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CANADA
MEDICAL & SURGICAL JOURNAL

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Original Communications.

CASE OF HYPERTROPHY,

DILATATION AND FATTY DEGENERATION OF THE HEART,
CONSEQUENT UPON PROLONGED MUSCULAR EXERTION.

BY WILLIAM OSLER, M.D.,

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

Do fatal and uncomplicated cases of hypertrophy and dilatation of the heart ever occur as consequences of severe and prolonged muscular exertion?

The following case is offered as a contribution to this question, upon which as yet there is a considerable diversity of opinion among Pathologists.

On Nov. 7th, 1876, I performed an autopsy on a large, powerfully-built, muscular man, who had died with all the symptoms of chronic valvular disease, and in whom great dilatation and hypertrophy of the heart were found, but without presenting any of the conditions commonly recognized as productive of these states,—no valvular affection, no arterial degeneration, no emphysema, or other chronic pulmonary disorder, no renal disease; there was, in fact, an entire absence of the lesions usually met with in cases of this kind.

I am indebted to my colleague Dr. Ross for permission to use

the following clinical notes, taken by Dr. James Bell, at that time the ward clerk :

J. W., æt. 39, an Englishman, was admitted into the Montreal General Hospital, Nov. 2nd, 1876. He is a large, powerfully-built man, with tremendous chest girth. He had been a soldier for 18 years, serving in the different British stations, and latterly had followed the occupation of a blacksmith. Has never had syphilis or rheumatic fever. Has always been a healthy man, though intemperate. In July last he suffered from shortness of breath and slight hæmoptysis, for which, in August, he entered the hospital, and was under treatment nearly two months for "some heart affection," being discharged very much improved. He then worked for three weeks as a day labourer, and suffered much from exposure to cold and wet. On October 20th he had a chill, which was followed by swelling of the legs and abdomen, with slight dyspnœa. He gave up work on the 24th, and was treated as an out-door patient for a few days before entering Hospital on November 2nd. When admitted, in addition to the above-mentioned symptoms he complained of great pain over the region of the heart. The legs were œdematous, and the conjunctivæ and face of a sub-icteroid hue. On physical examination, the cardiac dulness was found to extend as high as the upper border of the third rib, and to the right border of the sternum. A systolic murmur was heard at the left edge of the sternum in the third interspace. Apex beat could not be distinctly felt. The pulse at the wrist was barely perceptible. There was dulness over the lower lobe of the left lung. Rough snoring râles were heard over the front of the chest, and coarse bubbling râles behind. Liver dulness extended from the 5th interspace to the costal margin. The urine contained nearly 25 p. c. of albumen. The day after admission he expectorated nearly three pints of florid blood, and vomited very frequently. In spite of treatment (dry cupping, ergot, digitalis, etc.,) his condition became worse. On November 5th the pulse was quite imperceptible at the wrist, the cyanosis became extreme, and the patient died early on the morning of the 5th, with all the symptoms of chronic valvular disease.

Post-mortem, 30 hours after death. Face, neck, and skin of thorax intensely livid. Tissues beneath the skin of anterior part of trunk and about the root of the neck emphysematous. Scrotum much swollen. Legs œdematous.

Brain.—Sinuses of dura mater and veins of the pia mater full. Arteries at the base not diseased. Nothing abnormal in the brain substance.

Heart weighs 610 grms. ($21\frac{1}{2}$ oz.) Right chambers distended with dark clots and fluid blood; the venæ cavæ are also dilated and full, much blood escaping from them in the removal of the organ. Right auricle is very large, size of a small orange; walls of about the usual thickness. Right ventricle dilated, anterior wall measures $\frac{1}{4}$ " in thickness; columnæ carneæ are not hypertrophied. Tricuspid orifice $5\frac{7}{8}$ " in circumference; valves healthy. Pulmonary valves normal; circumference of orifice 3". Left ventricle contains some fluid blood, and a small partially decolourized clot in the mitral orifice. The chamber is much dilated, measuring $4\frac{1}{2}$ " from apex to aortic ring, and bulges considerably towards the right ventricle. Endocardium thick and opaque, especially over the septum. Musculi papillares fibroid at apices; walls over middle of anterior part $\frac{7}{8}$ " in thickness; posterior wall $\frac{1}{2}$ "; ventricular septum, a quarter of an inch below aortic valve, $\frac{3}{8}$ ". Mitral valves slightly thickened at the edges, otherwise healthy. Orifice measures $4\frac{1}{2}$ " in circumference. Aortic valves competent, segments thin and natural-looking; orifice at the ring measures $2\frac{3}{4}$ " in circumference. Aorta looks—relatively—smaller than natural. It is not atheromatous, either in the arch or in its course. Muscular substance of whole heart, and especially the left ventricle, looks pale, and on examination is found in a condition of advanced fatty degeneration; a good deal of fatty infiltration also exists between the individual fibres.

Arteries of the body do not present any signs of degeneration.

Lungs 3xvi of serum in left pleura, and the lung on this side is collapsed and only slightly crepitant above. Two very large spots of apoplexy in the anterior part of upper lobe, and

about them the lung tissue is hepatized. Another, also large, occupies the anterior border of the lower lobe. Right lung is crepitant, but contains much blood and serum. At the lower part of anterior lobe in front is a small, consolidated area.

Spleen, 250 grms., firm.

Kidneys, not enlarged. Capsules detach easily; surfaces smooth. On section pyramids and Malpighian tufts of the cortex are injected.

Stomach and intestines present nothing unusual, the large and small veins are very full.

Liver, a little enlarged, of good consistence; venules of hepatic vein gorged—nutmeg organ.

The degree of hypertrophy and dilatation will be seen at a glance in the following table:

HEART OF J. W.	(PEACOCK.) Normal Heart.	(BIZOT.) Normal Heart.
Right ventricle, ant. wall...	3"	1.85"
Left " " " " ...	.87"	.53"
" " post. wall...	.5"	
" " length.....	4.5"	3.33
Mitral orifice, circumference	4.25"	3.58
Aortic " "	2.75"	3.17
Tricuspid " "	5.87"	4.50
Pulmonary orifice " - -	3.3"	3.33
Weight of Heart - - - -	21.5 oz.	9.75 oz.

The dilatation of the left ventricle is very marked, while the hypertrophy of the walls is moderate. The mitral orifice is somewhat dilated judged by Peacock's standard, while the aortic ring is even smaller than natural, though by Bizot's standard it is just normal. It certainly appeared very much out of proportion to the huge left ventricle. The tricuspid orifice is very large, and the right chamber considerably dilated, while the opening of the pulmonary artery is about normal.

The hypertrophy and dilatation in themselves presented nothing remarkable, and the other lesions were those of everyday occurrence in organic heart disease—hydro-thorax, œdema and hæmorrhagic infarction of the lungs, venous congestion of

the liver, spleen and kidneys; the fatal result depending on the condition of the lungs. But what could account for the hypertrophy and dilatation? This was the difficulty, and so impressed was I at the time with the unusual character of the lesion that a most searching examination of the different organs was made and careful measurements of the heart were taken, but no satisfactory cause could be found for the cardiac affection, so that the notes were laid aside and the case labelled 'idiopathic.'

A few months after in Nos. 17 and 18 of the *Berliner Klinische Wochenschrift*, 1877, there appeared a paper by Dr. Zunker, one of Professor Leyden's Assistants at the Charité, Berlin, on a case of "Dilatation and Fatty Degeneration of the Heart, in consequence of over exertion," which, in its clinical features and anatomical characters is almost the exact counterpart of the one under consideration, except that the dilatation was a little more marked and the hypertrophy not so great. This gave a possible clue to the interpretation of the case, and I immediately made enquiries about the past life of the man, but was not very successful as his wife had left the city, and from her alone could definite information have been obtained. It was, however, ascertained, as stated above, that after leaving the army he had worked as a blacksmith, and latterly, for a short time, as a corporation labourer. He was, as I have said, powerfully built, and very muscular, an acquaintance describing him as a "perfect picture of a man." From the facts I have gathered, and the similarity of the case to several which have been recorded, I am inclined to regard the condition of the heart as intimately associated with and dependent upon the over use of a highly developed muscular system.

Before dealing with the question of how the abnormal state was brought about, it may be well to make a few preliminary remarks on the influence of prolonged and severe muscular effort on the circulatory system.

In the works of one or two of the older writers upon the heart very definite statements are met with bearing on this question: Thus—

Corvisart,* among other causes of heart disease, mentions muscular exertion, and records a fatal case of hypertrophy, without valvular disease, following violent exertion.

Hope† states that "occupations requiring constantly renewed muscular efforts," produce in time dilatation of the heart.

Latham‡ was, I believe, the first to recognize fully the importance of over exertion in the causation of heart affections, and under the term "shock of the heart," describes cases of rupture of valves, and of hypertrophy following sudden and severe muscular efforts.

The attention of army surgeons was early called to the prevalence of heart disease among soldiers, and in the great majority of these without any history of acute rheumatism.

McLean§ brought the subject prominently before the authorities and the profession, believing the evils to result largely from the constricting influence upon the chest of the regulation pack and other accoutrements.

Peacock|| about the same time, in his lectures on valvular diseases showed how liable the valves were to injury from violent muscular efforts.

During the American civil war the injurious effect of military life upon the heart was abundantly proved, and the rich clinical material then afforded enabled several observers¶ to materially advance our knowledge in this direction.

In 1870 an important monograph by Myers** appeared

* Treatise on the Diseases and Organic Lesions of the Heart, translated by Hobb, London, 1813. pp. 28, 63.

† A Treatise on Diseases of the Heart, 2nd edition, London, 1855.

‡ Lectures on Diseases of the Heart, London, 1846.

§ Lectures at Royal United Service Institution, 1865.—Brit. Medical Journal, 1867.

|| Valvular Diseases of the Heart, London, 1865.

¶ Da Costa: Observations upon Heart Disease in Soldiers. Medical Memoirs of the United States' Sanitary Commission, 1867.

Taylor: Remarks on Heart Disease.—Transactions of American Medical Association, vol. 18, 1867.

Da Costa: On Irritable Heart.—"Am. Journal Med. Sciences," Jan. 1871.

Treadwell: On Over-work and Strain of the Heart.—"Boston Medical and Surgical Journal," 1872.

** Diseases of the Heart among Soldiers, London, 1870.

and since that date important articles have been written by Albutt,* Seitz,† Thurn,‡ Fränkel,§ and Levy,|| illustrating in various ways the effects of over-work and strain on the heart.

The recent works on the heart¶ deal either not at all, or very cursorily with the subject.

The above constitutes the chief literature of the subject, and from an analysis of the papers the following conclusions may be drawn with regard to the effect of overwork on the heart.

1. Sudden and violent exertion may cause rupture or laceration of the valves—a very serious lesion, which often proves fatal within a short time.

2. The augmented resistance to the flow of blood during severe and prolonged muscular exertion increases the work of the heart, which, in response to the demand made upon it, enlarges. The blood pressure in the aorta, abnormally high, even during the diastole, is much increased, during the systole of the powerful left ventricle and the coats of the vessel yield, commonly at the arch, becoming pouched and atheromatous. Subsequently incompetency ensues, either from stretching of the aortic orifice or giving way of the valves.

3. In the functional disorder of the heart described by Da Costa, Myers, and others as common in young soldiers, and termed by the former, 'irritable heart,' there is hypertrophy of the muscular walls of the organ, caused by over-work at drill and the constricting effects of the military accoutrements. This may in time be followed by valvular disease.

4. It appears from a number of recorded cases that overwork

* Over-work and Strain of the Heart. — St. George's Hospital Reports Vol. 5, 1872.

† Zur Lehre von der ueberanstrengung des Herzens.—Deutsches Archiv. fur Klinische Medicin, 1872.

‡ Ermudung des Herzens und die Entstehung von Herzfehlern. Republished by Seitz, together with the articles of Albutt, Da Costa, and Myers, as a separate volume.

§ Virchow's Archiv. Bd. 57.

|| Du Cœur forcé ou de l'asystole sans lésions valvulaires. Thèse inaugurale, Nancy, 1875. Resume in Archives Générales, Janvier, 1876.

¶ Ziemssen's Encyclopedia of Practical Medicine, vol.

Balfour—Diseases of the Heart, 1875.

Hayden—Diseases of the Heart and Aorta, 1875.

Reynold's System of Medicine, vol. 4. 1877.

of the muscles may induce a primary dilatation and hypertrophy of the heart, which, without valve affection or arterial degeneration, may prove fatal with all the symptoms of chronic cardiac disease.

It is this last condition to which I wish specially to direct attention, as I believe the case reported affords an illustration of it.

Very few of the writers mentioned above, though dealing specially with effects of over exertion on the heart appear aware of the possibility of a fatal result as an immediate sequence of primary hypertrophy and dilatation.

Peacock* records three cases in which after death no affection of the valves or orifices was found, but simply hypertrophy and dilatation, and explains these conditions by supposing "that from the enlargement of the left ventricle which existed in all the cases the mitral valves had not been properly adjusted during the systole." He offered no explanation as to the cause of the enlargement of the heart, but passes on immediately after to the state of the organ in the Cornish miners, which he directly refers to the severe muscular effort necessary in their work, and in climbing long ladders up and down the shafts.

Seitz† gives a remarkable series of cases observed in Biermer's Clinic in Zurich, almost all of which presented the following symptoms: "Palpitations, and ill-defined sensations in the cardiac region, as if the heart were about to stop, shortness of breath, anxiety, feeling of faintness, cyanosis, anasarca, enlargement of the liver, irregularity and intermittent action of the pulse, dilatation of the heart, apex beat feeble and dislocated downwards and outwards, increase in cardiac dulness. Heart sounds sometimes normal, but not unfrequently murmurs at the apex." Post-mortem, the anatomical changes were confined to "Hypertrophy of the walls, and dilatation of the chambers, valves unaffected; degeneration of a few muscle fibres; rarely fatty." He regards over work as the most important factor in the production of these cases.

In the case reported by Dr. Zunker from Leyden's Clinic, the

* Loc. cit.

† Loc. cit. p. 61

connection between the over-exertion and the heart disease is very well brought out. The patient, a journeyman mason, had enjoyed good health up to six weeks before his admission. During this time he had been engaged in the unusually severe work of carrying heavy stones up long ladders. He stood this very well for three weeks, when he began to suffer from want of breath and a slight cough. Soon palpitations came on, the shortness of breath increased, the legs began to swell and he was forced to take to his bed. He got rapidly worse, and was sent to the Charité cyanotic and almost moribund. Hydrothorax of the right side was detected, the chest was tapped, and 128 cc. of clear fluid drawn off with great relief. The attacks of dyspnœa recurred, and he died four days after admission with all the symptoms of chronic heart disease. At the autopsy the heart was found enormously dilated, the walls in a condition of fatty degeneration; no valvular disease, no chronic renal or pulmonary affection.

In the case of J. W., the evidence of prolonged muscular effort is presumptive rather than direct. The occupations which the man had followed guaranteed a tolerably active exercise of his voluntary muscles, and it has been from among soldiers and smiths that a very large proportion of these heart cases have been described. Moreover, the high development of his muscular system afforded the best possible proof of its constant use. There must have been some agency at work to produce the dilatation and hypertrophy, and considering the above facts, and in the absence of all the recognized causes, I feel more inclined to regard it as due to overwork than to look upon it as spontaneous or idiopathic.

But how, it may be asked, is all this brought about? Severe muscular exertion affects the circulation in two ways: first, by interfering with respiration and the free passage of blood through the lungs; the right heart gets over-loaded, the systemic veins full, and thus an obstacle is offered to the outflow of blood from the arteries; in consequence of which the left ventricle becomes dilated and must hypertrophy to overcome the increased resistance to the arterial flow. According to Peacock, the large-

hearts of the Cornish miners are produced in this way. In the June number of Von Ziemssen's *Archiv*, there is an interesting article on "Das Tubinger Herz," by Dr. Münzinger, descriptive of a form of heart disease similar in some respects to the one under consideration. It is met with among the vine dressers who undergo very severe work in carrying manure in baskets on their backs long distances up the mountains. The exertion required is very great, and the respiration considerably interfered with by the constricting pressure of shoulder straps. Sooner or later they suffer from dilatation and hypertrophy; but as this has always been found associated, post-mortem, with emphysema, it is difficult to say in these cases how much is due to this condition and how much to the muscular effort itself.

Secondly, the effect of over exertion may act in a much more direct manner. The experiments of Traube upon dogs have shown that during extensive muscular contraction the blood pressure in the arteries is greatly increased, and the same may reasonably be inferred of men. The more laborious the work, and the more violent the contraction of the muscles, so much the greater difficulty has the blood in flowing through the systemic arteries. The arterial pressure is increased and the blood tends to accumulate in the aorta and the left ventricle. If the nutrition be maintained no ill effect will follow from this, for the left ventricle hypertrophies and the balance is restored. That this state does exist is a well attested fact, and Albutt speaking of this early condition of hypertrophy says "that he has found in a few autopsies of such men killed by accident or acute disease, that the ventricles, the left especially, are, like their bicipites, large and red," the heart weighing as much as 16 oz.

The lower animals furnish good examples of hypertrophy following severe exercise. Houghton* states that the heart of the celebrated greyhound, 'Master Magrath,' weighed 9.57 oz., just three-fold in excess of the normal proportion of heart-weight to body-weight, and no other cause could be assigned for the great enlargement than the prolonged muscular effort in coursing.

* "British Med Journal," 1872..

The hypertrophy is rarely simple, being accompanied as a rule with dilatation, and to this latter the train of ill effects in these cases is chiefly due.

In the case before us at some time or other mitral insufficiency was established, either from a dilatation of the orifice, so that the curtains could not meet to close it, or, what is more probable, as Bristowe pointed out, from a degeneration in the muscular papillæ and tendinous cords, resulting in a mal-adjustment of the valves. The apices of the papillary muscles were fibroid, in places calcareous, and the cords somewhat shortened so that they might readily be supposed in the dilated chamber to "tether the valves too closely and prevent the apposition of the segments." We may reasonably infer that this man had had an hypertrophied heart for years, the balance of power being preserved so long as the nutrition of the organ was kept up. With the onset of fatty degeneration came the disturbing element; the walls, no longer able to resist the blood pressure, gradually yielded, the dilatation overcoming the hypertrophy. With this would follow all the ill effects of loss of compensation as in ordinary cases, and just such as have been reported in this one; congestion and œdema of the lungs, dilatation of right chambers general venous stasis.—all the symptoms in fact of a breakdown in that marvellous piece of machinery, the heart.

THE INJECTION OF HOT WATER- INTO THE UTERUS IN CASES OF POST-PARTUM HÆMORRHAGE.

WITH A REPORT OF SIXTEEN CASES.

BY J. C. CAMERON, M.D.

Of all the various complications which render parturition dangerous and difficult, perhaps none is more appalling than post-partum hæmorrhage. It is a complication which we can rarely foresee or prevent, and at times comes on so unexpectedly and to such an alarming extent that the patient is in a few moments reduced to a critical or desperate condition. All sorts of methods and remedies have been proposed, but nearly all have failed in bad cases. Pressure, ergot, cold applications,

hot applications, cold water injections, styptics, have all been advocated. Dr. Barnes has had remarkable success with the injection of perchloride of iron into the uterus; this last has certainly saved many lives, and may be regarded as the great *dernier ressort*; but it is heroic treatment, and is not always easy of application.

The application of cold externally and the injection of cold water into the vagina or uterus have proved of great value in some cases; but when this treatment is pushed too far it does positive harm instead of good. Cold does not act so much locally as in a reflex manner, stimulating the uterine fibres to contract and close the bleeding vessels; if the patient, however, becomes chilly and exhausted, and cold be still plied, it no longer acts as a stimulant, but only tends to depress still more the vital energy, and fatal exhaustion is apt to result. In such cases, the injection of hot water into the uterus has been proposed, on the theory that, when the patient's vitality is so much lowered that *cold* water can no longer produce reaction, *hot* water may act as a powerful stimulant, general as well as local. Water at the temperature of 110° to 112° F. is injected; great care having been taken to remove all air from the syringe and fill it completely with water, the vaginal tube is carried well up to the fundus; from one to two pints of water are injected, and allowed to flow out through the vagina. Clots are washed away, the uterus responds to the stimulus at once, and contracts powerfully; bleeding ceases, the pulse decreases in frequency and improves in volume, and the woman experiences a feeling of great comfort. A few doses of ergot are administered to maintain uterine contraction, and the patient usually makes an excellent recovery; after-pains are rare in these cases. Since this treatment was adopted in the Rotunda Hospital in November last, sixteen cases of post-partum hæmorrhage have occurred, in about one half of which, the perchloride of iron would have been injected; hot water succeeded so completely in every case, that the perchloride was not required at all.

In general practice hot water is always at hand, and valuable time may be gained and life saved by the use of a remedy which is so convenient and so effectual.

I append a table which gives a general view of the cases, and shows at a glance the remarkable effect of the treatment on the pulse.

TABLE OF CASES IN WHICH HOT WATER WAS INJECTED INTO THE UTERUS FOR POST-PARTUM HÆMORRHAGE.

No.	Date.	Name.	Age.	No. of Preg.	Hours in Labour.	Minutes in 3rd Stage.	Pulse before injection.	Pulse after.	Pulse next day.	Internal or External.
	1877.									
1	Nov 20	Mary Maher.	33	14	2½	15	162	120	112	I.
2	" 30	Mary Maher.	25	3	17	15	152	130	118	I.
3	Dec. 10	Rosa Fahy ..	20	1	22	10	145	90	95	I.
4	" 16	Bridg't Maher	28	5	13	15	130	110	100	E.
5	" 22	Sarah Sex ...	29	1	10½	30	140	126	130	I.
6	" 24	Eliza Daly...	21	1	24	5	150	120	90	I.
7	" 27	Julia Dwyer..	24	3	17	10	130	110	105	I.
8	" 29	M Reynolds...	35	1	10	15	140	128	130	E.
9	" 30	M. Douglas...	26	3	..	..	120	110	106	I.
10	" 31	Ann Green ..	30	7	8	5	144	120	104	E.
11	1878.									
	Jan. 2	Agnes Wrock	19	1	10	2	160	132	120	E.
12	" 3	M. Kennedy..	30	3	5	5	120	90	104	E.
13	" 4	M Fitzpatrick	28	1	15	15	160	140	120	E.
14	" 14	Jane White...	29	5	7	5	110	88	74	I.
15	" 16	Mary Mangan	24	3	16½	15	* ..	106	72	I.
16	" 19	Ellen Flood.	36	12	..	..	120	108	110	I.

* Could not be counted.

CASE I.—Profuse hæmorrhage came on immediately after the placenta was expelled. Cold was applied to the thighs, vulva and fundus, ergot was administered, and cold water injected into the vagina; trickling, notwithstanding, kept on, until the patient was cold, clammy, and almost pulseless. The vaginal tube was then passed well up to the fundus, and about a pint of water at the temperature of 110° F. injected; the woman began to rally immediately, hæmorrhage ceased, the pulse improved in volume and became less frequent, and her life was saved. Recovery without a bad symptom.

CASE II.—Hæmorrhage was mainly *internal*. Three hours after delivery she seemed weak, and was noticed to sigh heavily. The uterus was found distended with clots, which were readily expelled by applying friction and pressure to the fundus. Trickling went on continuously, which ergot, cold and pressure failed

to check. Hot water was at last injected; bleeding ceased immediately, and the patient experienced instant relief from severe uterine pain, which had caused her great suffering from the time of delivery. An intra-mural fibroid existed in the anterior wall of the uterus in this case.

CASE III.—Trickling came on shortly after the expulsion of the placenta. Ergot was administered by the mouth and hypodermically, but without effect. The injection of hot water into the uterus stopped the bleeding, and the patient made a good recovery.

CASE IV.—The head was detained at the brim by undue prominence of the promontory of the sacrum. Forceps were applied; after the expulsion of the placenta oozing kept up which the administration of ergot hypodermically, failed to check. Injection of hot water into the uterus stopped the hæmorrhage immediately and completely, and the patient made an excellent recovery.

CASE V.—On account of delay in the second stage, forceps were applied. Several large sub-peritoneal fibroids existed on the upper border and anterior surface of the uterus. After the expulsion of the placenta, which had been allowed to remain for half an hour, the uterus remained very flabby, and showed no tendency to contract, and oozing kept up. Ergot hypodermically and by the mouth failed to produce any effect; hot water was accordingly injected with immediate and complete success. No cold applications were made in this case.

CASE VI.—Forceps were applied for delay in second stage. Considerable hæmorrhage came on about an hour after delivery which pressure, ergot and cold failed to check. Hot water was injected and the uterus contracted at once; a short time afterwards it relaxed somewhat and slight trickling went on for two hours; a dose of ergot made it contract firmly and no more bleeding occurred.

CASE VII.—After delivery oozing went on so quietly that it was not noticed; at the end of six hours a quantity of blood had escaped into the bed, and the uterus had relaxed and risen nearly to the ensiform cartilage; serum mixed with clots was

escaping from the vagina; the pulse was very weak. Pressure failed to dislodge the clots. Hot water was injected, the uterus contracted somewhat, bleeding ceased, and the pulse improved in volume. Infusion of ergot was given every hour, and at the end of $6\frac{1}{2}$ hours, a clot as large as a placenta was expelled; the uterus contracted firmly and no more bleeding occurred.

CASE VIII.—Occurred in the extern department. Profuse hæmorrhage came on immediately after the expulsion of the placenta. Pressure and friction applied to the fundus. Cold napkins to the thighs, vulva and fundus, ergot by the mouth, the injection of cold water into the vagina and finally into the uterus, were all tried in succession and utterly failed to stop the bleeding. A trickling, not much in amount but still persistent, kept on in spite of everything; hot water was at last obtained and injected into the uterus, and firm contraction occurred at once, and hæmorrhage ultimately ceased.

CASE IX.—An abortion at the third month.—In her first pregnancy the child was born alive. In her second, she aborted at the sixth month. On the 26th bleeding began and continued, slightly and with but little pain till the 30th at noon, when severe pain in the back and bearing-down pains set in; at 5 p.m. a great gush of blood and clots made her very weak; she reached hospital at 7.15 faint and helpless, her clothes dripping with blood. On examination the os was found to be very high-up and patulous, although nothing could be felt protruding, blood flowed freely. Concluding that the ovum had been expelled, hot water was at once injected into the uterus; instead of a feeling of relief and comfort such as is usually experienced after injection, severe pains, similar to labor pains began at once, the uterus contracted firmly and no more bleeding occurred. Ergot was given for two days, and the patient made a rapid recovery.

CASE X.—A delicate, anæmic, phthisical woman, has had six miscarriages, this time having borne her first living child. A great gush of blood came before the placenta was expelled, deluging the bed and reducing the pulse to a flicker. The placenta was at once pressed off along with the clots which filled

the uterus. Pressure and ergot failing to check the bleeding, cold water was injected into the uterus; slight contraction was produced, but the ooze still kept up. Hot water was at length obtained and injected into the uterus; firm contraction came on at once, the clots were expelled, and bleeding ceased. The pulse improved in volume markedly, and in four hours had fallen to 90. For a time this patient's life had been in imminent danger, and she lived at such a distance from the hospital, that assistance could hardly have been obtained in time to save her life.

CASE XI.—Miscarriage at the eighth month. Hæmorrhage began immediately after the birth of the child, and the placenta was accordingly removed at once; pressure, cold and ergot failed to stop the bleeding, and in half an hour the woman was blanched and almost pulseless, the uterus alternately relaxing and contracting. The clots were removed as much as possible and hot water injected; the uterus contracted slightly but the ooze still went on. A portion of membrane which had been nipped by the os internum, was then removed, and cold water injected into the uterus, but the ooze still went on. Hot water was a second time injected, and the uterus responding to the stimulus, contracted firmly, and expelled the clots; no more bleeding occurred. In three hours the pulse had fallen to 120 and had improved in volume.

CASE XII.—Profuse hæmorrhage came on immediately after the birth of the child, and the placenta was removed at once. Ergot hypodermically and by the mouth, and cold applications failing to check the ooze, hot water was injected; the uterus contracted firmly and bleeding ceased. Slight oozing came on again for an hour and then finally ceased.

CASE XIII.—The foetal head was large and much ossified; after an arrest of five hours in the second stage forceps were applied. After the extraction of the child the uterus contracted well, but just before the expulsion of the placenta, several rushes of blood came. After the placenta came away, the contraction remained good for fifteen minutes, when suddenly the uterus relaxed and as suddenly contracted, sending a great

gush of blood fully a yard from the bed. Friction and pressure were applied to the fundus, ergot was given, and cold water injected into the uterus. Notwithstanding all this, another such deluged the bed and floor, and the woman lay in a very critical state, blanched and fainting. Hot water was injected without delay, and to the great relief of all present. The uterus contracted firmly, bleeding ceased, and the patient recovered eventually without a bad symptom.

CASE XIV. — Patient has been subject to post-partum hæmorrhage. Immediately after the expulsion of the placenta two gushes of blood came, followed by a continuous ooze. The uterus was soft and flaccid. Ergot was given, cold applied to the vulva, and cold water injected into the uterus; but the ooze kept up and the pulse rose from 90 to 110, and grew feebler. Hot water was then injected and bleeding ceased. After the lapse of an hour some clots were pressed out, and no more bleeding occurred.

CASE XV.—A very flabby, anæmic patient. After expulsion of the placenta, the ooze kept up slightly in spite of ergot and cold applications to the vulva, till the woman became blanched and the pulse so feeble that it could not be counted. Hot water was injected and bleeding ceased, and the pulse improved in volume. A slight ooze returned after an hour, but a hypodermic injection of ergot stopped it. Next day the pulse was of good volume; the woman made a good recovery.

CASE XVI.—An abortion at the 4th month. Received a blow on the abdomen on the 17th, pains began on the 18th, and at 11.30 p.m., she began to bleed profusely. She lost a large quantity of blood and when she reached hospital at 1.30 a.m. on the 19th, she was weak and blanched. The os was patulous with the ovum protruding through it. The ovum was removed without difficulty, but the uterus was full of clots, and bleeding still continued. Pulse very feeble. Hot water was injected, and the clots washed away; bleeding ceased at once and the pulse improved in volume. No more bleeding came on, and the patient made a good recovery.

Hospital Reports.

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

Case of Cancer of the Oesophagus.—Secondary Disease in the Vertebrae. — Paraplegia with bed-sores, and finally Death. — Autopsy. — Under the care of Dr. Ross.— Reported by Mr. T. W. MILLS.

J. F., æt. 57, tinsmith, was admitted into the Montreal General Hospital on 30th July, 1877, complaining of pain in the chest and difficulty of swallowing.

His family history is good, with the exception of his father, who died of cancer in the throat at the age of 77. He has been losing flesh for more than a year past, but was otherwise well, and noticed nothing wrong until seven months ago when he vomited pretty frequently, especially after taking a drink of water. About three months subsequently he first began to have difficulty in swallowing food, and soon found that it was rejected immediately. He would swallow a morsel down, and feel as though it was just about to enter the stomach, when it was suddenly and forcibly driven back. He once vomited about a pint of dark clotted blood. Has noticed that the degree of difficulty of swallowing varies considerably, some days worse and some days better. At present he eats no solid food of any kind but lives on milk, beef-tea, and other fluids. Complains of pain and soreness in both hypochondria, and sometimes of pain shooting through the back. He takes his food quite warm, being then able to swallow it with much less difficulty than if it be cold.

He is a small man, looks rather dark and sallow. He is much emaciated, weighing only 105 lbs., whereas he used to weigh as

much as 180 lbs. On palpation of the abdomen, no tenderness at the epigastrium, no tumour to be felt, abdominal organs normal. Heart and lungs healthy. Pulse regular, 84, small and weak: radial arteries tortuous and very much beaded.

For several days after admission he is reported unable to sleep owing to pain under the shoulder and soreness along the track of the œsophagus; cannot lie on his left side. Milk diet and morphia, chiefly by hypodermic injection, were the principle measures adopted.

Up to this time his bowels had been very regular but had become decidedly sluggish and required occasional purgatives. He also became very weak in standing and walking, and had difficulty in evacuating his urine. On 27th Sept. had retention of urine and required the catheter. During the first week of October following he began to experience a constant burning pain in the lower dorsal spinal region which was aggravated by movement. Sensation and motion in both legs became rapidly diminished, until soon there was developed a condition of complete paraplegia with incontinence of urine and fæces. On examination of the spine (Oct. 9th,) it was found that there was posterior bulging of the 9th, 10th and 11th dorsal vertebræ with marked tenderness on pressure over all of these, but especially the 10th, which is the one most projecting. A bed-sore soon formed over the sacrum, and later another over the spinal curvature in spite of the employment of a water-bed and all possible contrivances to prevent pressure. Nearly coincident with the appearance of the spinal projection marked improvement in his swallowing occurred; so much so that he could drink milk and other fluids with ease, and ate daily a small custard pudding. Days occasionally occurred on which swallowing was not so good, but with these exceptions it continued free, as last mentioned, until the end. He gradually became weaker, and ultimately died on the 13th January, 1878, worn out from want of food and the exhaustion of the large bed-sores.

Gastrotomy was actually contemplated in the early part of this case, but the very dangerous nature of the operation, and the absence of complete obstruction deterred from its perform-

ance. The subsequent events show how useless this would (even if successful) have been.

Autopsy, 22 hours after death:

Body extremely emaciated. Bed sores in lumbar region and over shoulders and hips.

Nothing special about *heart* and *lungs*. *Spleen* small.

Kidneys pale, but not diseased. *Liver* small and bloodless.

Œsophagus.—About three inches from the cardia on the posterior wall is an elevated tumour which narrows considerably the calibre of the tube; the little finger can just pass. The tumour is about $1\frac{1}{2}$ " in length, and $\frac{3}{4}$ " in breadth, extending on the long axis, and presents elevated edges, with an ulcerated centre. It is tolerably firm, and on examination proves to be of an epithelial character.

Stomach.—At the cardiac end is a white elevated ridge in the mucosa, crescent-shaped, about an inch in length, and represents a small, secondary mass of cancer.

Nothing of special note about stomach and intestines.

After the removal of the thoracic viscera the 7th dorsal vertebra appears more prominent and larger than the rest, and is involved in a secondary cancerous growth.

On section it is soft, cutting without much resistance, and a small amount of juice oozes from the surface.

From the posterior surface of the body two round masses project, which compress the cord. The dura mater is closely adherent to them.

The *Brain* presents nothing abnormal.

The *Spinal cord* at the site of the cancerous vertebra is much compressed, and both grey and white matter reduced to a thin band. Neither the pia nor dura mater were involved in the growth, though the latter was firmly adherent to it.

The subarachnoid space below this point was very full, and towards the cauda equina distended.

Reviews and Notices of Books.

How to use the Ophthalmoscope; or Elementary Instructions in Ophthalmoscopy, arranged for the use of Students.
By EDGAR BROWNE, Surgeon to the Liverpool Eye and Ear Infirmary, &c., pp. 120, with thirty-five illustrations.

Besides the chapters devoted to the Ophthalmoscope in recent standard works on Ophthalmology, the subject has been handled with more or less ability in quite a number of monographs published within the last few years; the above work belongs to the latter category, and, in some respects, deserves to take a high place in the estimation of those who intend devoting time and attention to the interesting and useful study of ophthalmoscopy.

The first chapter treats of the optical principles which require to be understood before the ophthalmoscope can be used intelligently. The author is in this chapter singularly happy in the choice of his explanations, and has succeeded in presenting in an easy and familiar style all the leading facts concerning the manner in which the interior of the eye can be so illuminated as to become visible to that of another person. The principles stated are illustrated diagrammatically so as to be perfectly obvious to the meanest understanding without the aid of a single mathematical formula.

Chapter II. contains a description of the ophthalmoscope most commonly employed, with directions for its use, which are sufficiently concise and practical, but long experience has taught us that there is a more convenient way of making an ophthalmoscopic examination by the indirect method than that recommended by Mr. Browne. The mode of procedure we prefer, is to examine the patient's left eye with our right, and *vice versa*, always holding the mirror in our right hand with its handle directed vertically downwards instead of horizontally, as advised by the author. We hold the object lens with the finger and thumb of the left hand, placing the middle finger upon the patient's brow in order to steady the lens, and folding the ring and little fingers towards the palm so as to be out of the way. The patient, then being directed to look at the surgeon's opposite

ear, thus brings the optic nerve of the eye under examination exactly into the required position. Mr. Browne's plan of holding the mirror with its handle directed horizontally is not so free from objection as he seems to imagine.

Chapter III deals with the ophthalmoscopic appearances of the healthy and normal eye, the author rightly deeming that there is no use in trying to study ophthalmoscopic diseases until the student is familiar with the somewhat varied conditions which are consistent with a healthy state of the eye. This forms a fitting introduction to chapter IV, which gives a brief but pretty complete account of the ophthalmoscopic appearances met with in disease of the eye; besides this, the important subject of refraction, and the way to determine it by means of the ophthalmoscope is gone into at some length.

On the whole we may say, without fear of contradiction, that as a guide to ophthalmoscopy, for the student, there is no better work in print than Browne on the Ophthalmoscope.

Cyclopædia of the Practice of Medicine.—Edited by Dr. H. VON ZIEMSEN, vol. xvi.—Diseases of the Locomotive Apparatus and General Anomalies of Nutrition, by Prof. H. SENATOR of Berlin; Prof. E. SEITZ of Gerssen; Prof. H. IMMERMANN of Basil; and Dr. BIRCH-HIRSCHFIELD of Dresden. ALBERT H. BUCK, M.D., New York, Editor of the American edition, 8 vo. pp. 1060. New York: WILLIAM WOOD & Company, 27 Great Jones Street, 1877.

This volume is devoted to the diseases of the Locomotive apparatus and general anomalies of nutrition, and is a most interesting and important addition to the work. The first article on rheumatic affections of the joints and muscles is from the pen of Professor Senator. After a few introductory remarks he commences his observations on acute polyarthritic rheumatism. In discussing the etiology and pathology of the disease, the author regards chilling of the surface as taking a foremost place amongst the existing or accredited causes of the attack. He says:

“It is especially to sudden cooling of the body when heated by exertion, exhausted and perspiring, that the outset of polyarthritis must be ascribed.” He mentions the theory of Hueter who regards the occurrence of endocarditis as the primary lesion, and holds that the inflammation of the joints is the result of embolic infarctions, secondary to the heart lesions, and he proves the theory as based on insufficient grounds, and therefore not tenable.

The opinions of Froriep and Constatt, that the affection is due to disturbance of innervation consequent on peripheral irritation set up by the chill is also illustrated, and he observes, “to bring this theory into agreement with our present notions of pathology, we must suppose either that the abstraction of heat affects the trophic and vaso motor nerves of the joints directly, thereby exerting inflammatory disturbance in them, or else that it operates as an irritant upon a variable number of the peripheral expansions of centripetal nerve-fibres, through which the irritation is conveyed to the vaso-motor and trophic nerve centres, exciting them to abnormal activity.” But this theory does not define the character or nature of the irritation set up by the chill; other facts have to be taken with the above to account for the result. The changes which occur in the tissues during muscular exertion are the formation of lactic acids and phosphatic salts. These, under ordinary circumstances are eliminated by oxidation, but the effect of a chill to the surface is to arrest this metamorphosis and elimination, and they necessarily accumulate in the system until otherwise got rid of. Why the joints should be the organs affected is accounted for, on the principle that “during bodily exertion they are, next to the muscles which move them, the most functionally active parts; hence they must stand second only to the muscles in their liability to disease.” From these considerations the author concludes that the accumulation of lactic acid in the system is the chief factor in the occurrence of rheumatic arthritis, and that it is well worthy of being further tested both by experiment and clinical observation. This being the condition the author believes to exist in rheumatism, he naturally leans to the employment

of alkalies, and alkaline salts, preferring those of soda. He gives the experience of Chambers, Furnivall, Dickinson, Fuller, and others in the use of alkalies, and also that of Lebert in the use of lemon-juice in rheumatism, and its influence in cutting short an attack. He also mentions the experience of Gull and Sutton in the use of the same means as compared with other methods of treatment. The author hints at the discovery of a specific remedy for rheumatism, which he says has been constantly sought after. This naturally following on the theory of the specific origin of the disease, while commending these attempts as perfectly legitimate, he remarks that so far no remedy has been discovered which possesses undoubted "specific virtues to be capable of summarily arresting the disease under all circumstances." Salicylic acid and salicine are not mentioned by the author, as this paper was apparently written prior to the announcement of the use of these valuable remedies; but at the end of the volume the translator, Dr. Baxter, gives a summary of the use of both salicylic acid and its salts, and also salicine, as proposed by Dr. Maclagan. The translator gives a short abstract of Senator's views, or the conclusions at which he arrived after the employment of salicylic acid and salicine, and which he published in the Berlin *Wochenschrift*, 14 and 15, 1877.

Chronic arthritic rheumatism, and muscular rheumatism receive attention, and then after an article on gout, the author passes on to rickets, and finally to that rare form of disease of the bones, seen in the adult only, and chiefly in women, known as malacosteon. The next is a short paper by Seitz on what he terms slight disorders caused by catching cold, such as ephemeral fever, herpetic eruptions about the lips the result of cold, and also rheumatic catarrh.

Immermann writes the next article on the general disorders of nutrition, such as anæmia, chlorosis, and progressive pernicious anæmia. He follows with a paper on corpulence. In this paper the author in alluding to the dietary of the corpulent advises the reduction of the bill of fare; he remarks that "a diet that contains an abundance of albumen, little fat, few hydro-

carbons, and not a great deal of gluten is best suited to the prophylaxis against corpulence." He notices the fact recorded by other observers, that upon a diet in which fats and hydrocarbons have been reduced to a minimum, and the body nourished almost exclusively on albumen, sooner or later there will be a feeling of loss of strength, languor, and incapacity for exertion which will soon compel to return to a more generous regimen. There appears to be an "incapacity of the digestive organs," of these persons, "continuously to digest a sufficient quantity of albumen to meet all organic requirements." Birch-Hirschfeld writes the next article on affections of the lymphatic glands, including scrofulosis, idiopathic adenitis, and malignant lymphoma, and the closing article is by Senator on diabetes mellitus, and insipidus. This volume is quite equal to any of the series. The articles are highly instructive and interesting, and the matter contained well chosen and fully up to the literature of the day. Ziemssen's Cyclopædia is fast approaching its completion, and there are few physicians who are desirous of becoming familiar with the literature of the various subjects treated of in this great work that can afford to remain without a copy of these volumes on their shelves.

Extracts from British and Foreign Journals.

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

Metrorrhagia after Abortion.—DR. LEDERER says that after every case of abortion, whether there be hæmorrhage or not, the placenta, or what is left of it, should be removed, if one does not wish to run the risk of losing one's patient from endometritis or pyæmia, and he further says, that severe, long continuing, and painful hæmorrhage after abortion is *always* due to retention of the whole or part of the placenta.

DR. POLLAK of Kaposvar, says, it is not always necessary to remove the placenta, that on the contrary it is often much better

to wait. He admits that severe hæmorrhage in abortion is always due to retained placenta; but he says many women abort without any bad symptoms, and without the aid or knowledge of any physician, and so, he says, it is better in many cases not to interfere. Dr. P. does not admit that women who have flooding after abortion mostly die of endometritis and pyæmia; many die of exhaustion, and others have anæmia of the brain from getting out of bed too soon.

DR. REZEK of Teplitz, holds that certainly flooding after abortion is due in most cases to retention of the placenta, and he advises its immediate removal, but he cannot agree with Dr. LEDERER when he says that it is necessary in all cases to remove the placenta, or what is left of it, whether there be flooding or not. Dr. R. advises removal only when the abortion occurs during or after the 3rd month, and when the whole placenta is retained. If part of the placenta be left and the uterus has no power to expel it, then he does not remove it more than twenty-four hours after the abortion. These indications also apply to an abortion of the second month. If all the placenta remains behind after a third month abortion, then Dr. REZEK says removal is necessary, because the uterus is unable to expel the enlarged placenta, and on account of the increased size of the cavity of the uterus, and the relative thinness of its walls flooding might easily come on and not attract notice; on the other hand an abortion occurring at the end of the 2nd month, when the walls of the uterus are relatively thick and the cavity small, the danger of unnoticed hæmorrhage does not exist. At this period the danger of puerperal complications is certainly less. Dr. R. says it is better to leave the removal of the placenta to nature when 24 hours have passed, and it would be necessary to use force to enter the uterus. He relates two cases of abortion at the 2nd month, in which the placenta were retained, and afterwards expelled by the uteri without a single bad symptom. He always gives with the most satisfactory results, hypodermic injections of morphia for the pains of abortion.—*Schmidt's Jahrbücher*, Mo. 6, 1877.

Protracted Syncope.—Case of Protracted Syncope under the administration of chloroform,—(under the care of Mr. BRYANT.—Reported with notes by Mr. TOM BIRD, M.A., Anæsthetist to the East London Children's Hospital.)

T. C., aged fifty-seven, suffering from disorganization of the metatarso-phalangeal joint of the great toe on the left foot. History of three distinct attacks of gout.

The House-Surgeon commenced to administer chloroform on a "Skinner" of ordinary size, saturated with the anæsthetic. The "Skinner" had just been used in a prior operation of some length for epithelioma of the tongue. The patient soon began to struggle, not strongly but in a spasmodic, tremulous way. More chloroform was then poured on the "Skinner," and the patient became quiet, when Mr. Bryant, who was about to operate, required him to be moved along the operating table. This was done in the ordinary quiet way, as used with people under an anæsthetic. Almost immediately the House-Surgeon noticed that the respiration had ceased. The patient was pulled back along the table, his head depressed, and artificial respiration resorted to. The femorals of both sides, as felt simultaneously by Mr. Bryant and Mr. Durham, had ceased to beat. The tongue was drawn forward, artificial respiration maintained about twenty-eight to the minute, Mr. Bryant assisting the Sylvester method by intermittent pressure on the thorax with the palms of both hands. The colour of the patient during this period was that generally noticed prior to sickness or heart-failure under chloroform. At this time (four minutes from the commencement of artificial respiration), no pulse at the femorals being apparent, four drops of nitrite of amyl, from a capsule freshly broken on lint, was applied to the patient's nose. Almost instantaneously the colour of the face improved, and the pulsation in the femoral returned; the patient came round very quickly, so as to be "lively enough now," as Mr. Bryant expressed it, and the operation was continued under ether, the pulse for some time beating well at 120, the respiration good, and quicker than normal.

Notes.—The case is a very instructive one throughout, as there

was no doubt in the minds of all present that but for the means of resuscitation used the man would have died. The patient had urate of soda deposits in his fingers and toes, knee trouble of the same character, but otherwise seemed healthy. Subsequently his arteries were examined and found slightly affected. The chloroform was very pure, (I have since tested it), administered fearlessly, and the effects for resuscitation attended with complete success. Skinner's "inhaler" is complete for hospital work, but the material in it should be changed often. Struggling very often accompanies the administration of chloroform, especially if given boldly to strong, robust people. The struggling in this case was of that character noticed in persons addicted to stimulants. In either robust or alcoholic individuals is it right to continue the administration boldly? Most emphatically, No. The Edinburgh school may boast of immunity from death by their method, but I think their healthier patients and the purer air may explain much; but whatever it be, no one who administers chloroform to a purely London *clientèle* but will be driven by experience to give it most carefully. The patient should be moved as little and as gently as possible, while under an anæsthetic, and also during recovery. In this case there was no excessive movement; the operation was on the foot; the patient had plenty of air. In operations about the jaw, in addition to the dangers consequent on that part, I have seen a difficulty arise from a pressure on the chest, of instruments, or a casual elbow or hand. Sylvester's method of artificial respiration is the best, with this modification: grasp the arm just below the elbow, instead of at the wrist. The reasons are obvious; and the respiration should not exceed twenty-five per minute. When sufficient assistance is present the artificial respiration can be much more efficiently performed by two—one standing on each side of the patient, and working one arm a piece, this is better than only one behind the head; the assistant that pulls forward the tongue, and keeps the lower jaw forward can then stand at the head. The tongue should be well pulled forward until the entrance and exit of air to the chest can be heard. The legs should be raised at right angles to the

body; this assists the circulation, is an improvement (without interfering with the Sylvester) on the "hanging up head down" plan, (which, however, is good in the case of children,) and in addition relaxes the abdominal walls. There is no doubt of the efficacy of nitrite of amyl on the circulation; it is now prepared in hermetically sealed capsules which can be obtained sufficiently strong to carry loose in the waistcoat pocket. I have broken only one so carried during the last twelve months. Those containing five drops are the most useful. I think the strength and frequency of the pulse after resuscitation on this occasion were entirely due to the amyl. Should the patient not come round in six or seven minutes, I should recommend immediate tracheotomy or laryngotomy, as I think the air passing direct through the tube is a stronger stimulant than when passing through the normal passages warm and already impregnated with chloroform vapour. If ice be handy, a piece put in the rectum can do no harm, and has been already noticed as of avail; it interferes in no way with the rest of the process. If the heart still continues beatless after the inhalation of the nitrite of amyl, I should feel inclined to puncture the pericardium, so as to reach the apex of the heart with an electric needle. This being unsuccessful, the substance may be pierced. In no case ought artificial respiration be relaxed until the above measures have been tried, when, if the patient has undergone a very serious operation and a long anæsthesia, I trust the operating surgeon will always share the result with the administrator of chloroform.—*Medical Times and Gazette.*

Treatment of Spermatorrhœa.—DR. ULTZMAN of Vienna, recommends ext. scæalis cornut. mviij, and gr. xlv. of potass. bromid., daily, for cases of seminal emissions, but he places most reliance on local applications. He advocates the daily passage of a metal sound (7 or 8), and he leaves it in the urethra twenty to thirty minutes. Dr. U. finds that the patient is cured by this treatment in from 6 to 8 weeks. In very sensitive persons he uses urethral suppositories, (made of morphia gr. 1-3, tannin gr. vii., butyr de cacao, gr. xxx). He

introduces the suppository into the prostatic portion of the urethra by means of Dittel's catheter, every other day. Later on he uses suppositories of argent. nit. gr. 1-5. butyr de cacao gr. xxx. In true spermatorrhoea he has found electricity of much service. He applies one pole within the rectum, and the other to the perineum just behind the scrotum.

Dr. Rezek of Teplitz, says the best treatment for spermatorrhoea and seminal emissions is regular sexual intercourse.—*Schmidt's Jahrbücher*, No. 3, 1877.

Lithotomy.—MR. BRYANT showed two specimens of Prostatic Tumours removed in Lithotomy. The first was that of a man sixty-seven years of age, in whom lithotomy was performed in January, 1875, symptoms having existed for fifteen months. The blunt gorget was used, and some resistance was felt in the extraction of the calculus. This was due to a tumour of the third lobe of the prostate, which was removed with the stone. The latter was a mulberry calculus, an inch and a half in diameter, with lithic-acid deposit outside. The case did very well; urine passed per urethram on the sixth day: and in March the patient left the hospital quite well. He was seen again in May, and as late as October, 1877; he was still in good health, and had no return of bladder symptoms for four years; for two years the urine contained blood; and for six months micturition had been very frequent, and prolapse of the rectum had occurred. The presence of calculus having been ascertained, Mr. Bryant performed lithotomy, and in consequence of enlargement of the prostate gland was found to be included with the calculus between the blades of the forceps. The tumour was readily enucleated by rotating the forceps, and withdrawn with the stone; no bleeding followed. By the twenty-second day urine passed wholly through the urethra, and in six weeks the perineal wound healed, all bladder symptoms had disappeared, and the patient was now quite well. The stone was composed of uric acid, with phosphates and oxalates. The tumour in each case was composed of well-marked glandular tissue and muscular fibres; and the second specimen was in

parts so highly cellular as to lead Dr. Goodhart, who examined it, to think that it was in an actively growing condition. Mr. Bryant remarked on the great and lasting relief obtained in both cases, not only from the calculus, but from the removal of the tumour; so much relief that he would suggest that surgeons in performing lithotomy on the aged should remove any prostatic tumour that might also be present; and the cases even showed that cystotomy might sometimes be performed in cases simply of enlarged prostate. In 1848 Sir William Fergusson had shown similar specimens of prostatic tumours removed by lithotomy at the Society. Mr. Bryant also showed a specimen of Impacted Fracture of the Shaft of the Femur, from a man eighty-three years of age, who had fallen down some area steps, and fractured the lower third of the right thigh. It was found impossible to fully extend the limb. Death occurred from uræmia due to suppurative nephritis on the twenty-fifth day after admission. The fracture was found at the junction of the lower and middle thirds of the femur, the upper fragment being drawn for a distance of an inch and a half into the lower portion, which was split down to the condyles. This very rare condition could only be produced by direct violence on the distal end of the bone. It explained the failure to obtain extension, and pointed to the danger that might have arisen had attempts been made to forcibly separate the fragments.—*Lancet*.

Plugging of Superior Mesenteric and Femoral Arteries.—Mr. Howse exhibited a fresh specimen of ulceration of the bowel, with plugging of the superior mesenteric artery. It occurred in an old woman, who had gangrene of the leg. The coils of intestines could be readily seen through the abdominal parietes. The femoral artery had ceased to pulsate, and, as the patient complained of great pain, the thigh was amputated, and no more pain was experienced. The diarrhoea remained. After death, it was found that the femoral artery was plugged up to the external iliac. The superior mesenteric was plugged by a fibrinous clot. The gut was almost sloughing. The colon was adherent to the

small intestine and a perforation had taken place at this spot. There were scars on the great intestine. The President asked if the intestinal lesion came first and the plugging after, or *vice versa*. Mr. Howse thought the ulceration secondary to the plugging. Dr. Coupland asked if the gangrene of the leg were embolic. If a portion of the clot in the superior mesenteric got into the aorta, it might be washed into the femoral artery. Mr. Howse said the clot extended into the aorta. The heart and aorta were healthy. She stated that she had passed black stools.—*British Medical Journal*.

Cysts from the Peritoneum.—Mr. Thornton showed some cysts of the peritoneum, which are so rare that no account of any is to be found in the Society's *Transactions*. They are stated to arise from peritoneal inflammation. They came from a married woman aged 32, who noticed an increase in bulk after a fall. They were taken from an ovarian tumour, and eight pints of fluid were evacuated by tapping. She had low fever and bowel inflammation. There was dysuria before tapping. In the left side, a hard mass could be felt behind the uterus, which was thought to be an ovarian tumour, probably multilocular. An incision was made, and a cyst was found which was adherent in front. It was tapped; in the cavity left, no intestine could be felt, and a thick membrane could be distinguished between the finger and the viscera. In the left ovary was a blood-cyst. The right ovary was removed, and hæmorrhage occurred from the sac. The vessels could not be tied, so the abdomen was closed. The case was dressed antiseptically, and did well; in a day or two pyrexia set in, and the contents of the sac were let out, and found to consist of blood, sweet and not putrefying. The temperature fell, its rise being due to the tension within the sac. Cysts were found in the broad ligaments and in the layer of peritoneum over them. Dr. Wiltshire inquired if any hooklets had been found. Mr. Thornton replied that none were found.—*Brit. Med. Journal*.

Specimens of Tendon Ligatures.—The President, Mr. Callender, exhibited some specimens of the kind. It was certain, he remarked, that doubt existed as to the trustworthiness of catgut for the ligature of arteries in their continuity. A material that occasionally failed to arrest the blood-stream for a sufficient time to ensure the cure of an aneurism, could not be recommended with confidence. He hoped a more extended trial would confirm the promise that we had in fine tendon ligatures, that they would resist the solvent action of their surroundings in a wound, so that, although they were eventually dissolved, they lasted longer than catgut. And these ligatures tied better knots than the catgut, and the knots did not slip. Their strength, too, was sufficient; and, as they dissolved slowly, they answered well for sutures, especially where some strain was put on them, catgut quickly yielding under such an influence. The specimens of ligatures handed round had been sent him by Mr. Hulme of Guildford, who had received them from Mr. T. M. Girdlestone, Surgeon to the Albert Hospital at Melbourne. They were extracted from the tail of a marsupial, and were of various sizes as they grew. They had not been split. Mr. Girdlestone said they made very good sutures, but he had not used them on arteries. The natural tendons, however, had been freely used for ligatures. They were simply washed and dried. Before use, they should be soaked in carbolised oil, and Mr. Girdlestone recommended that they should be softened in carbolised water just before use. As the supply of these tendons was distant, and as he (the President) was unable to find any precisely similar, of sufficient length, in this country, he was having prepared ligatures which were made from tendons of the horse. They had the same characters as the tendons from the marsupial.—*British Medical Journal.*

Cystic Disease of the Thyroid.—Mr. John Wood brought before the Society a cyst which extended from the middle of the thyroid gland down to the middle of the sternum. It was twenty-four inches in circumference. It

overlapped the sterno-mastoid muscles. It was elastic to the touch, and a large venous trunk ran over it. There was no fluctuation. The tumour could be lifted up. It moved in deglutition. The superior and inferior thyroid arteries were large and pulsating. Small hard nodular masses were felt along the veins. There was great tension in the cyst. It occurred in a female aged 28, who was pale and languid. It had existed fourteen years, and had grown rapidly of late. The cyst was emptied by the aspirator, and forty ounces of dark fluid drawn off. Depression of the tumour followed. The needles were connected with a galvanic battery, but the tumour re-formed. Then thirty-six ounces of fluid were drawn off, and the cyst was injected with iodine and glycerine, but it refilled. Darting pains set in, with giddiness and palpitation; and the woman begged to have it removed. It was removed antiseptically. The operation and the after history were described by Mr. Wood with much exactitude. The woman is now nearly well. A drawing was exhibited, which showed the manner in which the blood-vessels made their entry through the capsules of the cyst. In the interior of the cyst were found projections probably portions or remains of old partition walls. The lining membranes otherwise were smooth. The President asked as to the histological characters of the cyst, Mr. Wood replied that it consisted of ordinary glandular elements, but that a more searching examination should be made. Mr. Lennox Browne said such cysts were formed usually by colloid growth breaking down. Mr. Spencer Watson had met a like case, where granular corpuscles were found in the fluid removed by tapping.—*British Medical Journal.*

Rupture of the Aortic Valves.—Dr. Burney Yeo related the subsequent history of a case of this lesion in a man whom he exhibited at the Clinical Society, in May, 1874. The man had a loud cardiac murmur, heard first a few weeks after a fall down eight or nine steps, when he had clutched violently at the handrail. He was a healthy, fresh-looking man, aged 45, and of temperate habits. He had occasionally

had some rheumatic pains in his limbs. A loud musical murmur was not only heard all over the chest, but he heard it himself, and it was audible at a distance of three feet from his body. He had no pain, no faintness, and no great dyspnoea. The murmur changed a good deal in character; once it was almost lost, and then again a loud double murmur was heard. In January last year, he was much worse; he had muscular feebleness and impaired sensation and co-ordination, being somewhat ataxic. His heart was hypertrophied, and the area of dulness was very large. In November last, when dressing, he dropped down dead. At this time, he felt so ill that he was dressing to go to the hospital. A *post mortem* examination was held, but the chest only could be examined. The heart was very large, the muscular structure commencing to undergo fatty change, while the aorta was atheromatous. As to the valves it was found that the anterior segments were separated, and the torn cusp vibrated back and forwards in the blood-current. The duration of the case was three years and a half. In answer to a question by Dr. Douglas Powell, Dr. Yeo said that the pulse was not first aortic and then subsequently mitral, but was an aortic collapsing pulse all through.—*Brit. Med. Journal.*

Impacted Fracture of Shaft of Femur.

—Mr. Bryant gave an account of such an injury, occurring to a man aged 83, who fell down some steps on his right knee. The right thigh was swollen and shortened by two inches. The case went on well till uræmic symptoms set in. On *post mortem* examination, the kidneys were found to be suppurating. The femur was found fractured and the proximal end driven into the distal shaft, splitting it to the condyles; the seat of fracture being at the top of the lower third. Impaction might thus take place into the shaft of the bone, and the injury described could only have taken place through a fall on the knee. Extension failed in these cases to make the limb of normal length. There was a danger of over-manipulation.—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, MARCH, 1878.

AS OTHERS SEE US.

In the foreign and colonial correspondence to the *Medical Times and Gazette* of February 23rd, dated from Philadelphia, we learn that, although geographically in the bleak north, we benighted Canadians are exhibiting very praiseworthy activity in the advancement of medical science; that during the meetings of the International Medical Congress and of the American Medical Association, held at Philadelphia and Chicago respectively, gentlemen from Canada, who were present in considerable numbers, created a most favorable impression, by their personal and professional status; and that in discussions on important topics they advanced views on pathology and therapeutics in accord "with the very latest steps of progress in these directions." On this we make no comment; but we would be sorry to believe that it contained a phlippancy and impertinence which is not suitable. Further on we are informed that "Medical legislation seems to be encumbered and embarrassed in Canada pretty much the same unfortunate way that characterises it in the United States." This is decidedly an error, as our legislation is by no means embarrassed. We have local enactments in each province, whereby the licentiates of one province cannot practice legally in any other without holding the license of that province; but there is no embarrassment in this, nor does it in any way resemble the law as administered in the United States.

The local enactments introduced into each province of the Dominion is the outcome of the very questionable policy of giving to each province the right of legislating as regards

the higher branches of education. So long as this continues, so long will each province claim its right of legislating in matters medical to the exclusion of every other province and every other nation. The time-honoured qualifications of the mother country hold no status in some of the provinces of this Dominion. No graduate, or licentiate, or fellow, of any college in the world has any right by virtue of his qualifications to practice his profession in Ontario, until he has submitted to examination before the local board elected by the profession in that province. In Ontario there is a central board of examiners elected under the act of the Local Legislature of that province, and no qualification, however high or thorough, is admitted except after examination touching professional knowledge; but more than this, the candidate must give proof before he is admitted to a professional examination, of having a preliminary training equivalent to a B.A. degree from a university, or of having passed an examination on preliminary subjects before a board named by the college. In our own Province of Quebec we are more liberal, and the qualifications of British and colonial Universities and Colleges may be admitted to registration at the option of the board without examination.

It is stated that "Legislation on health matters appears to be no further advanced than in some of the States of our own country." The fact is that we possess no efficient legislation on the subject of hygiene, although spasmodic efforts have been made on several occasions to introduce a measure before the House of Commons at Ottawa, but without any result. Local enactments exist in Ontario; but no good can result—nothing that will yield reliable information on this subject—until dealt with by the general government. The *curious statistical birth rate*, as given by the President in his address before the Canada Medical Association is alluded to, but with this, we are far from being satisfied as to its accuracy. When it is known that we have no efficient or reliable system of enumeration, such assertions may be correct, although they bear the impress of uncertainty.

The number of medical schools and colleges in the United

States is remarked upon. This has always been a source of regret with the most thoughtful members of the profession of that country, and is one source of anxiety in Canada, although if we had, as we may have some day in the future, a central board of examiners for the entire Dominion, before whom all candidates would have to pass before receiving a qualification as practitioners of medicine and surgery, then, indeed, might there be as many schools and colleges as could eke out an existence, without in any way lowering the standard of professional education.

THE LATE R. L. MACDONNELL, M. D., L. R. C. S.,
L. K. & Q. C. P., IRELAND.

The subject of this notice was born in Dublin, in the year 1817. His father was a physician of some eminence practising in Dublin, who died early in life, leaving his three children to the care and guardianship of his brother, The Reverend Dr. MacDonnell, a distinguished Fellow of Trinity College, and subsequently for many years Provost of the College. To the watchful care and generous assistance of this faithful guardian and second father, Dr. MacDonnell was not a little indebted for his success in life.

His early education was received in Scotland, and he returned to Dublin about the year 1835, and soon after commenced the study of medicine in Trinity College. Young MacDonnell entered on his course of medical studies at a time when the medical schools of Dublin presented an array of names of men known to fame in their several departments, amongst whom were Graves and Stokes, Cusack, Collis, Porter, Sir Henry Marsh, Apjohn, Crampton, and many others, who were unsurpassed.

Full of enthusiasm, with a sound preliminary training, a careful observer and indefatigable worker, he devoted himself to the study of his profession, of which, from the first he was passionately fond. Dr. Graves, at this time was unrivalled as a teacher in medicine, and as an accurate diagnostician. Attention was drawn to young MacDonnell, and he was selected to be chief clinical assistant in the medical wards of the Meath Hospital

under the charge of that eminent Physician. With such advantages for bed-side investigation Mr. MacDonnell soon made a reputation which led to preferment. Soon after passing his examination for the license in 1841, he became attached to the editorial staff of the *Dublin Journal of Medical Science*, and in the columns of that periodical he published several papers of worth and importance.

Dr. Graves in bringing out a second edition of his *Clinical Lectures* secured the assistance of Mr. MacDonnell. This was no ordinary compliment, and that the selection was judicious, is evident from the satisfaction expressed at the time, by the very critical author, for the valuable assistance rendered. But although Mr. MacDonnell had in May, 1841, passed the Royal College of Surgeons of Ireland, and had received his diploma as Licentiate, he continued as a student of his profession to qualify himself for higher honours. He retained his connection in the wards of the Meath Hospital under Dr. Graves, and we find frequent reference made to "Surgeon MacDonnell, my clinical clerk," in the clinical papers published by Graves, in the *Dublin Journal*, for the years 1841, 1842, and 1843.

While busily engaged in hospital work under Dr. Graves Mr. MacDonnell continued to perform other public duties. He was appointed Demonstrator of Anatomy in the Park street school, and he also delivered a course of lectures on Pathological Anatomy and Histology. While thus engaged he constantly supplied material for discussion before the Pathological Society of Dublin. Many of these specimens he had obtained in the post-mortem room of the Meath Hospital. In the numbers of the *Dublin Journal of Medical Science* many of these records are to be found; they are full of interest in the present day when the light of scientific research guided by such enthusiasts as Mr. MacDonnell has brought out many facts which were then observed but remained unexplained.

In April, 1844, Mr. MacDonnell obtained by examination the license of the King's and Queen's College of Physicians of Ireland. This, at the time, was considered a high qualification,

and was supposed to confer the right of using the title of Doctor of Medicine. This assumption by the College was subsequently disputed, and it was ultimately decided that the license of the College conferred no such privilege.

While thus fully employed in teaching, and as Dr. Graves' chief clinical assistant, Dr. MacDonnell found time to prepare a paper entitled "Contributions to the Diagnosis of Empyema with cases." This appeared in the March (1844) number of the *Dublin Journal of Medical Science*. It is a paper of great value, and many of the observations therein contained are original—notably, the condition of the liver in empyema, the accurate description of which in that disease had not been announced by any previous writer. A second paper from his pen appeared in the following November number of the same journal, entitled "Contributions to the Diagnosis and Pathology of Thoracic Diseases." This paper in reality is a clinical description of three cases of chest affections, the first being "Empyema with copious purulent expectoration." The second is "on the occurrence of crepitus in the lung after the absorption of pleuritic effusion;" and in the third will be found described the particulars of "a peculiar form of dissecting aneurism of the thoracic aorta." This latter is illustrated with a coloured lithograph. The year following Dr. MacDonnell published a paper on "a peculiar form of Disease of the Heart attended with enlargement of the Thyroid Gland, and protrusion of the eye balls." This was the first brochure which had appeared specially on this subject, but the author gives full credit to Dr. Graves for having published an account of this disease in one of his clinical Lectures which appeared in the *Medical Gazette*.

About this time the governors' of the University of McGill College, Montreal, determined to increase the number of Lecture-ships in the Medical Faculty, and a public advertisement appeared calling for applications for the chairs of Clinical Medicine and Surgery, Institutes of Medicine, Medical Jurisprudence, and Botany. Up to this period the subject of Institutes of Medicine had been treated of by the Lecturer on Materia

Medica. Dr. MacDonnell, who had many friends residing in Canada was induced to apply for the chair of Medical Institutes. He resigned his appointments in Dublin and sailed for Montreal where he landed in June 1845. He at once took status among his professional brethren. His appointment to the chair of "Institutes of Medicine" in the Medical Faculty of the University of McGill College was published the following month. At the annual meeting of the Medico-Chirurgical Society of Montreal, held in August of that year, he was elected Secretary to the Society. The month following he became associated with Dr. Hall, in the editorial management of the *British American Journal of Medical Science*, which connection he retained until March, 1847.

During the winter of 1845 and '46, Dr. Crawford, the then incumbent of the chair of Clinical Medicine was obliged to go to England with the Governor-General of that period, the late Lord Metcalf. This was in November, 1845. Dr. MacDonnell not only filled his own chair of Institutes of Medicine, but he performed the duties of Attending Physician to the Montreal General Hospital, and lectured on Clinical subjects during a great portion of the course in the room of Dr. Crawford. He was thoroughly conversant with his subject, his language was choice, and his fluency and clearness of description, but with all conciseness, was what, we as students, because the writer was at that time on the benches, had never before enjoyed. Then, again, at the bed-side, the instruction given was practical, and an appeal was made to our common sense, to learn and know the simple yet truthful operations of nature in the course of disease. Dr. MacDonnell continued to lecture on Institutes of Medicine until 1849, when he received the chair of Clinical Medicine, the late Dr. Crawford taking that of Clinical Surgery. This chair he ably filled for two sessions when he resigned. He had previously been elected Attending Physician to the Montreal General Hospital. This position he likewise resigned as he had determined to leave this city and remove to Toronto. We believe that this change had been suggested in consequence of a vacancy in the Medical Faculty

of the University of Toronto, for which post the Doctor was an applicant, but about this period the Medical Faculty of Toronto was dissolved in consequence of the action of the Government of the day in omitting to provide for the continuance of the Medical Faculty of the University, in a Bill which passed before the Legislature. This resulted in a rapid return of Dr. MacDonnell to Montreal, and he desired to withdraw his resignation before the hospital board, as also that sent in to the Governors of McGill College. Unfortunately, the position held by him in the hospital as attending physician had been filled, and without a hospital appointment his chair of Clinical Medicine fell to the lot of a successor. This was unfortunate for the University, as it lost in Dr. MacDonnell the services of a most efficient teacher, and able Physician. These changes occurred about the year 1851. The want of a hospital appointment was sorely felt by him, and, as about that period, there were large public works progressing in the vicinity of this city, in the construction of the Grand Trunk Railway, and subsequently the Victoria Bridge, a few influential Irishmen determined to originate a hospital, to be named after their patron saint. This was carried out, and Dr. MacDonnell actively engaged in its organization, and ultimately became Surgeon to that institution. St. Patrick's hospital continued as an independent institution up to July, 1860, when it was closed, and the patients were transferred to the (at that time new), large and commodious building, erected by the ladies of the Hotel Dieu. This change once more left the Doctor without a hospital, inasmuch as the Hotel Dieu already had a staff of physicians and surgeons.

Dr. MacDonnell has always enjoyed the confidence of a large number of the leading families in Montreal, and in times of excitement from threatened epidemics the Government of the country sought his counsel and advice. In 1866, when cholera invaded Europe, and extended into Great Britain, a "Central Board of Health" was summoned to Ottawa. This was composed of the prominent men in the different cities in Canada, and Dr. MacDonnell was chosen as their President. With regard to his literary labours there is hardly a volume of

the Medical Journals published in this city from the year 1845 to 1863, which is not enriched by his pen. His contributions were clear, and bore the stamp of careful preparation.

Of late he did not publish any of his observations, but in conversation with him, shortly before the lamentable accident which terminated his life, he told the writer that he had in course of preparation a paper on the subject of Uterine Flexures. He was a most successful practitioner, and in Gynæcology had a reputation which extended beyond the boundaries of Canada.

We have thus far endeavoured, very imperfectly, to sketch the life of our old and respected friend; and we cannot do better in conclusion than give the remarks made in a letter which we received from a gentleman, who was the college chum of Dr. MacDonnell, and between whom there existed throughout life the closest intimacy and friendship. He says: "Of the many amiable qualities of my dear old friend, his kindly heart, genial manner, his irrepressible love of fun, his pleasant banter, (in which there was nothing that could hurt or sting,) these were characteristics alike of his later, as of his earlier years. These happy qualities which made him always so agreeable a companion, and won for him so many warm friends among all classes of society, were, it seems to me, only softened and mellowed by advancing years."

"Of the strong hold which he had on the affections of his patients I heard and I saw many proofs during the two or three sad days which followed his sudden and almost tragical death: none perhaps so touching as the choice floral wreaths and crosses which, with a few written words of strong sympathy, were with profusion poured into the darkened house, almost lighting it up with their strange brightness: loving offerings these, sent in many cases by his poorer patients, who thus made their first and only payment for professional services, kindly and freely given without hope of fee or reward, by him upon whose coffin these perishable memorials of affection were to be laid."

EDWARD MULBERRY HODDER, M.D., F.R.C.S., ENG.

Never has it been our mournful duty to record in so short a time the death of so many prominent members of the profession in this country. In rapid succession, Drs. Peltier, MacDonnell and Hodder have been called away, leaving a sad gap in the group of Canadian Medical men following immediately upon that earlier generation, comprising Digby, Widmer and others in Ontario, and Nelson, Holmes, Hall, Fraser and Sutherland in Quebec. To the men of this the second generation, it may be called, the profession in Canada owes much. As a rule they were men who, if not natives of Great Britain, had received their entire medical education at home and who brought with them professional ideas, of infinite advantage in a young country where Medical schools were being established, and the course of study laid down. Among these men was Dr. Hodder of Toronto, whose decease took place at his residence on the 20th, ult., after an illness of some months' duration.

An obituary notice in the *Toronto Mail* says that "he was the son of Captain Hodder, R. N., and was born December 30th, 1810, at Sandgate, Kent, England. He entered the navy in 1822 as a midshipman under his father, but only took one cruise, leaving the service at the expiration of a year, having a strong desire to study medicine for which profession he had a preference. Educated as a boy at Guernsey Grammar School, afterwards at St. Servans, France, he began his medical studies in London, under the late Mr. Amesbury, very celebrated as a surgeon, with whom he spent five years. At the close of his career as a student he passed the Royal College of Surgeons of England, 1834. He afterwards went to Paris, where he spent two years more in the study of his profession, and subsequently visited Edinburgh, and there, too, spent a considerable time in seeing the hospital practice of the then famous teachers of that city. He began practice in London, where he remained but two years, for thinking his prospects would be improved by removal to St. Servans, in France, he settled there for a time. His French home being too quiet for his tastes he visited Canada.

in 1835, returning to France in a few months. For the next three years he practised his profession in St. Servans, when, having had a longing after Canada from the time he visited it, he left, never to return, and henceforth resolved to make his home in this country. He settled in the neighbourhood of Queenstown, in the Niagara District, where he carried on a very extensive practice for five years. In 1843, he removed to Toronto, and continued to practice there up to the time of his death.

In 1854 he was elected a Fellow of the Royal College of Surgeons, England, and in 1865 a Fellow of the Obstetrical Society of London, and was at the time of his death and for some time previously one of the honorary local Secretaries.

In 1845 he received the degree of C. M. from King's College, Toronto, and M.D. from Trinity College in 1853.

In 1850 he established, in concert with Dr. Bovell, the Upper-Canada School of Medicine, which that year became the medical department of Trinity College. For several years while Trinity College Medical School was in abeyance Dr. Hodder was a member of the Faculty of the Toronto School of Medicine, but on the revival of his old school in 1870, he was by the unanimous wish of his colleagues, appointed Dean of the Faculty, which position he held at the time of his death—having been reappointed in 1877 when the Act incorporating the School passed the Provincial Legislature. From 1852 to 1872 he was the leading member of the acting staff of the Toronto General Hospital and of the Burnside Lying-in Hospital, and at his decease was senior consulting surgeon to both of these institutions, as well as to several others of like character."

In the Canada Medical Association he always took great interest, and was elected President at the Halifax meeting in 1875. He was also a member of the Ontario Medical Council.

Of his professional character and reputation little need be said. He was the acknowledged leader of the profession in Toronto and in the Province of Ontario, a position which he had won by steady hard work during a period of 40 years. His ability and success as a surgeon and gynæcologist secured him

an extensive practice, and his opinion was much sought after by the members of the profession. He was a bold and dexterous operator, but believed in the supreme importance of after treatment. As a lecturer and teacher he was greatly esteemed by the students, his lectures being well and carefully put together, and delivered in a pleasant yet impressive style. Possessed of a fine presence and pleasing address, though sometimes, decided, even brusque in manner, he was withal exceedingly generous and kind-hearted, and reminded one of the surgeons of the Abernethian time. The writer has personal knowledge of several acts of touching kindness towards patients done, quietly and unostentatiously, that the right hand might not know what the left hand did. Born and raised a gentleman, he had all those honourable instincts and finer feelings which render a man incapable of performing petty acts, or of resorting to subterfuge of any kind.

The naval experiences of his boyhood embued him with a strong love for aquatic sports, and it was mainly owing to his exertions that the Royal Canadian Yacht Club was founded, over which as Commodore, he presided for many years. His hospitality was of a kind which appears to be passing away, and many who may happen to read these words will recall to mind pleasant gatherings at his own house or the Yacht club.

For some months past he had been ailing, and when the writer of the present sketch saw him at Christmas last, an evident change had come; his step was no longer elastic, his eye had lost its fire, and there were indications, as he himself knew only too well, of cerebral degeneration. Though nothing definite could be ascertained, yet he felt, indeed stated, that it was the beginning of the end. Two weeks later he was seized with paralysis of speech and deglutition, with rigidity of the right arm. From this he partially recovered and was able to get about the house, remaining however aphasic. He became gradually, weaker, and died comatose.

Amid the cares and worries of practice few men have superfluous energy enough to devote time to literary work. In the files of Canadian Journals we find comparatively few papers

from his pen, and it is much to be regretted that the profession has not reaped the full benefit of his ripe wisdom and extended experience. It is to be hoped that his successor, or whoever may have access to his clinical records, will take the trouble to arrange some of them with a view to publication. His success as an ovariologist was great, and he had operated oftener than any one in the Dominion. So far as we know the results in full have not yet been published. Latterly he had been much interested in the subject of the diagnosis of Ovarian Cysts, and had a paper partially prepared on the means of discriminating between these and moveable kidneys, of which he had met with several cases.

He was joint-editor of the first volume of the *Upper Canada Medical Journal*, 1851, and contributed to it several papers.

The following, so far as we can ascertain, are his published communications:

(1.) On purpura hæmorrhagica.

(2.) Case of Aneurism of the Arteria, media cerebri, rupture, apoplexy.—*British American Journal*, vol. II. 1846.

(3.) A case of Apoplexy in which Cæsarian section was performed with safety to the child.

(4.) Case of stricture of urethra treated by external incision.

(5.) Cases of Fistula in ano treated with injection of iodine.

(6.) Disease of the kidney consequent on disease of the bladder, in a child. All in *Upper Canada Medical Journal*, vol I.

(7.) Case of Dislocation of head of Femur.—*British American Journal*, vol. II, 1861.

(8.) Injection of Milk into the veins in Cholera—*Practitioner*, 1873.

This last paper gives an exceedingly interesting account of the first attempt made to inject milk in cholera. A more extended paper on the same cases appears from the pen of Dr. Bovell in the *Canadian Journal*, 1854.

At a general meeting of the Medical Students of McGill University, held on Friday, 1st February, the following resolutions were unanimously adopted :

Resolved,—That the students of McGill University express deep regret at the death of the late Dr. MacDonnell, and considering as they do his early connection with this University as Professor of Physiology, there is additional cause for regret at his loss. As students of Medicine, they cannot but revere the memory of one who has so materially aided in the acquirement of knowledge pertaining to their profession by his learned researches in various departments of Medical Science, thus throwing light on many dark points connected with medical diagnosis, being in the true sense of the word a great physician, who devoted some of his valuable time in alleviating the sufferings of the poor in the public hospitals of this city, for which he will be long remembered. They can thus imagine the void that has been left in the hearts of his bereaved widow and mourning family, and they sincerely condole with them in this the time of their deep affliction.

Resolved,—That the Medical students of this University attend the funeral in a body.

Resolved,—That a copy of these resolutions be sent to the family, and that the city daily papers and Medical Journals be requested to insert the same.

ALEXANDER CHISHOLM,

Secretary.

MEDICAL FACULTY BUILDING. }
McGill University, Feb. 1st, 1878. }

Personal.

A. F. RITCHIE, B.A., M.D., C.M., (McGill University, 1876,) and who has been acting as resident medical officer to the Brompton Hospital for Consumptives, passed the examination before the Royal College of Physicians, London, and obtained the license of the College.

HERBERT L. REDDY, B.A., M.D., C.M., (McGill University, 1876,) passed his final examination before the Royal College of Surgeons, Edinburgh, and received the License of the College on the 31st of January, ultimo, also passed his examination at the Apothecaries' Hall, London, and received the certificate to practice on the 14th of February ultimo.

CHARLES H. MURRAY, B.A., M.D., C.M., (McGill University, 1876,) passed his examination at the Apothecaries' Hall, London and received the certificate to practice on the 8th of November, 1877.