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CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Some Observations upon Scarlatinal Pleurisy and upon Thoracentesis in that affection. By R. P. Howard, M.D., L.R.C.S.E.; Professor of Theory and Practice of Medicine, McGill University.

(Read before the Canadian Medical Association in September, 1872.)

It is well known to practical physicians that acute pleurisy is, in children, a rare affection, as compared with its frequency in adults; it is even more rare as a complication of the eruptive fevers. Having, in the year 1864, during the prevalence of Scarlatina, met with several cases in which acute pleurisy supervened during the course of that fever; and as the complication is a serious one; as the inflammatory products appear generally if not invariably to differ from those of ordinary pleuritis; as the subject has not attracted the attention that it merits; and as the cases suggest some points of practice, I have ventured to bring them before the Association.

Case I.—A pale, delicate girl, of 8 years, took scarlatina anginosa in the latter part of March, 1864. The case was severe; both ears discharged pus, and her nose bled profusely, at intervals, for two or three days; so that I feared she would sink. About this time she complained of pain in the left breast, and on examination the left side proved universally dull, the respiration absent, the intercostal spaces filled up smooth and widened, and the heart displaced to the right nipple. She had had slight pain in the right side for a short time previously.

Recognizing the presence of pleuritic effusion a generous diet, sinapisms to the chest, and a mixture of iodide of potassium and bark were prescribed. Soon after, the Unguent, Iod. Pot., was rubbed in three times a day. I ought to have mentioned that about the time of discovering the pleuritic effusion the left lower extremity was œdematous and that the œdema extended up to the

body; the urine was scanty and high-colored, but its chemical characters were not taken. As her strength failed rapidly, her breathing was short, and no signs of absorption had appeared after *six weeks* treatment, I resolved to tap the chest, and did so on the 20th May by a direct plunge of the trocar into the eighth intercostal space, in a line with the inferior angle of the scapula. A little over a pint and a half of healthy *pus* escaped when air began to enter the chest, and the trocar was withdrawn and a bandage applied. Wine, *ad libitum*, egg-nogg, and animal broths were ordered at short intervals, and the tonic mixture was continued.

May 24th.—Orifice closed; no discharge of pus since 20th; the percussion dulness extends as high as the spine of the scapula; the bulging of the second and third left intercostal spaces in the the infra-clavicular region is as great as before the tapping; pulse very weak and frequent. I thrust a *large* trocar through the former opening, and evacuated two and a half pints of healthy pus, and the left chest filled with air. Left the wound open.

26th.—Orifice closed; blowing respiration audible as low as the puncture; coughs more; œdema of legs increasing; eats better, and drinks about ten or twelve ounces of wine daily.

28th.—To have a mixture of muriated tincture of iron, quinine, and chloric æther, three times a day.

29th.—In great distress from pain while coughing; the tumour upon left mammary region emits a dull note on percussion over its lower half, owing to the presence of fluid, and a clear one over its upper half, from the existence of subcutaneous air. Made an incision into the tumour about the lower border of the fourth rib, and gave exit to two tumblersful of odourless pus; the opening in the back likewise discharged about two ounces of pus. Air escaped from the anterior incision during coughing. To have one-eighth grain Pulv. Opii., *pro re natâ*, to relieve pain and cough.

31st.—Easier; no cough; no expectoration; a very liquid mucous râle audible in left infra-clavicular and lateral regions, proving partial expansion of the lung; a little thin pus escaping from the anterior incision.

June 2nd.—Only a small quantity of discharge from anterior orifice; not any from the posterior; lower half of chest dull on percussion, but a mucous râle audible to day in left infra scapular region; heart in its natural site; pulse 156, weak; œdema of lower extremities much reduced.

June 4th.—Cough reduced to one paroxysm a day; scarcely any bubbling to be heard in left chest; appetite very good; has sat up for last three days.

This child steadily improved and regained her health.

In this first case of scarlatina then, let it be noted that about the same time that the anasarca appeared, acute pleurisy set in with effusion, and after six weeks of unsuccessful treatment thoracentesis was performed on the 20th May, and *pus* was evacuated. The operation was repeated upon the 24th and upon the 29th: signs of expansion of the lung existed on the 31st, and the child recovered promptly.

Case II.—On the 21st May, 1864, and about nineteen days after the invasion of mild scarlatina, a fine child, aged 3 years, presented the symptoms of general dropsy. A dose of compound powder of jalap every other morning, a warm water and soap bath every night, and a solution of acetate of ammonia every four hours were ordered.

The anasarca did not increase; but about the 27th I noticed that his cough, which had been slight on the 22nd, was marked, and on examining the chest discovered almost wooden dulness and feeble respiration all around the lower half of right chest, and a clear note on percussion over the upper half; the breathing rather short and frequent, and decubitus towards affected side. A mixture of Iodide Potassium and Liq. Ammoniæ Acetatis was ordered: the side to be rubbed three times a day with Ung. Iodid Potass.

June 1.—Right side of chest much enlarged, and its intercostal spaces on a level with the ribs; expansion movement much reduced; the whole of that side emits a wooden dull note, except close under the clavicle, where it is of a modified, tubular character; respiration audible all over the right chest, but feebly over its lower two-thirds; hyper-resonance, with exaggerated respiratory murmur over left chest; decubitus altogether on the right side; frequent cough; anasarca stationary. Treatment continued.

On the night of the 7th June the father called to say that about two hours previously his child had *suddenly* become weak, his face pale, and his breathing embarrassed. Ordered frequent sinapisms and a mixture of Aromatic Spirits of Ammonia with Sweet Spirits of Nitre, and a little gin punch.

8th.—Has been easier since 1 a.m.; is now anxious; the lips are blue, eyelids puffed, and features tumid; much firm œdema of right (depending) arm, leg and side of body; less upon left side; pupils widely dilated; pulse very weak and frequent; right chest even more enlarged than heretofore; fine and coarse bubbling over lower third of *left* lung, and to this complication I attribute the sudden increase of dyspnœa.

5 p.m.—Tapped the right chest with small trochar in eighth interspace, in line with inferior angle of scapula, and evacuated

a pint of healthy pus. As the matter no longer escaped during coughing the trocar was removed Owing to the child's weakness the chest was not thoroughly examined, but I noticed that as it lay upon the right antero-lateral aspect of the body, percussion elicited a somewhat amphoric resonance over the middle of the right back, and in the same region existed large, hollow bubbling, hollow blowing respiration, and cough with metallic echo.

9th.—Passed restless night; decubitus as before; right side prominent; the right infra-clavicular region markedly so; opening made by trocar not closed; pressure produces a tiny stream of pus.

10th.—Mother thinks child easier; the mucous rales at left base have disappeared, but the right chest is dull to the level of the first intercostal space, where percussion produces a modified amphoric note; intercostal spaces widened. As the puncture had ceased to discharge I thrust the trocar through it and evacuated a little over a pint of healthy pus, devoid of unpleasant odour, when the chest at once became resonant as low as the level of the puncture, and the same physical signs which followed the previous tapping and indicated the existence of hydro-pneumo thorax supervened. The enlargment of the right chest has disappeared. ℞. Ferri Mur. Tinct. ℥ii., Cinchonæ Co. Tinct. ℥iss., Limonum Syrupi ℥ii. m. A teaspoonful every three hours.

15th.—Signs of pneumo thorax over upper two-thirds of chest; dulness, with feeble respiration over lower third; whistling and snoring rhonchi, and much bubbling over *left* back, especially inferiorly; right lateral decubitus; pulse frequent; skin harsh; sudamina here and there; œdema of hands and feet; much wasting. To continue mixture, and have a couple of raw eggs in milk during the day.

19th.—Has not taken the eggs, but has drunk milk freely, yet is much weaker and very pale; apparently the effusion into the right pleura has not increased, but mucous râles are more numerous and more extensively distributed over left lung. The child sank rapidly during the night. No autopsy was permitted.

In this second case, a few days after the invasion of scarlatinal dropsy, the signs of effusion into the right pleura were discovered. Nine days later the infant was suddenly seized with symptoms of apnœa, probably due to the co-existence of general bronchitis in the uncompressed lung. The child was tapped upon the tenth and again upon the twelfth day after the detection of the signs of effusion; pus was evacuated in abundance, affording some temporary relief, but death ensued nine days subsequently, owing, I doubt not, to the extensive bronchitis which involved the uncompressed lung.

Case III.—Empyema Secondary to Scarlatina-Thoracentesis—Recovery.—In the Spring of 1864 I was requested to see a liltle girl about 6 years old, from whose history it appeared that she had had a few weeks previously mild scarlatina; that after desquamation she did not convalesce, but became paler and grew weaker; pain in the side and dyspnœa supervened, and at the end of three or four weeks my opinion was asked. On examination the physical signs of copious effusion into the left pleura were found, and as the child was very weak and rather hectic I at once tapped the chest and evacuated a large quantity of pus. It was not necessary to repeat the operation. The orifice remained open a few days; the pus did not re-accumulate, and the child made a prompt recovery.

Case IV.—Scarlatinal Dropsy with Empyema—Expectoration of the Pus—Recovery.—In March of the same year as that in which the preceding cases occurred, while attending a child about two years old for scarlatinal dropsy, acute pleurisy of the side arose, and was followed by the signs of copious effusion. The anasarca gradually disppeared under the employment of drastics and diaphoretics, but the distress of breathing and signs of pleuritic effusion persisted for some time in spite of the usual remedies. One day, however, a large quantity of pus was suddenly *expectorated* with great relief; more or less pus continued to be coughed up every day for two weeks; the enlargement of the side, the dulness, and other signs of effusion disappeared, and the child gradually recovered.

It will have been observed that in all these cases the inflammatory products proved to be purulent, constituting the condition known as empyema, a circumstance which at the time much attracted my attention, and of which since then I have always spoken to my class when lecturing upon scarlatina or pleurisy. I am not aware if other observers have noticed the same thing in scarlatinal pleuritis, but I have no doubt that my cases have not been exceptional Some of our latest pathologists have stated that the inflammatory products of pleurisy are more apt to be purulent in children than in adults, and some of them have alleged, also, that *secondary* pleurisy in children is commonly purulent. The first of these general statements, in my opinion, requires confirmation, as I am under the impression that it is based rather upon the results of the operation of thoracentesis, and upon post-mortem examination than upon purely clinical observation. Were the inflammatory products of pleurisy in children usually purulent, it would very probably be more often fatal than it is, and the operation of thoracentesis must have been more frequently practised on children

than it has been. Be this as it may, one reason may be drawn from analogy explanatory of the tendency of scarlatinal pleuritis to produce pus. It is known that in Bright's disease the inflammatory process upon serous membranes and in the lungs is prone to issue in suppuration and occasionally in gangrene. It may well be, then, that it is the abnormal state of the kidneys in scarlatina, or the general condition caused by that state, (the acute Bright's disease), that renders pleuritis in scarlet fever prone to produce empyema. In three out of four cases that I have related anasarca existed when the pleurisy set in. Not having accurate notes of the remaining case I am unable to say whether it was present or not in it.

A study of the foregoing cases appears to me to justify the following conclusions or propositions:

1st.—That the pleurisy of scarlatina is usually—not to say invariably—an acute empyema.

2nd.—That in *scarlatinal* pleurisy, when the signs of effusion are marked and do not promptly disappear, it is well to make an exploratory puncture of the chest at a much earlier period than is even now customary in *ordinary* pleurisy following *exposure*.

3rd.—That tolerably prompt and, at the same time, complete recovery of the lung may be expected under these circumstances, chiefly because the inflammation is *acute* and *recent*, and that the vital powers have not been exhausted by a protracted illness, nor the condition of the lung been altered by prolonged compression, as in chronic empyema.

4th.—That if the disease (the pleuritis) be not of long standing, *i.e.*, if it be recent, the appearing of pus in thoracentesis is not, at least in scarlatinal pleurisy, a very grave indication. The majority of such cases will probably terminate favourably.

5th.—That the pus in scarlatinal empyema may perforate the lung and be expectorated, and the patient recover promptly and perfectly.

6th.—That it is not well to wait for such an occurrence, which appears to be unusual, and, as being long delayed, to involve increased danger to life, but rather to make an exploratory puncture early.

7th.—That if the pyo-thorax of scarlet fever be recent, simple puncture of the chest repeated once or oftener will usually suffice, without the employment of the drainage tube, which is so valuable and often necessary in chronic pyothorax. I may add that judging from my experience in other cases the same observation will apply to other forms of acute pyothorax.

Observations on Lithotrity and Lithotomy. By WILLIAM H. HINGSTON, M.D., L.R.C.S.E.; Surgeon to St. Patrick's Department, Hôtel Dieu.

(Read before the Canadian Medical Association, 12th September, 1872.)

Within the past few years, vesical calculi have, I believe, become somewhat frequent in our midst; and operative procedures for their removal are not of unusual occurrence. The frequency with which art is now sought should tend rather to increase than to diminish interest in the subject; to aid us in ascertaining the cause of its greater frequency, now that hygienic laws are more generally understood, and to direct attention to the best means of ridding the subjects of vesical calculi of a troublesome and dangerous malady. The first part of the subject would alone take up more time than is at your disposal: suffice it to say, urinary calculi originate in the "precipitation of urinary constituents, in consequence of a loss of solvent capacity in the waters of the urine; either (1) by an excess of any substance for the water to dissolve; or (2) by a deficiency of water for solution of the substance; or (3) by "the presence or absence of some third substance;" and, lastly, the deposit may aggregate from a focus of its own substance or may "gather around a foreign body as a distinct nucleus." Do these conditions obtain here more frequently than in other parts of the Dominion? I know not; but certain it is, cases of vesical calculi are far more common in this part of the Dominion than in either Nova Scotia or New Brunswick, on the one side, (where the disease is almost unknown) or than, so far as I can learn, in the Western portion of the country; and are more common in this city than in other cities of even this portion of the Dominion, and in certain portions of this city more than in others. While the western portions of Montreal enjoy comparative immunity from the disease, St. Mary's, St. James' and the eastern portions of St. Lawrence wards and their out-juttings, St. Jean Baptiste Village and Petite Cote, have furnished by far the greater number of cases of the disease to the hospitals. Nor is the disease met with in equal ratio amongst the British and French. I have no published statistics to aid me, but my own experience and the *parole* evidence of others, would lead me to believe that while the French Canadians are subject to certain maladies, and the British Canadians to others, among the former have been met by far the greater number of cases of urinary calculi. Dr. Robert Nelson, during his residence in Montreal, operated some sixty-five times—the greater number being French Canadians. Dr. Beaubien has had fifteen cases—all

amongst French Canadians. Dr. Campbell has operated twenty times, and fifteen per cent. were French Canadians. Dr. Munro has operated between forty five and fifty times, and he tells me his memory cannot recall among that number one who was not a French Canadian. Dr. Fenwick, who has lithotomized during the past few years in sixteen cases, and with a success that is exceedingly satisfactory, had seven among the British and nine among the French, all of them, save one, being natives of Canada. Of those lithotrized and lithotomized by myself, twenty-five per cent., in round numbers, were among the British, and seventy-five per cent. among the French. I had not the leisure afforded me of continuing this enquiry among those who have performed their one or two operations each. Thus Dr. Campbell's figures, showing a larger number of British cases, may be fairly balanced by those furnished by Dr. Fenwick and myself combined, giving a large percentage of French; while the figures of Drs. Nelson, Beaubien and Munro are without a corresponding counterpoise from among the British. Whatever may be the influences which combine to render urinary calculi of greater frequency among the residents of this Province than of the other, and in this Province among our fellow-citizens of French origin, I cannot even conjecture. Differences in the soil, water, &c., and in other climatal conditions might be evoked in explanation of the former; but the latter must be left to speculation. So much, gentlemen, for the formation of stone, and its frequency; and now for its removal. And here I confess to some diffidence in hazarding an opinion where it might seem fitter for me to ask it. Yet an opinion must be formed, and operations must be resorted to, and it is oftentimes difficult for a surgeon, not wedded to either, to say which operation—lithotrity or lithotomy—is best suited to the case. I had performed lithotomy five times,* and each time with success, ere I performed my first operation of lithotrity; but since then I have performed lithotomy but three times, choosing, rather, the lithotrite in every case where its employment was not clearly contra-indicated. The experience I have thus gained, limited, it is true, is this: that in the adult, hardness, and hardness alone, should offer an obstacle to the use of the lithotrite; and that neither the size nor the number of the stones, nor even the condition of the urinary organs, should be permitted to be obstacles to the performance of lithotrity, should that operation be preferred to its more brilliant, more rapid, and withal more dangerous competitor—lithotomy.

* November 14th.—An operation to-day (Lithotomy) on a congenital case in a child of five years increases that number.

It is to be regretted that statistics do not represent the true state of the question, so far as a general comparison between the two operations is concerned; and for these reasons. For lithotomy to be successful it is supposed to be necessary that the stone be of moderate size, single, and not too hard; and that the urinary organs be in a healthy state. I say *supposed* to be necessary, for in some of the cases I met with the stone was large; in some cases multiple; and in more than one case the organs were in a far from healthy condition. If, however, we admit statistics as they are furnished to us by those who practise both operations, lithotrity is one of the most satisfactory. Civiale, whom I have seen operate many times, and whose dexterity and delicacy in handling his instrument I have much admired, says that out of 591 operations there were only 14 deaths, or one in 42.2. This was in his own practice; while lithotomy, until recently, gave 1 in 7.9. The statistics furnished by Great Britain are meagre. Twenty five years ago cases were frequently sent thence to the great lithotritist of Paris; but Brodie, Ferguson, Keith and Thompson soon came to retain in Great Britain cases that would otherwise have been sent to France. Brodie lost 9 out of 115, and of these only 5 were due to the operation. Ferguson lost 12 out of 109 cases, and Keith 7 out of 129. Sir Henry Thompson's earlier returns were 84 cases and 4 fatal. His later returns, 184 cases, and recoveries 93 per cent. And, omitting five deaths from other causes, the mortality amounted to only 4 per cent. "I now may say," says Sir H. Thompson, "that the deaths which occurred from all causes during or after the conclusion of treatment, among 204 cases of patients, averaging 61 years of age, were 13 in number, constituting a rate of recovery of 93¼ per cent." Mr. Crichton in 122 cases had only 8 deaths, or less than 1 in 15. "Considering," says a writer, "the relative mortality of the two operations, so highly in favour of lithotrity, the small proportion of cases submitted to this operation would scarcely seem judicious." But a more recent writer, Sir H. Thompson himself, says: "Although the proportion crushed now, I believe, by most surgeons, is mostly larger than that submitted to the knife, I have ventured to regard lithotrity, as a rule, applying it to five out of every six adult cases; and to employ lithotomy only as the exception." Gentlemen, I must be pardoned if I append my puny figures to those just read to you. I require three to make a score of cases of lithotomy and lithotrity combined—eight of the former and nine of the latter. But as in one of the cases of lithotomy I had previously lithotrotized the patient; and as in one of the cases of lithotrity the patient had been previously lithotomized by me; although this does not diminish the number

of cases it does the number of patients, who were thereby reduced by two. Of the eight cases of lithotomy I have little to say. They presented no special features of interest—five of them were children. The lateral operation was performed in all but one case—when Allarton's method was followed. They all terminated favourably. One, however, a boy, operated upon four years ago, from whom I removed a stone weighing three drachms 49 grains, still suffers, and probably ever will suffer from incontinence of urine. The number of calculi in each case was one, with one exception. From one patient lithotomized I removed twenty-five calculi; yet within six months I lithotritized him, new calculi having formed in the interval. Of the nine cases of lithotrity six recovered perfectly, and without a return of the disease; one was operated upon the second and last time more than a year ago; and of the two incompleted cases one, undertaken at a critical period, was abandoned; and one was partially crushed by the lithotrite, but a sacculated bladder rendered recourse to lithotomy necessary. In no case where the lithotrite was used was the bladder injured, and (the same has been observed by others) even when the irritability was considerable before the operation, that irritability was lessened before any *debris* had passed away. Of the average number of sittings in each case I have no record. The greatest number, however, in any case, so far as my memory serves, was sixteen, and the fewest number was three times.

Surgical writers are accustomed to lay down certain rules for the guidance of lithotritists which appear to me to be somewhat faulty, and to some of which I shall allude:

1st. As to the use of chloroform. Chloroform should generally be administered. It was given in all but one case, the nervous, restless condition of the patient, and the frequently irritable condition of the bladder, rendering it necessary.

2nd. It is recommended to empty the bladder and then to inject with tepid water until that viscus contain five to six ounces of fluid. That advice I regard as most pernicious, as the injection of warm water is really more painful, and may be more dangerous, by inducing spasm of the bladder, than the introduction of the lithotrite itself; and every surgeon knows the difficulty of retaining fluid thus introduced.

3rd. It is recommended not to lithotritize unless the patient can retain his urine at least four hours. Although it is highly desirable, as an evidence of absence of irritability of the bladder, that the patient should be able to retain his urine a considerable period, in one of my most satisfactory cases the urine could not be

retained as many minutes, but came trickling away in a gutta-percha bag suspended to receive it.

4th. As to the difficulty of sometimes finding the stone all litho-tomists are agreed. The same difficulty occasionally presents itself in attempting to seize it. The instrument used in my few cases was the French one, introduced on the patient's right side, (patient on his back,) the instrument held perpendicularly when passing through the membranous portion of the urethra, the weight of the instrument alone propelling it. The blades were not opened till the centre of the bladder was reached, and, as recommended by Civiale, no depression was made, and the stone was not made to fall into the lithotrite, as taught by Brodie, Heurteloup and Crampton, but seized where it was found, and generally without the blades of the instrument touching the coats of the bladder, much less injuring them.

In only one case did the patient complain of suffering after the effects of the chloroform had passed away. One of my patients, a shoemaker, was so little inconvenienced by the operation that he rarely lost any of his working hours, but went cheerfully to sleep a few moments after twelve, singing the "Marseillaise," awaking suddenly to consciousness, and in time to return to the city and resume his work at one. This patient was lithotritized fifteen times altogether—eleven times on first, and four times on second occasion—when calculi had reformed after an interval of several months; yet he more than once declared in the presence of the students "je ne sentais rien." He had several large-sized calculi—the larger *debris* of which alone nearly filled a two-ounce cerate box.

Seeing the facility with which the calculi were broken up in the few cases submitted to the action of the lithotrite, and the inconsiderable discomfort attending and following the operation, I am of opinion that, in the adult:

1st. When the stone is small, we should crush.

2nd. When however large, if friable, crush.

3rd. When single, crush.

4th. When multiple, crush.

5th. When hard and large, whether single or multiple, we should cut.

6th. But in all cases of children, whatever may be the size, or number, or consistence of the calculi, we should lithotomize.

Corner of Union Avenue and St. Catherine St.,
Montreal, September, 1872.

N.B.—While this short, imperfect sketch, written chiefly for the purpose of adding a little to the interest of the Montreal meeting

of the Canadian Medical Association, is passing through the press, I am perusing, for the first time, Sir Henry Thompson's admirable work, "Practical Lithotomy and Lithotrity." Although many of Sir Henry's observations are embodied in Holmes, Gant, Erichsen, and other works of systematic surgery, the comprehensive and exhaustive nature of his monograph can only be appreciated on perusal. While much of what I have written is fully and ably treated by Sir Henry, I am not a little pleased that many of the impressions conveyed to my mind by the observation of a few cases on this side of the Atlantic, are the echoes of more powerful impressions on the earnest mind of the most accomplished living lithotritist, by the treatment of cases more than twelve times the number.

Aneurism of the Thoracic Aorta, Commencing below the Giving-off of the Left Subclavian Artery. By GEORGE ROSS, A.M., M.D., Professor of Clinical Medicine McGill University, Attending Physician to the Montreal General Hospital.

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

I think the following case of sufficient interest to present to the society as affording an example of this dangerous and suddenly fatal disease, occurring with hardly any symptoms which might warrant its positive diagnosis during life.

M. M., aged 37 years, first consulted me on the 2nd of July last. He was a tall, well-built man, of tolerably robust frame, but with hair nearly white, which, of course, is unusual at his time of life. He had always enjoyed good health until last spring, when his present illness began; he had, however, during some years previously, been of very intemperate habits. He had never had syphilis. He complained of severe pain in the left side, and had, he told me, been treated for a length of time, in the country where he resided, for pleurisy. The pain, he said, had commenced about three months since; had been getting gradually worse, and he had never been since entirely free from it. The suffering was referred *particularly* to two points—one about the middle of the left interscapular region, and the other in the very centre of the left lateral region; but it also radiated from these points over the whole side, and sometimes up as far as the shoulder. It was described as of a *burning* character generally, but sometimes *lancinating*—increasing, at irregular intervals, to great intensity, preventing sleep, and involving great physical torture. As a general thing, the pain was increased towards night, and he felt better in the morning. He had a poor appetite, and had been

failing considerably of late in general health. His tongue was heavily coated with a creamy fur, and the bowels rather costive. Pulse, 100; regular, and of fair volume. On examining the chest I found that the two sides expanded equally, and he could easily bear to take a full inspiration, although he said that some time previously he had had considerable *stitch* on attempting to do so. The resonance of the chest walls was clear and normal throughout, The respiratory murmur was distinct over the whole of the left lung, as well as the right, and was unaltered in any respect. The heart-sounds—which I particularly attended to, as he mentioned having felt some uneasiness, at one time, "about his heart"—were perfectly natural; no murmur was to be heard either in front or behind. On examining, now, the points to which he himself had referred the most intense of his sufferings, I found that a small surface at each spot was very distinctly tender; pressure at once caused him to wince, and even a very light touch was clearly sufficient to give pain. Tenderness was also experienced, but to a less degree, along the fourth and fifth intercostal spaces. Striking on the vest, vertebræ forcibly, produced no pain whatever. The diagnosis now arrived at was that of "Intercostal Neuralgia"—the superficial character of the pain, its burning nature, and its occurrence in irregular paroxysms, its exact location in the course of two intercostal nerves, and the existence of tender spots, all pointing towards this view of the case. With regard to the cause of the neuralgia it occurred to me that the most probable explanation was to be found in the existence of some of those *nutritive* changes in the trunks of the nerves, which are believed to be frequently the cause of various forms of neuralgia, and the evidences of premature senility to which I have already alluded rather favored the adoption of this hypothesis. Acting under the belief of the purely neuralgic character of the disease I ordered him an alterative powder containing rhubarb, soda, and grey powder, to be taken every morning for a few days, and at the same time quinine, gr. j., in solution, three times a day, and a draught of solution of morphia at bedtime. (I should have preferred the hypodermic employment of the opiate, but the distance of his residence was sufficiently great to preclude this.) Three days subsequently he was given, in addition to this, a liniment of chloroform, tinc. aconit, and soap liniment, to be applied locally thrice daily. This, in main, constituted his treatment during the present attack, with the exception of the administration of the muriate of ammonia instead of the quinine during a portion of the time, and the application of two or three small fly-blisters over the painful and tender points. Not to trouble you with any more

detailed description of the case, suffice it to say that after the lapse of six weeks he was very materially improved in every respect. His tongue was clean; his appetite good; his pain almost gone, (only an occasional twinge left); and he rested well at night. I now put him upon cod liver oil, omitting all other treatment, and sent him to stay with a friend near the city, to feed well and rest. Two weeks after he called upon me to say that he felt "like a new man," and was going home to work. Did not see him again till the 3d September, on which day he was, at his own request, admitted into the Montreal General Hospital under my care. I found that he had remained well for about two weeks after his return home, but the pain had now returned again in the same place, in consequence, he believed, of having exerted himself in endeavoring to do some farm work. I need not describe his condition at this time, as it would consist of a mere recapitulation of that first given. His chest was again examined with the same negative result, and the same diagnosis was confirmed. During his stay in the hospital no new symptoms were developed, except that two or three days previous to his death he complained of slight pain on the *right* side of the chest. He was treated by means of morphia administered hypodermically, sedative liniment, and cod liver oil. Again he improved, and the day before his death expressed himself as feeling decidedly better. On the morning of the 15th October, a few moments after he had been cheerfully conversing with the other patients, those around noticed him become remarkably pale, and he was found to have suddenly expired. Now, aneurism was more than suspected, and this idea the autopsy fully confirmed.

For the following notes of the post-mortem examination I am indebted to Dr. Roddick, House Surgeon, and much regret that owing to circumstances connected with objections on the part of the man's friends it had to be made in a very hurried manner, and I had not an opportunity of attending at it myself.

AUTOPSY.

On removing the sternum a thin clot of blood, or, rather, the thin edge of a clot, was exposed, extending half way across the pericardium. Passing the hand round to the left side and back, I came on an immense clot of blood, larger than the normal liver, and very firm. The pericardium contained about four ounces of limpid serum. The heart was considerably displaced to the right side, with the left ventricle firmly contracted. On attempting to remove the thoracic viscera entire, it was found impossible so to do, by reason of a tumour which was strongly adherent to the

third, fourth, and fifth dorsal vertebræ. I then cut away a large portion of the lungs from the central mass, and with very great difficulty succeeded in separating the latter from its attachment to the backbone. The anterior surfaces of the vertebræ mentioned were extensively eroded, the portions of the bodies remaining being rough and irregular. The mass removed consisted of the heart, great vessels, a portion of each lung, and an aneurismal tumour, involving a part of the left lung, and containing a firm laminated clot of the size of a goose's egg. In the thoracic portion of the aorta, at its commencement, just beyond the giving off of the left subclavian artery, were found two openings with everted edges, one about the size of a quarter dollar, and the other of a ten-cent piece. The edges of both were smooth, even, and fairly everted. The largest opening, which is also that nearest the heart, lay over the ulcerated portion of the spine, looking backwards and to the right, whilst the latter, the smaller, communicated with the space before referred to as containing the clot, and which is situated in the structure of the left lung. The lung tissue in the neighbourhood was condensed, and the bronchial glands were much hypertrophied. On the internal surface of the aorta were several bony plates extending almost continuously along its floor for about two inches. One segment of the aortic sigmoid valves presented a small bony growth, and was somewhat puckered, preventing entire closure of the orifice. The mitral valve was somewhat, but not markedly thickened. The other valves were healthy. The other viscera examined were apparently normal.

There are a few points connected with this case upon which I would like to say a few words. *First*, The absence of all symptoms generally referable to intra-thoracic pressure—this, I think, is satisfactorily accounted for by the *situation* of the tumour—being placed *beyond* the point of contact of the left recurrent nerve, this latter escaped pressure, and we had no laryngeal symptoms. In like manner, the trachea, œsophagus, sympathetic nerve, and bronchi were left uncompressed, and the signs which would necessarily have resulted from interference with any of these were wanting. *Secondly*, The fact that alteration of posture did not produce any alterative in the existent pain—a sign so valuable in assisting the diagnosis of an obscure case of aneurism. It seems to me that the aneurism in this case being a *false* aneurism—the sac consisting of areolar tissue surrounding the aorta—it would not be as freely *moveable* as if it had been a true aneurism, contained within the attenuated coats of the vessel itself, for then the aneurism would have had the capability of moving with the aorta during changes of posture, which movements would necessarily

depend for their freedom upon the looseness of the investing cellular tissue, but in the present case, there being no such condition of things, the tumour could not alter its position by means of gravitation to any extent, by reason of the firmer manner in which it was bound down, and therefore the decubitus in no way affected the pressure upon the origins of the intercostal nerves. *Thirdly*, The occurrence of a distinct interval of between two and three weeks, during which the patient was almost entirely (sometimes entirely) free from pain. The degree of pressure must have remained the same throughout: for we cannot suppose that the size of the tumour at all diminished. Why, then, did the pain gradually lessen until it finally disappeared, only to begin again after a considerable interval of time? This, I think, is a circumstance which is extremely apt to mislead, and certainly tended materially to induce me to form an incorrect opinion as to the *cause* of the evident neuralgia. The result of a treatment adopted with a certain view having proved successful, was, I considered, good ground for sustaining the truth of that view. But here this mode of arguing was found eminently fallacious, and only affords another instance of how a *persistent* cause *may* produce an *intermittent* neuralgia. Dr. Anstie, one of the best authorities upon nervous disorders, says: "When the pain is the result of direct injury to a nerve-trunk, whether by external violence, by the mechanical pressure of a tumour, or by the involvement of a nerve in inflammatory or ulcerative processes spreading to it from surrounding tissues, the important matters are that the pain in these cases commences comparatively gradually, that the intermissions are much less complete, and that the pain is far less amenable to relief from remedies than in other varieties of neuralgia." Now, here, though arising from a truly mechanical cause, the intermission seemed very complete, and the disease appeared quite as amenable to treatment as in most severe attacks. Concerning this *intermittency* of neuralgia I may, perhaps, be permitted to quote the following words from Niemeyer, premising that the *intervals* to which he alludes mean the short spaces existing between accessions of pain, not a complete portion of time between attacks, as here pertained. He says: "As we are almost compelled to believe that the irritation acting on a nerve which causes neuralgia, acts continuously, the intervals between the pains appear enigmatical: for their explanation we must refer to the physiological fact that the severe irritation of a nerve exhausts the excitability for a time, then in neuralgia states of *great excitement* would alternate with states of diminished excitability."

The occurrence of this fatal case, with the symptoms I have

related, has forcibly reminded me of the similar one of *abdominal* aneurism lately reported to this society by Dr. Colin Sewell, especially as there are these strong points of resemblance between the two. Both suffered from severe neuralgia, and both enjoyed perfectly (so to speak) *lucid* intervals. In both the apparent improvement was (incorrectly) attributed, in a great measure, to the treatment followed. In neither was aneurism positively diagnosticated until after sudden death, although in Dr. Sewell's patient (who had been seen in consultation by Dr. Campbell and Dr. Howard) it had been suspected but could not be discovered.

The author already quoted from states that "Intercostal Neuralgia is among the most frequent forms of neuralgia," and Aitken ranks this form as next in frequency to neuralgia of the trifacial, the commonest of all; and as its connection with aneurism renders its frequency and severity a matter of great interest, I should like to ask the older members of the society what their experience has been on these points; and further, whether there are any known clinical facts which will enable us, with any degree of certainty, to diagnose the pain of aneurism of the aorta from simple intercostal neuralgia, in such cases as the one I have described.

Observations on Dr. Pratt's Essay on the Origin of Fever, read before the Surgical Society of Ireland—Typhoid Fever as Observed in West Rutland, Vt., in 1870. By OCTAVIUS H. E. CLARKE, M.D., C.M., Cohoes, N. Y.

Most of your readers have, no doubt, seen, in "Brathwaite's Retrospect" or elsewhere, Dr. Pratt's paper on the "Origin of Fever," read before the Surgical Society of Ireland, and the comments thereon by Dr. Edmund P. Sharkey.

The point at issue, whether typhoid or any other fever is caused, or materially fostered by filthy habits, is one of the utmost importance, as the negation of this fact—if fact it be—by the profession would lead to incalculable mischief, by withdrawing the greatest incentive to sanitary reform.

In the autumn of 1870 I attended in West Rutland, Vt., and its vicinity, sixty-one cases of fever I would pronounce, undoubtedly, "typhoid" or "enteric," and thirty-seven cases which were uncertain in diagnosis. The other physicians in the place had, likewise, their hands full. The circumstances under which the disease occurred may be of some interest in connection with the question under consideration.

West Rutland is the site of large marble quarries. It is built at the intersection of two narrow valleys, bounded by high hills or mountains, and very imperfectly drained. Every spring and autumn the lowest part of the valley is flooded, and at that season some of the houses are surrounded by water. This part of the village is known as "the swamp." The marble is found in the slopes of the hills on the east side of the valley, and here, around the quarries, dwell the great part of the laboring population, in tenement houses, some on the level of the swamp, others about twenty-five feet above it, and yet others much higher, on the species of table land which is bounded by hills. On the west side is the old village of West Rutland, where the more fortunate dwell in isolated houses surrounded by gardens; and more north, also, on the west side of the valley, opposite the quarries, are some long tenement houses for quarrymen.

The houses in which the "hands" live are generally small, very close together, and the inmates, representing many nations, are not always distinguished for cleanliness. Two localities, "Baxter's Yard" and "Parker's Patch," must receive special notice. "Baxter's Yard" covers about two acres of ground, and has three rows of tenement houses. One building alone, in the central row, contained--according to a local paper--one hundred and ninety-two persons, of nine different nationalities, and the population of the whole "yard" could not be less than four hundred. At the northwest angle of the yard, only a few feet from the houses, was an old quarry, no longer worked, full of a green, fœtid water, and into which was generally cast the offal of the yard. The yard is backed by a steep hill about sixty feet high. "Parker's Patch" will be described hereafter. It was not overcrowded, but rejoiced in the possession of an "old quarry."

The summer of 1870 was remarkable for want of rain. The "swamp" dried up more than it had done for many years, and all the streams, ponds, &c., experienced the same desiccation. In consequence of this the water in the old quarries evaporated considerably, and what remained became a concentrated *fluid extract* of their contents. The drinking water, often obtained from some pond near by, was offensive and turbid, which, I remember, was especially the case with the water used in one of the localities most afflicted with typhoid fever.

In June, when I arrived at Rutland, scarlet fever was prevalent in West Rutland, and was specially rife among the habitations on the top of the first row of hills or tableland before mentioned, in which situation it was considerably more fatal than in the valley. I do not pretend to explain the fact, but so it was. Later in the

summer "cholera morbus" was extremely common. The first cases occurred on the "swamp," and later, "Baxter's Yard" eclipsed all the neighborhood in the number and severity of its cases. The first case of typhoid fever I saw, and, I believe, the first that occurred in the locality, was that of a young man living in "Baxter's Yard," who had received a blow on the mouth from part of a machine. His lips were badly cut, and I applied sutures, &c. They began to unite kindly, but on the third day he had a rigor, followed by a headache and fever which, for the first days, was remittent, but gradually developed into undoubted typhoid fever. The windows of the house he inhabited opened towards the old quarry, which was only some twenty-five feet distant. In the next house boarded a friend of his who attended him at night. This young man was the next victim, but had not a very severe attack. Of the inmates of the house, three had incipient symptoms of the disease. In another house in this yard, about one hundred feet from the old quarry, lived a Swede who, while at work, received a heavy blow in the loins from a stone thrown by a rival workman. The unfortunate Swede had a severe attack of congestion of the kidneys for which leeches were applied. While apparently convalescent from the results of this accident, typhoid fever supervened, and his was a very severe case, during the height of which his wife was attacked suddenly and with great violence. Typhoid fever now became so prevalent throughout the "yard" that almost every fourth door had its case or cases, and in several places five or six contiguous houses were occupied by the disease at the same time. In my own practice three houses had four cases each, five houses three cases, and six houses two cases. The disease continued in this yard throughout the autumn and beginning of winter, and in January I was attending a severe case in "Baxter's Yard," the fourth in the same family within the last few months. About the same time that typhoid fever appeared in "Baxter's Yard" (August 25th) it showed itself at "Parker's Patch" in a very severe form, and many persons had the disease. The inhabitants of the hills or tableland had much less fever. It commenced with them much later in the season, and prevailed during a shorter period. Although considerably above the "old quarries" they were not more than three acres distant, and the hills behind seemed as an impediment to the rapid dissipation of the effluvium when the wind blew over the old quarries towards the houses. The inhabitants worked all day in quarries beside the "old" ones, and were in constant communication with the denizens of the infected localities; yet, with all these disadvantages, and with considerable crowding in their own buildings, a little ele-

vation and three acres distance appeared to be the cause of a great reduction in the prevalence of the disease.

Dr. Pratt expresses as his opinion that such hygienic circumstances as existed in West Rutland have no influence on the prevalence of fever, and after giving a graphic account of the Irish farm-house, with its heaps of corrupting offal around it, and the pigs and fowls visiting within, asks why the inhabitants so often escape fever.

Dr. Sharkey partly explains this apparent anomaly by saying the Irish houses "are generally built with 'hall doors' through which the wind freely plays, and when it blows strongly in front the front one is closed, and when at the back the back door." To this I may add that farm houses being isolated dwellings, the noxious effluvia are constantly diluted by pure air, which is the universally admitted manner by which they are rendered innocuous. But should they be confined, either by hills or rows of buildings, then it would appear that their deleterious effects are experienced, as in the case related by Dr. Skarkey, and in "Baxter's Yard" and "Parker's Patch."

Dr. Darby, of the Surgical Society, denied any fever-producing power to the emanations of decomposing manure heaps, while admitting that overcrowding "would account for the spread of disease from human being to human being."

Of the localities in West Rutland famous for fever, "Baxter's Yard" combined both decomposing organic matter and overcrowding. At "Parker's Patch," where the fever was very prevalent and very violent, there was no overcrowding; but, the old quarry, full of fœtid water, was just below the houses, built in three rows on the slope of the hill which rises above them. To the south is a high embankment of refuse marble and earth dumped out of the quarries; while to the north the hill gradually encroaches on the valley so that the only direction from which the wind can blow to any extent is just over the old quarry, carrying its emanations directly into the houses. While this part of West Rutland was suffering so much from typhoid fever, the long row of tenement houses at the foot of the mountain, directly on the opposite side of the valley, had not a single case throughout the season. There was plenty of uncleanliness and some crowding there, but, no old quarries, and the spot which is near the junction of two valleys, was proverbial with us doctors as the coldest and most windy in the neighborhood. All the effluvium was consequently diluted and carried off as fast as generated. At the same time what I have named the old village had, I believe, but two cases of fever, neither very serious. It is proper to add

that during this season typhoid fever was more or less prevalent in the surrounding villages which had no quarries and their concomitant evils. But villages situated in that part of Vermont are mostly situated in valleys like that of West Rutland, generally swampy, and which, from the dryness of the season, undoubtedly offered much dead organic matter to the decomposing action of the atmosphere. No other place, to my knowledge, equalled West Rutland in the prevalence of fever. A close investigation of circumstances might have furnished an explanation of its cause as well as in that locality.

These facts made on me a strong impression in favor of Murchison's "Pythogenic" theory, which, I must say, is not effaced by Dr. Pratt's essay. That "the wind bloweth where it listeth" is very true, but nothing therein shows that we cannot discover *why* it should blow in certain directions, which has already been done to some extent. The proposition of Dr. Stokes that God is the cause of all great phenomena is likewise indisputable, but that is no argument against the possibility of man's ascertaining the means by which He has chosen to bring about those phenomena, and of our modifying such causes to our own advantage. Are not the actions of opium great phenomena due to the Divine Economist; but has not man been able to investigate and analyse them, until he has found exactly upon which principle in the drug certain effects depend, and has even turned this knowledge to advantage in the cure of disease? If one class of natural phenomena can be thus brought within the jurisdiction of human knowledge, why not the other?

The following case, while illustrating the special danger of contracting fever in "Baxter's Yard," is also interesting as being possibly due to contagion, and as bearing upon the duration of the stage of "incubation" in enteric fever, a matter which is at present attracting some attention:

Case I.— Wood, æt 18, a delicate, hump-backed girl, lived in a farm-house about three miles from West Rutland. Although never robust, she enjoyed continuous good health, and was of a cheerful and active disposition. She paid a visit to her sister, in "Baxter's Yard," and when there went to see a friend ill with typhoid fever. The next day she returned home, but in the afternoon of the *fourth* day was taken with a chill, followed by headache and pyrexia, and a severe attack of typhoid fever ensued. I saw the case in the second week for the first time. The patient was delirious almost all day, with some very short intervals of consciousness, but during the night was continually raving. Pulse 145, very weak and small; respiration 38; physical signs of

engorgement of both lungs, it being greater in the left one; abdomen distended with flatus; pain quite decided in right iliac fossa; gurgling, diarrhœa and rose-coloured spots; countenance cyanotic from venous congestion; eyes suffused.

Ordered sinapisms to chest, followed by large linseed meal poultices, sprinkled with mustard, which were afterward changed for turpentine stupes; carbonate of ammonia, brandy, diaphoretics and dieuretics, and muriatic acid, suitably diluted and sweetened, as a beverage; strong beef-tea and milk to be given as often as possible, in the condition of the patient. The following powders were given to check the diarrhœa; they have always done me good service in such cases: ℞ Acidi Tannici, Pulvis Kino Comp. (Br. Pharm.), Hydrarg c Creta, aa, grs. xxiv, Pulv. Doveri, ʒj. M ft. pulv. xii. S. One powder to be given every four, three, or two hours till diarrhœa is checked, then powders to be discontinued and administered again should more than three actions of the bowels occur in twenty-four hours.

Under this treatment the patient improved for a few days, and became quiet and rational during daytime, but ultimately the poor girl sank, apparently from failure of vital force, and died towards the end of the third week. No post-mortem examination was allowed.

Case II.—A young man, a farmer, living three miles off, came to West Rutland and slept in a house at "Parker's Patch." There was a case of enteric fever in the tenement below his apartment. The next morning he had a severe rigor, followed by typhoid pneumonia, or pneumonia with enteric fever. There were the distinctive symptoms of enteric fever, such as diarrhœa, pain and gurgling in right iliac fossa, delirium for many nights, length of case, &c. There were no rose spots, but they, in this season, were often wanting in the most characteristic cases. The patient had been exposed to cold, and his case may be considered one of typhoid fever supervening in the course of pneumonitis.

Remarks on a Curious Inquest. By ZOTIQUE HEBERT, M.D., C.M., Whitehall, N. Y.

On the 3rd of September last, Mrs. H. E. Sargeant, a woman of Whitehall, was dying suddenly. I, a neighboring physician, was called to attend her, but finding her in a state beyond the reach of medical aid I ordered no remedy but a little brandy and water, with topical applications to warm her up. These attempts were fruitless, and she died within ten or fifteen minutes after I was called.

As the husband was said to be in the habit of abusing her, the question arose as to whether the woman had been poisoned or died from natural causes, and Mr. Sargeant was arrested and charged with supposed murder. The coroner summoned a jury and it was agreed that a post-mortem examination would be necessary to ascertain if poisoning existed or not. Dr. H. K. Bennett, homœopathic practitioner of the same village, was called to perform the autopsy, and was assisted by another physician of the place.

The report, although a long one, may be summed up as follows: No external violence; heart weak and small; liver enlarged; the stomach was removed, tied up, but the contents not examined; the small intestines and omentum were congested or inflamed, her general appearance indicated anœmia and debility. The medical men feeling satisfied, as they said, that no poisoning existed, judging from such an examination the causes of death were alleged by them to be: First, poor blood; second, some water found around the heart; third, some water also found in the ventricles of the brain; fourth, a sudden emotion, joy or grief, &c.

The editor of the *Times*, of Whitehall, anxious of filling his columns with some interesting facts, shouted out at the innocence of the husband, arguing that every citizen in the place elicited the warmest sympathy towards Mr. Sargeant. This is quite a peculiar way of judging of facts, and the fate of criminals would be very different if sympathy should be called in witness; but this individual sympathy never influences the judgment of a court of justice, at least it should not; but where the *Times* shows more ignorance of the fact is when it comes to answer an article published in the *News;* for want of argument he repeats what he had said before. If one should let physicians argue on medical subjects, lawyers speak on legal matters, and journalists report facts, decisions and judgments would be founded on science and reason and not on sympathy of the public.

APPRECIATION OF THE MEDICAL REPORT.

As to the first cause given, it may be said that poor blood is not a disease, but a result of one which should have been looked for. If one should consider poor blood or debility to be an affection, we would have to classify the greatest part of the diseases of our nomenclature under that head, especially the chronic diseases, which generally debilitate the system, also the fevers, &c. According to that principle, consumption, scrofula, syphilis, cancer, typhus and typhoid fevers, small-pox, &c., &c., should all be ranked in the category of debility.

The second mentioned cause was water around the heart. Now,

hydropericardium, or water around the heart, is not a disease, but a symptom of pericarditis or obstruction of the cardiac veins. It may also originate from an impoverished state of the blood and from a weak and languid circulation. Pericarditis and venous obstruction were not said to be present, therefore let us put them aside and dwell upon the two last causes. It is known that if the blood becomes poor it does so in the system at large, and so also when the circulation becomes altered. Now, when due to these causes, dropsy is more apt to take place in the parts where the circulation is most tranquil; therefore it will first show itself at the parts furthest removed from the influence of the heart's action, and where the force of gravity in the common position of the body is greatest; hence it will generally begin in the form of œdema about the feet and ankles, and not around the heart, where the action of the latter is more powerful, and no more so at the brain, where the blood has a tendency to gravitate towards the heart; and there was no œdema of the feet and ankles to attract the attention of the examiners in this case, nor any effusion in the peritoneum, where it would have been more apt to show itself.

The same may be said of the third cause, for no disease was found to exist in the brain. In the acute form of hydrocephalus, or water in the brain, the meninges would have suffered inflammation, the brain substance would have been found softened, and more or less tuberculous matter would have existed; but it was not the case, for the medical expert, Dr. H. K. Bennett, found it healthy. The chronic form of this disease would also have produced its characteristic symptoms and lesions.

In regard to the fourth cause, it is well enough to state that sudden emotion, joy or grief, may produce sudden death, but instances are rare enough, and cases of sudden emotion, joy or grief, &c., happen every day without producing death or even sickness, and when this is alleged as the cause of death it should be at least probable, and the conclusion should be drawn only in case we are convinced that no other perceptible causes exist, and after we have sought for them. Otherwise, if no further investigations are made, we might be led to infer that this is the cause of death in many cases of suicide and homicide, because hardly any happen but that the victim has a violent emotion. Moreover, the woman is not known to have had any great emotion the morning of her death, none to be compared, at least, to one she had some days before, and which would have been *rather slow*, if it should be the one referred to.

About the question of poisoning, I wondered much at the superior skill of Dr. Bennett in his statement. His process of arriving

at a satisfactory conclusion is most novel and unique in its nature. He finds the veins of the brain gorged with blood, an unusual amount of water in the ventricles of the brain, an inflammation of the intestines. He can discover no disease to account for those pathological conditions, and feels satisfied that no poison has produced death. What, then, could have produced these symptoms? Is it a sudden emotion? It is more than doubtful. Poisoning by aconite may produce symptoms very identical with those observed in the deceased, and so would many other substances, such as belladonna, stramonium, opium, hyosciamus, conium, lobelia, digitalis, or their active principle, aconitia, atropia, daturia, morphia, hyosciamia, conia, lobelina, digitalin, also hydrocyanic acid, potassium cyanide, oil of bitter almonds, &c., &c. Any of these substances may produce a venous congestion of the brain, sometimes irritation of the alimentary canal, and some of them effusion into the ventricles of the brain. Now, was not I right to say that Dr. Bennett is possessed of superior skill to tell at once, and without further investigation than by the naked eye, and no chemical analysis, the difference between the symptoms found in this case and those produced by the substances above-mentioned, when no disease was found to have produced them, and in conclusion says he feels satisfied that she was not poisoned. Indeed, such an opinion should have been *intuitive*, and above the reach of the skill and science of the present time.

By the way I talk one might be tempted to suppose that I consider the case one of poisoning, I don't say I do at all, but the parties that made the post-mortem examination seemed to do so, and looked for evidence, although in a very peculiar manner. Now, I should like to know what Dr. Bennett wanted to do with the stomach, if he did not examine its contents, nor have anybody to do it, in the case he could not do it himself. Nevertheless, he concludes that no poisoning exists, and the man is released before any investigation for poison is made; because chemical analysis of the different parts of the body and the contents of the stomach is the most important research in looking for evidence of poisoning, when no disease is found to account for the symptoms and lesions present; and, I may repeat, sudden emotion, &c., was not sufficient to account for the morbid condition of the body. What was the object in ironing and locking up that man, if the procedures that would tend to elucidate the fact are neglected and the man restored to liberty? I don't mean to say the man is guilty; far from it; but he has been badly used, and there was no seeming reason for taking him up, if no further investigation was intended to be made.

Now I would explain myself on this point, for I do not like to be censured by persons who do not understand me. If I have been urging the absolute necessity of a chemical analysis it is because Dr. Bennett found no other disease than a sudden emotion acting on a debilitated system; but as there was one, or at least one to be looked for, this necessity of chemical researches becomes greatly lessened until we have sought for that disease and satisfied our mind as to its being present or not, although it would in any case be useful to confirm a diagnosis made without it, as the presence of disease would not necessarily prove the absence of poisoning. There is no physician who can swear there is no poison in a dead body, if no chemical analysis is made, although he may know what disease has produced death; but it may be inferred that no poisoning exists when no suspicion is excited, if some palpable cause of death is found or discovered. We never look for poison in the stomach of a person who died after receiving a shot through the heart, or a shock of lightning, or again, some injury of the brain, although it is not impossible that poison might have been taken before. It is true enough that disease and poisoning may be present in the same individual, but this is not a reason for opening all dead bodies under the suspicion that poisoning may exist. Counsellor Hill is not to be blamed for his attempts to maintain the law, but means of a more delicate kind should be adopted, and it seems to me that a consultation of the attending physician could be of no harm in the case; and then, if some doubt had been entertained regarding the cause of death, make the necessary investigations.

In my opinion the investigations should have been guided, first, by the state of health of the woman before her death; but this seems to have been completely overlooked or unappreciated, only it was spoken of debility, but how and why this came on don't seem to have troubled the mind of any. That Dr. Bennett's opinion has been corroborated by another physician don't prove his statement to be any more correct. The health of that woman had been gradually failing for the last three years; her appearance was pale and flabby, and indicated a loss of tone; she had a feeling of nervous exhaustion; a pain about the præcordial region, accompanied with a sensation of suffocation and a fearful sense of impending death; she was subject to transient attacks of faintness, dizziness and headache, and at last to dyspnœa, excited even by moderate exertion; moreover, a woman of six years marriage, menstruating and without family, together with the preceding symptoms and no exhausting disease accounting for her decline, and resisting all remedies, tonics, alteratives, &c.; all these, I say,

should have instantly led a scientific physician to go to the heart and examine it thoroughly, and he should have expected to find something else than *a little water about it.* He should have expected, I say, to find a structural change, and this fatty degeneration of the muscular fibres of the heart. Moreover, the post-mortem examination, so far as it has been conducted, tends to corroborate the fact. The heart was small in size and its muscles weak (this could not have been produced by acute poisoning); its cavities were full of blood, showing its walls too weak to propel its contents; no doubt it was pale, and so should have been the other organs of the body, and it is probable that the liver, also, was undergoing fatty degeneration, as it was found enlarged, such as it might be in the first stage of that disease; but although we may feel satisfied and convinced of the nature of that disease, the only way of proving it in a court of justice would be to examine the structure of the heart under the microscope, by the aid of which the fatty globules could have been discovered, because this is not merely a deposit of fat on some part of the heart, as may be understood by some, but it consists of a morbid process by which the structural tissues, especially the muscular, is transformed into fat, which renders it less contractile and diminishes its elasticity, thereby rendering it liable to stop and produce sudden death at any time. Now, this disease the woman had, and whatever can be said against the man don't disprove the fact that it was undermining her constitution for several years. Some other symptoms during life might have corroborated our diagnosis more fully, this is the condition of the heart's impulse; the sounds should have been weak, especially the systole, or first sound of the heart, and its movements slow; this should have been indicated by the pulse; but I had no opportunity to witness it, because I had never seen the woman before, and she was pulseless when I was called there.

I am expecting to meet with several objections. Some may say: "The French doctor would be wrong if he says there was no water in the brain and on the heart, because Dr. Bennett has seen it, and how can he account himself for that inflammation of the intestines, for fatty degeneration of the heart could not have produced it?"

It is known that in fatty degeneration of the heart, death begins at the heart, which stops, therefore the circulation is arrested and the blood stagnates, and when the latter is so thin as to delay its coagulation the water exudes from it all the time it is fluid, and permeates through the walls of the veins by the process of endosmose, and it is really where the blood was found that transudation

took place, that is, in the brain, where the veins were gorged with blood, and about the heart, which was said to be full. Therefore, the water found was not the effect of disease, but due to post-mortem changes. The inflammation of the intestines can easily be accounted for if we know that the Saturday before her death, while menstruating, the deceased went out in the rain, wet her feet, and consequently caught cold, and was taken sick; her menses stopped, she felt pains, &c. She was but little better the next day when her catamenia started on again, and the inflammation made its progress until the time of her death, and was, no doubt, the cause of her death happening in that time rather than in any other, for we know that inflammation of any degree always throws more work on the heart. Therefore it may be concluded: First, that fatty degeneration of the heart was the cause of her death; second, that such imperfect investigations as were made could never lead to any better conclusion than none at all; but one good thing of it, that should not be omitted, is that it did not do any harm. This is, no doubt, founded on the same homœpathic principle that if sugar pills do no good they do not do harm.

In giving my testimony on the case, I was asked to give my opinion regarding the cause of death. On my refusing to do so, I was told I had to answer all the questions. My reply was, I should not answer unless I was allowed the usual fee of a *medical expert*. The day of the trial a judge said that if he had had the power of the coroner he would have committed me. It is too bad he did not have that *supreme power*. That would have been quite a peculiar way of treating decent people; for I was not aware of being guilty of *adultery* or other crime that could condemn me to jail; nor was I found *drunk* in the streets, as far as I can remember; and I do not think it was for obliging me to answer, because this judge knows, or don't know, that a medical man may be summoned as a witness in two ways: first, as a common witness; second, as a skilled witness or expert. In the first case the physician is called to state facts; in the second to interpret them.

Now, in such cases as when called as a common witness, is a medical man compelled to give his opinion regarding the cause of death, when asked to do so? No more than a judge who is called as a common witness in a law-suit is obliged to give his judgment in the matter. He is called to state facts and not to interpret them; that is, he is a common witness and not an expert; and upon those facts and other circumstances taken into consideration, physicians give their diagnoses and judges their judgments, but not unless they are chosen or appointed to do so, and whoever is chosen or appointed is entitled to his fee. For instance, a physi-

cian could be compelled to state that he had sold, given, or administered poison to a person, if he had done so; but whether the said person had died from the effect of that poison or from some disease, is a matter of opinion that should be founded on facts, and that nobody can oblige him to give unless he is willing to do it or his fee paid. This is the law of Forensic Medicine, which suffers no commentaries, and it is to be regretted that the thoughts and judgment of this man do not agree with this important science.

WHITEHALL, September 25, 1872.

Hospital Reports.

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

Case of Scirrhus of the Pylorus—Remarkable Absence of Pain—Death. Under the care of Dr. GEORGE ROSS. Reported by Mr. Edwin A. Gaviller.

L. P., aged 50 years, was admitted into the Montreal General Hospital on the 22nd of September. 1872, complaining of constant vomiting. Was a native of France, but parents English; are both dead, but not known of what diseases; has been a sailor for thirty years; enjoyed perfect health until the age of nineteen, when he contracted a chancre followed by a non suppurating bubo; was salivated. At twenty four had chancres again, with a suppurating bubo; was two months in hospital. In 1868 was laid up again with what he calls general debility; subsequently to this he had a number of ulcers upon the body, which were treated as syphilitic and all healed; not been laid up since until the present time. He now dates his sickness one year back; at this time he began to find himself given to vomit after eating; at first most things were retained, but the salt meat which they were given to eat he would invariably reject, but now vomiting takes place after the ingestion of almost any food, no matter what; has had slight pain in the back, but none at any time in the stomach; has sometimes felt as though food stuck in the throat; the vomiting would generally occur from five to twenty minutes after eating, and

would be painless and without effort, the egesta generally consisting simply of the food which had been taken; they were not sour nor accompanied by any mucus; no flatulent distension; never vomited blood or black matter before coming into hospital; has always been very temperate.

His hair is grey; skin extremely dark, or rather bronze in color. dry and moist, and with desquamating patches on the hands and arms; great emaciation; weighs only 94 pounds; tongue smooth in the centre, somewhat coated at the sides; bowels much confined, moved spontaneously only once in ten or twelve days; abdomen very much retracted, and the walls intensely firm and hard, so much so that no information could be gained by palpation; no tumour could be felt; no enlargment of liver or spleen; no tenderness on pressure anywhere; pulse small and weak, 90 to 100; respirations 16 to 20; heart and lungs found normal.

He was at first ordered nothing but milk and lime-water, which was retained, but after three days this also was rejected in a partly curdled condition. Then ordered Bismuth Nitrat, gr. v., Pulv. Zingib, gr. ij., three times a day. Vomiting continued; some days subsequently vomited about half a pint of dark, grumous-looking matter, which was quite fluid, evidently altered blood; this was independent of any food which had been taken. It was repeated several times within the next few days, but even in larger quantity; still there was no pain anywhere, or at any time; no distension; no retching; he could now retain nothing—beef-tea, corn-starch, brandy, &c., were given without effect.

The diagnosis now made was cancer of the stomach, probably affecting the pyloric extremity. The existence of ulceration with it was also strongly suspected from the dark vomiting above described, but the entire absence of all pain (and he was repeatedly questioned on this point) was observed as very unusual.

On the 1st October he was ordered a pill of Argent Nitrat, and on the 7th this was changed for the Oxalat Cerii, and he was given brandy and soda water, which for many days was the only thing he could take. He sank gradually from exhaustion, and died at 7:30 p. m. on the 16th October.

AUTOPSY SIXTEEN HOURS AFTER DEATH.

Rigor mortis not well marked; noticed some purpuric spots on abdomen not remarked during life; on making sectio cadaveris found total absence of fat, and muscles extremely attenuated; in fact, hardly anything but skin and bone; lungs healthy in color, but small, not filling whole of chest; crepitant, except small portions which were collapsed at apices; several pleuritic adhesions; some

effusion beneath pericardium of clear serum; heart normal, but very small; liver and kidneys healthy, but also reduced in size; supra-renal capsules (specially examined on account of the very dark bronzing of the skin) were rather large and firm, but normal in structure on section, and not beyond the normal dimensions or weight; spleen healthy, but presenting a small, bony plate imbedded in its capsule; stomach somewhat reduced in size; pyloric extremity, for a distance of about three inches, involved in a firm, dense, fibrous mass, whitish in color, with a few pink spots and numerous indentations on the surface; section showed it to be very hard and distinctly fibrillated; the infiltration terminated abruptly at the pyloric orifice; this opening was much narrowed in calibre, admitting only the large end of a blow-pipe, (about the size of a goose-quill); the inner surface of the tumor was irregular, partly greyish in color, and presenting an oval ulcer on the side of the greater curvature one-half inch long and one-quarter inch broad; several glands in the neighborhood were much enlarged, and some of them breaking down into soft semi-purulent matter; small intestine much reduced in size, and mucous membrane partly of the same greyish color; brain not examined.

Case of Cancer Close to the Mammary Gland in a Male who had had Epithelioma of the Lip—Excision—Cure. Under the care of Dr. GEORGE ROSS. Reported by Mr. Edwin A. Gaviller.

J. S., a Canadian farmer, aged 44 years, was admitted into the Montreal General Hospital on the 10th September, 1872, with a firm tumour of a globular form, situated about three-quarters of an inch from the left nipple, towards the mesian line. It is about the size of a hen's egg, measuring half an inch in diameter, and projecting three-quarters of an inch from the surface. He has always enjoyed good health, with the exception of an attack of inflammatory rheumatism one year ago. Had a cancerous growth burnt away from his lower lip by caustics fifteen years ago, after it had been growing there for three years. The present lump began previously to the appearance of the one just spoken of on his lip, in the form of a small, dark spot, which he believed to have originated from the pressure of a sharp piece of wood against his chest whilst at work. This had only very slowly increased until within the last four months, during which time alone probably three-fourths of the entire mass had been added on. He had never had any pain in it. It presents now a dark, bluish, circular patch in its central portion, the size of a sixpenny bit, and over

this area the skin is thin and adherent to the surface of the tumour. It is freely moveable over the pectoral muscle. It was looked upon as cancerous, and excision advised.

Accordingly, on the 10th September, the tumour was excised by Dr. George Ross by means of an elliptical incision, enclosing the portion of affected skin. The nipple was included, the length of the incision being three and a quarter inches.

On cutting into the tumour from behind it was found to contain a number of cysts (four or five) which held grumous blood and some deposit resembling fibrinous layers upon their walls. The largest cyst was that nearest the outer surface, about the size of an almond, and contained colored serum and a small detached cheesy mass. The anterior portion of the tumour, for a depth of about half an inch, consisted of a peculiar, dark-yellow, toughish, fibrinous substance, immediately beneath which was the cyst last mentioned.

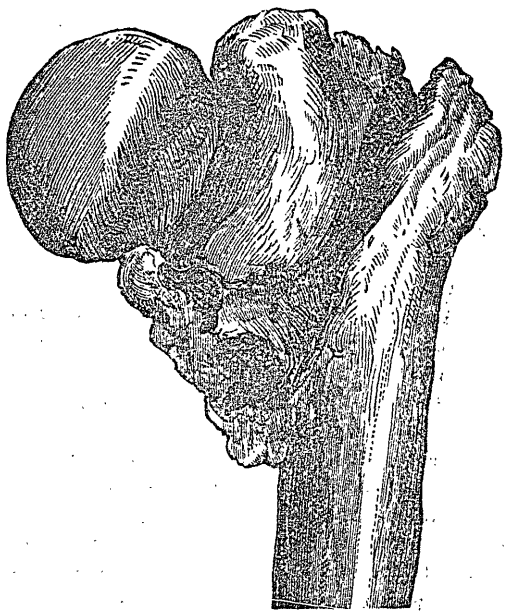
The wound was dressed with carbolic acid lotion (1 to 40) and healed rapidly. He was discharged cured on the 23d September.

Case of Extra-Capsular Fracture of the Femur in a Woman aged Seventy-five years—Death at the end of Four Weeks. Under the care of Dr. GEORGE ROSS. Reported by Mr. Edwin A. Gaviller.

J. S., female, aged 75 years, was admitted into the Montreal General Hospital, with a fractured thigh, on the 21st August, 1872. The preceding day she had been stepping from the door of her house, when her foot slipped, and she fell upon the sidewalk, striking heavily the right trochanter. She was unable to get up again, but was raised by bystanders and carried into the house. Was seen the same evening by Dr. Ross, who had her conveyed to the hospital the following morning. There was now shortening to the extent of one inch and a half; marked eversion of the foot; excessive pain upon moving the limb, during which crepitus was distinctly felt, and the great trochanter was found to rotate through a much smaller arc than that of the opposite side. Careful examination of the fracture was almost impossible, owing to the great pain and the desire to inflict as little as possible of it upon the patient, who was an extremely slight and feeble old woman; but it was believed to be an *intracapsular* fracture, from the age of the patient, and from the slight degree of violence which had sufficed to produce it.

It was thought advisable to try the effect of a light setting, although anticipation of ultimate reunion was hardly entertained.

It was accordingly put up by means of the ordinary extension apparatus of the hospital, with a ten-pound weight attached, and a very light long splint applied to steady the limb. Within a few days, however, a species of semi-delirium exhibited itself, and she would not permit any of the dressings to remain undisturbed. She was also extremely wakeful, moaning and talking, in spite of the exhibition of moderate doses of chloral; consequently the setting was entirely removed, and as the sacrum seemed to be becoming tender a large water-bed was furnished her. In spite of this precaution, however, and the protection of the part by soap plasters, a large bed-sore formed in that situation. Shortly after this diarrhœa set in, which resisted all remedies, and she finally sank exhausted, and died on the 19th September.



The upper third of the femur and acetabulum, attached by the capsular ligament, were removed entire, when the appearances found present were those represented in the annexed wood-cut. The fracture was not, as had been thought, intracapsular, but extracapsular, the line extending through the bases of the two trochanters, outside the capsular ligament. This fracture, having thus occurred in a person 75 years of age, and simply from a false step and a fall to the floor, is a matter of some interest.

Reviews and Notices of Books.

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

This little volume, containing some sixty pages of reading matter, is simply a sketch of the history, geographical and clinical, of the pathology and treatment of this obscure disease, but has especial reference to the epidemic which lately prevailed in the City of New York. Accompanying it is a nicely got-up and instructive map of the latter city, showing the localities of cerebro-spinal meningitis in the epidemic of 1872.

The author has compiled some facts in the history of this disease which are interesting. It is thought by Mr. Tourdes, who seems to have taken a lively interest in the subject, that cerebro-spinal meningitis prevailed as an epidemic in Europe at different periods in the fourteenth, sixteenth, and seventeenth centuries, although owing to the incomplete description, and the absence of pathological facts the weight of these researches may be questioned. The disease was first seen and recognized on this continent in the year 1806, and from that time to the year 1860 occasionally outbreaks were experienced, chiefly in the Southern and Western States of the Union. In England cerebro-spinal meningitis seems never to have prevailed as an epidemic. Sporadic cases alone have been from time to time reported throughout that country.

An analysis is given of twenty-six post-mortem examinations held by Klebs, of Berlin, in which it appears that the *pia mater* is the exclusive seat of the purulent formation, and that the chief sites of the latter in the brain were at the base, and in the sub-arachnoid spaces between the infundibulum and the pores, along each side of the latter to the under surface of the cerebrum, and into the Sylvian fossæ. In the spinal cord the greatest collections of pus were found in the lower cervical and lumbar districts.

The manifestations of this disease are so various in the same epidemic, and again at different ontbreaks, that the author has

dispaired in such a small compass to chalk out a set of symptoms reliable on all occasions. For instance, the form and constancy of the eruption are so variable that it is utterly impossible to lay down any rule respecting this symptom. It appears from the author's statement on this point that in some cases the hæmic spots have not appeared until after death, which is certainly a remarkable fact, if it be well borne out by evidence. Of 98 cases admitted into the Philadelphia Hospital in 1866, 36 only had true patechiæ, 13 mixed patechiæ and erythema, 9 erythema and urticaria, 3 indistinct patechial mottling, and 37 no eruption at all.

As to the *treatment* of cerebro-spinal meningitis, Dr. Clymer admits the now established fact that there is no antidote to the specific pathogenic poison, nor can it be expelled by elimination. All to be done is to endeavor to stay the progress of the disease and to sustain, meanwhile, the vital powers. The remedies spoken of are, externally, the hot bath—102° to 106°—for a few mornings only; ice to the head and spine; counter-irritation to the same parts and the arms and legs, either in the shape of blisters, sinapisms, stimulating embrocations, or the actual cautomy itself. Internally opium is well spoken of in large doses, and the American physicians are in the habit of conjoining quinine when the disease occurs in material districts. The bromides are mentioned as meriting a fair trial, but hardly to the exclusion of other remedies. Chloroform and the subcutaneous injection of morphia seem to have been employed with comparative success in the New York epidemic, but their effect must be presumed to be simply palliative.

The appendix contains a number of interesting facts bearing on general insanitary conditions as factors of disease, and is well worthy of perusal. Altogether, Dr. Clymer deserves the thanks of the profession, especially in New York, for placing in their hands such a valuable pamphlet.

On Some Disorders of the Nervous System in Childhood; being the Lumleian Lectures delivered at the Royal College of Physicians of London, in March, 1871. By CHARLES WEST, M.D. pp. 131. Philadelphia: Henry C. Lea.

These lectures are certainly a rare literary treat, apart from the many original observations and truths they contain. Dr. West begins his first lecture with a short sketch of the founders of the Lumleian Lectures, which appear to have had their origin as far back as the year 1572, and to have been the joint production of

Richard Caldwell, Doctor of Medicine, and John, Lord Lumley, "who executed a joint deed laying a perpetual rent charge on their lands for the foundation of these lectures." Caldwell lived but a very short time after the performance of his munificent act, but Lumley survived many years, and, no doubt, came to fully appreciate the good he had done. It was at these same lectures that William Harvey first publicly taught his doctrine of the circulation of the blood.

Dr. West in his three lectures attempts to treat of quite a number of the more important nervous diseases peculiar to the child, but for want of time and space has been compelled to confine himself, in the case of some of them, to a special symptom or peculiar mode of treatment. Speaking of neuralgic pains in children he is especially particular in impressing on all the hazardous results that may ensue by a neglect of such symptoms. He says: "I have never, in infancy, known any instance of pain—severe, obstinate, or recurrent—for which, sooner or later, a distinct local cause was not found; and even in later childhood the rarity of real neuralgia is extreme." The importance of early attention, especially to headache and pain referred to one or other of the lower extremities, is also spoken of as indicative in the one case of organic disease of the brain, in the other of hip-joint disease. The author, referring to the occurrence of *epilepsy* in childhood, is of opinion that this accident is to a very great degree dependent on some disturbance of the nervous system dating back from infancy; but on the other hand he thinks the hereditary tendency to epilepsy comes into play later in life than the age of childhood, or as in the case of hysteria and insanity, contemporaneous with the evolution of the sexual system, and when the cares of life begin to worry and hang heavy on the individual. In his remarks on the medical treatment in epilepsy the lecturer attaches great importance to the bromide of potass, speaking of it as a specific in certain cases, while again in others its action appears to be only temporary.

Dr. West's favorite remedies in *chorea* are the hot-air bath at night, with, at the same time, a diaphoretic dose of tartar emetic, continuing this for three or four consecutive nights. He begins with an eighth of a grain of tartar emetic for a child of ten years old, which may be repeated every fourth hour; but he enjoins caution in its employment, as he knew of a choreic patient suddenly sinking after the administration, for a short time, of large doses of antimony. Speaking further of chorea Dr. West says: "The only remedy which, in my hands, has appeared to exert anything of a specific power over chorea, is the sulphate of zinc,

given in increasing doses. Of this, again, a very remarkable tolerance is speedily accomplished, and though as a matter of precaution I always begin with small doses, it is by no means unusual to find a dose of ten, fifteen, or twenty grains, taken four times a day with perfect impunity. I have never increased the dose beyond the latter amount, thinking that if three weeks trial—at the end of which so large a dose was arrived at—produced no result, the remedy might be considered to have failed."

The third of these most interesting and instructive lectures is taken up with the disorders of speech, and the mental and moral peculiarities and their disorders, citing a number of cases to illustrate his points. Here, in speaking of the training of children, and the too common practice of frightening them with a constant rehearsal of the hard facts of our creed, the author comes out in the garb of a sensible, but true Christian gentleman, when he says: "Some of the most painful death-beds which I have ever witnessed have been of those children whose over-anxious friends have striven to force upon their minds the deepest verities of our faith, in that definite form in which they are embodied in catechisms and formularies. It is easier to frighten than to console; the dark grave is realized, or at least imagined, more vividly than its conqueror; and the little child driven to look within for the evil which it does not know, and cannot find, but vaguely dreads, and would be sorry for if it knew it, has moved me to compassion only less for it than that I felt for its broken-hearted torturers who have failed to learn that the little children—of whom our Saviour said that of such was His kingdom—were not called on to recite any creed, to profess any faith; but just as they were, in their helpless ignorance, were deemed fit to be folded in His embrace and to be held up to us as our example."

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

This is the third American from the sixth London edition of Dr.

Aitken's well-known treatise on the Science and Practice of Medicine. It has received many additions from the editor, Dr. Meredith Clymer, which enhances its value, these chiefly having reference to articles on Camp Fever, Spinal Symptoms in Typhoid Fever, Typho-Malarial Fever, Chronic Malarial Toxæmia, Epidemic Cerebro-Spinal Meningitis, Cholera Morbus *et* Infantum, Chronic Alcoholism, Delirium of Inanition, Chronic Pyæmia, Syphilitic Disease of the Liver, Shaking Palsy, &c., &c., &c.

The sixth London edition was issued from the press about twelve months ago. During the previous eighteen months the author was engaged in a careful revision of the whole work, and he spared no exertion in making it "worthy of continued confidence as orthodox in its aim and practical in its bearing." The plan of the work has been remodelled, assimilating it to the classification adopted by the College of Physicians of London. This classification was followed by the author in the fifth edition, with a view of removing those difficultics which will arise from the indefinitness and complexity of medical terminology. It becomes a necessity for the purposes of registration of diseases and deaths, that a uniform system of nosology should be adoptod; hence the action of the Royal College of Physicians of London in appointing a Joint Committee, presided over by Sir Thomas Watson as chairman, to prepare a report on the nomenclature of disease. The origin and progress of this great work is of historical interest, inasmuch as it was suggested by a correspondence between Dr. Dumbreck of the medical department of the army, and Dr. Sibson, that a uniform system of nomenclature of diseases was needed for the use of the army medical service. This was as early as the year 1855, but it was not until the 9th July, 1857, that at the *Comitia majora* of the Royal College of Physicians of London a motion was carried "that a Committee be appointed to prepare a nomenclature of diseases, and that such Committee have full power to co-operate with other bodies." This action of the College of Physicians was taken in consequence of a letter addressed to them by the Hospital Committee of Epidemiological Society. The year following the labours of the Committee were interrupted in consequence of the passing of the Medical Act of 1858, and it was not until the year 1863 that they were resumed. The Committee at length completed their work, and in August 1867, the report was submitted to the College, and finally and unanimously adopted on the 28th November of that year.

Such is a brief history of the origin and progress of the nomenclature of diseases as adopted by the Royal College of Physicians of London and concurred in by other similar bodies in Great

Britain. This classification has been adopted by our author, and the synonyms, equivalents and definitions will be found incorporated in the text throughout both volumes. But as the author very properly observes, to secure this uniformity it must be adopted and taught by the various schools of medicine throughout the country. The Government have done their part, fully impressed with the necessity of uniformity and to aid its general adoption a copy of the "Provisional Nomenclature" has been placed, free of expense, in the hands of every registered practitioner of medicine of England, Scotland, and Ireland.

Furthermore, to show the earnest desire of the Government to secure the universal adoption of a uniform system of classification, the Secretary of State for War, the Board of Admiralty, and the Secretary of State for India, have all and severally adopted the work of the College of Physicians, and it is distributed to the medical officers of their several departments, so that in future all official reports of diseases and deaths in the army and navy will have the stamp of the "Provisional Nomenclature" and be in conformity with its arrangement.

Compared with those gone before, the present edition has received additions which are equivalent in amount to a third volume, and yet the size of the book has not been materially increased, inasmuch as a special font of type has been prepared, in which the clearness of definition has been preserved without adding materially to the bulk of the volumes.

During the past fourteen years, when the work was first given to the world, advances in the science and practice of medicine have been very numerous and important. The author has embodied all the more recent observations that have been made. The subjects of pathology and morbid anatomy, in Part I., have received careful revision, and have been extended. This was rendered necessary as introductory to succeeding parts, and the subject of the prevention of disease, as well as its treatment, have been more fully discussed. Many diseases which in former editions were passed over unnoticed are here introduced. This has been rendered necessary in consequence of the adoption of the new classification of disease.

The tables for recording the bodily temperature in disease have received, at the hands of the author, a careful reconsideration. Tables were published in former editions of the work, but these in the present edition appear to us unnecessarily complex, and although they would do very well for use in a military hospital, where the labour of the physician is seconded by efficient and experienced assistants, yet we do not think that they are applic-

able to civil hospital practice, nor could they be employed in private practice with any chance of being kept with any degree of accuracy. We have thought it well to dwell on the subject of classification as illustrating the general scheme of the work.

The author acknowledges the assistance which he has received from many "kind fellow-workers in the profession." Dr. Blatherwick, Staff-Surgeon in charge of the Lunatic Hospital at Netley, gave him many practical suggestions concerning disorders of the mind. Dr. Balthazar W. Foster, Professor of Medicine in Queen's College, Birmingham, revised the section on diseases of the heart and arteries, and furnished the author with many valuable sphygmographic tracings. The use of the sphygmograph is by no means general, nor do we believe it will ever be brought to anything like practical reliability. In the hands of a few men it has certainly yielded results which should convince the greatest skeptic; taking, for instance, a well-marked case of aortic obstruction, the tracings are apparently different and distinguishable from those given in a typical case of aortic regurgitation, yet we do not require the sphygmograph to enable us to determine these varying conditions. The instrument requires very accurate adjustment to enable the observer to record the tracings, and even then they will be varied according to circumstances for which even the most practical worker will be unable to account.

In the section on diseases of the throat and larynx the text is, in part, based on the lectures delivered by Dr. Morel McKenzie at the London Hospital, and Dr. McKenzie's assistant, Mr. Lennox Brown, has enriched this portion of the work by the execution of new wood-cuts, in illustration of the usefulness of the laryngoscope in diseases of the larynx. On the subject of parasitic diseases the author acknowledges the assistance of Mr. T. W. Anderson, of Glasgow, who furnished him with wood-cuts in illustration.

To Dr. Balfour the author is indebted for revising and correcting the medical geography of disease, and also to Dr. Henry Marshall and the late Sir Alexander Tulloch he accords the merit of having first called the attention of the military authorities to the various deteriorating agencies by which the British soldier is affected in different parts of the world.

Altogether, this work is of great merit, and stands unrivalled as a text book for the student, or work of reference for the practitioner. There is no work in the English language which contains more information on the science and practice of medicine. The index is very full, and each volume is furnished with an elaborate table of contents. The publishers have done their work with the

usual care of the well-known house of Lindsay & Blakiston, and have given to the profession two handsome volumes which should be in every physician's library.

The Physician's Visiting List for 1873; being the twenty-second year of its publication. Philadelphia: Lindsay & Blakiston. Sold by all Booksellers and Druggists.

We call the attention of our readers to this indispensable little work. We say indispensable because it becomes so to those accustomed to its use. By employing the "Visiting List" the medical practitioner can keep an accurate account of his day's doings. These are simplified by the use of a cypher which is recommended to be employed. There is a space for memoranda for each month of the year; for addresses of patients and others; for nurses addresses—this latter is especially useful—for what physician is there who is not compelled to recommend nurses to their patients. Next we have bills and accounts asked for. Next space for memoranda of wants, for obstetric engagements, vaccination engagements, and a department for each month, in which short notes of obstetric case can be reported, in which anything of special interest occurs. A record of deaths, and lastly, space for general memoranda.

We have been in the habit of using "The Physician's Visiting List" for years, but have always procured an interleaved edition. This will be found of special use, as the practitioner has at hand the means of taking short notes of special cases at the bedside, to be more fully recorded in his note-book at his leisure. We freely recommend this little work, and feel satisfied that those who have once employed it in practice will rarely relinquish its use.

RECEIVED FOR REVIEW.

We have received a pamphlet entitled "Meteorology and its Professors," in which there are some pertinent and, perhaps, not too severe strictures on the "Montreal Observatory" and its Director. The pamphlet is of such a nature as to demand the attention of all concerned in the science of Meteorology. Receiving it only a few hours before going to press we must defer any criticism; it will, doubtless, receive a full share of that before our next number.

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1872.

SANITARY REFORM.

Some months ago, at a time when our city was suffering from an epidemic of small-pox, discussion was held on the necessity of having a Government Sanitary Commission or a Central Board of Health, or some legally constituted body, to hold powers under the General Government and enforce on communities matters of sanitary reform. At that time we were told that by the Act of Confederation all municipal matters were left in the hands of the local governments, and consequently any action of a central board of health affecting the taxation of cities could not be enforced without the sanction of the Local Government of the Province to which the city belonged. This would, of course, be such a round-about way of arriving at legislative reform in matters affecting the health of the people that the subject was dropped. But again we return to the charge, being convinced that anything which affects the health and lives of the inhabitants of one portion of the community must react on the prosperity of the whole country, and, therefore, in our opinion, becomes a matter, not for local legislation, but to be dealt with by the General Government. It appears certain that unless the subject is manfully grappled we will, at some future day, experience all the fearful consequences of having neglected measures which would, at least, place our country in a better position for meeting the ravages of epidemic disease.

We need not seek to put the subject aside, it has to be met, pondered over, and action taken thereon, and that without delay. Everything points to the probable advent of epidemic cholera during the coming season of summer. We do not desire to be looked upon as an alarmist, but deem it prudent to take advantage of the experience of the past, and when we see epidemic cholera spreading from town to town in Prussia and Austria, following

very much the same course it pursued in 1831, we cannot but consider it highly probable that we will have it amongst us before very long. The disease in 1832 broke out in Canada in June, being brought amongst us by the tide of emigration. The same may occur in the present instance, but inasmuch as the ocean is crossed in ten days, instead of ten weeks, we may look for it a little earlier.

But to return to the means to be adopted to legally secure sanitary reform. Are reforms needed? Have we arrived at the very acme of sanitary excellence? Is our death rate of thirty-six per thousand solely due to causes which are not preventable, and that if we do get rid of a rather large proportion of infants, are they merely those puny and unhealthy offspring who, if they survived the first year of life, would still hold such a frail tenure of existence as would preclude their arriving at adult age? Is our system of overcrowding of our dwellings and their inmates a mere chimera? Do we possess the very best and most reliable means of registering, births, marriages and deaths? In fact, can we in Canada secure any definite and reliable statistics of the increase or decrease of our population outside of emigration? Are these subjects better fitted for the action of our local legislatures than for the General Government of the country?

We think it a mistake if these questions are referred for decision, or left in the safekeeping of our local legislative bodies, as they are decidedly of vital importance to the Dominion. A few of the requirements for instituting a definite system of sanitary reform may be advantageously enumerated. A consideration of the soil, the climate, the state of the air, the condition of habitations, the water supply, ventilation, the means adopted for the removal of excreta and house refuse, drainage, the effects of factories on the health of the people, and also of the various occupations on health, the means to be adopted to prevent the spread of contagious or infectious disease, or, in other words, how to deal with epidemics when they do occur.

We may state that we are without any definite legislative enactment on these important subjects, and that when disease and death is amongst us all is flurry and scare. Those whose means admit, generally remove themselves and families to a more genial clime, but the poor man is left to the consequences of the spread of epidemic disease which might have been prevented by the adoption of wise and timely measures. But these necessary precautionary measures will not be adopted by individuals nor by smaller communities, and even if they were it would not be efficient in preventing the spread of disease. To

secure any beneficial results the action must be general. What has been the result of our Vaccination Act introduced by our legislature a few years ago and operative alone in the larger cities of Canada? From the constant influx of the country population to the cities the disease of small-pox has been kept alive. The large proportion of persons coming to reside in our cities, attracted thither by the increase in wages, are unprotected against the disease by previous vaccination. The records of our hospitals, if searched, would reveal the fact that nine-tenths of the fatal cases occurred in unvaccinated persons; many of these persons came from the country parishes. So it will be in matters of general sanitary interest. If any legislation is attempted it must be for the Dominion, otherwise it will simply be useless, inoperative and disgraceful to ourselves as a civilized community.

THE SILICATED CARBON FILTERS.

The absolute necessity of filtering drinking water in this city has been long admitted. The water of the Ottawa which is pumped into our reservoir and thence distributed to our dwelling houses has been proved to contain a large quantity of animal and vegetable matter, besides parasites, which are injurious, if not dangerous, when taken into the human stomach. The subject of helminthology is, as yet, in its infancy, although Dr. T. Spencer Cabalt and other workers are earnestly pursuing their researches. Drinking water is admitted to be a fruitful source of parasitic diseases of various kinds, and it is only by careful filtration that foreign matter can be separated. Our water works are barren in any mechanical means for the purification of the water; it become, therefore, advisable for individuals to adopt measures which are neglected by our Water Works Committee. This can be done by employing a Silicated Carbon Filter. By reference to the advertisement, on the outside cover of this journal, of Mr. J. V. Morgan, agent for filters prepared at the works of the Battersea Company, London, England, it will be observed that the price of these useful and necessary instruments brings them within the reach of all; and in view of the possible advent of cholera we think it prudent for all householders to adopt measures which will, as far as the water used for drinking is concerned, remove the chance of taking into their stomachs disease-germs which are known to favor the generation of disease leading, in some cases, to the most serious and disastrous results.

We have received the following from Messrs. T. Morson & Son, Manufacturing Chemists, Southampton Row, Russell Square, London, and willingly give it insertion:

SIR,—Mr. Enno Sander, of St. Louis, reported to a meeting of the American Pharmaceutical Association that he had tested several specimens of creasote, and had found only one to reply to the glycerine test. This confirms my statement made at the British Pharmaceutical Conference, and published in the *Pharm. Journ.* of the 21st September. Since these observations were made, we have examined numerous imported specimens and have found only one, that produced by Mr. Trommsdorff, to be the genuine creasote of Reichenbach. All the others were phenic acid, or a mixture of that acid in large proportion.

I have no doubt that creasote may be obtained by the distillation of various resins. The interesting remarks on Guaiacol made by Mr. Williams at the Brighton meeting prove, at all events, that it may be prepared from Gum Guaiacum.

T. N. R. MORSON.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

It becomes our pleasurable duty to announce that W. L. Copeland and L. St. John, graduates of McGill College, Session 1872, passed their examination for the membership of the Royal College of Surgeons of England.

TO CORRESPONDENTS.

HENRY C. LEA, Publisher, Philhdelphia.—Your communication of the 12th November received. Messrs. Dawson Brothers announce to us that your parcel has been burnt in transit.

J. B. LIPPINCOTT & Co., Publishers, Philadelphia.—Your parcel has not been received. Perhaps it has shared the same fate as that of Messrs. H. C. Lea, Philadelphia, and D. Appleton & Co., Publishers, Broadway, New York. Nothing has been received from you up to the time of our going to press.

Parcels sent by express, and directed as below, will not go astray, and will receive prompt attention:

DR. FENWICK,

Editor CANADA MEDICAL AND SURGICAL JOURNAL,

Montreal.

From the most recent sources we learn that cholera is advancing Westward. In Austria it has appeared in Buda, Pesth, Prague and Vienna, and up to the present time upwards of 5,000 cases have occurred, with a mortality of nearly fifty per cent. The disease appears to exhibit the same intractibility and fatality. In Poland the disease is increasing in the large towns, Warsaw, Lemberg and Dantzig. In the latter city as much as five out of every six persons attacked perish.

Medical News.

CHOLERA.

Bad tidings have been received from Poland, where cholera has derived a fresh impulse from the late holidays of the Jews. On the occasion of their autumn holidays they generally flock in great numbers from the country and the viliages to the larger places, throng their narrow places of worship, filled with offensive, foul air, for the greater part of the day, inflicting upon themselves and their children fasting and other religious observances. This, as well as the large meals of unwholesome food in which they are used to indulge in the intervals of fasting, has given new strength to the epidemic. The largest increase has been witnessed in Lemberg and its vicinity, where the total number of cases of cholera had been augmented by about 200 within the last two weeks of September. Up to October 1, in the whole Province of Gallicia, 224 places have been visited by cholera. The number of cases known amounts to 6,941, out of which 2,176 ended fatally, 2,196 recovered, 1,130 remaining under medical care. Warsaw, too, and the whole of Russian Poland is still gravely infected. The only course adopted by the authorities there, with the exception of Petersburg, is to conceal the facts. Another outbreak near the Baltic coast, close to the Prussian frontier, is reported to have taken place quite recently in a little place named Shetéllen. In St. Petersburg itself no fresh cases have occurred since the 5th ult. The epidemic there has extended over three months and a half, with 3,413 cases and 1,693 recoveries; making a daily average of 33 cases, and a percentage of one-half per cent. in 650,000 inhabitants.

From Hungary we hear it is officially announced that the cholera has broken out in the district of Gumbinnen, in the vicinity of

the town of Johannisburg, and that several cases have proved fatal. Ninety-four cases of cholera have occurred at Buda, twenty-seven proving fatal. Twenty-nine soldiers were taken ill simultaneously, and five of them have died.

Typhoid fever has lately been raging in Berlin, owing, as is believed by the medical profession, to the infection of the water by sewage, in consequence of the extraordinary drought of this summer. The average mortality is about four per cent. Doctors advise their clients to abstain from water as a drink altogether if possible—at least if not boiled previously.—*Medical Times and Gazette.*

CARBAZOTATE OF AMMONIA IN PLACE OF SULPHATE OF QUININE.

Dr. Dujardin-Beaumetz recently reported to the *Société de Thérapeutique de Paris* his investigation of the character of this combination of ammonia with carbazotic, picric, or trinitrophenic acid, and especially with reference to its use as a substitute for sulphate of quinine. After mentioning the successful employment of this salt in the treatment of intermittent fever by several persons, Dr. Beaumetz detailed six cases treated with like result by himself, and also mentioned the results of experiments made upon both men and animals. Like quinine, carbazotate of ammonia diminishes the strength of the pulse and induces languor, cephalagia, and even delerium, and finally is eliminated by the kidneys. The clinical results may be summed up as follows:

Case I.—Quotidian ague; recovered after four days of treatment; daily dose from one to two centigrammes of the substance in pills. *Case II.*—Quotidian ague (sulphate of quinine having been given without effect); complete recovery after five days; five pills used. *Case III.*—Tertian ague; recovery after eight days; two pills daily. *Case IV.*—Quotidian ague; recovery after eight days. *Case V.*—Facial Neuralgia; speedy recovery. *Case VI.*—Tertian ague; sulphate of quinine had been administered during seventeen days without result; completely cured after the administration of about one grain of the salt, extended over the period of two days.

The Doctor thinks that one-third to two-thirds of a grain daily will suffice to suppress the paroxysms of intermittent fever, and says that, given in these doses, the drug has not been known to produce bad effects; indeed it seems to be better tolerated than sulphate of quinine, the physiological action of which it resembles.

THREE-GRAIN DOSES OF MORPHIA.

A painful cause of death has occurred at Corower, in the interior of the colony of Victoria, after the administration of two three-grain doses of acetate of morphia, on the prescription of a medical man in a case of alleged delirium tremens. Four grains divided into four doses had previously been prescribed, one dose to be taken hourly till sleep was produced. All this was taken without the slightest effect. The next day the doctor, emboldened probably by the failure of grain doses and the nature of the case, prescribed the following mixture: 18 grains of acetate of morphia, 3 drachms of tincture of cardamoms, 2 drachms of spirit of chloroform, with sufficient water to make a six-ounce mixture; two tablespoonfuls every two hours. After two doses he slept heavily, and died. It was found that a little more than the proper quantity of two doses had been taken out of the bottle, so that, instead of six grains, the patient had probably got seven or eight of morphia. We will only make two remarks on this case. The advance from one grain to three of morphia was an error. The patient had better have "raged" for three days than get sleep on three grains of morphia. Secondly, such medicines ought to be supplied only in single, or at most in two doses. A mixture with eighteen grains of morphia in it is not heroic merely, but terrific. And no chemist should dispense such a mixture without a personal interview with the prescriber of it, and an explicit understanding with, not the patient, but the person who is to administer it.—*The Lancet.*

Cholera is reported to have appeared at Dantzic and Culm in Prussia.

BLEACHED TINCTURE OF IODINE.

It is said that the sulphite of soda will discolor iodine and yet increase its effect. The *Med. Press and Circular* gives a formula for the combination, viz.: Tincture of Iodine; Glycerine, pure, aa. ℥j; Sulphite of Soda, ʒj; M. Rub the salt to a powder in a small mortar, and add the glycerine gradually; then pour in the tincture, and triturate gently until a solution is effected and the mixture assumes an amber color.

Ninety-four cases of cholera are reported from Buda, in Hungary, twenty-seven proving fatal. Twenty-nine soldiers were taken ill simultaneously, and five of them died.