungs. It is not announced as a new and important discovery, but is merely mentioned incidentally in this theological work addressed not to scientific men but to the Reformers and Schismatics. This is a clear proof that the importance of the discovery, which paved the way for Harvey's greater discovery of the systemic circulation, was not at that time realized.

The greatest anatomist of the 16th century, and perhaps the greatest the world has ever seen, is Andreas Vesalius.

Vesalius revolutionized the teaching of anatomy, and a new epoch of anatomical progress dates from the publication, in 1542, of his great work, "*De Humani Corporis Fabrica*."\* For fourteen hundred years previous to his time, anatomists and physicians reverently bowed before the shade of the great Claudius Galenus, and accepted all his statements as inspired. Vesalius

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\* The University of Basle still possesses a skeleton prepared by Vesalius when he came to Basle from Padua for the purpose of seeing his great work, "*De Humani Corporis Fabrica*," through the press of Io. Oporinus. The skeleton is that of a man named Jacob Karrer, beheaded whilst Vesalius was in Basle, and who furnished the great anatomist an opportunity of instructing the students at Basle in a new anatomy not then to be learnt from books.

had no sympathy with this feeling of the old school of anatomists, and was one of the first to throw off this yoke of authority which so long encumbered them. He asserted that theory should be based solely on experiment, and observation and anatomy on actual dissection. When only 28 years of age, he published his great work, and in it he, without any respect for authorities of previous ages, exposed and corrected numerous errors which had been perpetuated since the time of Galen. He denied that Galen could not be wrong, and utterly scouted the idea of his inspiration, which had been held by medical men for so many centuries. The publication of his great work called forth an angry storm of abuse, the author was denounced as a dangerous man, and was accused of licentious criticism,\* as William Hunter says, "The spirit of opposition and emulation was perfectly aroused; and Sylvius in France, Columbus, Fallopius and Eustachius in Italy, who were all in high anatomical reputation about the middle of the 16th century, endeavored to defend Galen at the expense of Vesalius. In their disputes they made appeals to the human body, and thus in a few years our art was greatly improved." Vesalius was undoubtedly a man of great genius. He had a wonderful capacity for work, and a profound knowledge of the human body. He is spoken of as a man who was "a fluent speaker and master of an admirable style," and also an "ornament to the 16th century and the admiration of the following ones."

Vesalius was born at Brussels on the 30th of April, 1514, and was the son of the apothecary to the Archduke Charles, afterwards Charles V. He developed a passion for anatomy at a very early age, for while yet at school he amused himself dissecting rats, dogs, moles and cats. He studied at Louvain, then went to Cologne and Montpellier, and thence to Paris, where he studied anatomy under Sylvius. Here he remained three years; and by his great dexterity and success in dissection, and intense application, he soon equalled, if he did not surpass, his master. He was frequently invited by both professors and students to give public demonstrations in anatomy.

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\* Even his old friend and teacher, Dubois (Sylvius), denounced him.

Vesalius also studied under Johann Winther, the well-known anatomist who first accurately described the pancreas, and was for his numerous scientific acquirements ennobled by Charles V. Whilst in Paris, the war between Francis and Charles V. broke out, so Vesalius went to the low countries and served as physician and surgeon from 1535 to 1537. At the end of the latter year he travelled to Italy, and was made professor of anatomy at Padua at the age of 24. Here he remained till 1543. Whilst professor at Padua he published his great work (1542). In 1544 Charles V. appointed him chief-physician to the Court, and when that prince abdicated in 1555, Vesalius continued in the same position under Philip II. It was here he established his reputation and passed the most brilliant portion of his life. In 1564 there died under his care a Spanish nobleman, and not knowing the cause of death, he asked permission of the relatives to make a post-mortem examination; this was granted him, and on opening the body it is said that some of his assistants perceived that the heart was still beating. The patient's friends were immediately informed, and being naturally indignant at the circumstance, denounced Vesalius to the Inquisition. He was tried and condemned to death by this tribunal, but the king interfered and would not allow the sentence to be carried out, and Vesalius was ordered to make a pilgrimage to the Holy Land to atone for his supposed crime. Whilst passing through Venice he was appointed to the chair of anatomy at Padua, vacant by the death of Fallopius. He accepted the appointment, but had to complete his pilgrimage before entering on his duties. But, alas! his evil destiny still pursued him, and he never more set his foot on Italian soil, for on his return from Palestine, the vessel in which he sailed was wrecked on the island of Zante. Vesalius escaped to land, but died miserably soon after from hunger and exhaustion in the 50th year of his age (1564). Thus perished one of the greatest anatomists the world has ever known; he must ever excite our respect by his extensive knowledge and wonderful powers of observation. Considering the crude state of anatomy when Vesalius appeared upon the scene, and the perfection at which it had arrived when

he left it, we may well wonder how it was possible that the energy and genius of one man could have accomplished so much in so short a time. His great work, which might still be referred to with advantage by modern anatomists, was published, as I have already stated, when its author was only 28 years of age.

Vesalius' anatomical works were long looked upon as authorities, and were translated into many languages, including English. His great work was illustrated by John of Calcar, a pupil of Titian's, whose pictures, it is said, were often mistaken by good judges for those of his master.

The last edition appeared in 1725, and was edited by Boerhaave and Albinus, the latter a great anatomist, as his works testify.

Vesalius had accomplished so much by his originality, independence, and disregard for ancient authority, that others, stimulated by his example, were also encouraged to throw off the trammels of the old divinities of medicine and observe for themselves. Many able anatomists now came to the front, some of whom obtained great celebrity. Such men were Eustachius of San Severino, Fallopius (a pupil of Vesalius), Colombo, Aranzi, Varolius, and many others.

Eustachius, who was a contemporary of Vesalius, though not entitled to the same great reputation, was styled the founder of anatomy. He was a devoted follower of Galen, and blamed Vesalius much for abusing so great a man. He also charged Vesalius with describing in his work a dog's kidney in place of a human one, a fault similar to that with which Vesalius charged Galen. Eustachius was the first to accurately describe the internal ear and the tube from the throat to the ear, which is still called the Eustachian tube. He, also, was the first to describe the thoracic duct, which he saw in the horse. He discovered the supra-renal capsules, and described many other structures accurately for the first time. In his finer dissections he used magnifying glasses, and separated complicated parts by injection and maceration. Eustachius published a few works in his lifetime, but, from want of means, his anatomical plates, which were ready in 1552, were not published, but remained in the Papal Library till 1714, when, having been accidentally found, they

were published by Lancisi. Lauth observes that if Eustachius had been able to publish them himself, anatomy would have advanced much more rapidly, as many of the discoveries afterwards made by observers in the 18th century were anticipated in this work of Eustachius. The last edition appeared in 1790, and even as late as 1830 his plates were much valued for their anatomical exactness. Eustachius was professor of anatomy in the University of Rome, and died there in 1574.

Fallopium, a pupil of Vesalius, was professor of anatomy, first at Pisa and afterwards at Padua. He accurately described various parts about the ear, which still bear his name.\* He paid great attention to the organs of generation (as the "Fallopian tube" testifies), and published a large work on anatomy in 1561, which went through many editions.

Columbus was also a pupil of Vesalius, and described the circulation of the blood from the right to the left side of the heart six years after Servetus. He is supposed by many to have first taught it to Servetus.

The name of Cesalpinus (1519-1603) is more interesting to physiologists than anatomists, as it is identified with the circulation of the blood. Although a contemporary of Vesalius, he outlived him fifty years. Not knowing what had been done previously by Servetus and Columbus, he rediscovered the pulmonary circulation, and was the first to use the words "circulation of the blood." He no doubt had some vague idea of the circulation, but his descriptions show by their obscurity that he did not fully comprehend, not merely the systemic circulation, afterwards discovered by Harvey, but the pulmonary circulation so accurately described by Servetus and Columbus. From the very obscurity of his language, which may be made to mean anything, his admirers in Italy to-day call him the discoverer of the circulation of the blood, and have quite recently erected a monument in his honor, in the inscription on which they give him all the credit for this great discovery and brand Harvey as a plagiarist.

There were several other noted anatomists who flourished in

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\* Aqueductus Fallopii, which transmits the facial nerve, and the Hiatus Fallopii for the petrosal nerve.

this century, and who have left their impress on anatomy and anatomical nomenclature. Among these I might mention Arantius, professor of anatomy at Bologna, Varolius of Bologna, who is known for his researches on the anatomy of the brain, Coiter of Groningen, distinguished for his work on the cartilages, and others of lesser note.

We now approach near the time when that great discovery, the *circulation of the blood*, was in the air, and on the brink of which discovery men hovered "without effecting it." Their minds were so obscured by the theories of centuries that they could not divest themselves entirely of the incubus. Such unmeaning terms as *vital spirits*, *animal spirits*, etc., are so mixed up with their descriptions, that it is difficult for a modern to understand exactly what they mean. The puzzle to them was, first, how the blood got from the right to the left side of the heart. For centuries it was believed that the left side of the heart received air from the lungs by the pulmonary artery, which, when mixed with blood, became "spirituous blood." This blood was supposed to pass through invisible pores, in the division between the right and left sides of the heart. The circulation through the lungs was discovered, as I have above remarked, by Servetus and Columbus, but the greater systemic circulation—that is, the circulation of blood from the heart through the arteries and back again by means of the veins to the heart—was not discovered for many years after (1619). Cesalpinus, as we have seen, had only the most vague notions of this circulation, although he was the first to use the term.\*

The next step forwards was the demonstration, by Hieronymus Fabricius ab Aquapendente, of the valves of the veins. Fabricius, who was a pupil of Fallopius, and afterwards succeeded him as professor of anatomy at Padua, first publicly showed the venous valves in 1574. At that time the blood was believed to go from

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\* Hamilton (History of Medicine, 1830) says the true theory of the circulation was known to Plato, and quotes a passage from Timæus, as follows: "But they (the Gods) established the heart, which is both the fountain of the veins, and the blood which is vehemently impelled through all the members of the body in a circular progression." The author offers the following curious remarks regarding this passage: "Can we suppose," he says, "that this was one of those scattered fragments of divine revelation to man in his state of primeval innocence and simplicity, which were gradually obliterated with the other traces of his celestial origin."



the heart, through the veins, to the extremities, so Fabricius failed to arrive at the correct solution of the use of the valves. He held that they retarded the flow of the blood and prevented over-distension.

Fabricius and his successor, Julius Casserius, may be regarded as the last of those illustrious Italian anatomists who established anatomy on a solid scientific basis, and paved the way for the great discovery of the circulation.

Fabricius had for his pupils the immortal Galileo and William Harvey, to whom Aquapendente, no doubt, demonstrated the valves in the veins, and so prepared the way for his later discovery regarding the influence of the valves on the direction of the blood current. The Italians are now claiming that not only did Harvey plagiarize from the works of Cesalpinus, as related above, but was actually taught the circulation of the blood by Fabricius ab Aquapendente, notwithstanding the fact that the published works of the latter show his actual knowledge of the circulation to have been most obscure. Still we must regard Aquapendente as the man who inspired Harvey, who, without his teaching, would probably never have made his immortal discovery.

William Harvey was born in 1578, and received his early education at Cambridge. In 1598 he went to Padua, and graduated as Doctor of Medicine in 1602. On his return to London, full of new thoughts and theories on the circulation of the blood, he entered into general practice, and some years after was appointed lecturer on anatomy to the College of Physicians. At the College he lectured on "the motion of the heart and the circuit of the blood," and illustrated his lectures by dissections and experiments. He taught his new doctrines as early as 1619, though he did not publish his work "*De Motu Cordis*" till 1628. This work is a very clear exposition of his doctrine, and free from the obscurity and ambiguity of the works which had before been published on the subject. Harvey never could find the direct connection between the arteries and veins which Galen declared existed, but believed the blood was transmitted from the arteries to the veins by means of the porosity of the organs. The finding of the capillaries, which connect the arteries

and veins, was a later discovery, when the means of research became better and more accurate.

It would be useless for me to try and describe all the important anatomical discoveries which took place in the 17th century, or to give, even shortly, an account of the great anatomists of that period. The anatomical canvas is crowded with celebrated men, such as Van Horn, professor of anatomy at Leyden, Aselli, who discovered the lacteals whilst demonstrating the nerves in the living dog, De Graaf, who discovered the Graafian vesicle in the ovary, etc. The names of De la Boe, Pauli, Wesling, Highmore, and Pecquet are all connected with discoveries in the lacteal and lymphatic systems. The honor of discovering the difference between the lacteals and lymphatics is divided between Jollyffe, an Englishman, and Rudbeck, a Swede. Further discoveries in these systems are associated with the names of Bartholini, Wharton, Blaes, Nuck, and Swammerdam.

From 1650, anatomists began to study the human frame more minutely, and organs and tissues were more closely investigated. Glisson's name is associated with the liver, Wharton's, Wirsung's and Steno's with the glands and their ducts, and Willis' with the brain and nervous system.

One of the most distinguished anatomists of the 17th century was Thomas Willis, who, with Wren, Millington, and Lower, made some remarkable discoveries in the nervous system. Willis was the first to number the cranial nerves, and the circle of blood-vessels at the base of the brain is called after him, the "circle of Willis." The 17th century has a great number of Englishmen among its celebrated anatomists. The 16th century, with the exception of Harvey, produced no English anatomist of note. Those who wrote works on anatomy were mere copyists, and their books are of little value.

About the middle of the 17th century, magnifying glasses were first made much use of in the prosecution of anatomical investigations. Malpighi, with whose name the use of the first simple microscope is associated,\* very greatly advanced our

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\* Hooke and Nehemiah Grew first employed the microscope for the minute examination of plants and animals about 1650.

knowledge of minute anatomy, or histology, as it is now called. He it was who first laid the foundation of this, now separate, science. In this he was ably seconded by Leewenhock of Holland. The circulation was now first actually seen in the transparent parts of animals; the blood corpuscles were discovered by Leewenhock. Malpighi first demonstrated that thin tubes or capillaries intervened between the veins and arteries, and not, as was supposed by Harvey and previous anatomists, cells and spongy substance. Leewenbock discovered the presence of scales in the cuticle, corpuscles in the milk, and spermatozoa in the seminal fluid.

I can only mention such names as Ruysch, Albinus, Brunner, Peyer, Duvernay, Cowper, Wrisberg, Vieussens, Meibomius, Spigelius, Valsalva, Santorinus, and Morgagni, all men of note, and who, in no small degree, advanced the science of anatomy. The three last in the above list especially, were remarkably accurate in their descriptions, and in this respect fully a century in advance of their contemporaries. Winslow, who flourished at the beginning of the 18th century, was a native of Denmark, and settled in Paris, where he became not only a naturalized Frenchman, but a convert to Catholicism. He was the first to write an anatomy divested of physiological details and stripped of fanciful hypotheses. His method of description and arrangement is that on which nearly all anatomical works written since have been modelled. Some have described the appearance of his work as a beginning of a new era in anatomical progress.

The end of the last century and the beginning of this was rich in anatomists of repute, men who did much to make anatomy a science. Such men are Monro, Cheselden, Douglas, John and Wm. Hunter, Cruikshank, Camper, Bell, Zinn, Meckel, Scarpa, Blumenbach, Cuvier, Haller, Buffon, Dumas, Lamarck, and others of lesser note.

From the first quarter of the 19th century up to the present time the march of progress has been steady. Anatomy has become more philosophic, and the methods of teaching and investigation have become more scientific. Human anatomy is now regarded as forming a small, but important, part of one

majestic whole. Many men are now laboring where few were formerly found, and laboring, too, with the advantage of all modern methods of research and the great light which has been thrown on the science by their predecessors.

In schools where formerly one subject was dissected in two years, hundreds are used for anatomical purposes, and the whole field is open to the humblest worker. As much information may be (I don't say is) obtained from one subject, owing to modern methods of preservation and injection, as would formerly be obtained from a dozen. The student of to-day has many advantages which were denied a century or two ago to even the most renowned. Formerly it was a red-letter day when a subject was obtained, and it was dissected and demonstrated by men of reputation to a select few, who greatly prized the long sought-for opportunity, and considered themselves to be among the fortunate to be so favored. In Italy, in former times, one subject a year, who must have suffered the death penalty, was allowed to each school. The difficulty of securing bodies for dissection was great, even as late as the 17th century. Cortesius, a professor of anatomy at Bologna, could not finish a work on Practical Anatomy he had begun, because of the scarcity of subjects; he had only two opportunities in twenty-four years of dissecting human bodies, "whereas," he says, "I expected to have done so once every year, according to the custom of the famous academies of Italy."

Besides being the basis of a sound medical education, anatomy has other claims of a much broader character; if we study it in the light of our present knowledge, it not only enables us to cultivate scientific habits of thought, but opens up for us fresh fields of inquiry, and puts us in the way of at least partially solving many problems concerning the origin of man and the line of his descent. Thus have morphology and development added a new interest to a subject which was once considered dry and, perhaps, somewhat disagreeable. It is a great mistake to suppose that human anatomy is a subject which has reached its finality; a knowledge of what has been done of late years easily proves this. A few years only have passed since the topography of the cerebral convolutions has been fully described and the origin of

the optic nerve traced to the medulla. The position of the internal organs has only quite recently been accurately determined by means of frozen sections of the body, first introduced by the Russian surgeon Piragoff. In fact, every day anatomists are, by their discoveries, placing new problems before the physiologists to solve. "Every year," says Turner, "adds to our knowledge of form and structure and the relations they bear to function, and fresh light is being continually thrown on the mechanism of the human frame." Human anatomy, without the assistance of comparative, cannot be properly studied; the ideas of an anatomist who only knows the human body are as narrow as those of an explorer of a large river who is satisfied with investigating one of its tributaries, or of a botanist who is acquainted with only one order of plants. His range of knowledge being limited, his ideas must be necessarily so; besides, to the pure human anatomist, much interest in the study of his subject is lost, and the explanation of the existence of rudimentary organs, variations, and anomalies is not attempted or even thought of. Anatomy, however, studied in the light of modern science, teaches not only what we have been, and are, but also indicates, faintly perhaps, what the distant future has in store for us.

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### ANEURISM OF THE CEREBRAL ARTERIES.\*

By WILLIAM OSLER, M.D., F.R.C.P., LOND.

Aneurisms of the branches of the circle of Willis play an important part in the history of cerebral hemorrhage, ranking next to miliary aneurisms of the nutritive arteries. They are certainly more common than the statements of text-books would indicate, and unless a careful dissection is made they are very readily overlooked. Abstracts of ten cases are appended, nearly all of which occurred at the General Hospital, Montreal. In six, the aneurisms had burst and caused fatal hemorrhage; in four, they were found accidentally, and had not produced any symptoms.

The patients were young or middle-aged individuals. One was a lad of 17; another only 20. In five the age was about

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\* Read before the Pathological Society of Philadelphia.

40. The early age at which they occur has been noted by several writers. Thus, of seventy-nine cases collected by Coats,\* there were forty-two between the ages of 10 and 40. Seven were males and three females. The arteries involved were: Left internal carotid, *Case I*; right Sylvian, *Cases II* and *V*; left Sylvian, *Cases III, V* and *IX*; basilar, *Cases IV, VII* and *VIII*; and anterior communicating, *Cases VI* and *X*. The aneurisms ranged in size from a small pea to a large cherry. With the exception of *Case IV*, they were sacculated, and communicated with the lumen of the vessel by an orifice smaller than the circumference of the sac. In *Case V*, there were two aneurisms, one on either Sylvian artery. In *Case III*, the aneurism was surrounded by thickened meningeal tissue; in the others the sac was free. In five cases the hemorrhage was meningeal, and the laceration of brain substance was slight. In *Case III* the hemorrhage was altogether into the substance, which, from Coats' account, seems not uncommon. The extravasation was usually basal, and beneath the arachnoid; the amount of blood considerable, except in *Case I*. In *Case X*, the hemorrhage extended along the right optic nerve and appeared as sub-conjunctival ecchymosis.

In *Cases III, VII, VIII* and *IX* there was heart disease; in *Case VIII*, ulcerative endocarditis. In *Cases I, V, VI, VII* and *IX* there were atheromatous changes in the branches of the circle of Willis.

Embolism, endarteritis and atheroma are the chief causes of aneurism, and the cases in this series afford illustration of each. Although it was suggested by Ogle,† Church‡ and others that embolism played an important part in the production of aneurism, the evidence was not very conclusive until the publication of Ponfick's observations in 1873.¶ In several of his cases, the connection of the embolus with the aneurism was very clearly demonstrated. Of the cases here recorded, four were associated with heart disease, but in only one, *Case III*, was

\* Glasgow Medical Journal, 1873.

† Medical Times and Gazette, 1866.

‡ St. Bartholomew Hospital Reports, Vol. VI.

¶ Virchow's Archiv, Bd. LVIII.

the condition suggestive of the previous occurrence of embolism. In this patient, a lad of 20, with aortic valve disease, the aneurism projected directly into an oval cyst with reddish-brown contents, and there can be but little doubt that here, on a former occasion, there had been a lesion of the vessel, most probably embolic. Ponfick supposes that this occurs by a weakening of the wall due to direct contact of the embolus. Recently, I have had an opportunity of studying an aneurism of the renal artery which had developed on one of the primary branches, and, indeed, involved to a slight extent the bifurcation. There was ulcerative endocarditis and a large infarct in the lower end of the right kidney, with considerable fibroid change about it. The vessel going to this part was obliterated and fibroid in the great part of its extent, but for one-fourth of an inch from the main division it was dilated and aneurismal. The walls were greyish-red in color, softer than normal, and the coats could be readily separated. Here the aneurism had developed on the proximal side of the obstruction in consequence, apparently, of interference with the nutrition of the coats of the vessel.

In the other cases associated with heart disease, there did not appear to be any trace of previous embolic lesion in the affected vessels. In five cases there were atheromatous changes in the vessels of the circle of Willis, and I think this process stands in more frequent connection with the formation of these aneurisms. Patchy atheroma, with fatty changes in the intima, is very common in the larger arteries of the brain, and I have met with instances in which the branches of the middle cerebral arteries were chiefly or alone involved. The occurrence of so many of these cases under the age of 40 has been urged in favor of the embolic theory, but atheroma, particularly in isolated foci, may occur in the young. A weak spot in one of the large cerebral vessels would be specially liable to yield, as the pressure in these branches is so directly communicated from the aorta.

In *Case IV*, the dilatation was due to local endarteritis, which was possibly associated with recent syphilis. There was sub-endothelial proliferation, and infiltration of the media with leucocytes.

The clinical history of cases of cerebral aneurism is necessarily

meagre, as they rarely cause symptoms prior to rupture. In five of the six cases in which this took place, death occurred rapidly. In *Case I* the hemorrhage was small, and the patient lived about six weeks.

*CASE I—Aneurism of left internal Carotid.*—Female, aged 53, admitted, under Dr. Geo. Ross, Dec. 24th, with headache and debility. Three days before she had had an epileptiform convulsion, followed by drowsiness, and in the succeeding forty-eight hours there were four other seizures. There was no paralysis, but the chief symptom was a rambling delirium, from which she could be roused, and then would answer intelligently. Urine albuminous. She remained in this state for nearly five weeks. On Jan. 25th the right arm was flaccid. Insensibility supervened, and death, about six weeks after admission. The post-mortem showed atheromatous arteries at the base of the brain, and on the left internal carotid artery, just before its division, a sacculated aneurism the size of a hazel-nut, which communicated with the lumen of the vessel by an orifice 1 by  $1\frac{1}{2}$  lines in diameter. The sac contained a firm decolorized clot. In the course of the middle cerebral artery there was recently effused blood, beneath which the brain substance was lacerated to a slight extent. There was an atheromatous patch in the anterior segment of the mitral valve; otherwise the heart was healthy.

*CASE II—Aneurism of right middle Cerebral Artery.*—Mrs. R., aged 40, married, five children, patient of Dr. John Bell, was found speechless in her bed on May 29th. She had been a healthy woman, but had suffered with vertigo, and of late her memory had failed. There was left-sided hemiplegia, gradually deepening insensibility, and death occurred on the night of the 30th. At the autopsy, slight meningeal hemorrhage was found at base and over convolutions of right side. The right Sylvian fissure contained a large clot, and the convolutions bounding it were considerably lacerated. At the main bifurcation of the right middle cerebral artery was an aneurism the size of a bean, about half an inch in length and a quarter of an inch in breadth. At its under surface was a rupture with a ragged orifice. There was no atheromatous change in the vessels at the base. No heart disease.



CASE III—*Aneurism of left middle Cerebral Artery.*—A. R., aged 20, a small, but well-built young man, died suddenly on the evening of the 25th of March, and the body was brought to hospital. No history could be obtained of any previous illness. Brain, on section, presented a large clot on the left side, which involved the lenticular nucleus, internal capsule and part of thalamus, and reached almost to the convolutions of the insula. On carefully tracing the vessels in the left Sylvian fissure, one of the vessels was closely adherent in the angle between the insula and the parietal convolutions. The artery appeared to enter an oval mass the size of a large cherry, which, internally, was in direct contact with the clot, and on slitting up the vessel it expanded into a small aneurism the size of a pea, which occupied about one-third of the oval mass above referred to. The wall of the aneurism presented a rupture 4 millimetres in length. The chief part of the oval mass was made up of a cyst with firm walls and reddish-brown, pulpy contents. No communication existed between this and the aneurism, but at one point the connection of the aneurism and the cyst was very rough and fibrous. A branch was given off just below the aneurism, which looked as if it had been formed at the fork of a vessel. Arteries of the circle of Willis were not atheromatous. Heart hypertrophied; fusion of two of the aortic cusps; no vegetations.

CASE IV—*Aneurismal dilatation of left vertebral and first part of basilar arteries. Endarteritis.*—James B., aged 36, found dead in his bed. Eighteen months before had had secondary syphilis. Extensive coagulum at base of brain from optic commissure to medulla, and extending along the vessels into the fissures and fills the 4th ventricle. The left vertebral and first portion of the basilar much dilated, and in the latter vessel, close to its origin, there was a shallow dilatation, with a small perforation in the centre. The intima was smooth, but in places presented opaque atheromatous areas, which, about the centre of the basilar, very materially reduced the lumen. The carotids and Sylvian vessels normal. Heart healthy. No other regions of arterial disease.

CASE V—*Aneurisms of right and of left middle Cerebral Arteries.*—Male, aged 55. Patient of Dr. Arthur A. Browne. Ill for eighteen months with obscure brain symptoms. Vessels at the base very atheromatous, and just beyond the first division of the left middle cerebral there was a sacculated aneurism the size of a pea. It had not ruptured. On one of the main branches of the right middle cerebral artery there was a second small irregular dilation. In left hemisphere there was an old apoplectic cyst, in the vicinity of which were numerous miliary aneurisms. No valvular disease of heart.

CASE VI—*Aneurism of anterior communicating artery.*—Mrs. G., aged 40, died suddenly in a shop, and was brought to the General Hospital. No history of previous illness. Clots in region of longitudinal fissure, and a uniform sheeting at the base from olfactory bulbs to cord, entirely beneath the arachnoid. One or two spots of atheroma on basilar and middle cerebral branches. Careful dissection of the circle of Willis revealed a small aneurismal pouch projecting from the anterior communicating artery, and on its under surface a slit-like rupture 1.5 millimetres in length. The sac was smooth-walled, very thin, and presented a spot of atheroma near the orifice. Heart normal. Aorta atheromatous. Kidneys a little granular.

CASE VII—*Aneurism of Basilar Artery.*—J. S., old man, over 75 years of age. Death from thrombotic softening in left hemisphere of brain. Vessels at the base atheromatous. An aneurism the size of a large pea was connected with the basilar artery, and lay imbedded in a shallow fossa in the pons. The walls were thick, and did not contain thrombi. Heart hypertrophied. Aortic valves incompetent. Pericardium adherent.

CASE VIII—*Aneurism of Basilar Artery.*—M. W., male, aged 43. Had had syphilis. Admitted with pneumonia, and developed ulcerative endocarditis. An aneurism 6 by 5 millimetres projected from the upper wall of the basilar artery, about its centre, and had formed a bed for itself in the pons. It did not contain clots. Branches of circle of Willis not atheromatous. Heart a little hypertrophied. Recent ulcerations on aortic and mitral valves.

CASE IX—*Aneurism of left middle Cerebral Artery.*—Female, aged 40. Died of pneumonia. Vessels of circle of Willis slightly atheromatous. A patch in the basilar narrowed its lumen considerably. Just before the first bifurcation of the left Sylvian artery there was a sacculated aneurism the size of a pea. The wall of vessel about it not atheromatous; no clots in interior. Heart hypertrophied; vegetations on aortic valves.

CASE X—*Aneurism of anterior communicating artery.*—G. E., a lad of 17 years, admitted Dec 18th in an insensible condition. Three months previously had an epileptic fit, from which he quickly recovered. For eight days past has had severe headache. He remained unconscious and died on the 23rd. Ecchymosis of right upper eyelid and conjunctiva developed while under observation. Extensive hemorrhage at base of brain, involving meninges and extending along the anterior cerebral arteries upon the corpus callosum. On separating the orbital plates of the frontal lobes, and carefully removing the clots, an aneurism (measuring 10 by 11 millimetres) was seen occupying the longitudinal fissure. It was partially imbedded in the adjacent brain tissue, which was a little lacerated. On dissection, it was found to spring from the anterior communicating artery by a very small orifice situated close to the right anterior cerebral. The sac was full of dark blood, walls very thin, and presented a rent of 2 mm. in extent at the lower part. Other vessels of the brain healthy. No heart disease.

Our knowledge of the subject of cerebral aneurism may be thus summarized:—

1. The rupture of aneurisms of the larger arteries is a frequent cause of cerebral hemorrhage in persons under forty years of age; in the experience of some pathologists, the most common cause.

2. The hemorrhage is usually extensive, and may be exclusively meningeal or mainly into the brain substance and ventricles. (*Coats.*)

3. The aneurisms are caused in a few cases by embolism, in a large number by atheroma and fatty change, and occasionally by acute endarteritis.

## QUARTERLY RETROSPECT OF SURGERY.

By FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S, ENG.,

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*Supra-pubic Lithotomy.*—This old operation which was discarded in favor of the lateral on account of its high mortality has, within quite a recent period, been successfully revived. It has been extensively practised by the most eminent surgeons of Germany, Austria, Holland and America; and even that most conservative of surgeons, Sir Henry Thompson, although he had been previously opposed to it, is now its strongest advocate. Sir Henry says (*Lancet*, Dec. 5th, 1885): “It is my belief that in the hands of most operating surgeons this proceeding (the supra-pubic operation) will prove a safer and far easier one than lithotomy, with all its advantages, for hard stones when they have arrived at a weight of about  $1\frac{1}{2}$  or 2 oz.”

This operation is easy of performance and free from many of the dangers which accompany the lateral—such as hemorrhage, wound of rectum, and injury to the neck of bladder if the stone be large. The great objections heretofore to the supra-pubic operation have been the danger of urinary infiltration of the cellular tissue about the neck of the bladder and the risk of wounding the peritoneum. The first danger may almost certainly be avoided if proper antiseptic precautions be taken, and the second need only occur in those rare cases where the peritoneum reaches down between the bladder and symphysis pubis. Even this danger is avoided by making use of Petersen’s method of pushing up an already distended bladder by means of a pear-shaped rubber bag introduced into the rectum and then distended with water. In this way a considerable supra-pubic space is obtained free from peritoneum, and the viscus being supported below, manipulation of its interior is more easy. Sir Henry Thompson’s plan is first to push up the bladder by means of Petersen’s bag and then inject the bladder itself with six or eight ounces of a mild antiseptic solution; carbolic acid 1–1000 is the one used by him, but other weak solutions, as bichloride, boric glyceride, or boracic acid, would answer as well. After the injecting catheter is removed, the penis is firmly ligatured with

indiarubber tubing. An incision about three inches long is made in median line down to the symphysis pubis, and when the transversalis fascia has been reached and cut through, the yellow fat in front of the bladder is seen, and now the finger-nail should be used to clear the tissue over the bladder and thus avoid wounding the veins; when the bladder is reached, it is pulled up by a sharp hook which should enter the viscus, and then an incision is made large enough to admit the forefinger to feel for stone; if very large, the incision in bladder should be increased by gently tearing the parts, and the stone extracted with the two forefingers or forceps. Sir Henry, after the stone has been extracted, leaves the wound open, and for 24 to 48 hours keeps in a large drainage-tube; a soft, full-sized catheter is also introduced into the bladder. Out of ten operations in favorable cases performed by Sir Henry, he has had only one death. He thinks the supra-pubic operation eminently suitable for the removal of tumors; in these cases the wound in the bladder should be kept open by passing two stout silk ligatures through the margins.

The method of after-treatment above described is not the only one which is advocated. Recently a number of cases have been reported where the wound in the bladder has been closed immediately by sutures, as also the incision in the abdominal walls. Von Bruns was the first surgeon to suture the bladder after lithotomy; this he did successfully in two cases in 1857-58. (Editorial *Medical News*, Sept. 12, 1885.) Both cases were in children. Suturing the bladder separately should only be done in suitable cases; if primary union cannot be obtained, owing to position of bladder or condition of parts, it is, of course, useless.

Dr. Géza advocates (*Langenbeck's Archiv*, Bd. XXXII, Hft. 2, 1885) first excising an elliptical portion of the bladder down the mucous membrane, a little larger than the required incision, then incising the mucous membrane and sewing up the bladder with antiseptic silk sutures. The mucous membrane is not included in the sutures.

Dr. Starr (*Amer. Jour. Med. Sciences*, July 1877) reported a successful case, in which he included the abdominal wall and bladder in the same suture. Each stitch passed through one

side of abdominal wound, included a part of bladder wall on one side of bladder wound, and then crossed the wound and included a similar portion of bladder wall on other side, and finally passed through the abdominal wall to surface. When the sutures were tightened, the bladder wall was slightly inverted, and the edges of wound in abdominal walls brought close together.

Dr. L. S. Pilcher of Brooklyn (*Annals of Surgery*, Feb. 1886; p. 171) reported a successful case to the New York Surgical Society of supra-pubic lithotomy with suture of bladder wound. In this case he made an oblique incision into bladder wall, and after removing the stone, closed the wound by eight fine silk sutures passing through only the muscular and sub-mucous layers of the viscus. The external wound was brought together with catgut sutures and harelip pins, and dressed with iodoform and cotton wool. The man went home well on the eleventh day, primary union having everywhere taken place.

At a meeting of the Royal Medical and Chirurgical Society of London, March 30th, 1886 (*Brit. Med. Journal*, April 3), Mr. Richard Barwell read a paper on *Supra-pubic Lithotomy*. The author pointed out a not unfrequent sequela of urethro- or vesico-vaginal lithotomy is an intractable form of vesico-vaginal fistula, and that the supra-pubic operation altogether prevented this. He related the case of a young girl aged 9, from whom he had removed a large stone successfully by the supra-pubic method. The wound closed in two weeks. Also the case of a man aged 60, in whom a similar operation had, with the best results, been performed. The bladder was sutured in both cases. No rectal bag was used. The fluid employed was boro-glyceride. He held that distension of the rectum had very little influence on the anterior fold of the peritoneum, and that injection of the bladder would always raise it high enough.

At the same meeting, Mr. Walter Rivington related the case of a man, aged 61, who had an encysted calculus, which was removed by the supra-pubic method. It could not be extracted with the forceps. Lithotrites were useless, so the stone was broken with hammer and chisel, and extracted piecemeal; weight of fragments, 23 ozs. After extraction, the wound in the bladder and in the soft parts were separately sutured. The patient

rallied well from the operation, and at end of three months was well. He, about this time, had an attack of cystitis, and death ensued. Suppurative nephritis of left kidney was found, with cystitis of the bladder. Although this calculus is not the largest removed from a human bladder during life, it appears to be the largest removed during life with recovery of patient from the immediate effects of the operation.

Mr. W. H. A. Jacobson also reported a case of supra-pubic lithotomy in a young man, aged 19, from whom a large stone was removed. No sutures in bladder or drainage-tube in the wound, or catheter in the bladder, were made use of. He first passed urine per urethram on the 23rd day.

In the discussion which followed the reading of these papers, Sir Henry Thompson said that foreign surgeons agreed with English surgeons in saying that the surgeon with little experience or skill had better use a cutting operation, and the best for him was a supra-pubic lithotomy, with some of the modern improvements. He said that the exact position of the anterior peritoneal fold was of little importance, although he believed, notwithstanding what Mr. Barwell had said, that the rectal bag was valuable, not only from the fact, as Bouley strongly contended, that the supra-pubic interval was increased, but from the fact that it made the bladder firm under the finger, and brought it up from the pelvis into the abdomen. Hildanus, in the 17th century, had shown how it was possible to push up the stone above the margin of the pubes in children by pressure inside the rectum. The distension of the rectum was most valuable in the removal of large tumors of the bladder by the supra-pubic method. There was less hemorrhage; he had only to tie one vessel in nine operations, and eight of the patients were still alive.

Mr. Cadge of Norwich said he wished to throw in a word of caution in this matter against a too enthusiastic recommendation of the supra-pubic operation. At the time of Cheselden and Douglas, men were eagerly in favor of it. Afterwards it was coldly neglected. Experience was too limited at present to justify surgeons in proposing to abandon the lateral operation. About a dozen cases had been referred to that evening, with two deaths. He thought, at least, ten of these cases could have

been dealt with by the lateral operation, and Mr. Creighton of Dundee had shown that stones weighing from 4 ozs. to 8 ozs. might be successfully dealt with by the old operation. A dozen operations with one death! Martineau of Norwich had done 84 lateral lithotomies, with two deaths. He agreed with Mr. Barwell in saying that distension of the rectum was not of much use in raising the pre-vesical fold of peritoneum, but that it was mainly useful in raising the fundus of the bladder, which it could do even as much as two inches. The absence of hemorrhage was another quoted advantage of the high operation, but in the dozen or so of cases reported that evening there had been three with decided hemorrhages. If the rectal bag were injected as full as Petersen advises (22 ozs.), there was danger of rupturing the rectum, as happened in one of his own cases.

Both Mr. Chas. Stewart and Mr. Bryant stated that they had tested the effect of the distension of the rectum on the position of the bladder, on the dead subject, and their experiments agreed with Dr. Garson's. There was no doubt more bladder surface was exposed above the pubes by distending the rectum.

Mr. Lund urged that in the lateral operation, the danger arising from bruising the tissues made them unfavorable for healing; there was no bruising in the supra-pubic method. The use of anæsthetics, he believed, was one reason why the operation might now be regarded with more favor than it was during the last century.

Dr. Orłowski of Warsaw reports (*Deut. Zeitschr. f. Chir.*, Dec. 1885) three cases of supra-pubic lithotomy, with one death in a very debilitated old man. The author encountered a case in which the pre-vesical fold of peritoneum reached down as far as the pubic symphysis, and in consequence he insists on using a grooved director when incising the abdomen. He advocates the use of silk thread passed through the muscular walls of the bladder instead of hooks or retractors. He advises the immediate suture of the bladder; which mode of treatment, he says, shortens the after-treatment by ten days.

*Lithotomy at German Surgical Congress.*—At the recent meeting of the German Surgical Congress, held at Berlin April 7th, lithotomy was discussed. The discussion was opened by



Koenig (Göttingen), who said that in his experience median lithotomy was the safest and easiest, and the wound healed more rapidly than by any other method. His experience with the hypogastric method was small, but unfavorable. Out of five cases of supra-pubic lithotomy he had lost four; three of these died of pelvic cellulitis. According to Merewin, of 147 median lithotomies only 9 died, whilst Garcia, in 94 cases of the supra-pubic, noted a mortality of 24 per cent.; 5 cases died of pelvic cellulitis. Tuffier, in 120 cases treated by this method, gives a mortality of 27 per cent. Koenig's conclusions are that for small stones the median perineal operation is the best, and that the supra-pubic method, although it exposes the patient to the risk of urinary infiltration, gives easy access to the bladder, and the extraction of large stones and foreign bodies can be easily effected by it. After the median perineal operation, he always plugs the wound with iodoform gauze, which was removed when saturated, and the wound and bladder washed out.

Ebermann (St. Petersburg) thought that for most stones the median perineal was the best. In cases of encysted calculi and enlarged prostate, he preferred the supra-pubic; he looked upon lateral lithotomy as a superfluous method. With regard to lithotripsy, it furnished the best results (in the speaker's own cases a mortality of 1 in 12), but required much practice. It should not be performed without rendering the bladder aseptic. It was contraindicated in paralysis of the bladder, or when that organ was very irritable, or when stricture of the urethra existed. Where there was old suppurative disease of the bladder, or a renal lesion, he preferred lithotomy.

Bergmann (Berlin) defended the supra-pubic operation, and held that it was not so dangerous as stated. In a general way he agreed with Koenig. The great advantage of the supra-pubic method was that the bladder could be surely emptied of calculi. He did not think cellulitis followed this operation as often as it did the median perineal. Cellulitis could be avoided in the supra-pubic operation by the immediate closure of the bladder by Lembert's suture and by the employment of iodoform gauze dressings. In most of his cases the bladder united by first intention, and in a few the urine flowed for a day or two. He was

in the habit of closing the upper end of the abdominal wound and dressing it with iodoform gauze, leaving the lower end open, so that if cellulitis occurred it would be localized. He preferred the supra-pubic method in all cases complicated with renal affection.

Trendelenburg (Bonn) did not suture the bladder, but introduced a drainage-tube, and for the first few days made the patient rest on the side; by this proceeding he had obtained the best results.

Volkman (Halle) said that he had had only two deaths in a hundred cases of lithotomy by the median perineal method; he preferred this method because the prostate was not injured, and he had extracted in this way stones of large size. The supra-pubic method he considered more dangerous than ovariectomy. If the stone is large, he crushes it in the bladder, through the perineal wound. The supra-pubic method should be employed only where the stone is very large.

Schède (Hamburg) also practised the median perineal operation. He was in the habit of suturing the cut edge of the urethra to the skin and so avoided hemorrhage. He also introduced a tube the size of his thumb into the bladder, and for the first eight days washed out the bladder with boracic solution. Lithotripsy often left fragments in the bladder.

Fuersteinham (Berlin) and Schönborn (Königsberg) defended the operation of lithotripsy, and held that when it was badly performed it was dangerous, but in the hands of skilful and experienced men was the best operation.

Sonnenburg (Berlin), encouraged by the success of Bergmann, Trendelenburg and Dittel, had practiced the supra-pubic method with the best results, even in very obese individuals. He alluded to two supra-pubic operations where a fistulous opening resulted. He thought these cases of fistulous openings resulted from an adherence between the bladder and the walls of the abdomen. Once he had wounded the peritoneum in a case where it had reached and was adherent to the symphysis pubis. The patient recovered.

Israël (Berlin), in one case, had seen this anomalous arrange-

ment of the peritoneum. When a fistulous opening resulted from the supra-pubic operation, it required very energetic measures to close it. In one case he had resected the whole cicatricial tissue and applied a new kind of suture. He had employed Ebermann's method of suturing the cut edge of the bladder to the abdominal wound with good results as to preventing the occurrence of cellulitis.

Gussenbauer (Prague) said he preferred lithotomy to lithotomy, except in those cases where the stone completely filled the bladder, the bladder was injured, or the kidneys were diseased. The perineal operation was very well when the stone was small, and he always had recourse to it when operating on children. When it was necessary to crush the stone, he preferred the lateral operation. He only employed the supra-pubic operation when the stone completely filled the bladder. He has had two such cases. In one, the peritoneum came down to the pubis and it was wounded; the patient, who was suffering from pyelo-nephritis, died of acute peritonitis. In the other case, the stone was so large that he had to detach the origin of the two recti muscles in order to extract it; the patient recovered. In fat subjects, he thought the supra-pubic operation should not be performed. After the median perineal operation, he always plugged the wound with gauze, and did not introduce a tube, which irritated the bladder, but preferred to catheterize the patient for a short time after the operation.

Kuester (Berlin) said that perineal section was sometimes not sufficient. When the prostate was enlarged, the bladder could not be thoroughly explored. On these occasions he had to resort to the supra-pubic method, after having failed to complete the operation by the perineal incision. It was not always possible to dilate the prostatic urethra without tearing the parts. In two cases he had torn the prostate and caused the death of the patients.

Petersen (Kiel) thought that relapses after lithotomy were not always due to the manner of performing the operation, for very often they are caused by a new descent of stones from the kidney. He could not understand why his method of distending the rectum was not accepted. It was not necessary to wound

the peritoneum when his method was not employed, but by it the operation was greatly facilitated. Fistulæ following the operation were caused by a too rapid healing of the abdominal wound before closure of the bladder incision. The external wound should be kept open till the bladder wound was closed. The discussion had convinced him that, contrary to his previous views, there were cases where it was necessary to perform lithotripsy.—(Condensed from *La Semaine Médicale*, April 21st and 27th.)

This discussion seems to prove that, in Germany at any rate, lithotripsy has been to a great extent abandoned for median perineal lithotomy, and also that the supra-pubic operation is yet on its trial, and only employed for very large stones and in those cases of hypertrophied prostate where perineal section has failed. This discussion will be a surprise to most English and American surgeons, among whom the idea is growing that lithotomy has had its day and lithotripsy is the operation of the future, with, perhaps, occasional supra-pubic lithotomy for large hard stones. Much more light is needed before a proper conclusion is arrived at. It is certainly significant that so many German surgeons of such immense experience should be so strongly in favor of median lithotomy.

*Simple Fracture of the Patella.*—The treatment of this fracture is still a subject for discussion among surgeons. Some advocate wiring the fragments, others prefer using apparatus. In considering the treatment of this injury, which does not always come under the care of the pure surgeon, but is often treated by the general practitioner, that method ought to be advocated which is the least dangerous as regards the life of the patient. Now any medical man is capable of treating fracture of the patella successfully by plaster or other splints, but only a few can with impunity cut into a knee-joint and suture the fragments without risk to the patient, and even these few, who must be men of large experience in modern surgery, have their failures. Certainly by suturing we get bony union, but is this much to be preferred to the close fibrous union obtained by other methods without the patient running any risk of his life. I have seen cases of fracture of the patella, where suture of the fragments has

been resorted to by very able surgeons, and yet suppuration has taken place and the joint been destroyed. It certainly appears to me wiser to advocate the safer plan, and one suited to men of even limited surgical experience. I know that if it ever happened that I should be unfortunate enough to break my patella, I should decline to have the fragments sutured, but should prefer Heath's treatment by aspiration, if necessary, and the immediate application of plaster-of-paris bandages. This is the method that I myself have employed during the past two years with very good results. In my opinion, wiring the fragments is only justifiable in cases of compound fracture of the patella.

At the meeting of the New York County Medical Association, held October 19th, 1885, Dr. Fred. S. Dennis read a paper on "*Fracture of the Patella, with illustrative cases*" (*Med. News*, Oct. 31, '85). The paper was devoted to the treatment of this accident by wiring together the fragments. He stated that previous to 1883 two cases out of 49 treated by this method had terminated fatally, while in 6, suppuration and ankylosis had followed the operation. Since 1883 a great number of cases had been treated by wiring the fragment, without, as far as the author knew, a single death and with but three cases of suppuration. Dr. Dennis stated that personally he had treated some 60 cases of fracture of the patella, and that previous to adopting the wiring he had obtained the best results from the method of the late Dr. James Little with plaster-of-paris. With the new operation, bony union is the rule. The advantages of operation are: 1. Absence of danger to life and limb. 2. The superior results as regards the function of the limb and the joint. 3. The greater rapidity of repair. In one case amputation had been necessary because erysipelas had been contracted. He had had one death following wiring of the patella, but in his opinion the operation had nothing to do with the result. At the autopsy (six days after) the joint was found aseptic. Death was due to delirium tremens and Bright's disease. There was firm bony union in this case. After describing this operation in detail, he ended with the following conclusions:—

1. In compound fracture of the patella, there is not the slightest doubt of the propriety of the operation.

2. In recent and old fractures, under ordinary circumstances and with the patient's consent, it is wholly justifiable.

3. In debilitated patients and those suffering from organic diseases, the operation should not be performed.

4. It is not an operation which can be indiscriminately performed. It should never be undertaken by the inexperienced or by those who have not the most complete faith in the efficacy of antiseptic surgery.

5. Success depends on the most thorough carrying out of the minutest details of antiseptic procedure.

Dr. Dennis exhibited a number of interesting cases after the reading of the paper.

Robt. L. Swan (Dublin), in a letter to the *Brit. Med. Jour.*, Jan. 9th, 1886, gives the following description of his method of treating transverse fracture of the patella:—"An Esmarch's bandage having been applied to the limb, a vertical incision four inches in length is made, commencing one inch above the base of the patella, through skin and fascia, down to the tendon. The coverings having been reflected, a transverse incision is made through the tendon, carefully avoiding its posterior investment at the centre of the incision, or three inches above the patellar base. The anterior fibres of the vasti, which are found to act on the aponeurotic bands, which cause the upper fragment to revolve on its own axis and thus produce gaping at the site of the fracture, are now divided as much as may be necessary. The fragment is then found to lie evenly in its position. Strict antiseptic precautions, physiological pressure, and avoiding the disturbance of the reparative processes, ensure a speedy healing of the wound."

Mr. Walter Rivington, in the *Lancet* of Jan. 24th, 1885, reports a case of transverse fracture of the patella in which he aspirated the joint and then attempted to approximate the fragments with Malgaigne's hooks inserted into strappings of gutta percha. Soon, however, pus was oozing out where he tapped the joint, so he cut down, washed out the joint, and sutured the patella. Result was bony union, but very little movement.

In the *Annals of Surgery* for September, 1885, Dr. Geo. B. Fowler reports a case of compound comminuted fracture of the

patella in which he used wire sutures. There was necrosis of upper fragment, which was removed. The patient recovered with a useful limb.

*Suture of Patella with Catgut.*—Dr. Stimson showed the New York Surgical Society, Jan. 26th, 1886, a patella which he had occasion to divide in an operation of excision of knee. The patella was sutured with catgut. Subsequently he removed the patella, which was so thoroughly united that the line of union could not be seen.

*Antiseptic Irrigation of the Knee-Joint for Chronic Serous Synovitis.*—Dr. Robt. F. Weir published a paper on the above subject in the *New York Medical Journal* for Feb. 20th, 1886. He says that though the treatment of chronic synovitis by evacuating the joint of its excessive secretion and washing it out with a carbolic acid solution has been known to many surgeons since Schede wrote on the subject in 1875, yet it has not been appreciated and practiced by surgeons as it should. Its merit has been largely tested in Germany and Austria. Rinne's conclusions are "that puncture and washing out of a joint with a three or five per cent. solution of carbolic acid is to be recommended in—1, Subacute or chronic synovitis after failure of the usual treatment. 2, In undoubted hydrops articuli. 3, In threatening pyarthrosis from any cause. 4, In certain obstinate cases of gouty synovitis." Dr. Weir, from his own experience, is convinced of the value of this method of treatment in chronic serous synovitis, and thinks it a plan which can be applied, not only to the so-called hydrops articuli, but also to the lingering effusions that remain so often obstinate to the use of rest, elastic and other pressure, and counter-irritants from iodine to the Paquelin cautery. The puncture is made at the inner or outer side of the upper synovial pouch, after it has been rendered more tense by pressure from the opposite side. If this pressure is carefully managed, not only at this stage, but also during each evacuation of the joint, being gradually removed while the joint is filling up with the carbolic solution, there will be no entrance of air into the articulation. A rather large-sized, carefully disinfected, ordinary trocar and canula is chosen to avoid the plugging of its lumen by the lymph flocculi. After the joint is

evacuated of its fluid, a 1 to 20 warm solution of carbolic acid is allowed to flow from a fountain syringe through the cannula till the joint is distended, when the nozzle of the syringe is removed and the solution permitted to escape from the joint; this should be repeated several times till the fluid comes out clear. The joint is finally emptied, and while pressure is firmly made the cannula is withdrawn with a jerk and the knee enveloped in sublimate gauze dusted over with iodoform, over this absorbent cotton, and the whole bandaged and then immobilized with a plaster-of-paris splint." This treatment is attended by but slight reaction and the best results. Dr. Weir narrates seven cases to show the value of this treatment, and concludes by saying that Volkmann has been able to effect a cure and save the limb by repeating these injections three or four times at intervals of several weeks.

*Surgical Treatment of Peri-typhlitic Abscess.*—Dr. Wm. T. Bull (*New York Med. Record*, March 6th, 1886) reports a most interesting series of cases of peri-typhlitic abscess, where he had cut down (in some cases 48 hours after the symptoms became acute) and opened the abscess to the great relief and safety of the patient. In these cases Dr. Bull advocates early exploration with a long needle attached to a very tight syringe. In one case, where no pus was found by thrusting a 3-inch needle directly backwards into the iliac fossa, by using a longer needle and pushing it from a point above and behind the anterior superior spine toward the middle of the fossa to the depth of four inches offensive and bloody pus was met with. An incision was made above and to the outer side of the middle of Poupart's ligament, and about an ounce of foetid pus evacuated. Six weeks after a calculus was removed from the bottom of the sinus with forceps. In this case the operation was performed within 48 hours of the onset of the acute symptoms. The author goes on to say that in peri-typhlitis the general symptoms and local conditions may furnish valuable indications of the presence of pus, but thorough exploration with the needle is the best means of diagnosis. He strongly insists on opening these abscesses early, as soon as pus can be got by needle exploration. For even when the abscess opens into the bowel it is still apt to burrow, and if



it does not eventually cause the death of the patient, leaves sinuses which last for months. No time can be fixed for opening these abscesses. We must be guided entirely by the evidence afforded by needle exploration. The author states that the results of Dr. Noyes' investigation of 100 cases treated by incision 85 per cent. recovered, a mortality of 15 per cent; in the 67 cases collected by the author in 1872, when no early operation was performed, the mortality was 47 per cent.

Dr. Bull's paper is a very valuable one, and especially directs the attention of medical men to the importance of looking for the formation of pus in these cases, and not waiting till it either comes to the surface or bursts into the peritoneum, and shows conclusively the great benefit, as regards the life of the patient, of evacuating these abscesses at the earliest possible period.

I can recollect seeing not a few cases in the post-mortem room which, if they had been treated in the manner described by Dr. Bull, would, perhaps, still have been fulfilling their earthly duties. In one remarkable case reported to the Montreal Medico-Chirurgical Society some years ago, the pus had burrowed upwards, had perforated the diaphragm, and filled one of the pleural cavities. The importance of early and frequent needle exploration in cases, where the general symptoms and local conditions indicate the formation of pus, cannot be too often and too strongly insisted on.

*Digital Divulsion for Pyloric Stenosis.*—(Loreta's operation, see Retrospect for March, 1885.)—In the *Medical News* for January 16th, 1886, is a record of two operations for digital divulsion of the pylorus performed on the same day, July 16th, 1885, in St. Luke's Hospital, New York, by Dr. C. McBurney. Both these operations ended fatally. One, a woman, who had simple stenosis, died of hemorrhage due to laceration of the pylorus. The second case was that of a woman aged 52, who died 30 hours after the operation of suppression of urine. At the post-mortem, the pylorus was found widely dilated, and no rupture of the mucous membrane existed. The stenosis in this case was caused by a large, old ulcer situated posteriorly, and partially cicatrized. The base of the ulcer was adherent to the pancreas, and the edges were much thickened. The pyloric

orifice lay immediately next to the right and upper edge of the ulcer.

*Excision of Pylorus for Cancer.*—This operation was reported to the Surgical Society of New York by Dr. Sands (*Medical News*, March 20th, 1886). The patient, a man aged 31, suffered from dyspeptic symptoms for the last three years. Tumor felt at pyloric extremity. An incision was made transversely about  $3\frac{1}{2}$  inches long, directly over pyloric extremity. After separating peritoneum and enclosing the pylorus between two sets of clamps, the stomach was then cut through. The wound was brought together by seven interrupted silk sutures internally and six Lembert's sutures, four of silk and two of catgut. The operation lasted four hours. Patient gradually sank and died about 36 hours after the operation. Dr. Sands stated that the operation had been performed too late, and was sorry he had not performed Loreta's operation. At the post-mortem, the cancerous infiltration was found to extend beyond the line of section.

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### Correspondence.

MARBURG, April 24th, 1886.

To the Editors of THE CANADA MEDICAL & SURGICAL JOURNAL.

DEAR SIRS,—In communicating the few following notes, I write, not because they contain anything specially new, but to give a little idea of what is going on in the smaller university towns in Germany; from the greater centres we often hear.

As regards hospital advantages, laboratory accommodations, and strength in the teaching staff, I believe that Marburg's medical advantages compare favorably with those of many large cities. I was perfectly astonished at what I cannot wait to describe—the number, elegance and commodiousness of the various hospitals, laboratories and institutes employed and set apart for the study here of medical science in its various branches.

Through the courtesousness of Professor Roser, I have been permitted to attend his surgical klinik for some time back. The building is a fine one of brown sandstone, and is in most respects a very well-appointed institution. On first attending the klinik one is struck by the number of patients daily presenting them-

selves for surgical treatment. Marburg, with its 16,000 inhabitants, and healthy situation, can never supply all those tuberculous joints, those cases of lupus, spinal caries, etc. They come largely, if not mainly, from the agricultural population, who, as is well known, do not live each on his own farm, but are crowded together in little, old villages with narrow, crooked streets. The little clusters of red-tiled roofs in the rich green thals look beautiful, but, truly, " 'tis distance lends enchantment to the view." Stand in these narrow village streets—see the brown stable-dyed water running in the gutters before the doors—see horses, cattle and sheep housed in buildings side by side with the homes of men, women and children—see the compost heaps a few feet only from the front doors of human dwellings—see those houses, the ground floors of which are either literally ground floors, or are placed directly upon the damp, undrained earth ;—think of these villages, and you cease to wonder at the melancholy army with swollen, tuberculous knees, with ruined ankles, with hip-joints that would satisfy the most enthusiastic orthopœdist, at the large number of consumptives in the medical wards, and the prevalence of granular lids in the eye klinik. Another striking feature in the klinik is its discipline ; during operations, perfect stillness reigns, save for the short peremptory commands of the operator, which are obeyed with a quickness and precision that are admirable.

Chloroform is the only anæsthetic used. Prof. Roser claims that they have no accidents here with it. It is nicely administered. A little oval-arched wire frame, large enough to cover lightly mouth and nose, is bent to a handle at one end, and covered inside and out with thin, open gauze ; the chloroform is poured from a narrow, bent tube passing through the cork of the bottle on the outside covering, and at once sinks to the lower ; the lightness and openness of the whole affair insures a good mixture of air, and the consumption of chloroform does not seem to be great. I mention this little instrument because it is so easily made and so much more convenient and manageable than the handkerchief or towel so commonly used.

All vessels are tied with catgut. Instead of sponges, simply small pieces of soft, white gauze are used, such as is employed

for bandages. These are first wrung out of a 1 to 1000 solution of corrosive sublimate. All washing of wounds, opening of abscesses and after-dressing is done with the irrigator or fountain-syringe, containing the standard solution of corrosive sublimate. Carbolic is not employed, except to disinfect instruments; for all other purposes, corrosive sublimate solution of the above-mentioned strength is generally employed. Here we must except old, indolent or foul sores, or cavities that require to be filled with some antiseptic preparation; in these cases, iodoform or iodoformed gauze. The antiseptic dressings of wounds, while being thoroughly effective, are so simple and readily prepared as entirely to remove the objection so often urged against antiseptic surgery, "It is too complicated for private or specially country practice." I therefore take the liberty of being a little minute.

When an operation is to be performed, the limb is thoroughly cleansed, shaved where necessary, sponged over with ether, and then with the sublimate solution. The hands of the surgeon are carefully rinsed in the same, and ligatures and instruments are all in antiseptic fluid. After the operation is over, and all vessels tied, the wound is irrigated with the 1 to 1000 sublimate solution before it is closed, and again afterwards through the drainage-tubes, which are generally very large. The dressings are now applied. Soft, white gauze, called in Canadian stores chesse-cloth or butter-cloth, is the material used for the wet dressing. This is so folded as to make a bandage of 8 to 16 ply, 6 to 8 inches wide, and 2 to 3 feet long, or according to the size of the limb to be dressed. This, having been previously wrung out of a corrosive sublimate solution 1 to 1000, is carefully applied; another of equal size follows, the dressing being carried well above and below the wound, so giving sufficient surface to absorb all discharges. The whole is now enveloped in a 6 to 8 ply square of the so-called "Braun stück"; this consists of the same material as the above, being, however, unbleached and dry. The whole is secured by a broad, light, dry gauze bandage. When the dressing, after three to five days, is removed, it is interesting to observe that the brown gauze outside is still perfectly dry and clean, even if the under-dressings have

been soaked with the red, fresh-looking discharges. One scarcely sees pus here except from freshly-opened abscesses. The recovery of patients from extensive surgical operations without pus, and with little or no elevation of temperature above normal, is rapidly becoming an old story in the history of antiseptic surgery; and yet in the light of the history, as a whole, of such operations as amputations and excisions, we cannot yet fail to admire and to wonder at such results, especially when we consider that these appliances and dressings can be prepared in a few minutes, and applied without the slightest difficulty by any surgeon, as well in country practice as in the hospital.

During the holidays I have had good opportunities of closely observing the daily temperatures after such operations as excision of the elbow, amputations in young and old, removal of large tumors, scraping out tuberculous knee-joints, etc., and I have been delighted to observe the majority of these run through their course to convalescence with practically normal temperature, and seldom have I seen, in the most severe cases, a temperature of over  $38^{\circ}\text{C}$ . ( $100.4^{\circ}\text{F}$ .) during the process of recovery.

J. H. D.

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### Reviews and Notices of Books.

#### **Student's Manual of the Disorders of Menstruation.**

By JOHN H. UPSHUR, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Virginia, Richmond, Va. New York: G. P. Putnam's Sons.

The dedication of this little manual to the memory of the author's father we revere and respect, but we are somewhat at a loss to know why a professor of materia medica should choose a subject of this nature for his essay. So far as we can see, it is fairly correct in its teaching, but altogether too prolix and indefinite for a student's manual. It might suit a general practitioner of five or ten years' practice when on a holiday trip or some such condition of ease and irresponsibility. The instruction given to those who have the care of the young "girl of the period" is good regarding dress, exercise, and forced education. The book is full of quotations from works of eminent writers of

the day. There is one, particularly prominent, from that talented but eccentric surgeon, Mr. Lawson Tait. The gist of this is that many young girls, when they have arrived at puberty, exhibit, by gestures and language, such feelings of vague uneasiness that they should be treated as insane—erotomaniacs. Views of this kind may hold good as relating to young women of Virginia, where the enervating influence of so hot a climate leads to such marked indolence in all pursuits. As in Spain, perhaps, the matured female has either to be married or locked up on low diet. But to apply such a doctrine to young women throughout the world at large is not only erroneous, but is an offence to medical men of culture and refinement.

In the chapter on menorrhagia, the author writes concerning the welfare of widows: "They are suddenly cut off from the normal gratification of the sexual appetite, and the strain falls upon the ovaries; the result is menorrhagia. If a specular examination be made, oftentimes the sexual excitement will be both manifest and for a few moments uncontrollable, amounting almost to a complete orgasm." In the next edition we would suggest to the author that he add to the title of the book the words "Or the Widow's Distress." This would be sure to take. In speaking of the treatment of these cases on page 139, the author completely breaks away with lofty sentimentality and gives utterance to advice so ridiculously impracticable, that we do not think any man, on this globe at least, is pure enough to entitle him to assume so angelic a character. Although containing a few surgical inaccuracies, this little volume may be perused with interest by young and middle-aged medical men, and perhaps also by mothers of a large family of interesting young daughters.

**Six Lectures upon School Hygiene:** Delivered under the auspices of the Massachusetts Emergency and Hygiene Association to Teachers in the Public Schools. Boston: Ginn & Company. 1885.

This is a work which should be read by all who are engaged in the teaching of all kinds of children. The mischievous effects of the teaching of the present day is, unfortunately, not gene-

rally recognized in the quarters whence relief should come. The voice of the profession for many years has been loud in crying for a relief, which is certainly coming, but all too slowly. We believe this work will hasten the time when the great object of education will be properly and universally understood. The lectures are by medical practitioners, each one well qualified by experience and judgment in the subject with which he deals. The first is on "School Hygiene," by Dr. Wells, the President of the Association, under whose auspices the lectures were delivered. The second is on "Heating and Ventilation," by Dr. Draper, Professor of Legal Medicine in the University of Harvard. The third is on "The Use and Care of the Eyes, especially during school years," by Dr. Williams, Assist. Surgeon of the Massachusetts Eye and Ear Infirmary. The fourth is on "Epidemics and Disinfection," by Dr. Shattuck of Boston. The fifth is on "Drainage," by Dr. F. Wells of Boston; and the sixth is on "The Relation of our Public Schools to the Disorders of the Nervous System," by Dr. Folsom, Physician to the Out-patients with Diseases of the Nervous System, Boston City Hospital.

### **Rome in Winter and the Tuscan Hills in Summer:**

A contribution to the Climate of Italy.—By DAVID YOUNG, M.C.M.D., &c. London: H. K. Lewis.

This little work will be found a reliable guide to those who wish to possess detailed information on the climate of Rome and its neighborhood. The opening chapter is devoted to the effects of climate on morbid conditions in general. This is followed by a description of the climate of Rome and its effects upon health and disease. The author is convinced that Rome does not deserve the name that it very commonly gets of being the most unhealthy city in Europe. Acute diseases prevail throughout Italy, and particularly in Rome, to a greater extent than they do in England and northern climates generally, while chronic diseases are not nearly so frequent. Bright's disease, diabetes and all those chronic diseases due to degeneration are comparatively rare in Italy. That this difference is not due to a difference in the mode of life is shown by the fact that chronic diseases

are as rare in the rich as they are in the poor. This is one of the most interesting facts brought out by Dr. Young in his work, and in this connection he asks the pertinent question, Is there not a hope that by timely change of air many of those cases of disease due to chronic degenerative changes may not be prevented or arrested?

Pneumonia and acute malarial affections are the prevailing acute diseases of Rome. The great frequency of the latter is shown from the statistics of the two largest hospitals in the city, two-thirds of the total admissions being due to malarial poisoning. The mortality from this cause is not very great, however. The deaths from typhoid fever in Rome are alleged to be less than in any other capital of Europe, with the exception of London. One of the chief dangers of the Roman climate is that which arises from its great variations of temperature. The changes are very great and very sudden during the spring months. Full directions are given by Dr. Young as to the best way of counteracting the evil effect of these changes. He also enters into detail as to the proper mode of living for strangers, especially for those in search of health. One of the most fruitful sources of trouble is brought on by the imprudence of visitors in walking about all day and thus fatiguing themselves, and easily rendering themselves preys to any atmospheric poison.

The final chapter is devoted to the cases suitable and unsuitable for a Roman climate. The work will be found full of reliable and common-sense information.

**A Guide to the Examination of the Nose.**—By L. CRESSWELL DOBER, M.D., Lond., Surgeon to the Brighton and Sussex Throat and Ear Dispensary. London: H. K. Lewis.

In this little book, too much space is devoted to the anatomy of the nose and methods of conducting examinations, while symptoms and diagnosis receive but small recognition. The addition of two or three chapters on treatment would commend the production to students and busy practitioners as an elementary text-book.



**Nasal Catarrh and Allied Diseases.**—By BEVERLY ROBINSON, A.M., M.D. (Paris), Clinical Professor of Medicine at the Bellevue Hospital Medical College, New York; Physician to St. John's and Charity Hospitals, &c. New York: Wm. Wood & Co.

This comprehensive work, already familiar to us, is rendered still more acceptable by the addition of five new chapters. Dr. Robinson has introduced many theories of comparatively recent origin explanatory of nasal affections formerly but little understood. The many modern appliances receive fitting notice. The author has succeeded in compiling, in a comparatively small space, much, if not all, one need know of nasal catarrh and allied diseases.

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### Books and Pamphlets Received.

**THE PRINCIPLES AND PRACTICE OF SURGERY.** By Frank H. Hamilton, A.M., M.D. Third edition; revised and corrected. New York: Wm. Wood & Co.

**ON ASTHMA: ITS NATURE AND TREATMENT.** By Horace Dobell, M.D. London: Smith, Elder & Co.

**SURGICAL DISEASES OF THE KIDNEY.** By Henry Morris, A.M., M.B., F.R.C.S. Philadelphia: Lea Brothers & Co.

**THE SURGICAL DISEASES OF CHILDREN.** By Edmund Owen, M.B., F.R.C.S. Philadelphia: Lea Brothers & Co.

**PRACTICAL CLINICAL LESSONS ON SYPHILIS AND THE GENITO-URINARY DISEASES.** By Fessenden N. Otis, M.D. New York: Printed for the author.

**DISEASES OF THE SPINAL CORD.** By Byron Bramwell, M.D., F.R.C.P. Second edition. New York: Wm. Wood & Co.

**INSANITY AND ITS TREATMENT.** By G. Fielding Blandford, M.D., Oxon. Third edition. Together with Types of Insanity, by A. McLane Hamilton, M.D. New York: Wm. Wood & Co.

**HANDBOOK OF PRACTICAL MEDICINE.** By Dr. Hermann Eichhorst. Vol. I. New York: Wm. Wood & Co.

**THE GENUINE WORKS OF HIPPOCRATES.** Translated from the Greek. By Francis Adams, LL.D. Vol. I. New York: Wm. Wood & Co.

**THE INTERNATIONAL ENCYCLOPEDIA OF SURGERY.** Edited by John Ashurst, Jr., M.D. In six volumes. Vol. VI. New York: William Wood & Co.

## Society Proceedings.

## MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

*Stated Meeting, March 19, 1886.*

T. G. RODDICK, M.D., PRESIDENT, IN THE CHAIR.

*Excision of the Elbow for Dislocation and Fracture.*—DR. RODDICK exhibited a man on whom he had recently performed excision of the right elbow—one of six cases of excision of this joint operated on during the winter session. He wished to show this case just now as the man was about to leave the city. The operation had been performed for dislocation backwards, with fracture of the olecranon, and both radius and ulna, of three months standing. The ordinary straight incision had been employed, and union by first intention had followed. The result was most satisfactory, the man having all the original movements of the joint. The arm was rapidly developing, so that already he could wield his hammer, being a tradesman.

*Diseased Testicles.*—DR. RODDICK also exhibited two specimens of diseased testicle—one of sarcoma, sent by Dr. Bryson of Port Arthur (no history); the other of tubercular disease, which he had that day removed from a young man aged 25. The latter noticed an enlargement of the left testicle about a year ago, which suppurated and burst, and a sinus still remains. The right one began to swell some three months ago, and at the time of admission to hospital was very much enlarged and the seat of extensive suppuration. It was removed, and found to be very much diseased, the entire epididymis being occupied by a large abscess. No history of gonorrhœa or traumatism, but a distant family history of tubercle.

*Interstitial and Submucous Myoma.*—DR. WM. GARDNER exhibited the specimen and related the case. The tumor was of the size of a foetal head. The patient, unmarried, never pregnant, aged 33, had been several years under observation, suffering from severe pain and excessive tenderness of the left iliac region and from profuse menstruation, lasting from eight to fourteen days. On one occasion, three years previous to operation,

menses ceased for several months, and epistaxis became frequent and profuse. For years the patient had begged for operation. This was undertaken a week ago, the intention being to remove the appendages. The left ovary and tube were easily found, and ligatured, but the right appendages could not be found until the incision was extended and the tumor forced out. They were then found on the floor of the pelvis, and so sessile that they could not be ligatured. Under the circumstances, and in view of the fact that removal of the appendages does not always remove the symptoms of myoma, especially pain, it was decided to extirpate both womb and ovaries. Accordingly, a Tait's wire clamp was applied around the cervix, below the ovaries, and screwed up. The tumor was then amputated, and the stump cauterized and swabbed with a solution of perchloride of iron in glycerine, and secured externally at the lower angle of the wound. The patient did well for the first two days, was then very ill for the next two days, with incessant vomiting, rapid pulse (144), moderately high temperature,—flatus, however, passing after first forty-eight hours; at the end of four days all the symptoms suddenly improved, when copious diarrhoea set in. From this time the patient gave no further anxiety. The clamp was removed on the 13th day. Convalescence was interrupted by an attack of cellulitis, from which she recovered perfectly. The catheter was at no time necessary. The case furnishes an exemplification of the fact that when undertaking the removal of the appendages for myoma, the operator may find, when he gets into the abdominal cavity, that he cannot do this, but may have to proceed to hysterectomy. In this case the extra-peritoneal method most in favor with British operators, and so successful in the hands of Keith, was selected, although it must be admitted that the intra-peritoneal method, when perfected, is that which, in the future, will probably give the best results.

DR. ALLOWAY spoke of having assisted Dr. Gardner, and of the gratifying results obtained by the operation.

*Alexander's Operation.*—DR. ALLOWAY read a report of a case of extreme retroflexion, for the cure of which, after all other means had failed, he performed Alexander's operation of short-

ening the round ligaments. (A full account of this case will appear in our next issue.)

DR. KENNEDY remarked that the operation was still on its trial.

DR. SMITH said that Dr. Alloway's diagrams were most instructive and accurate, and that he congratulated Dr. A. on being the first to perform this operation in Canada. It would, however, be interesting to see the effect of future pregnancies upon Dr. A.'s patient.

DR. WM. GARDNER said he had been present both in consultation and assisting during Dr. Alloway's operation. He looked upon the case as one of the most typical he had recently met with for Alexander's operation. There was not the slightest evidence of pelvic inflammation nor ovarian disease, and still the patient was, and had been for some time, a confirmed invalid, although every other known method of treatment had been adopted for her relief. Dr. G. said, in regard to pessaries in these cases, that increased experience had led him to use them very much less often of late than he had formerly.

The PRESIDENT remarked that he had the pleasure of being present at Dr. Alloway's interesting operation, and that he fully appreciated the difficulty in performing it.

DR. TRENHOLME also reported a case of Alexander's operation, and stated that though some time before the profession, it had not yet obtained an unquestioned place in gynecological surgery. There is still doubt as to the particular class of cases in which it may reasonably be expected to be useful. Further study is needed as to the anatomy of the round ligament. This line of investigation could be helped forward by those who have charge of the dissecting rooms. If the ligament is frequently found to be imperfectly developed, we will then have to see in what class of cases this anomaly exists, for upon this fact will depend the selection of cases. He said it was with this end in view that he now gave the details of a case lately under his care. The history is as follows: The young lady is 26 years of age, slight build, but regularly and well developed, and from earliest appearance of menses has been a sufferer. There are severe pains preced-

ing and following the menstrual flow. Her sufferings are so severe that she is obliged to lie in bed and take sedatives, or resort to hot water fomentations for their relief. The menstrual pains are gradually increasing in severity and duration, so that at present they last for six or seven days. During the flow, and for about a week before the premonitory symptoms of the flow, she enjoys comparative comfort. Upon examination, the uterus was found retroverted and the fundus well down into the hollow of the sacrum. The left ovary was displaced and occupied the pouch of Douglas; it was also tender and slightly enlarged, probably due to chronic inflammation. The right ovary and left Fallopian tube were normal, but there was inflammation of the right Fallopian tube. The uterus was easily replaced, but the prolapsed ovary on the left side and the diseased tube on the right rendered the retention of any form of support a difficult matter. There were no indications of thickening of the tissues from pelvic cellulitis. Under these circumstances he proposed Alexander's operation as a substitute for the more serious one of removal of the ovaries and tubes. The operation was undertaken, when he found the left round ligament so extremely attenuated that it afforded no hope of a successful result, and, consequently, the operation was abandoned. The vein accompanying the cord was very much congested, which he regarded as indicating venous congestion of the pelvic viscera. Dr. T. said that in this case he had no doubt but that the congenital defect of the round ligaments was responsible for the displacement and sufferings of his patient. He might add that withdrawing the cord to the extent of two inches gave no control of the uterus. Whether this was due to a superfluous extent of cord, or some internal adhesions, he did not know. He considered this an instructive case, and from it would gather that the cases most likely to be benefited by this operation are those of acquired dislocations in those who have ceased bearing children, and where we have reasonable ground to expect a normal development of the round ligaments. He submitted this case as a small contribution to the literature of this subject, in the hope that other observers may pursue the investigation and define,

with approximate certainty, the class of cases in which it should be performed.

DR. ALLOWAY said that the proper selection of cases was of the utmost importance. He had pointed out in his paper that there should be no evidence of pelvic inflammation, especially parametric tenderness, nor ovarian disease, and that the uterus should be freely moveable in all directions. Upon these grounds he would draw attention to the unfitness of Dr. Trenholme's case for Alexander's operation; and observe that the reports of such cases tend to bring discredit alike upon a probably humane procedure and upon the surgeon whose name it bears. From the fact that the uterus in Dr. Trenholme's case was easily replaced, and that traction to the extent of two inches gave no control over that organ, Dr. A. was inclined to think that Dr. Trenholme had a fasciculus of muscle-tissue in his grasp and not the round ligament, as supposed. Dr. A. stated that this is a very common error, and that it had happened to himself several times when operating on the cadaver; but from the fact that traction upon this supposed ligament does not control the uterus, if that organ be not fixed, we learn that we have not seized hold of the right structure.

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## HAMILTON MEDICAL AND SURGICAL SOCIETY.

*Stated Meeting, May 4th, 1886.*

THE PRESIDENT, DR. STARK, IN THE CHAIR.

*(From our own Correspondent.)*

After the routine business, the following interesting case was brought before the society:—

*Strangulated and Ruptured Ovarian Cyst—Peritonitis—Fatal.*—DR. MALLOCH exhibited a strangulated multilocular ovarian cyst, and gave a history of the case, which unfortunately proved fatal. When called to see the case the patient had been suffering from Friday till Monday morning and there was general peritonitis. A tense, acutely painful tumor was to be felt on the left side of the abdomen, stretching up from the left iliac fossa to near the false ribs. He advised operative inter-

ference as the only means offering a chance of life. When the peritoneum was opened masses of thick tenacious, jelly like substance escaped with blood clots; the tumor lay so far to the left that it could not be touched; the wound was then enlarged to five inches, the tumor could not then be brought into view until some of the inflamed and distended bowels had escaped. A trocar was passed into the black tense cyst when brought to the wound, but nothing flowed through it, the tumor was then slowly drawn out and in doing so a cyst upon the anterior and superior surface of the tumor was seen discharging its contents, which were similar to what had escaped from the abdominal wound. The pedicle was then untwisted and a ligature applied with the Staffordshire knot, the tumor was then cut away. The first ligature slipped and had to be replaced by three separate ligatures. Sponge after sponge was then removed loaded with jelly-like substance and blood. The patient showed signs of collapse and washing out of the abdominal cavity could not be done; some difficulty was experienced in returning the distended bowels, a drainage tube was left in, and the wound closed with stitches very closely applied. The patient recovered from the shock, but died in thirty-six hours, delirious; temperature in axilla, two hours before death,  $106\frac{2}{3}^{\circ}\text{F}$ ., nothing could be sucked through the drainage tube after the first four hours, so it was removed. He stated that this was the second case of strangulated ovarian cyst that he had met with; that out of three cases of ovarian or par-ovarian cysts seen in two years, two of them were thus complicated. The first case of strangulated ovarian cyst which was successful he had reported to the society in 1884. From this experience one would be inclined to infer that strangulation was not an uncommon event in the history of ovarian diseases, this, however, is not the case, as in Mr. Lawson Tait's first 100 ovariectomies he had only once met this complication, and many ovariectomists had never met with this unfortunate complication. This case, he thought, was peculiarly interesting. It occurred on the left side, whereas by far the greater number of cases are right-sided. To his mind it completely refuted Mr. Lawson Tait's theory with regard to

the cause of the twist of the pedicle in these cases. Dr. Malloch's first case was right-sided, direction of twist not noted; but in this case the direction and degree were seen by all present. In general, as he understands it from Mr. Tait's book, the direction of the twist in right-sided cases is from below outwards to the right and then across to the left, and that the direction is given by the impingement of masses of faeces passing down the rectum. In this case the direction of the twist was from the middle to the left and then round towards the pubis, the rectum being in its normal position, he thought the twist would be the very reverse were it due to the passage of faeces down a left side rectum. From a diagnostic point the case was interesting, as the tumor lay over the descending colon and did not reach the middle line, the length of the pedicle could not have been three-quarters of an inch. The patient had been operated upon for ovarian disease some fourteen years before by Dr. Keith, of Edinburgh. In his first case Dr. Malloch advised an operation to remove tension in the abdominal cavity affected with peritonitis, not knowing that the cyst was strangulated, and he thinks that with symptoms of peritonitis and an abdominal tumor likely at all to be removed an operation is called for.

*Discussion.*—DR. A. WOOLVERTON said he thought the case a very interesting one, and had the operation been performed earlier the patient might have had a better chance of recovery.

DR. LESLIE advanced a theory to account for the twist in the pedicle, supposing the cyst to have first ruptured and set up inflammation and distension of the abdomen, thus causing the twist.

Drs. Philp, Mackclean, Shaw and McCargow made some remarks.

DR. HILLYER read a medico-legal paper bearing on a case in his practice which was freely discussed.



CANADA

# Medical and Surgical Journal.

MONTREAL, JUNE, 1886.

## IODIDE OF POTASSIUM IN INTERNAL ANEURISM.

The undoubtedly marked influence which the iodide of potassium possesses in at least relieving the great sufferings of patients with aortic aneurism is well known. Many have been the hypotheses advanced to explain how this drug acts in the cases where it does good. Its beneficial influence being attributed by some to its "antisyphilitic" action, while others consider it due to an "alterative" effect on the coats of the diseased vessels. That the former is not the true reason is shown by the fact that mercury, a more powerful antisyphilitic agent, has not any influence in even mitigating the symptoms, and further, the iodide acts equally well in those cases where syphilis, as a factor in the production of the arterial weakness, can be absolutely excluded. That it acts through influencing the nutrition of the arterial walls is unlikely when we consider the inutility of agents possessing as high alterative powers. The evidence that it is through a lowering of the intra-arterial tension that the drug acts, is now, it may be said, fully established.

The success of the treatment essentially depends on the bringing about a certain degree of lowered tension. If the lowering is too great it can be readily understood that the progress of the dilatation will be hastened in place of retarded. The lower the tension the quicker is the action of the heart, and any gain obtained by a diminution in the pressure which the weak spot has to sustain is more than counterbalanced by the more constant pressure which is brought about by the quickened heart. That the normal pressure is too high is, of course, self-evident

from the natural history of the great majority of cases of aneurism. We have then to endeavour to find a mean between the normal pressure and one too low. When this mean is obtained, the arterial coats behave, as Balfour puts it, "like a hollow muscle," which hypertrophies when opposed to obstacles with which it is unable successfully to cope. The dose required to bring about this sufficiency of lowered tension and no more, will vary somewhat in each case. From ten to fifteen grains will be found to be generally sufficient. The quantity is easily ascertained by placing the patient in bed for a few days without any other treatment; and his pulse rate attained night and morning for a few days. He is then given ten grains of the iodide three times daily. If the pulse rate remains unchanged the dose is increased to fifteen grains three times daily, and every week an increase of five grains to each dose is made until the pulse begins to rise. When the pulse rate is slightly increased, we have attained the proper quantity. More than that will do harm, less will do no good.

It will be seen, therefore, how important the matter of dosage is in the treatment of aneurism with iodide of potassium. It is to Dr. Balfour, of Edinburgh, that we owe most of our knowledge of the action and uses of this agent in aortic aneurism.

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### LAWSON TAIT'S ABDOMINAL SURGERY.

In the *British Medical Journal* for the 15th of May, there is a remarkable article by a very remarkable man. It is a record of 139 consecutive successful cases of ovariectomy performed during the years 1884 and 1885 by Lawson Tait, of Birmingham. This wonderful achievement places this operation in the list of finished operations. As Tait says the time has about arrived when we had the last word to say about it. The great value of the article is not so much the wonderful record of successful operating, but rather the great suggestiveness of some of Mr. Tait's reflections. One of the most striking of these ideas is the peculiar way in which he alleges he deals with commencing peritonitis. In place of giving the time-honoured opium, he directs his patient to have a smartly acting

purgative, it matters not what. After the bowels are cleared out the peritonitis, he says, disappears. This is all the reference that is made to this important subject. We are not told what he considers to be the essential symptoms of peritonitis. When a traumatic peritonitis can run its course from first to last without any increased action of the heart or elevation of the temperature or any particular form of pain, how can it be differentiated from the many other conditions of a passing nature which closely resemble it?

The sweeping statement that purgatives do good in peritonitis will certainly do much harm. That purgatives are injurious in cases of established idiopathic peritonitis there can be no manner of doubt. That they are beneficial in traumatic peritonitis is highly improbable. Mr. Tait treats suppurative peritonitis as he does an abscess. He opens the abdomen and washes and drains out the pus. There is more logic in this mode of treatment than the purgative treatment of acute peritonitis. Although extremely bold, it is the carrying out of a recognized surgical principle.

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### THE LOOMIS LABORATORY.

The Medical Department of the University of the city of New York has recently received a gift of \$100,000, to be devoted to the construction and maintenance of a laboratory building, to be known as the Loomis Laboratory. The generous benefactor, who desires to remain unknown for the present, deserves the thanks of all who have the cause of higher medical education at heart. It is a good omen for the cause of scientific medicine on this continent, to find men able and generous enough to give so handsomely for the endowment of chairs and laboratories in medical schools. The princely gift of \$50,000 made three years ago by Sir Donald A. Smith to the Medical Faculty of McGill University was almost the first recognition by the public of the great work that is being done by medical schools. Lately the Vanderbilts and Carnegie have followed this example, and now we have to add to this worthy list the donor of the Loomis Laboratory to the University of New York.

We sincerely hope that we will be called upon time and again to notice similar gifts. The day has fortunately passed when all the good things are monopolized by the Faculties of Arts and Theology.

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**THE HEALTH BILL.**—Some months ago a public meeting was held in this city with the view of forwarding the enactment by the Provincial Legislature of an effectual bill concerning Public Health and Vital Statistics. The deficiencies in the present law, and the practical difficulties thus frequently presenting themselves in the face of an epidemic, were fully recognized last year, and there is a strong feeling in favor of more extended legislation. The meeting delegated the further consideration of the entire subject to a large committee composed of representatives of the various portions of the community—the Central Board of Health, the Local Board of Health, the Citizens' Committee, the Catholic and Protestant clergy, and the medical profession. This committee spent much time at several meetings in drafting such a bill as it was thought would be acceptable to the House. It provides for the formation of a permanent Provincial Board of Health, and of Local Boards everywhere, with such machinery as would render the former competent to exert a general supervision over sanitary matters with authority. At the present moment the bill is before a special committee of the House, and, we regret to observe, has been shorn of several of its most important provisions. We shall hope to return to the subject next month.

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

The semi-annual meeting of the Provincial Medical Board was held in Montreal on Wednesday, 12th of April. Beyond routine business, the only matter of considerable interest to the profession generally was the committee's report, which we give herewith. It will be observed that the changes it is recommended to introduce are of a most extensive kind and which, if acted upon, will make a radical alteration in the mode of obtaining the license to practice in the Province of Quebec. The estab-

lishment of a Central Board of Examiners to pass upon the qualifications of all candidates for the license is but following in the footsteps of the Province of Ontario, where the system has worked well. Though often previously discussed here, a great practical difficulty, not existing elsewhere, always presented itself, viz., the necessity for making provision for both French and English-speaking students, and the expense which would be involved thereby. The recommendation of the committee provides for this. The second item of importance is the proposal to formulate a scheme by which the members in each division of the Province shall elect their own representatives to the governing board. This method we have already advocated, and it will, no doubt, commend itself to all. It was resolved to print the draught of the committee's report and have it circulated amongst the members of the College at least a fortnight before the triennial meeting, which takes place in Montreal on the 14th July next. The Governors have arranged to hold a special meeting on the day preceding this, for the careful consideration of these matters.

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The Committee appointed at the last semi-annual meeting of the College to consider the amendments necessary to put into force the report of the committee on the financial condition of the College, also to consider the suggestions made at the last triennial meeting, with regard to the manner of electing the Governors, as well as the notice of motion given by Dr. L. LaRue, regarding the establishment of a Central Board of Examiners, met in the city of Montreal on the 16th of February, 1886. There were present Drs. Lemieux (President), Simard, Guay, L. LaRue, Lachapelle, Austin, Hingston and Campbell.

Several hours were spent in discussion when the committee declared it was in favor of the College having a Central Board of Examiners.

It also came to the conclusion to suggest that the following subjects be made part of the preliminary examination, and that they be made obligatory—Moral and Intellectual Philosophy—Physics, Mineralogy, Geology, Astronomy and Botany.

Time for adjourning having arrived, it was moved by Dr. Simard, seconded by Dr. Austin, That a sub-committee, composed of Drs. Geo. Ross, Hingston, Lachapelle, Leprohon and F. W. Campbell be named to complete the work of this committee concerning the alterations to be made in the Medical Act, all in conformity with the resolution passed at the last semi-annual meeting of the board. Carried.

The committee adjourned *sine die*.

The sub-committee, appointed by the general committee, met on February 27th, March 1, 7, 10 and 15, also on 7th May.

They beg leave to submit the following as the result of their deliberations :—

1. The board shall be known as the Central Board of Examiners, and shall consist of two examiners on each subject, one English and the other French. Both shall assist at the examinations, but the immediate conduct of the same shall be by the examiner speaking the language to which the candidate belongs.

2. The Central Board of Examiners shall consist of a representative from each medical school now recognised by the Medical Act, and of an equal number not connected with any medical school.

3. The Central Board of Examiners shall be appointed annually by the Provincial Medical Board, the names being submitted by a nominating committee, which nominating committee shall be named by the President, subject always to the revision of the Medical Board. It shall consist of one representative from each medical school and an equal number selected from the members of the board not connected with any medical school. In case of a vacancy occurring on the Central Board of Examiners, either by death, resignation or removal, the said vacancy shall be filled by the President of the College.

The members of the Central Board of Examiners may or may not be chosen from among the members of the Provincial Medical Board.

The Central Board of Examiners shall commence their examinations on the second Tuesday in April, and they shall be held

at Montreal or Quebec, as may be decided by by-law of the board.

The fee to be paid to the members of the Central Board of Examiners shall be \$10 per day, and mileage at the rate of five cents per mile.

The professional examination shall be divided into primary and final. The examinations shall be written and oral:—

Fee for Primary Examination.....	\$10.00
“ Final “ .....	10.00
“ Diploma of Membership.....	25.00

The preliminary examination shall be held on the first Wednesday in July, at Quebec or Montreal, as may be decided by a by-law. (The suggestion of the general committee of additions to the preliminary examinations is not considered wise. The sub-committee are of opinion that no change should be made in the preliminary examination.)

Graduates in Arts of any University in Her Majesty's Dominions to be exempt from passing the preliminary examination.

DR. HINGSTON objected to the above clause on the ground that it was incomplete, and moved the following addition:—

“ That any student who shall have attended a complete course of classical studies, and shall furnish proof of having passed an examination equivalent to an examination in Arts shall also be exempt from the preliminary examination.”

The preliminary examination for admission to the study of Medicine shall be held on the first Wednesday in July.

The Board of Governors shall meet annually on the second Wednesday in July, the place of meeting to be definitely settled by a by-law of the board. The sub-committee think it advisable that a permanent locality for this meeting be selected.

That each district shall, after these amendments become law, elect its own representatives.

The Registrar shall two months previous to the date of election furnish to the Secretary at Quebec a list of all those qualified to vote in the city and district of Quebec, and district of Three Rivers; and to the Secretary in Montreal a list of those quali-

fied to vote in the city and district of Montreal, and the district of St. Francis. If there be only one Secretary, then to the person holding that office. One month previous to the election he shall send out printed ballot papers, which shall be signed by the voter, sealed and returned within two weeks to the Secretary whose signature is on the ballot paper, who, upon receipt of the same, shall place them unopened in a ballot box, which shall be placed locked in the hands of the Secretary, and which shall only be opened in the presence of Scrutineers named, who shall count the ballots and declare who has received the majority of votes.

A printed list, giving the result of the ballot, shall immediately be posted to each voter.

The election of Governors shall take place on the first Wednesday in June.

The Scrutineers shall be named by the presiding officer at the meeting of the Board held preceding the triennial election.

The majority of the sub-committee are of opinion that the amendments regarding the Central Board of Examiners shall only apply to those who enter upon the study of Medicine after the 1st of May, 1886. A minority are of opinion that they should come into operation at once.

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### Medical Items.

—Any village or town physician wishing a vacation to visit New York or London hospitals, and wanting a city graduate in medicine to take his practice, during July and August *only*, may do so by addressing "Doctor," Box 579, Kingston.

PERSONAL.—We are pleased to learn that Dr. J. B. Lawford, formerly of Montreal, has been appointed Assistant Ophthalmic Surgeon to St. Thomas' Hospital, London. Since embracing a specialty, Dr. Lawford's promotions in the London special hospitals have been rapid, and there is every indication of his attaining to success and a high position.

—Mr. Savory, President of the Royal College of Surgeons, was offered a knighthood in commemoration of the Queen's laying the corner-stone of the new Examination Hall. He, how-



ever, declined the proffered honor, it is generally thought, because it was not a baronetcy. We now learn that the knighthood has been conferred upon Dr. Dyce Duckworth, whom we congratulate upon this mark of Royal favor.

CELLULOID TAPE-WORMS.—All the world has heard of the Yankee wooden nutmegs, but the folks near the Pacific Coast seem to possess an ingenuity which would shame a New Englander. A correspondent of the *Southern California Practitioner* writes: "Our unsophisticated villagers go to your metropolis for treatment, and return with yards of tape-worm, in bottles, very handsome, and doubtless worth all they cost. Now what I want to know is: Where do you get them, and what is the factory price per yard, for they are—*celluloid*?"

CHLORAL AS A VESICANT.—Hydrate of chloral has, according to the London *Medical Record*, been successfully employed instead of cantharides for blisters. For this purpose powdered chloral is sprinkled on previously slightly warmed adhesive plaster. Vesicles are raised by it in about ten minutes. The advantages of this blister over other kinds are rapid and perfectly painless action, and absence of any of the troublesome effects sometimes caused by cantharides.

DR. HOLMES ADVISES DOCTORS TO TAKE A VACATION.—Instead of a vacation editorial, which would naturally be looked for by our readers with eager interest at about this time, we venture to substitute a little verse from Dr. Holmes' poem, "City and Country":

Ye healers of men, for a moment decline  
Your feats in the rhubarb and ipecac line;  
While you shut up your turnpike, your neighbors can go  
The old roundabout road to the regions below.

—*Med. Record*.

—The editor of the *Kansas City Medical Index* says: "It has been my 'fortune' to see a young and lovely virgin brought to one of these speculomaniacs, seized and placed upon the gynæcological 'altar,' her clothes pulled up, hymen ruptured, speculum introduced, and probe pointed at the cervix, before the astonished maiden could explain that she sought the services of his 'majesty' the gynæcologist for an epilepsy caused by an injury to the head."