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CANADA

MEDICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Frost Bite of both Feet, resulting in spontaneous separation of right foot at tarso-metatarsal joint, and amputation of left foot near same joint. By R. W. JACKSON, F.R.C.S.I., Surgeon to the 100th Royal Canadian Regiment.

CASE I.

J. B., ætat 28 years, service 9 years—has been several times in hospital, since enlistment, with trifling ailments, except in March, 1867, when he met with a severe injury, having fallen from a railway car when attempting to leave while the train was moving, for the purpose of buying whiskey, to which he has always been too partial, and was probably under the influence of drink at the time. On this occasion he suffered a compound fracture of left ramus of the lower jaw, had six teeth knocked out, and was under treatment after the accident for one hundred days.

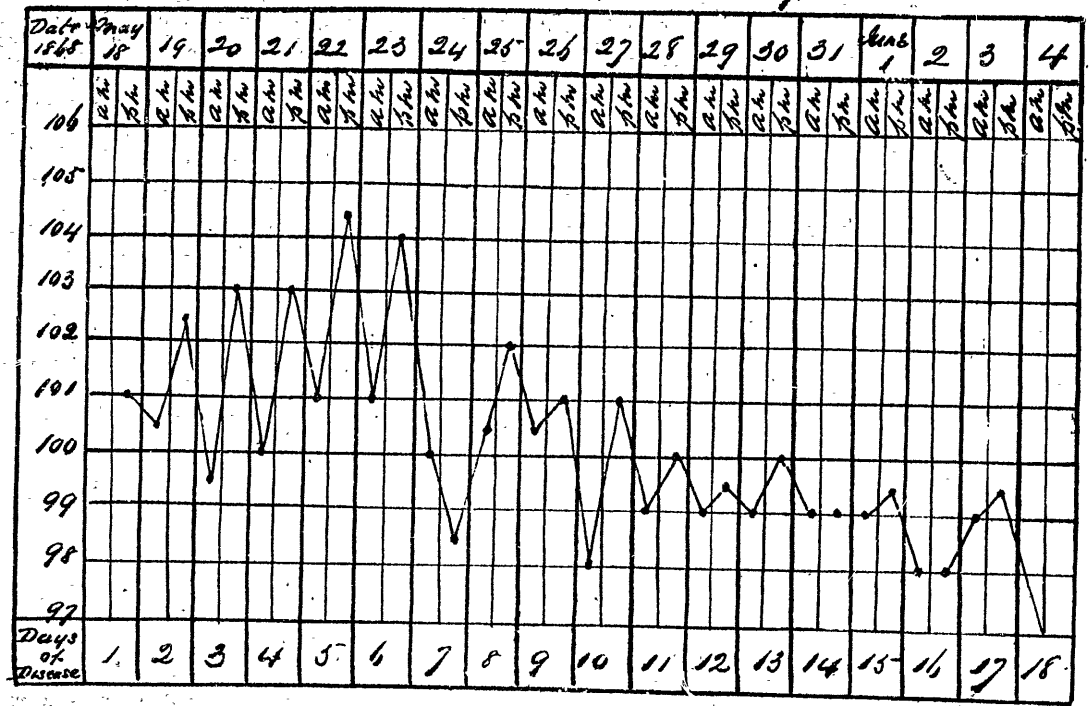
Was brought to the Regimental Hospital 26th of December, 1867, having been absent from the Regiment, without leave, since the evening of the 21st. From what could be ascertained from him he left Montreal the afternoon of the 21st, walked about twenty-four miles into the country, got drunk and slept out all night in the intense cold. His account how he spent the time until the morning of the 25th cannot be depended on. The last mentioned day he gave himself up to a look-out party.

State on admission. Toes and fore part of both feet severely frost-bitten, the skin over affected parts livid, insensible, perfectly cold; serum exuding from cracks in the skin; the portions of feet not frost-bitten, as well as ankles, were swollen and red; tongue clean, and pulse 96.

As there was no chance of restoring the circulation in the frost-bitten parts, cold poultices were applied, and opium in grain doses ordered twice daily.

In the evening the pain in living portions of feet was more intense, a quantity of ichorous discharge had escaped, and the frost-bitten parts were white and shrivelled. He slept none the night after admission, and for several days the pain in the feet where the living and dead structures met was agonizing, at the same time his general health was little affected. Five days after admission the discharge became very fetid. On Jan. 4th, fourteen days in hospital, the line of demarcation was distinct in both feet, at the same time vesications with superficial ulcers appeared on both heels. A consultation was now held as to the propriety of operative interference; Surgeons Major Young and Smith were present, and Dr. Fenwick kindly gave the benefit of his advice on the occasion. Dr. Fowle Smith had an extensive experience in cases of frost-bite in the Crimea, and his opinion was strongly in favour of non-interference. This opinion was agreed to, and the sequel proves the practice was correct. From this date a solution of carbolic acid was applied to the feet, and had the effect of correcting the fetid discharge. The ulceration gradually extended in depth, and on the 8th April, seventy-six days after admission, the right foot sloughed off at the tarso-metatarsal joint—at same date the line of demarcation had extended through the soft parts of the left foot, and through the tarso-metatarsal joint of great toe, and obliquely across shafts of the other metatarsal bones, the proximal joints being firmly attached to stump. On May the 5th, as it was palpable that it would be a tedious affair to wait for erosion of the metatarsal bones to take place, Hey's operation was suggested and carried out. It was found on removing the metatarsal bones that sufficient soft structures did not remain to furnish a tolerable covering for the stump; the flaps were therefore dissected back and the tarsal bones sawn across about their centres; the flap was then brought together with metallic sutures;—a few vessels required to be tied. Troublesome oozing of blood continued for several hours, controlled at last by pressure and perchloride of iron. There was considerable constitutional disturbance after the operation; he had marked rigors and general fever; there was also subsequent inflammation of lymphatics of left leg, but no suppuration in glands. The wound did not unite by the first intention; this could not have been hoped for in consequence of the chronic state of inflammation the soft parts near face of stump were in. He commenced to mend and steadily improved from the 22nd May. A very small point of ulceration now exists on left stump; the sore on right is considerably larger. He can walk from one ward to another with the help of a stick. The left stump is more rounded and the bones better protected by soft parts than the right; on the latter there is considerable tension of the skin.

Thermometric Temperature of J. T.



As to the propriety of operative interference in cases of frost-bite, the views of authorities differ. In a quotation from Macleod's Surgery of Crimean War, in Holmes' system, it appears that medical officers gave up all kinds of interference, the most trifling operations in dividing skin, tendon, &c., being fraught with danger during the campaign. Mr. Syme considers it best to steer a middle course (Principles of Surgery, page 35), "and to avoid interference until the soft parts are nearly detached." Erichsen's opinion coincides with Mr. Syme's; he states amputation should be performed when the line of separation is fully formed. In J. B's. case, had amputation been performed when the line of separation first became distinct, the edematous condition of tissues from which the flaps were to be formed would have rendered Syme's, or Chopart's at most, the only feasible operation; nature, more conservative, saved an additional joint. However, as soon as the line of demarcation has reached the bone, the sooner amputation is performed the better, as, while erosion of the bone is going on, the chronic inflammation and ulceration in the neighbouring soft parts greatly deteriorate the tissues out of which the flaps have to be formed.

A diagram of his temperature subsequent to the amputation is annexed.

Resection of Elbow Joint after Compound Comminuted Fracture of Lower End of Humerus. By R. W. JACKSON, F.R.C.S.I., &c. Reported by JAMES THOMPSON, L.R.C.S.E., Assistant Surgeon 100th Regt.

CASE II.

Private J. D.—100th Regiment of Foot, aged 28 years, 10 years in the service—had been drinking and fighting on the evening of the 15th May, in Water street, and states that he was pushed over the pathway, falling to the ground between 10 and 12 feet. He thus received an injury of right arm. I saw him in hospital at eleven o'clock p.m. same night. On examining the arm, two small transverse penetrating wounds were found on the posterior surface of right elbow joint, just above olecranon. These communicated with the joint and the comminuted fragments of the lower end of humerus were felt by the finger in the wound. The swelling was trifling, but there was considerable oozing of blood. Dr. Jackson decided to stuff the wounds with lint until the P. M. O. could be referred to. Next morning, after consultation with Surgeon Major Young, 60th Rifles, and Dr. Armstrong, 1 Batt. 16th, &c., it was agreed to resect the joint, which Dr. Jackson did, after the patient had been put under the influence of chloroform, by making a longtitudi-

nal incision on the posterior surface of the joint, about 6 inches in length, carefully dissecting out the fragments of the humerus and sawing off the pointed end of its shaft, which had been denuded of periosteum, thus removing, in all, about 2½ inches of this bone. The projecting portion of the olecranon was then sawn off to the level of the articulating surface of the radius. No vessels required to be tied; the wound was brought together by the interrupted metallic suture, and the arm sustained at right angles by a figure of 8 bandage round the joint, the fore arm being suspended from the neck in a gutta percha splint. The transverse wound, received at the time of the injury, afforded egress for any discharge, &c.

He had a soothing draught at night, and rested well. Next morning the pulse was 120, the tongue coated and the upper arm somewhat swollen; but he took his food well, viz., milk and beef tea. By the 21st, *i. e.* five and a half days after the accident, and five from the resection, the fever had gone and the swelling greatly diminished; slight healthy suppuration from the original wound. It was dressed with the carbolic acid lotion.

On the 27th the bandage was undone. Original wound now granulating kindly. That made by the surgeon had united throughout by the first intention. No swelling remains save that arising from the callus around the bones.

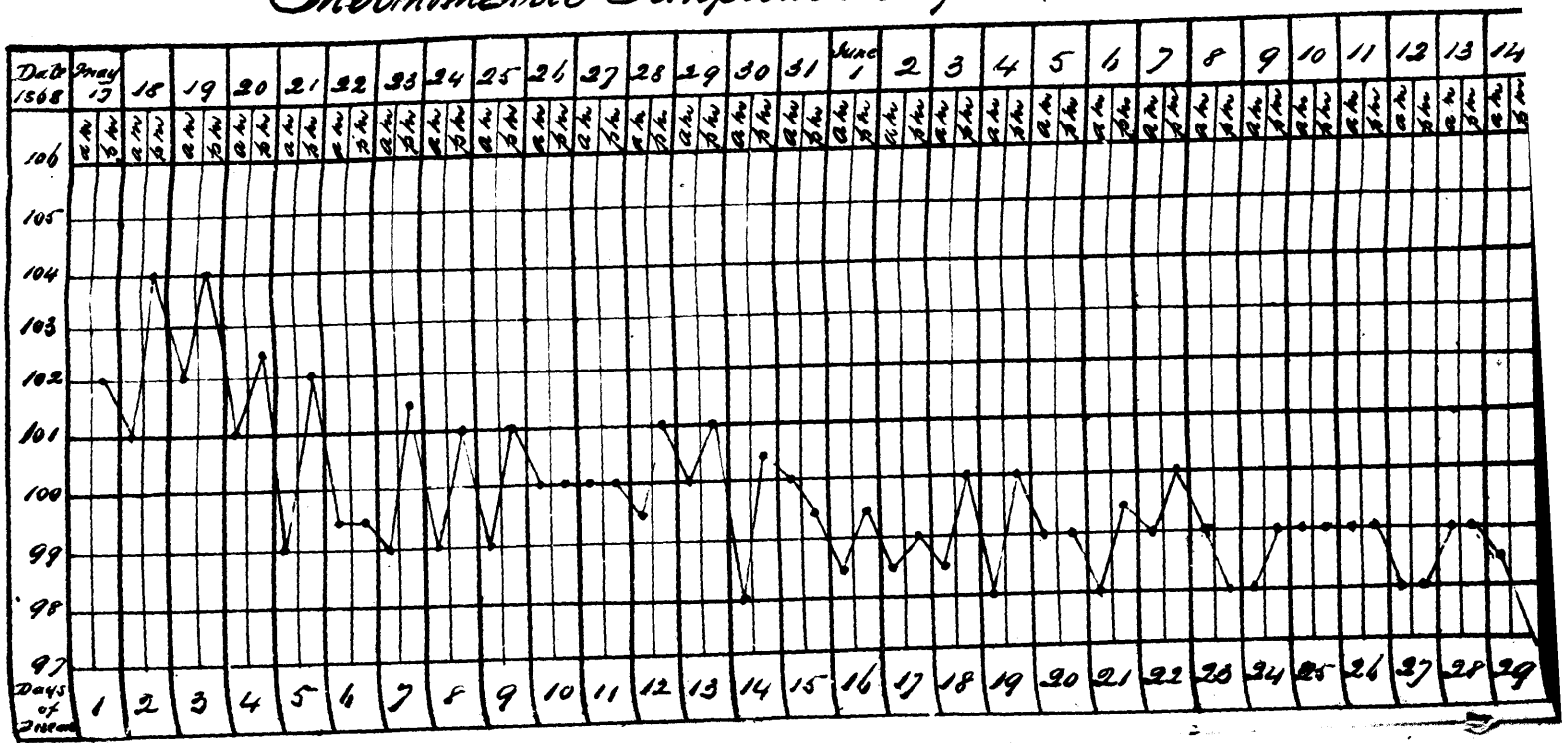
He had now full diet, with a pint of porter, and was able to be up. On the 12th of June the wound had quite cicatrized; can flex and extend the joint by laying hold of the hand, without pain.

By the end of June he was able to rotate the fore-arm slightly, and to flex the joint almost completely; owing, however, to the original fracture having extended beyond the tuberosities of the humerus, thus necessitating their complete removal, the joint is likely to remain comparatively weak. The hand, however, is very useful. He is, of course, unfit for further service in the army.

REMARKS. — From the situation of the injury and the comminuted state of the fragments of condyles of humerus, it appears probable that the fracture was caused by direct violence; it is difficult to understand how a fracture of this kind could result from a fall, and the olecranon escape uninjured. J. D. states his companions had a slung shot. A blow with a weapon of this sort would be likely to result in a wound and fracture such as we found. The blow may have been struck as he raised his arm to defend his head.

The longitudinal incision was preferred in this case, as the wounds received in the first instance afforded a ready means of exit for blood or other discharges subsequent to the operation.

Thermometric Temperature of Pvte J.D



The fact that so considerable a portion of the shaft of the humerus was implicated was most unfavourable to the ultimate prospect of a useful arm, as a small cylinder of bone at the point where the humerus was divided had to become united with the broad surfaces, resulting from a section of the olecranon, and also with the head of radius, the latter intact.

M. J. Bell, in a recent manual on operations of surgery, page 103, classes among cases requiring Excision of Elbow Joint, "those with wounds of elbow penetrating joint, especially when the wound of the joint is small and punctured." He further states "that in excision of the elbow joint, more than in any other joint, complete excision is absolutely necessary, any portions of the articular surfaces being left prove a source of unfavourable result." He does not state whether he intends the above to refer to cases where the operation is performed for chronic diseases affecting joints, or for accidents, gunshot or otherwise. J. D.'s case would lead to the inference that Mr. Bell's rule will admit of exception. In our operation there was necessarily so extensive a removal of shaft of humerus that we did not consider it expedient to remove head of radius, and only removed a portion of olecranon. The rapid union of incision through soft parts proves that the articulating surfaces of head of radius and of portion of sigmoid notch did not interfere, in any respect, with the healing process. Also, there have since then been no symptoms of sinuses or other untoward result.

A diegram of J. D.'s temperature after the operation is appended.

An Essay on the Contagion, Infection, Portability, and Communicability of the Asiatic Cholera in its relations to Quarantine; with a brief History of its Origin and Course in Canada, from 1832. By W. MARSDEN, A.M., M.D., ex-President and Governor of the College of Physicians and Surgeons, Canada East; Honorary Fellow Medico-Botanical Society, London; Corresponding Fellow Medical Society, London; Honorary Fellow Montreal Pathological Society; Honorary Fellow Berkshire Medical Institute and Lyceum Natural History; Honorary Fellow Medico-Chirurgical Society, New York; Member by Invitation of the American Medical Association, &c., &c., &c.

(Continued from our last.)

I may here ask to be excused for a slight digression of a personal nature.

For upwards of twenty years previous to this invasion I had watched the course of the pestilence with marked attention, and tracked its devious

wanderings with intense interest. Finding that the Quarantine regulations were of the most imperfect kind, and that their execution was a mere costly form, and having written much on the subject and remonstrated with the authorities in vain, I finally addressed a memorial to the Provincial Executive, praying for the appointment of a commission to investigate and report upon the introduction of Asiatic cholera into Canada in 1854, pledging myself to prove to the satisfaction of such commission, if appointed, "*that Asiatic cholera had been imported into Canada, and had been transmitted throughout the country, by and through persons infected at the Grosse Isle Quarantine Station.* This apparently bold assertion quite took the government by surprise, and created much debate and newspaper discussion at the time. It, however, had the desired effect, although my representations were ridiculed as preposterous, and the public expectation was that the result of the enquiry would have been my utter discomfiture.

Three gentlemen were named a commission to investigate and report, and were empowered to examine witnesses *under oath.* It was composed of two medical gentlemen of high professional standing, who were avowed *non-contagionists*, and a distinguished lawyer, now a judge. They entered zealously upon the discharge of their duties, although commissioned so late in the season that a large number of the most important witnesses had left the Province. Their report more than confirmed the charges which I had brought against the Quarantine authorities in every particular.

That document is, perhaps, one of the most important that has ever been drawn up in any country or any age, and ought long since to have been published. Although it is usual to print parliamentary reports in Canada, it seems strange that a report of so much importance as the one in question should have been an exception to this rule, and not have seen the light of day, outside of the executive walls, until January, 1867, when, through the kindness of the Honorable the Minister of Agriculture and Emigration, the late D'Arcy McGee, I was put in possession of a *manuscript* copy. During the past twelve years I had asked, times without number, both directly of the executive, and indirectly through the press, for its publication, but in vain.

The most salient and important facts connected with the outbreak of Asiatic cholera in 1854, as established by this report, are briefly these: The ship "Glenmanna," from Liverpool, arrived at the Quarantine Station on the fifteenth of June, having thrown forty-five passengers overboard on the voyage, who had died of Asiatic cholera. The "John Howell," another passenger vessel from Liverpool, arrived at the station

on the same day, having had no cholera on board. The passengers from the two vessels were landed at the same moment of time, in fact together; and being mostly Germans, Prussians, &c., they intermingled freely, and enjoyed uninterrupted intercourse with each other. During their stay at the Quarantine Station, one of the passengers of the "Glenmanna" died of cholera, and yet the passengers of both these vessels were discharged from Quarantine, and allowed to proceed to Quebec without further detention.—In five days after the landing of the passengers from the first cholera ship at the Quarantine Station, the first case of Asiatic cholera in Canada, in 1854, broke out at Quebec in the person of Lang Lorts, a German, who had been a passenger in the "Glenmanna" cholera ship. He was removed to the marine and emigrant hospital, and on the same day, the twentieth of June, nine other cases were admitted to the same establishment, all belonging to the ill-fated ship "John Howell," which had crossed the ocean and arrived at the Quarantine Station in perfect health, there to be infected and scourged by the pestilence.

Of these ten cases, the first ten admitted to hospital, or known to exist, eight died in periods varying from ten hours to thirteen days. Their names, which I copy from the hospital register in the order of admission, are as follows: Lang Lorts, aged thirty-five years, of the "Glenmanna," and Peter Pritner, aged twenty-four years; Hans Kraut, twenty-four years; Mary Susan Jonay, thirty-two years; Matias Jonay, six months; John Pritner, nineteen years; Ann Maria Pritner, sixty years; John Dousteler, thirty years; Frederick Schultz, thirty years; and Francisco Stasebourk, forty-two years, of the "John Howell."

The infectious character of the disease here shows itself again. Of the above nine persons, three were members of one family, one of whom died in ten hours, and two others are members of another family, a mother and a child. Of the first fifty cases admitted to the cholera hospital this year, nineteen were from the "John Howell."

The disease soon spread to the citizens. The first case among the military occurred on the twenty-fifth of June in a soldier of the 66th Regiment, who had been on duty at the Queen's Store, in Champlain street, which is often the *nidus* of epidemic diseases, being filled with low groggeries and taverns, to which sailors, soldiers and the poorer class of emigrants resort. He was removed to the regimental hospital, and died in a few hours.

The 71st Regiment, which was quartered in the lofty citadel of Quebec, suffered very little from cholera, only one death occurring during the season. The troops were confined to the citadel except when on duty, which, on the principle of non-intercourse with the sick, will account

for the exemption of this regiment from disease as compared with the 66th Regiment, which was quartered at the Jesuits' Barracks in the heart of the city, and lost twelve men out of one hundred and thirty-one, attacked with colic, diarrhœa and cholera.

The following are among the replies to my circular addressed to the members of the medical profession of the United States, asking for facts tending to establish the infectious character of the cholera.

N. Roe Bradner, M.D., assistant physician at the Seaman's Retreat, Staten Island, furnished me the following facts under date of eighteenth of February, 1867: "During the prevalence of cholera in this port last summer, while something over five hundred cases of cholera were treated on board the Quarantine ships, very few cases occurred on shore. We had, however, some cases at the Retreat, and the one which I report seems to be a striking proof of the communicability of cholera. Case C.B., aged twenty-six, a native of England and a sailor by occupation, was admitted to the Retreat on the twentieth of July, 1866. On the evening of the seventh of August, then a convalescent from secondary syphilis, and complaining of no intestinal disorder whatever, he was detached to watch and attend a patient suffering with cholera. On the morning of the eighth he was seized with cholera and died in about twelve hours."

Precisely similar circumstances attended the admission of cases of Asiatic cholera into the Marine and Emigrant Hospital at Quebec, in 1854, as well as at Sunderland, in England, in 1831.

Dr. Guyon, a distinguished physician at Vienna, states that, "the patients in two wards of the Hospital for clinical instruction, were infected by a cholera patient who was admitted into these wards; and Dr. Jhanichen, physician to the Czar of Russia, attributes the continuance of cholera in Moscow, (from the 20th September, 1830, to the following month of March, despite the cold weather) to the fact that the disease was fed in the hospital by the admission of new cases, not cholera"; and he further adds- "that there sickened between thirty and forty per cent. of persons, who had hospital duty to perform, including physicians, nurses, &c., while of the whole population of the city not more than three per cent. took the disease."

Dr. C. D. Jackson writes as follows:

"On the authority of Dr. W. R. McKee, a resident practitioner of this place, in good standing, I transmit you the following statement. About the twenty-fifth of June, 1833, cholera first appeared in Lancaster, Garrard Co., Ky., a village then containing some five hundred to six hundred inhabitants. There was no cholera nearer than Lexington, thirty miles distant, where it was prevailing. On the evening of a warm

sultry day referred to, a waggon laden with dry goods was received by Mr. Clarke, a merchant of the place. They were unloaded by himself, the negro driver "Daniel," and another negro, "Bill." Within twenty-four hours the whole three died of cholera, and within the next twenty-four hours there were eleven other deaths in the town. The disease spread rapidly and fearfully, and the inhabitants still living describe the mortality as having been greater than in any other place in central Kentucky.

Doctor J. M. Jackson, of Danville, Kentucky, says the first cases of cholera were in 1833, in the persons of five negroes, wagon drivers, who were engaged in hauling "cotton bagging" to Louisville, Kentucky, and returning with dry goods. They were in the employ of Rice & Co. There was then no cholera nearer than Louisville.

Dr. Sweeny, now in Lincoln county, Kentucky, says that in 1849 there was no cholera in Rockcastle county, and none nearer than Louisville, Kentucky, one hundred to one hundred and ten miles distant. A citizen returned from Louisville and was seized with cholera, and died, as did some of the neighbours who attended him, until there were nine deaths in all. So struck were the people with the conviction of the contagiousness of the disease that no communication could be induced between the sick and healthy.

Colonel J. Warren Grigsley, of Lincoln county, says that in 1849 the first case of cholera occurred at Huntersville, Lincoln county, at the village hotel, but where the patient came from he does not know. The next two cases occurred in two families, each living four or five miles from Huntersville, in different directions. It was on Saturday that the case occurred at Huntersville at the hotel. On that night, as was the custom, two negro servants belonging to the hotel, went each to his wife's house and remained over Sunday. Their wives were the two victims just alluded to.

Doctor Franklin Hinkle, of Marietta, Pa., states that he has attended two epidemics in his district in 1849 and 1854, and in both instances cholera could be traced to infection by persons coming from rail and canal. In 1849 there were eighty deaths from the disease.

J. Parsons, M.D., of Mount Pleasant, Kansas, writes as follows: "Each case of Asiatic cholera that occurred in Kansas last year, was traceable to infection, directly or indirectly. I have just discharged *two* cholera patients, who became infected from the baggage of cholera patients who died last summer, and whose effects were stowed away until this winter, when the cupidity of two Dutch people led them to grief. Not many cases occurred here last year, but nearly all terminated fatally."

Doctor Goldstone, of Cobourg, Lake Ontario, states that during the

prevalence of cholera in that city, he engaged two nurses expressly for cholera cases, a man and a woman, to whom he paid four dollars a day each. They both took the disease and died of it.

I could go on citing cases similar to the foregoing to any extent, but as the report of the cholera commissioners, above referred to, gives a number of well-marked cases in support of the doctrine of contagion, I will allow them here to speak for themselves. They ask these two questions:—

1st. Is Asiatic cholera epidemic?

2nd. Is Asiatic cholera contagious?

To the first interrogatory they give a qualified negative supported by striking facts and sound reasoning.

To the query, is cholera a contagious disease, they say that they have authorities in support of the contagious principle of Asiatic cholera as high as those cited in favour of an epidemic influence, resulting from a close and searching enquiry into the character of the disease.

In alluding to the importation of cholera by ships, they say: "We find in Doctors Baby and Gulls' valuable report, the fact that, in those ports in which the epidemics of cholera first appeared, the outbreak of the disease in so large a proportion of the instances followed immediately upon the entrance of ships thus infected, that even did this fact stand alone, it could not, without much hesitation, be regarded as the result of mere coincidence. Further, it is a remarkable fact that the "Carricks" arrived at the Quarantine Station of Quebec, in 1832, just five days before the disease appeared in that city; and again that, in 1848, the outbreak of cholera in the Quarantine Station of New York, and that at New Orleans, should have followed immediately on the arrival of infected ships. The hypothesis of accidental coincidence is indeed the less admissible in the latter cases, since the disease appeared some months sooner than it might have been expected according to its usual rate of travelling, or according to the much longer time that elapsed between its appearance in England in 1831, and its outbreak in Canada in 1832.

A further fact corroborating the belief that the outbreak of cholera in the several ports of England and America was not independent of the arrival of ships coming from infected countries, or having infected persons on board, is, that in several instances, namely, in London, in Belfast, and in New York, a nearer connexion can be traced between the persons brought by the infected vessels and the residents first attacked.

At New York the facts are of a more striking character. Nothing like cholera existed at Staten Island at the time of the arrival of the packet ship "New York." When her passengers were removed to the public

stores, they were occupied by about seventy persons, who had just recovered from other diseases. One of those, a man just recovering from a fractured patella, assisted in the removal of the patients. This was on Sunday, the second of December. On the Wednesday following he was attacked with violent symptoms of cholera, and died the same day. How like is this case to that of C. B., reported by Dr. Bradner this year at the Seaman's Retreat. A woman who had been a nurse, without having any communication with the people, but occupying a room in the same buildings, was attacked and died the same day with all the symptoms of Asiatic cholera. A man who had been discharged, and gone to the city of New York on Monday, and had remained a little over a day in the same inclosure, was returned from the city as a case of cholera, and died the same day. On perceiving the communication of the disease to the convalescents, Dr. Whiting immediately sent them away, and distributed them through the other hospitals, since which three others have been attacked, two of whom have died, but none other than those first exposed at the public stores have been affected. These had been inmates of the hospital for weeks, were ready to be discharged, and had but a limited exposure of forty-eight hours to the influence of the disease. To make the evidence of communication of the disease by human intercourse complete in this case, it is only necessary to add that the disease had appeared in the packet ship "New York" while at sea, six days before it came to anchor at the Quarantine Station, and eleven days before the first of the convalescents in the hospital there was attacked. It surely cannot be questioned that in this instance the ship conveyed the infection. It cannot be believed that the outbreak in the ship at sea, and the subsequent appearance of the disease among persons on shore who were brought into contact or proximity with the sick landed from this ship, *and among no others* (although a large and very populous city was close at hand), were mere accidental coincidences, the result of a poison in the air, or an atmospheric influence affecting the ship at sea, and some days afterwards, by chance singling out a few persons at the very Quarantine Station to which the ship was bending its course, while as yet no other case of the disease had occurred on the whole continent of America.

In support of the contagiousness of the disease we may here further refer to the deposition of Dr. Billings of the city of Hamilton, Canada West. He says: "Mrs. Conway lost her child from cholera. Becoming alarmed she left the city and went to her brother's house, eight miles from town, in the village of Flamborough. She died of cholera twenty-four hours after her arrival. The locality where she went is particularly healthy; the brother who was a farmer, died of the disease. Two or three

days after, her mother and her brother's child died. Several neighbours who visited them during the sickness, or attended the funerals, took the disease, and altogether nine persons died. There was no cholera in that locality prior to the above mentioned occurrence.

In the replies of Dr. Godfrey, of Montreal, in answer to our circular letter, we find the following important communication bearing on the contagious character of the disease. I believe that the Asiatic cholera is as much contagious as typhus fever or as several other contagious diseases. I believe so from the fact that I have seen persons come from a district where there had never been cholera, to attend funerals, or the markets; and I have known them attacked with the disease on their return home. I distinctly remember one case, that of a man who resided about three miles from town, in a village that had not been visited by the epidemic. He came to an infected district to attend the funeral of a friend. The following day he was suddenly attacked with vomiting and purging; in two days after, his eldest daughter, a woman aged about twenty-five, was attacked, then the next daughter; in a day or two after, his wife was seized also, and his three younger children, making in all, seven persons in one cottage. They had all been in good health previous to the disease appearing among them. Their house had been a pattern of neatness, and no case had occurred in the village before or since.

"About the same period an intelligent woman came to my surgery with an infant. On examining it I pronounced it a case of cholera, treated it, and it recovered. On the following morning I was sent for hurriedly to see the mother. She was very ill with diarrhœa, but recovered. Becoming very much alarmed, she went to the country about thirty miles from town, taking her five children with her. After she had been about a week with her relations, the cholera appeared and took off her four eldest children, her brother, sister, and two medical men, and some of their neighbours that had been attending them."

(To be continued.)

Case of acute Tuberculosis. By J. M. DRAKE, M.D., Professor of Clinical Medicine, McGill University. Reported by GEORGE ROSS, M.D., House Surgeon, Montreal Hospital.

John Naismith—Mate of ship Roseneath—was admitted into the Montreal General Hospital, on the 16th June, 1868. He had been in somewhat delicate health for two years past, but had never ceased his ordinary avocations for a single day. Three weeks ago he was seized with a violent shivering fit, followed by fever. Three days after this he

sailed from Halifax for Montreal; during the first few days of the voyage he did work, and was consequently exposed much to the weather; from this time he was obliged to keep his berth. On admission he complained principally of great *weakness* and *shortness of breath;* very hot but perspiring skin; quick, sharp pulse; short hurried breathing, the alæ of the nose dilating with each inspiration; scarcely any cough at all, and then no expectoration; constipation, for which he had already taken some doses of medicine; no tenderness in the iliac fossæ, no gurgling, and no spots. A most marked symptom was extreme congestion of a dark livid blue colour, of all the distant parts of the body, especially the ears, cheeks, and nails; percussion showed some limited areas of dulness on the left side, especially in the infra-axillary region, and also slightly behind; in the former spot some rather fine bubbling was to be heard, and in the latter some medium-sized crackling. In front the resonance was tolerably normal throughout, and air was heard entering the lungs freely in every part.

Ordered beef tea, with milk *ad libitum*, and to take the following mixture.

℞ : Potassæ Chloratis ʒ ii.
Acid: Hydrochloric ʒ i.
Infus: Cinchonæ ℥ xii.

Sig. Two tablespoonfuls three times a day.

17th June.—Condition scarcely altered since yesterday; very slight cough with a few adherent sputa without blood. Constipation persists; evidences of congestion even more marked; considerable thirst; tongue slightly coated; bubbling râles as before, and a few are heard in the other lung in front. Pulse 114; temperature 102; respirations 28 per minute.

Ordered to continue beef tea and milk, and give 2 oz. brandy in the day, also sinapisms to the chest, night and morning; omit former mixture, and take

℞ : Ammon Carbon ʒ i.
Extract: Senegæ fluid ʒ vi.
Pulv. Camphoræ ʒ i gr. xii.
Aquæ ℥ vi.

Sig. One tablespoonful every four hours.

18th June. Very weak; some slight bloody viscid expectoration; scarcely any change in the lung sounds; profuse perspiration almost constantly, and considerable thirst; some tendency to irritability of stomach; his only complaint is still *weakness* and *shortness of breath.*

Ordered, in addition to the foregoing, to take ℞ mist: spiritus vini

gallici ℥ viii. in the day, and to have a turpentine and castor oil enema. Also ocasionally some aq: calcis with milk. Pulse 124; temperature 106; respirations 34.

19th June. Still weaker; injection acted freely with relief; an eruption has appeared over the right iliac fossa and lower part of that side; the spots are small, clearly defined and rather dark; about half of them disappear upon pressure, but the remainder are persistent. To-day, in addition to the indistinct small crackling, heard before at different parts of the lungs, there is distinct dulness at the upper part of the right side under the clavicle, and over this region there is well marked pneumonic fine crepitation; the percussion in other parts is less resonant than normal, but nowhere is there decided dulness. Pulse 125; temperature 104; respirations 38.

20th June. Symptoms scarcely altered from yesterday, except that the deep congestion of the ears and nails has become, if possible, more intense, and the expression of the countenance is anxious in the extreme, and the alæ dilate widely with the hurried respiration. His mind remains perfectly clear, and he is inclined even yet to be hopeful. Pulse 130; temperature 103; respirations 56.

Ordered to repeat the injection and continue former treatment, with the addition of champagne to be given freely.

He died on the morning of the 21st June.

Autopsy.—Eight hours after death. The rash which appeared on the 19th is still present, showing most of the spots to have been true ecchymoses. *The lungs* enlarged somewhat, and congested; the pleuræ were both studded with numerous small miliary tubercles; on section the lungs were found *filled to repletion* with the same form of tubercle. In a few parts, especially the upper part of the right lung, the adventitious material had broken down and left small vomicæ, none, however, larger than a marrowfat pea; no pneumonic consolidation existed in any part; both lungs floated freely on water. Small crude tubercles also found in the pericardium, the capsule and substance of the liver, in the capsule of the spleen, on the surface of both kidneys and also in their structure. The *brain* was not examined. No disease was found to exist in any part of the intestinal tract.

Four Cases of the Larvæ of an Insect found in the Flesh of Children.

By Alexander Bethune, M.D., Glanford, Ontario.

Although there are several cases on record of the larvæ of flies being found in the cavities of the human body, yet, I believe, there are very few

where the larvæ of other insects have been found in healthy flesh, without any abrasion of the cuticle.

During the last five years I have seen four such cases, and I thought that a short report of them might be interesting to the readers of your valuable journal, and at the same time some information might be obtained with regard to the frequency and cause of such cases.

Case 1. George S——, a fine healthy child, aged nine months, was affected with a swelling in the neck, for which I was requested to see him. I visited him on the 9th of September, 1863, and found him in a very irritable state; the neck was greatly swollen in front and on the right side, and there were four small abscesses which seemed as if they had just burst, but the openings were not large enough to allow the matter to exude freely; the father of the child, called them pipes out of which no matter would run. The little patient seemed to be in great pain, and kept constantly screaming and tearing at his neck with his fingers. As there was a cone which obstructed the opening in the largest abscess, I seized it with a pair of small forceps and extracted it; immediately after doing so, a worm popped its head out of the opening, but withdrew it again at once. A mass of living worms could then be seen quite distinctly, in the cavity of the abscess. I tried to extract some of them with the forceps, but as the opening was too small to allow the instrument to enter, I could not succeed. I then injected a mixture of chloroform and warm water into the cavity, and the worms came popping out, one by one, until the abscess was entirely emptied. There were twelve came out of that one abscess, or cyst—the largest of these measured over three quarters of an inch in length, and the smallest about a quarter of an inch; they were flat and jointed, with black heads, and crawled about over the floor quite fast. On looking into the cavity after it was empty a portion of the sterno cleido mastoid muscle could be distinctly seen, and a piece of its anterior border was eaten away, to the extent of half an inch. The other three abscesses were treated in the same manner as the first one, and out of them there came nine worms, that made twenty-one in all. I tried to preserve some of them, to see what they would turn to, by feeding them with fresh meat, in a box, but they all died in a few days.

On enquiry into the history of this case I learned that the elder children had been in the habit of taking the baby out on the grass, and allowing it to play with them under the trees in the orchard. While playing there about a week before, they were annoyed by several large flies —hornets they called them—which attempted to sting them, and as the child screamed violently several times, they thought he must have been

stung by these insects. On the 5th the first signs of soreness appeared, and the neck soon swelled, the child also seemed very feverish, and the abscess came rapidly to a head and terminated in the manner I have described. There were no bad symptoms followed the extraction of the worms; the swelling soon subsided, and in a few days the child was as well as ever.

Case 2. On the 20th of September, 1863, I was called to see Sarah T——, a child aged sixteen months, who was suffering, as her father said, from boils in the feet and legs. On visiting her I found the feet much swollen, and covered with a number of small pimples which seemed to be very painful. I gave her a slight aperient, and ordered poultices of bread and milk to be frequently applied, also to shower the feet well with warm water every time the poultices were changed. Two days after, the child's father came to me in a great hurry, and requested me to visit her again, as there were lots of worms coming out of the sores on the feet. When I arrived the child was sitting with her feet in a pail of warm water, and several small worms were floating on the surface. On taking her feet out of the water a number of them came out of the pimples, and crawled about over her legs and on the floor. They appeared to be much the same as those described in the preceding case, only they were not nearly as large.

On enquiring into the history of the case, I was told that the mother was in the habit of allowing the child to stand by her side, with her bare feet, while she was sewing under the shade of some fruit trees in front of the house, and that she supposed the child's feet had been poisoned by some of the weeds. The little girl soon recovered, without any bad symptoms.

Case 3. I had almost forgotten the preceding cases when the next one occurred, and if it had not been for the notes I took at the time, it would now have been almost impossible for me to report them so fully. James S——, a stout healthy child, five months old, broke out over the face and neck, on the 4th July, 1868, with an eruption of small pimples accompanied with a high fever; the eruption made him very irritable, and he kept screaming and scratching most of the time. I saw him on the 7th, and was told that they had applied a large piece of fat fresh pork over the parts, to see if that would not ease the child a little, and that after the application of the pork, a number of small worms were found on the head and shoulders of the child. They had put some of them into a bottle, and kept them until my arrival. When the pork was removed, quite a lot of worms could be seen coming out of the pimples, but I did not observe more than one in each, although some of the empty cysts seemed as if they had contained more. I counted

twenty-three of these worms; they were about half an inch in length, with black heads, and crawled about quite fast for their size. In appearance they resembled those already described, and I have no doubt they were of the same species. A solution of sodæ hyposulphite, 3 ii to the pint, was frequently applied, and in a few days the child was well. The history of this case was much the same as the first one I have reported: the elder children had taken the little one out under the shade of the trees in the orchard, and had rolled about on the grass a good deal, but they had no idea that any insect had stung him.

Case 4. Ellen M——, a child two months old, was attacked with an eruption in her feet, chiefly on the soles, on the 8th of July, 1868, and as I was passing her father's house on the 10th, he called me in to see her. He said that several small worms had been coming out of her flesh, and he was very much alarmed about it. The child's mother said she had found some on her body when she was washing her in the morning, and afterwards she saw some coming out of the pimples in her feet. On examining the feet, several small watery pimples were seen, and on opening them a worm was found in each. I took out several of them, and they appeared to be similar to those I have already described, but they were much smaller, the largest of them would scarcely measure a quarter of an inch, as they did not seem to have arrived at maturity. The mother told me that she had been in the habit of sitting on some boards outside, with the child, but that she had never laid it down or sat on the grass, while she had the child in her lap. I asked her to shew me the boards where she had been sitting, and I found that they were near some fruit trees, and also that there was a good deal of long grass around the boards in which the child's feet must have dangled when she held it on her knee. This child also recovered without any bad symptoms.

What these larvæ were I do not pretend to say; but as they all occurred in young children who had been allowed to come in contact with the grass, under or near fruit trees, and as the worms had all the same appearance, I am inclined to think that these children must have been stung by the same species of insect, and that as these worms were very much like those we find in apples and other fruit, that perhaps they were produced by the same cause. However, I can scarcely think that human flesh would be suitable for the production of the same species of larvæ. In the "Cyclopedia of Practical Medicine" there are several cases reported, where the larvæ of flies were found in the ears, nostrils, &c. "Worms resembling the lumbricus teres, but more of a white colour, have been seen, according to Lister, coming from an abscess in the ankle." M. Bosse, in the thirty-second volume of the "Journal de

Medicine," gives a description of the larvæ of flies found in pustales in the skin of a negress. Such seem also to have been the *eleophagi* of the old writers, or worms found in wounds, and supposed to feed on flesh.

Glanford, Ontario, August 4th, 1865.

Case of Depressed Fracture of the Cranium—Recovery. By JOHN REDDY, M.D., L.R.C.S.I., &c., Attending Physician Montreal General Hospital. Reported by T. G. RODDICK, M.D., House Apothecary.

Neil Easton, *æt.* 32, was brought to the Montreal General Hospital on the morning of July 24th, having been found in a state of insensibility on the track of the Grand Trunk Railway near Caughnawaga. He was admitted under care of Dr. Reddy, attending Physician, his condition being as follows:—

A scalp wound extended from an inch above the inner angle of the left orbit obliquely across the forehead and right frontal eminence to the extent of five inches in length. A depressed fracture half an inch in breadth, or in which the little finger could be comfortably laid, was found to traverse about two-thirds of this distance, the depth of the depression being, as nearly as could be estimated, between a quarter and three-eighths of an inch. The edges were nearly perpendicular, and but slightly jagged. In addition, there were two scalp wounds between two and three inches in length, crossing the sagittal suture obliquely in opposite directions. The eyebrows and lids were very much ecchymosed, but otherwise no external injury present. There were signs of cerebral irritation, as indicated by great restlessness and desire to leave his bed. Sensation was acute and motion perfect, showing the absence of paralysis, which might have been looked for in such an injury. The face bore its natural colour, and the body and extremities were of the normal temperature. The pulse was full in volume, normal in rythm, but slow, there being only sixty beats to the minute. The breathing was tranquil; the pupils of natural size and easily affected with light. When questioned he would answer abruptly, and many of his statements were contradictory. At times he was slightly delirious.

TREATMENT.—The head was shaved—adhesive plaster used to the smaller wounds and water dressing to the fracture—the whole being covered with an ice bag. The bowels were ordered to be left undisturbed, and perfect rest enjoined. He was put on milk diet and beef tea.

July 25th. The pulse this morning has fallen to forty-eight, and is labouring though full. He appears totally unconscious, and when roused

makes an attempt at articulation, but again lapses into the former insensible condition. The delirium is somewhat worse, and he is very restless. No deviation from the normal size is noticeable in the pupils, and they act well to light. The extremities are cold, but the head and trunk are more than normally warm. Hot applications are ordered to the feet, but otherwise no change made in the treatment.

This evening, the pulse has fallen four degrees, but otherwise no change. Dr. Reddy is of opinion that no operative measures should be at present undertaken, and a consultation bears him out.

26th. To-day the pulse is at forty, and very labouring; breathing slow but tranquil; pupils as before; extremities still very cold; insensibility profound. It is again thought advisable to await further developments. The treatment to remain unaltered.

27th. Pulse thirty-six, still more labouring than yesterday, but the normal rythm remaining; pupils unchanged; very cold extremities; state of respiration not so favourable, being slightly irregular and sighing. A consultation again decided on non-interference for the present.

28th. This morning at seven o'clock, the pulse was found to have risen three beats in the minute, being now thirty-nine. He appears more conscious, but still wandering at times. The pupils continue normal, and contract readily. His condition is altogether better than when noted yesterday, and the same treatment is ordered to be continued. The wounds in the meantime have continued to mend, the larger one at the site of fracture looking healthy and inclined to granulate.

This evening his condition is still more favourable, the pulse having increased four beats since last noted, and not nearly so labouring. He is easily aroused, and when questioned as to his feelings answers rationally, and shows no sign of delirium.

29th. To-day he feels remarkably well, suffers no pain in the head, and converses naturally and with spirit. He is ordered to remain perfectly quiet, and continue cold to the head.

31st. He is improving very rapidly, the pulse to-day being fifty-eight. The smaller wounds are closing fast, while the large one is covered with fine healthy granulations. Having complained of a constipation a dose of castor oil is ordered.

August 1st. At the visit to-day, he is found sitting up and looking exceedingly well and cheerful. He feels no pain in the head, and the wounds are progressing rapidly towards a cure. The pulse is sixty-five.

3rd. The pulse to-day is seventy-four and good. He says he never felt better. The smaller wounds are nearly quite healed, while the other looks very healthy.

7th. Since last noted his condition has continued to improve rapidly. He has a good appetite and converses cheerfully. It is noticed that the right eye-lid droops considerably, no doubt from the division of the fibres of the occipito-frontalis. His pulse has ranged between eighty and eighty-five for the past four days.

12th. Left the hospital this morning with the smaller wounds quite healed, and the large one filled with fine healthy granulations. He is recorded *cured*.

It may be remarked that from the moment he began to mend his recovery was singularly rapid. He could give no definite account of how the accident occurred. Beyond the dose of castor oil on the 29th, no internal treatment was deemed necessary.

Method of Treating Fractures of the Olecranon Process, and Head of the Humerus. By E. A. CLARK, M.D., Resident Physician, St. Louis City Hospital.

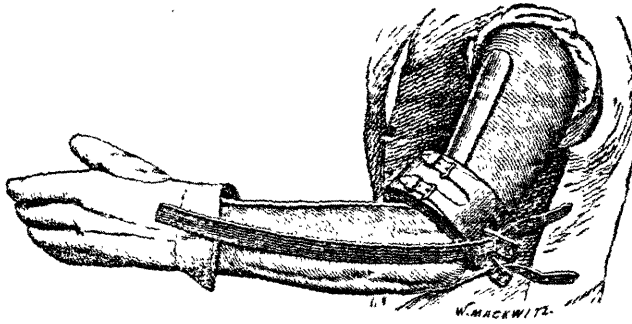
[Through the kindness of Dr. Whitehill, editor of the *Medical Archives*, of St. Louis, we are enabled to submit to our readers the following paper from the pen of Dr. Clark, with the accompanying illustrations. The paper was first published in the *Archives*.—EDS.]

FRACTURES OF THE OLECRANON.

I have found all the ordinary appliances in use for treating fractures of the olecranon so deficient in meeting the indications required, that I have been induced to devise the apparatus represented in the following woodcut, which is sufficiently simple to require but little description.

Fractures of the olecranon, as they usually occur towards the middle or base of the process, are generally attended with such a degree of displacement—especially in muscular subjects—that the ordinary method of applying narrow strips of cotton or cloth around the arm—both above and below the elbow—and approximating them by means of lateral strips, as recommended by Sir Astley Cooper and Amesbury, with the view of drawing down the upper fragment in apposition with the head of the ulna, and thus securing the condition most favourable for bony union, will necessarily require these bands to be so tight around the arms, at both points, as to arrest the circulation. This danger will be the more imminent in cases where there is much contusion and swelling of the soft parts, which, as might be expected, from the very nature of the violence or force required to produce this fracture, is almost always the case. The

method of treatment recommended by these gentlemen is also objectionable, in that they direct that the arm be kept in the straight position.



The apparatus above represented consists of a band of ordinary sole leather about two inches in width, and of sufficient length to surround the arm, lined with cloth or chamois, and well padded with cotton or hair. In order to give the band additional firmness, and also to secure it around the arm, a strip of common harness-leather is stitched upon the outside, to one end of which two small buckles are attached, while the other end, which extends about three inches beyond the band, is split or cut into two straps to correspond with, and fasten into the buckles. The band is fastened around the arm above the fractural process, and may be drawn to any degree of tightness necessary to bring the broken fragment down when traction is made upon it.

The same band may be used on either arm, and may be adapted to an arm of any size. On the outer side of this band, and one inch apart—one on each side of the olecranon—are two buckles or staples, which should be two inches in length, and three-fourths of an inch in width, and clinched on the inside of the leather band, from which they project at a right angle. These buckles or staples also have three bars across them, with two tongues made to turn either way.

In applying this apparatus the arm should be flexed at an angle of 45 degrees, and a common pasteboard splint bent at that angle placed upon its anterior surface. The leather band is then buckled over this splint, just above the fragment of the olecranon, and the entire fore-arm is covered with a bandage to hold the anterior splint firm to the arm, and thus prevent any movement of the elbow-joint, which, if allowed, would be constantly modifying the force exerted upon the fracture. A common buckskin glove is then placed upon the hand, to the anterior and posterior surfaces of which are attached two leather straps, which are to be buckled into staples on the band. By buckling these straps over the bars at a

greater or less distance from the band, and tightening them as required, we obtain the necessary amount of leverage to turn the lower edge of the band in upon the arm, and push the fractured process down before it.

By making traction upon these straps any degree of force may be exerted upon the band, necessary to draw the broken fragment down and hold it in perfect apposition with the head of the ulna.

It may be objected to this method of treatment, that the arm is held in a flexed position, thus increasing the space between the two fragments. But the advantage of this position is apparent for two reasons:

First, by flexing the arm to this extent the point of the olecranon is made more prominent, and, consequently, the band more surely adjusted, so as not to slip over it; while, again, the force exerted upon the band by the straps, directed at an angle of forty-five degrees from the axis of the humerus, renders the pressure still more secure above the point of the olecranon and prevents the possibility of it slipping back beneath the band.

The second reason for fixing the arm in this position is to relax the brachialis anticus muscle, the action of which, in cases where the fracture occurs low down, near the base of the olecranon, and especially in a muscular subject, when the arm is held in a perfectly straight position, evidently draws the head of the ulna forward, so that a portion of its fractured surface is in direct apposition with the articular surface of the lower end of the humerus; while if the detached fragment of the olecranon be forced down to its proper position it would not be in complete apposition with the upper end of the ulna, but would leave a triangular space in the articulation to be filled up by callous, and thus produce more or less complete anchylosis of the joint.

This apparatus when applied as described, is in no way painful to the patient, the band being padded in the inside, and the pressure exerted by it on the anterior surface of the arm bearing upon the pasteboard splint; the only other pressure exercised is directly upon the the olecranon, and that upon such a broad surface that sloughing need not occur in any case.

I have treated but one case with this apparatus, and with the following result:

A labouring man, aged 32 years, was admitted to hospital five days after receiving a fracture of the olecranon near its base. At the time of his admission he had an abscess as large as a hen's egg immediately over the point of the olecranon, resulting from a contusion received when the bone was fractured. The abscess was opened before the dressing was applied, and, notwithstanding all the repssure required, to hold the bones

in apposition, was made upon the point over the abscess, it healed quite readily, and in seven weeks the apparatus was removed, leaving firm, bony union in the fracture, without the least deformity or displacement; and now—three weeks since—the patient has recovered almost perfect use of his arm.

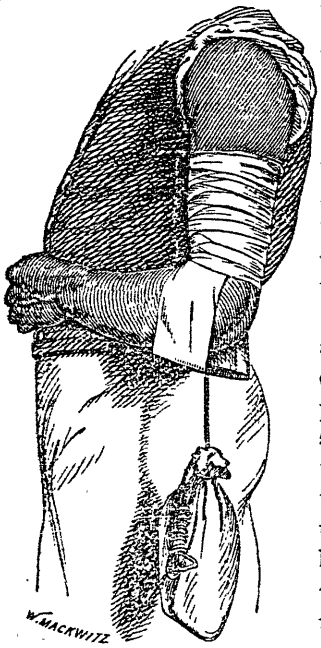
No passive motion of the joint was allowed at any period of the treatment.

FRACTURES OF THE HEAD OF THE HUMERUS.

Every surgeon who has had much experience in treating fractures about the head of the humerus can testify to the great difficulty of maintaining the fragments in apposition, even with the most ingenious appliances, amongst which those of Desault, Sir A. Cooper, Fergusson, Erichsen, Welch, Richerard and Dupuytren are most generally used. The very fact that the means of treating these fractures have been changed and modified by so many distinguished surgeons, is sufficient evidence of the difficulties to be encountered in adapting any apparatus to correct the deformity most usually found to exist in these injuries.

In speaking of fractures of the head of the humerus, I refer only to that portion of the bone above the attachment of the latissimus dorsi and pectoralis major muscles. This would embrace—external to the capsular ligament—the tubercles and surgical neck, in the latter of which fractures most frequently occur from direct violence; yet fractures not unfrequently occur through the tubercles from the same cause, and in both cases, there is always more or less displacement, where the fracture is complete and not impacted. Fractures of the anatomical neck are not so often attended with displacement, or shortening, but even here it is not uncommon from the great violence required to produce the fracture, to find the capsular ligament ruptured and one or both fragments displaced. In all cases of fracture occurring outside of the capsule, where there is no impaction, there must be more or less displacement of the upper fragment from the contraction of the muscles attached about the tubercles. It is on this account that none of the appliances in ordinary use, such as pads in the axilla, and cap splints over the point of the shoulder, can be made effectual in maintaining the bones in apposition; because it is impossible to place any kind of compress in the axilla, that can be brought to bear upon the upper fragment, without producing an amount of pressure on the axillary vessels intolerable to the patient, while it would be a rare and peculiar fracture that could be kept in apposition, where the upper fragment and muscles attached to it were allowed to go unrestrained, even though the shaft of the humerus might be maintained in its proper axis by the use of a pad in the axilla.

Where there is shortening of the limb, as is almost invariably the case in fractures at the surgical neck, none of these appliances could have the least influence in correcting such deformity, further than that the pressure from the bandages might control the contraction of the muscles.



In fracture of the anatomical neck with laceration of the capsular ligament attended with displacement, the pad in the axilla would be likely to increase the deformity, and it certainly could in no wise correct it.

The accompanying woodcut represents a method I have employed which is not open to the above objections. The appliance consists merely of two strips of adhesive plaster about three inches in width, applied to the internal and external surface of the arm as high as the upper part of the middle third of the humerus. These strips are bound to the arm by a roller bandage, and at their lower end, beneath the point of the elbow, are attached to a cord, to which a sandbag is attached, weighing, ordinarily, from three to four pounds.

This sand bag, as represented in the diagram, is attached close to the point of the elbow when the patient wishes to walk about, by knotting the cord by which it is suspended, and when he lies in bed, the knot in the cord, as seen in the cut, is loosed, and the cord carried beneath the bed clothing over a small pulley placed at the foot of the bed, and in this way an equal extension is constantly kept up, whether the patient be confined to his bed or is able and prefers to walk about.

When using this apparatus for treating these fractures, I apply no other dressing, and entirely ignore the compress in the axilla, as useless if not positively injurious. The constant traction upon the muscles soon exhausts their tonicity, so that they allow the bones to fall into their natural position, while the extension being constantly in the line of the axis of the humerus, it is quite impossible that any displacement should continue, either laterally or of an angular character, or that any shortening should result.

I have, as yet, treated but one case of fracture of the surgical neck of the humerus by this method.

The patient was a stout muscular man, aged 33 years, who had fallen some twelve feet, striking the point of the shoulder upon the ground, causing considerable contusion of the soft parts besides the fracture, which was considerably displaced, by the lower fragment projecting outward; there was also shortening to the extent of three-fourths of an inch. The patient complained of constant and severe pain at the point of fracture until the third day, when the above apparatus was applied, with the effect of relieving the pain almost instantly. At the end of seven weeks the dressing was removed and the union in the fracture found to be firm, without any displacement or shortening, and in ten days after, the patient was discharged from the hospital with perfect use of his arm.

REVIEWS AND NOTICES OF BOOKS.

The Indigestions; or Diseases of the Digestive Organs functionally treated. By THOMAS KING CHAMBERS, Honorary Physician to H. R. H. the Prince of Wales, Consulting Physician and Lecturer on the Practice of Medicine at St. Mary's Hospital, &c., &c. Second American, from the Second and Revised London Edition. 8vo., pp. 319. Philadelphia: Henry C. Lea, 1868. Montreal: Dawson Bros.

In the year 1856 Dr. Chambers published a volume on the subject of dyspepsia, which was, at the time, well received. It has been long out of print, as no second edition appeared. The present volume is not a reproduction with a new face, but it in verity a new work. This, the second edition, comes to us considerably enlarged from that which appeared two years since, the author has added much material, chiefly in the form of cases, taken from his note-book or from the records of St. Mary's Hospital. These cases and the accompanying observations are linked together, so that the reader becomes deeply interested as he goes on. They are given much after the fashion of familiar clinical observations, and are highly practical in their bearing. There is an absence of unfathomable theory, which is occasionally so oppressive to the reader. The author describes the method he adopted in heaping up his store of information.

"So pleasant has been the holiday task thus

> '.....to the sessions of sweet silent thought
> To summon up remembrance of things past.'

that I am fain to dwell upon it, and to try to lead others towards the same source of enjoyment by describing the way in which my store has been heaped up. For it is needless to say I did not lean on my memory alone, or the number of trustworthy histories would have been few indeed.

"The cases of those who are named as inmates of St. Mary's Hospital in the following pages are copied mainly from the diary kept by the clinical clerks. I have been always used to make this a chief source of teaching. The clerk was instructed to take notes with the sick person before him, and in his own words; and when he read them out at my visit, I added my observations, sometimes in the hospital case books, sometimes in my own. These formed the groundwork on which to build my clinical lectures for the current week. They are irregular in wording, but preserve a fair record of the disease.

"The details of private practice have been kept in a shorter and more mechanical way. I make it a rule, to which exceptions need be very few, to write all prescriptions and papers of advice in a copying-book, which makes a duplicate of them by means of transfer paper; and at the back of this transcript I write, usually with the patient before me, his history, at least so far as to explain my reasons for the advice, before I go on to the next page. The periodical indexing of these sheets is an easy job for an hour of weariness; and the whole time consumed is so crumbled up that it is never missed, and neither business nor amusement feels itself robbed.

"Some people tell me they can make their notes of the day's work more fully and scientifically when it is over, and they are quiet in their study. I do not like the plan so well. For one thing it interferes with the relaxation needed to keep the mind healthy and broad. That time belongs to rest—*datur hora quieti*—and should not be wasted on labour. An instinctive feeling of the truth of this causes a duty which is put off to such an opportunity to be put off often still further, often altogether. Again, unless an immediate note be made, the new and the strange in the day's experience are stamped in the mind deeper than the commonplace, and so they are apt to take up more than their fair share of room in the diary; while personal friendships, the social standing of the patient, and other considerations will sometimes blot out, sometimes unduly brighten our recollections of the case."

The work consists of nine chapters. The first is devoted to a general introduction in which the author's chief object has been to shew the importance of a skilful management of the digestive organs in disease;

not alone in disease affecting the digestive apparatus, but in all attacks of departure from health.

"Let us not be deceived by the expression 'merely symptomatic' sometimes applied to the derangements of digestion where organic changes exist. All parts and functions of the body are so knit together in one to form the great circle of life, that their comparative value to individual existence is more a question of time than of power. The failure of any one shortens the days more or less, and the immediate cause of death is as often a mere symptom as an organic change. It is also a serious consideration that in respect of the patient in chronic pathological states this is in reality often the whole duty of the medical adviser. Often, on stating in consultation an opinion that some viscus is chronically degenerated, one is met by the remark, 'Well, what is to be done?—we cannot cure that.' Very likely not; then let us try and find something else which we can cure. In the great majority of patients this curable something may be found in functional impediments to the entrance of nutriment into the medium of assimilation; and when once nutriment can be got in, a cure is begun. Do not, therefore, let us indulge despair even after it has become certain that the principal viscus which gives a name to the disease is past remedies, and though little can be prescribed for the part mainly affected. It is seldom too late to try and administer to the failing organ the most potent of all remedies, the human blood of the patient himself, made healthy by the means adopted, and flowing in continuously by its natural channels."

This is practically a great truth, and it will be found that there are few diseases which will resist the supply of good healthy blood; at any rate we place our patient in the best possible condition for throwing off disease, and the power of nature will be found of greater and more lasting benefit than that of drugs.

The second chapter is on "Indigestion" of various foods.

The third chapter contains a description of the habits of social life, leading to indigestion, such as eating too little or too much, sedentary habits, tight-lacing, compression of the epigastrium by shoemakers and other craftsmen, sexual excesses, solitude, abuse of purgatives, abuse of alcohol, tobacco, tea, and opium. These are severally considered under separate sections, and each illustrated by appropriate cases.

Chapter iv. is on abdominal pains. In this are considered, heartburn, waterbrash, spasms, gripes, a sense of weight, soreness on pressure, and anomalous pains. Chapter v. is on vomiting. The author commences this chapter with a few introductery remarks on the physiology of the process, after which he proceeds to discuss the various substances

vomited, and the indications in each case. The concluding chapters are on flatulence, diarrhœa, constipation and costiveness, and also the nerve disorders connected with indigestion, these latter consist of headache and hemicrania, vertigo, loss of the control over the thoughts, epilepsy, chorea, cough, anæsthesia and paralysis, atrophy of the muscles, flushing of the face, and nettle rash.

The author has also prepared an analysis of the cases (some two hundred and sixty in number) which are embodied in work, which will be found very useful for ready reference. It is a work which we can heartily recommend to our readers. The type is clear and paper good; in fact it is most creditably got up by the publisher, Henry C. Lea. To be had of Dawson Bros., Great St. James Street.

On Diseases of the Skin: a system of Cutaneous Medicine. By ERASMUS WILSON, F.R.S. Seventh American, from the Sixth and Revised English Edition, with twenty plates and illustrations on wood. Royal 8vo. pp. 808. Philadelphia: Henry C. Lea. Montreal: Dawson Bros.

We have received a copy of this work from the publisher; in acknowledging it we must say that he has given to the American medical world a reprint in everyway worthy of a first class publishing house.

We notice that the plates prepared by Mr. Wilson in illustration of the subject of syphilis and syphilitic eruptions have been embodied in this edition; of these latter we can only speak in terms of high commendation. They are lithographs done by T. Sinclair, of Philadelphia, in the highest style of that art. With regard to the writings of Mr. Erasmus Wilson, they are too well known to the profession to call for commendation from us. The skin, as an organ of the body, must be regarded as possessing an influence second to none in the whole economy. When we consider its extent of surface, and the important function it performs as a blood depurator, it necessarily follows that any departure from a healthy standard, either in part or in whole, of this important organ must be attended by the most serious consequences. This, then, is one great argument in favour of the careful study of dermatology. We can heartily recommend this edition to our readers, as the plates that have been added increase the value of the work. It is to be had of Dawson Brothers.

PERISCOPIC DEPARTMENT.

Medicine.

CARBOLIC ACID AS A REMEDIAL AGENT.

By W. Kempster, M.D., Utica, N. Y.

It is not my intention, however, to speak particularly of it as a disinfectant, but rather to offer a few suggestions concerning its use as a therapeutic agent.

Pure carbolic acid is a white crystalline substance, the particles adhering with considerable tenacity, and after standing for some time, especially if the bottle be frequently opened, becomes slightly deliquescent and more tightly packed together. The two varieties of crystallized acid more generally found in the American market are prepared by Merck, of Darmstadt, and Calvert, of Manchester, England. Merck's preparation has a slight reddish tinge. Calvert's is quite white, having the appearance of snow which has been soaked in water. Merck's contains about 98 per cent. of pure acid, and is slightly more deliquescent than Calvert's, which is pure. Merck's, however, is sufficiently pure for all practical purposes, and is furnished at a lower price.

The first application of this agent, under my own observation, occurred in a case of catarrh, where the discharge was profuse, offensive, and consequently very annoying to the patient. Various remedies had been previously tried, without success. Hoping to derive advantage from its properties as a disinfectant, it was administered to the patient by inhalation, using one grain to an ounce of water, and conveying the liquid to the affected parts by means of a steam spray-producer. The effect surpassed my most sanguine expectation. It not only relieved the fetor, but in the course of two or three inhalations changed the character of the discharge, and the patient recovered rapidly.

This induced a trial in a second case, not so serious as the first, but still severe, and the result was equally satisfactory, the symptoms all disappearing in the course of four weeks. After the first few inhalations, the patients were instructed in the use of the spray-producing apparatus, furnished with a bottle of the solution (one grain to the ounce), and directed to inhale the vapour for ten minutes at a time, both morning and evening, enjoining upon them not to leave a warm atmosphere for half an hour after each inhalation.

It is used at the present time in the treatment of ozæna, nasal polypi, and diseases of the nasal passages in which there is an offensive discharge.

Even if it exerted no curative action, its power to correct fetor would be a great recommendation; but this is not all, it stimulates the ulcerated surface to a healthy action, promotes normal granulation and thus assists in the curative process. This remedy is also employed by some of the physicians who are engaged in the special treatment of throat and lung diseases, particularly French practitioners, who direct that it should be inhaled in combination with other appropriate remedies. They speak highly of its efficacy in case of ulcerated sore throat, chronic bronchitis, and that morbid condition of the mucous surfaces of the air passages which gives rise to a constant expectoration of a muco-purulent material. If a solution of one grain of the acid to an ounce of water does not seem to meet the indication, the quantity may be increased to five grains, or even more, but it is better to begin with a mild solution, gradually increasing the strength until the desired effect is obtained.

My next use of the acid was in a case of scarlatina, where the breath was particularly obnoxious, owing to an ulcerated condition of the throat. A gargle of two grains of the acid to an ounce of water relieved the fetor at once, and apparently proved beneficial. No other gargle or application to the throat was used.

It would seem to be appropriate in cases of diphtheria, a strong solution of the acid being used for a local medicament; its power to correct the foul breath would be an indication for its use, and its stringent and stimulating properties might prove beneficial. In cases of common sore throat (simple tonsillitis) it is found to answer admirably, with the advantage over the ordinary potassa gargles of relieving the "bad taste" and foul breath.

In the State Lunatic Asylum at Utica, it is successfully used to relieve cases of sluggishness of the bowels, accompanied by offensive breath. The dose is a drachm of a solution of one grain to the ounce (which is the house standard). A striking exemplification of the efficacy of this remedy occurred in the case of a melancholic patient admitted to this asylum. He had for a number of years suffered from attacks of dyspepsia, accompanied with acid eructations and the formation of gas. Latterly these symptoms became continuous. He complained of intense heat, and pain in the stomach; stated that the eructation of fetid gas had become unbearable; and the same smell emanated from the cutaneous surface, so that it was offensive to every one in the room. He was at once put into a warm bath, then thoroughly washed with a solution of the acid (gr. v to the ounce). Internally two drachms of the standard solution were given three times daily for two days. At the end of this time the breath was sweet, and no unpleasant exhalation from the skin

was perceptible. He was also relieved from the painful distention produced by the formation of gas in the stomach and bowels. Whenever he feels the approach of this difficulty, two or three doses of the house preparation relieve him at once from this unpleasant and painful complication.

Yeasty stomach, sometimes consequent upon a meal of rich food, which produces flatulence and expulsion of gas, with a tendency to regurgitation, is usually relieved by a drachm or two of the solution above mentioned; this checks the fermentative process. The power it possesses to arrest fermentation would be an indication for its employment in sarcina, but the opportunity has not offered for me to test this. Diarrhœa produced by eating unripe fruit or other articles which promote fermentation is speedily relieved by combining a drachm or two of the solution with the usual remedies. As a dentifrice, commingled with myrrh or some aromatic, it removes the odour arising from carious teeth.

As a remedial agent in certain forms of skin disease it seems to possess decided advantages. A patient applied for something to relieve a disordered condition of the scalp, which had existed for some time. It proved to be a well-marked case of Tinea capitis in an advanced stage. The crusts had cracked open, with a straight smooth fracture, presenting a shining floor, looking as though the scalp had opened and exposed the cranial bones. There were several of these cracks, measuring from a half inch to two inches in length, the principal ones occupying a position over the region of the anterior fontanelle, and extending several inches in each direction. Other crusts had formed over the temporal and occipital regions. In order that the acid might be effectually tried, the hair was cut short, and the entire scalp washed with a solution of the acid (two grains to the ounce) four times daily. The subsidence of the disease was marked; those crusts in process of formation were checked, and the dry grayish crusts already formed, with those cracked open, were speedily removed. After the wash had been continued for one week, a glycerolate of carbolic acid (strength five grains to the ounce) was applied, which possesses the advantage of being a more permanent preparation. The treatment was commenced January 7th, and at the date of writing (January 28th) the disease has disappeared. No other treatment, either internal or local, was employed. One other case has been mentioned to me, which was even more severe than this, and in which various modes of treatment had been employed without arresting its progress. The treatment mentioned above was resorted to, with an immediate abatement of symptoms and rapid recovery. We have used the glycerolate mentioned in cases of Herpes circinatus, with entire satisfaction.

During the month of December, 1867, I was called to see a girl aged four years, who had been taken suddenly ill. The symptoms indicated scarlatina, and, as there were a number of cases in the neighbourhood, that diagnoiss was made. She was immediately put upon milk-punch and carbolic acid solution, the one-sixteenth of a grain three times daily. I also directed that her face should be washed in water containing a spoonful of the solution (one grain to the ounce) and that the mouth should be sponged out with the same—directing also the use of the commercial acid solution about the house as a disinfectant. At the end of four days the internal administration was discontinued; not because of any unpleasant symptoms, but its continuance did not appear necessary. The mouth-wash, of which the child swallowed a few drops, and all the other applications, were continued; the body being anointed with olive oil, tinctured with carbolic acid. From first to last no untoward symptom appeared; the fever subsided on the fifth day. The throat was not very sore; the tongue was relieved of the creamy coat after the third day; there was no offensive breath, and the child made a complete recovery. No other treatment was employed. A brother of this child, two years older, who had never contracted the disease, and who was with her constantly, had no symptoms of the disorder. His face was washed twice daily in the solution above mentioned.

The medical superintendent of this asylum, Dr. John P. Gray, informs me that in a family of six children, three were simultaneously attacked with scarlatina anginosa. They were put upon a course of treatment similar to the above, the house being thoroughly disinfected. They made a good recovery.

Dr. Gray has spoken to me of a case (sequel of scarlatina anginosa) in which there occurred a very fetid discharge of ichorous pus from the ears and nostrils of the patient. A mild solution of the acid (two grains to the ounce of water) was thrown into the nares and auditorius externus, with the effect of arresting the sanious discharge, and causing its disappearance.

Dr. Bissell states that he has used a solution of carbolic acid—strength two grains to the ounce, the dose being one drachm—as a vermifuge, and has not been disappointed with the remedy. The *oxyuris vermicularis* (pin worm) may be at once destroyed by using as an injection a drachm of the solution to four ounces of water.

Though it was not my intention to speak of this agent as a disinfectant, as it concerns the sick-room directly, yet some remarks may not be inappropriate. Nearly every practitioner has experienced the unpleasant odour emanating from the lying-in room. This may be entirely overcome

by the proper use of the solution of commercial acid—a half ounce of which put into a gallon of boiling water, makes a strong solution—all, indeed, that the water will take up—which if filtered to remove oily matters, may be thrown about the floor with impunity. Two table-spoonfuls at a time are sufficient to disinfect and deodorize a large room, and one half the quantity is generally sufficient. A few drops sprinkled upon the napkins, and applied to the genitalia externa, will remove the unpleasant, pungent odour which accompanies the lochial discharge, thus exempting the patient from a great source of discomfort. A small quantity of the solution put into the close stool before use, destroys the odour which would otherwise occur. Whenever it has been introduced with these objects in view, it has received the unqualified approval of those most interested.

Carbolic acid at once arrests the development of the lower forms of organic life. It stops the fermentation of yeast, kills microscopic infusoria and cheese mites. Nor does its influence end here. In order to test its destructive power over insect and animal life, I procured a cricket, smeared the inside of a wine-glass with the commercial carbolic acid, and inverted it over the cricket, leaving sufficient space at the bottom to allow a supply of air. Immediately after the glass was inverted, the cricket made violent attempts to escape, lasting two or three minutes. It then staggered about and fell over, had a few severe convulsions, and died. A cockroach was next tried, with the same result; it was from ten to fifteen minutes in the vapour.

A mouse was procured, and put into a wide-mouthed, four-quart bottle. A piece of sponge saturated with two drachms of commercial acid was lowered into the bottle and suspended about two inches from the bottom. Five minutes after the introduction of the sponge the mouse staggered as if intoxicated, the movements continuing for fifteen minutes, when a short respite occurred. These paroxysms were repeated several times during one hour and a half, then the animal became violently convulsed, the spasmodic action lasting thirty minutes, when it died. Upon examination it was found that the membranes covering the brain and spinal cord were injected, some of the vessels being very large. The lungs were of a light pink colour, many shades above that observed in the normal human lung: they were collapsed. The heart appeared large, and felt hard: upon opening the organ it was found distended with very dark clots, which bulged out as the incision was made.

A full-grown rat was next subjected to the vapour of carbolic acid; and its manifestations were more strongly marked in this than in the former experiments. The animal was a vicious one, exhibiting great

ferocity; but in less than one minute after the sponge containing the acid had been introduced, the animal appeared sleepy, and as if intoxicated. Twice the animal reared upon its haunches, as if it desired to climb, but had not the strength to do so; and after each attempt, it fell over upon its right side. At the end of forty-five minutes a tremor was observable over the entire body, and it ceased to notice sudden sounds; shortly after this it failed to perceive that it was being handled, and presented all the phenomena of profound anæsthesia. Convulsions followed the tremulousness, which continued to increase in violence until the animal's death, which occurred in one hour and forty-five minutes after the introduction of the sponge. The vessels in the pia mater were found congested, some of them being very much distended. The larger lobes of the brain (cerebrum) presented a greater number of bleeding points than is usually found; the smaller lobes (cerebellum) were highly congested—the vessels being considerably increased in size. The spinal cord appeared exsanguinated in all but the cervical region, which presented a uniform pink blush. The lungs were collapsed and several shades lighter in colour than usual. The heart was tense; and, on being opened, a clot bulged out which filled both left auricle and ventricle.

The same experiment has been performed twice since, the result being alike in each case: in the last instance the convulsions occurred at the end of eighteen minutes; they were more violent in character, and death occurred sooner (fifty minutes).

A peculiarity was noticed in connection with the convulsive movements of both insects and animals—which was, that the forward legs were first convulsed, the spasm ceasing to a great extent in them, as the posterior members became affected; and also that, as the spasm commenced, the animal fell over upon the right side.

GRESHAM LECTURE

Delivered by R. Symes Thomson, M. D., etc., in Easter Term.

On Sleep, etc.

A third part of our lives we spend in sleep, and are thus naturally too familiar with its phenomena to be surprised at its mysterious nature. During sleep the brain is almost bloodless; a gush of blood heralds the return of reason, while in dreaming a pink suffusion intermediate between the circulation of waking and sleeping is observed (Durham). This seems to indicate incidentally that true sleep is dreamless. Every idea which floats through the mind, every emotion, every exercise of reason or volition, is accompanied by definite nerve currents, or, in other words, by a

definite exertion of physical force. There is no reason to doubt, but every reason to believe, that this force is a correlative of the universal cosmical force. It is indeed probable that it is a vibratory or molecular force, similar in character to heat and electricity. It is possible that although the higher or spiritual element in our consciousness may remain as intangible and unknowable as it now appears, we may yet learn to trace its operations, to some extent at least, by studying the physical phenomena with which, in our present state of being, it is associated.

Mind is even more closely associated with force than it is with matter, and it is to the study of force that we should look for a measure of its workings. The whole available force in the body is undoubtedly derived from oxidation. This oxidation is mainly, if not entirely, effected in the blood, and it is therefore evident that a continuous flow of blood to the nerve centres is necessary as a source of power as well as for regeneration of the nerve tissues. The sympathetic nerve centres are supplied continuously with blood, and the force generated by these centres is, like the blood supply, continuous, so the operations they govern, whether of secretion or involuntary muscular action, go on without intermission, or rather without long periods of rest; for it must be borne in mind that the heart rests between each pulsation at least a quarter of the time. The respiratory muscles rest one-third of their time. In walking some muscles rest while others are in action. But there is no rest for the brain except in sleep. The cerebrum, if not the whole of the cephalic ganglia, receives a full supply of blood only during waking hours, and is therefore subject to frequent intermissions in the discharge of its functions.

It has been shown (Ranké) that the feeling of fatigue in voluntary muscles is due partly to the sensation of impotence, the store of force being exhausted; but chiefly to the accumulation of the products of disintegration in the tissues. It has been shown, too (Claude Bernard), that the direction and intensity of the flow of blood are greatly under nervous control, and it is probable that the condition we call sleep is induced by the operation of the nerves whose special business it is to control the flow of blood to the brain. The blood ceasing to flow freely to the brain, there is no store of force to draw upon; nerve currents can no longer be produced. If during this state a ray of light fall on the retina, no perception follows, for though it may produce an afferent current in the optic nerve, this current will not have sufficient intensity to stimulate into action the feeble force remaining in the sensorium; so it dies away without stimulating new nerve currents. The profoundness of sleep is probably proportionate to the amount of blood circulating in the brain, and it is probable the brain is never absolutely destitute of blood.

Hence, a powerful stimulus, as a loud sound or bright light, may nearly always stimulate into activity sufficient force to awaken reflex current, which shall draw more blood to the brain, and so produce the waking state.

Anæsthetics not only act upon and check oxidation in the blood, but arrest the blood supply to the brain by their action on the nerves which regulate it.

The enormous physical effects which may follow a very slight physical stimulus prove that the stimulus does not supply the force, but simply acts as a stimulus, like a spark on gunpowder.

It must not be thought, however, that there is no blood in the brain during sleep, for the vital fluid is just as essential for the nutritive work which is so actively done then as it is for the functional work of waking hours. When the circulation is "slowed" exosmosis, with nutrition of tissue, goes on most rapidly, while activity of circulation favours endosmosis of those products of oxidation which, if retained, would check further action.

We do not know the precise nature of the waste product produced by brain action (it is probably allied to the lactic acid developed by muscular work) but, as with muscles, burning tapers, and generators of electricity, unremoved products, interfere with further action. These products are formed in close brain work more rapidly than they can be removed; they check oxidation and functional activity, and thus tend, by calling for repose, to prevent exhaustion. The feeling of lassitude and drowsiness attendant on this state continues till the waste products are got rid of. To this end, healthy action of all the excreting organs is essential to clear intellect and happy activity of mind.

The lecturer having placed the foregoing physiological data before his audience in the simplest language, freed from all technicality and forensic verbage, showed that regular uninterrupted repose was essential to mental and physical heath; that the blood, whence all nerve force, as well as muscular force, is derived, must be suitably fed, and the excreting organs kept in good working order.

While it is true that the more active the mind, the greater the need of sleep, yet the sanguine and energetic in whom "the lamp of life burns strong and bright," whose nutritive processes are rapid and efficient, sleep deeply and quickly, gaining in four or five hours as much rest and recreation as the plethoric and phlegmatic, in whom "the light of intellect is dim," secure in nine or ten hours of disturbed slumber. If much work is to be done, the former state is to be aimed at; if "time to be killed," the latter.

Although habitual impressions, as the "morning gun" on shipboar do not rouse the sleeper, the cessation of habitual impressions rouses at once, as at the end of a sermon. The instance often recorded of the signal lieutenant who could not be awoke by the loudest noise or most violent shaking, but started at once into wakeful attention when the word "signal" was whispered near him, illustrates the fact that receptivity as the sensorium is needed before a stimulus conveyed by the senses can rouse dormant consciousness.

Sleeplessness after prolonged study, due to passive dilatation or deficient tone in the cerebral vessels, is to be treated by those means that withdraw blood from the head—*e.g.*, warm water to the feet, cold splash of face, shoulders, etc., and vigorous friction, so as to draw blood to the rubbed skin and rubbing muscles. Prolonged wakefulness was shown to be a cause of deficient mental power, insanity, etc.

The lecture, which was profusely illustrated throughout, contained a description of some of the physiological and psychological phenomena of dreams, and concluded with a vigorous appeal to the audience to avoid the evil of the day, which is not so much overwork as undersleep.—*Medical Times and Gazette.*

TREATMENT OF HÆMOPTYSIS BY ERGOT OF RYE.

By Horace Dobell, M.D., Senior Physician to the Royal Hospital for Diseases of the Chest, etc.

Following the lead of Dr. Symonds and Dr. Kennion; I venture to give the following memorandum. In common with other physicians who, like myself, are connected with hospitals for diseases of the chest, I see every year a large number of cases of severe pulmonary hæmorrhage resulting from a variety of causes.

There is scarcely any complaint that gives such serious alarm to the friends of a patient as profuse hæmoptysis; and there are few occasions on which a consultation is so urgently requested, and so readily granted by the family doctor, as when a patient appears to be "bleeding to death." But every medical man of experience considers himself perfectly qualified to treat hæmoptysis; and it is almost the rule, therefore, that, when called to these cases in consultation, one of the first remarks of the doctor in attendance is, that "everything possible has been done, and every remedy tried, but in vain." It is assumed, in fact, that the only object of the consultation is to sanction the inevitable death of the patient. Yet, according to my experience, it is exceedingly rare for a patient to die of

hæmoptysis. In these remarks, I confine myself to cases of pulmonary hæmorrhage due to tuberculous disease of the lungs, which make up the large majority of all cases of severe hæmoptysis.

I attribute the success of my practice in this respect mainly to the use of ergot of rye; because it is quite true, as already suggested, that, in nearly every consultation-case of appalling hæmoptysis that I have seen, "everything has been done, and every remedy tried," with the one exception of ergot of rye; and the use of this remedy has generally turned the fate of the patient. It has always struck me as a singular fact, that general practitioners, who are so well acquainted with the effects of ergot in uterine hæmorrhage—who use it more frequently than any other class of practitioners—with whom, in fact, it is almost a "pocket-companion"—never seem to think of using it in pulmonary hæmorrhage. I find, from frequent enquiry of my medical friends, that this is explained by the prevalence of the idea that ergot only acts by inducing contractions of the muscular tissue of the uterus; its remarkable power of inducing contraction of the blood-vessels being lost sight of. This is so generally the case, that I never met with but one general practitioner in the London district (in the country, it seems to be better known) who was at all aware of the power of ergot to control hæmoptysis. This exception was Dr. Betts, formerly of Highgate, now of Ventnor, who has as much confidence in the remedy as I have myself, and dates his confidence from the occurrence that, when a student at Guy's Hospital many years ago, suffering from profuse and intractable pulmonary hæmorrhage, under the care of the late Dr. Addison, his case was on the point of being given up as hopeless, when the bleeding was suddenly brought to a standstill by a large dose of ergot, administered at his own request; the idea having occurred to him, that, as it so often arrested uterine hæmorrhage, it might also answer in hæmoptysis.

But I have said that, in the appalling cases to which I have referred, "everything else had been done, and every remedy tried," before I ordered the ergot; and I desire to attach the greatest importance to this fact. Ergot is only competent to do one of the many things necessary to stop a severe pulmonary hæmorrhage; viz., to contract the vessels. It is necessary to do much more than this.

1. The vital power must be supported by brandy, iced milk, and beef-tea, if indicated by the general symptoms.
2. The heart must be kept steady by digitalis.
3. Congestion must be relieved by saline purging.
4. Clotting of the blood must be promoted by styptics, and by the free admission of cold air.

5. The bleeding part must be kept at rest by position, by enforced silence, and by soothing the cough.

In spite, therefore, of the fashionable outcry against complicated prescriptions, I venture to give the following as the most efficacious, and, as it seems to me, the most rational, combination of remedies for a case of profuse tubercular pulmonary hæmorrhage. It has served me many a good turn, and I hope it may do the same for my professional brethren.

℞ Ebt. ergotæ liq. ʒ ij (to contract the vessels); tincturæ digitalis ʒ ij (to steady the heart); acidi gallici ʒ j (to clot the blood); magn. sulphatis ʒ vj (to relieve congestion); acidi sulphurici diluti ʒ j (to assist the rest); infusi rosæ acidi ad ℥ viij (to make a mixture). A sixth part every three hours till hæmorrhage is arrested.

In any given case, either of the ingredients may be omitted, if the symptoms indicate that it is not required, or that it has already done its duty.—*British Medical Journal.*

Midwifery and Diseases of Women and Children.

ACCOUNT OF THE FOUR-LEGGED CHILD.

NASHVILLE, TENN., JUNE 16, 1868.

The undersigned, in reponse to the request of a number of physicians and of the relatives and friends of the unfortunate subject of this investigation, give the following testimony: The infant, J. Myrtle Corban, *has four legs and two distinct female organs of generation, with two external openings of the urethra and two external openings of the double rectum.* The external genito-urinary organs are as distinct as if they belonged to two separate living beings. The fæces and urine are passed (most generally simultaneously, particularly the urine), from both external urinary and internal openings, situated respectively between the left and right pairs of legs.

The head and trunk are those of a living, well-developed, healthy, active infant of about five weeks, whilst the *lower portion of the body is divided into the members of two distinct individuals, near the junction of the spinal column with the os sacrum.* As far as our examination could be prosecuted in the living child, we are led to the belief that the lower portion of the spinal column is divided or cleft, and that there are *two pelvic arches supporting the four limbs,* which are situated upon the same plane.

Photographs of this infant have been made by the advice and under the supervision of one of our number.

The reality in this case surpasses expectation, and we are of the opinion that this most interesting *living monstrosity* exceeds in its curious manifestation of the powers of nature in abnormal productions, the celebrated "Siamese Twins."

JOSEPH JONES, M. D.,
Prof. of Phys. and Path., University of Nashville.
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Further remarks by Professors JONES *and* EVES, *for this Journal.*

Josephine Myrtle is the third offspring of W. H. and Nancy Corban, aged twenty-five and thirty-four, the wife being the senior by nine years. They are so much alike in appearance, having red hair, blue eyes, and very fair complexion, as to produce the impression of their being blood kin, which, however, is not the case. Mrs. Corban is from North Alabama, had borne one child to a former husband, the child having dark colouring, and resembling mostly the father, who had black hair and eyes. Her three children are all girls; the one already alluded to, now six years old, another three, and this *infant monstrosity*, now to be more minutely described, born the 12th of May, 1868, in Lincoln county, Tennessee, five weeks ago.

Mr. Corban is a Georgian, served in the Confederate army through the war, and was severely wounded in the right arm and left hand. The parents are in fair health, though the mother is anæmic. She recollects no fright or disturbance during her last pregnancy. The presentation was fortunately the head, which accounts for the preservation of the life of the child. It would be curious to speculate on the trouble which might have been produced had the feet or breech presented, while the result, in all probability, would have proved fatal to the infant, and possibly to the mother. Mrs. Corban says that there was nothing peculiar in the labour or delivery. When three weeks old the child weighed ten pounds. It now nurses healthily, is thriving well and we saw it urinate simultaneously, between the *two pairs of labia of the two vaginæ*, situated about six inches apart. From the crown of the head to the umbilicus the child measures twelve inches, and from this point to the toes of the right and left external feet, eleven inches. From the umbilicus up, all is natural and well formed; all below this extraordinary and unnatural. An inch below the navel is a mark of an apparent failure for a second one. *There are four distinct, pretty well developed, lower extremities.* They exist in pairs on both sides of the

median line, which resembles the cleft of an ordinary pair of legs; but here there are no marks whatever of arms or genital organs, and upon pressure we discover no os coccygis or sacrum. The outer legs of both sides are the most natural of the four, (though the foot of the right one is clubbed,) but are widely separated by the two supernumary ones, which are less developed, except at their junction with the body, from which they taper to the feet and toes more diminutive and which are turned inwards. One toe is bifid on the left extra inward extremity. At birth these extra legs were folded flat upon the abdomen. We are led to believe that there are *two uteri as well as two recti;* in fact, that the pelvic organs are double. Of course a minute dissection would alone expose the true condition of these parts.

Should this infant reach maturity and the internal generative organs be double, there is nothing to prevent conception on both sides. The first difficulty will, however, be in her walking. The outer, or external legs, may be used for progression; the inner or inturned ones, probably never. These might be successfully amputated at the knees, or higher up.

One of us recollects being in London, in January, 1830, at an exhibition of the Siamese Twins, when Sir Astley Cooper gave an opinion adverse to an operation with a view to separate them, but which has always appeared to us as feasible and without much risk of peritonitis; an operation too, which should undoubtedly be performed in case of the death of one of them, for no medical man believes in the vulgar impression that they must die simultaneously. In the present case all surgical interference is, of course, out of the question, except that alluded to—removal of the extra legs.

Cases somewhat similar to the above have occurred and been described. Rokitansky refers to two completely distinct bodies conjoined at their ossa sacra or coccyges, as in the well-known Hungarian sisters, Helena and Judith, born in 1801, who survived their twenty-second year.

Geoffrey St. Hilaire alludes to cases of a trunk with two heads, some even Janus-like, having four upper and four lower extremities.

The case, however, recalled most vividly by Josephine Myrtle, is that of Rita Christina, well known in Europe, and accurately described in this country years ago by Prof. Meigs. In this wonderful instance, there were *two heads, two necks, four arms*, but only two legs; and was thus the reverse of our case. In fact, the *two* children would, if properly organized, have made *two girls.*

From the umbilicus down, there was one well-formed child, but above this all the organs were double; in reality, there existed two beings.

The rectum and bladder were common to both, but all else in the trunk was double and distinct. One would sleep while the other played, etc., for they had *two spinal marrows, two brains, two hearts,* but which occupied a common pericardium. Unfortunately, after surviving a little over a year, one sickened and died, when the other, then in health, instantly expired.

Rita and Christina were born in Sardina, 1829, and described by Dr. De Michaelis, Prof. of Surgery in the Royal University of Sassari, and lived eighteen months.

The late Prof. J. C. Warren of Coston, first described the Siamese twin brothers, when purchased of their mother by Capt. Coffin and Mr. Hunter (joint owners) and brought to that city, in 1829.—*Richmond and Louisville Medical Journal.*

THE MORNING SICKNESS OF PREGNANCY.

The *Lancet* of February 22, gives a brief summary of the treatment adopted in several of the London hospitals for the relief of morning sickness in pregnancy.

The plan of treatment which Dr. Greenhalgh of St. Bartholomew's has found most successful consists of rest in the semi-recumbent position especially after meals, which should consist of bland, nutritious, and unstimulating food, frequently administered, and in small quantities. The patient should take a little coffee about a quarter of an hour before rising, and should guard against long fasts. Great attention must be paid to the bowels. In some cases a slight bandage round the lower ribs, and under this a strong sedative application over the epigastrium, appear to have done good. Effervescents, with hydrocyanic acid, belladonna, nux vomica, ice, and in some cases, lemon juice, have proved useful. Bismuth and charcoal, where there have been large secretions of acrid mucus accompanied with flatulent eructations, have appeared serviceable. But of all remedies Dr. Greenhalgh places most reliance upon the introduction into the vagina of morphia suppositories, more especially in severe cases, and where an irritable condition, with or without abrasion of the cervix uteri, is found to exist. In such cases he believes little or no reliance can be placed upon remedies taken by the mouth, which he has found rather to aggravate than relieve the vomiting.

In the practice of University College Hospital, Dr. Graily Hewitt generally finds benefit derivable from giving the patient some nourishing article of diet, such as a teacupful of beef-tea, a small sandwich of meat,

a cup of milk, etc., before raising the head from the pillow. The change of posture from the recumbent to the upright position appears to excite the attack when the stomach is empty, but not so much so when the attention of the organ is, so to speak, otherwise occupied. The patient should remain a few minutes or longer in bed after this early meal before attempting to rise.

Dr. Playfair, in King's College Hospital, in not in the habit of treating cases of "morning sickness" much, unless it is unusually severe, beyond carefully regulating the diet, and removing any obvious source of irritation to be met with in the primæ viæ themselves. He is of opinion, that there is much truth in the old belief, that pregnancies without morning sickness are not, as a rule, favourable. He has so frequently noticed that when sickness is entirely absent other and more distressing reflex phenomena, such as syncope, exist to an unusual degree, that he is disposed to look upon the entire absence of nausea as unfavourable. When morning sickness is excessive he has frequently verified the opinion of Dr. Clay and others, that there is some morbid condition of the uterus itself, and has found local treatment, such as the occasional application of leeches to the vulva, or of iodine paint to erosions of the cervix uteri, to be of great service. With regard to actual medicines, he is disposed to place most reliance on the oxalate of cerium, in doses of two grains three times a day. Next to this, effervescing draughts, with hydrocyanic acid, ice for suction *ad libitum*, and the subcutaneous injection of morphia answered best. Pyroxidic spirit has not answered as well as was expected.

In the British Lying-in-Hospital, Dr. Murray adopts the following treatment:

One teaspoonful of sal volatile is given before rising. If nausea occurs during the day, sinapisms are applied to the epigastric region, with a pill containing the oxalate of cerium and camphor, to be taken twice or thrice daily. In one or two cases he has found the morning nausea and vomiting stayed by getting the patient to eat either a biscuit or sandwich sometime during the night, or very early in the morning. Salicine is a drug which he has used with success. He recommends lime-water, in preference to soda-water, to be taken with almost every drink; and has found nitro-muriatic acid, with some bitter infusion, very useful.

In the Hospital for Women, Soho Square, Dr. Meadows has found the greatest success from medicines which exercise a decidedly sedative action upon the nerves of the stomach. Regarding the sickness of pregnancy as a purely reflex effect of uterine irritation upon the pneumo-

gastric nerves and solar plexus, Dr. Meadows places most reliance on drugs which diminish the sensibility of those nerves in their peripheral distribution. The tincture of aconite in five to ten minim doses, the tincture of belladonna in ten minim doses, the liquid extract of opium in five minim doses, or the dilute hydrocyanic acid in five minim doses: one or other of these is the remedy which he most commonly and most successfully prescribes. He has also observed marked effects from the oxalate of cerium, or the citrate of bismuth, in five-grain doses. In very intractable cases he has sometimes tried with good effect a small blister about the size of a florin, over the epigastric region, the blistered surface being afterwards dressed with some diluted savin ointment containing one grain of morphine in a drachm.—*Medical Record.*

MUSCULAR RHEUMATISM.

In the *Lancet* of March 14, considerable space is devoted to the management in the various London hospitals of the painful and often troublesome affection commonly described as muscular rheumatism. This complaint resembles rheumatism only in being attended by pain, generally consequent on exposure to cold and damp. In St. Mary's Hospital it is treated by stimulants and anodyne liniments, accompanied by vigorous rubbing and kneading of the muscles affected. In the Middlesex Hospital, the management is similar, and alkalies and purgatives are believed to do more harm than good. Belladonna plasters are used sometimes with advantage, together with rest and abundant food. In the Charing-Cross Hospital, Dr. Headland administers bicarbonate of potash freely, and has also much faith in minute doses of belladonna or atrophia, but never gives iodide of potassium. Warm baths and vapour baths are found of service, with purgatives of aloes, turpentine, or croton oil. As a last resource, Dr. Headland blisters and sprinkles morphia over the raw surface. In the King's College Hospital, counter-irritation and diaphoretics constitute the principal treatment. Iodide of potassium is thought favourably of, but the alkalies are not approved. Tonics of iron are found of service in some cases. In St. Thomas's Hospital, saline cathartics, followed by diaphoretics, are found serviceable, aided in severe cases by colchicum, with potash or iodide of potassium. Where there is pleurodynia, quinine and henbane are generally given, in conjunction with stimulating local applications *Medical Record.*

Canada Medical Journal.

MONTREAL, SEPTEMBER, 1868.

THE CANADIAN MEDICAL ASSOCIATION.

The annual meeting of the Canadian Medical Association, which is to be held in this city on the second of September instant, has a long roll of most important measures for discussion. Reports are to be submitted on the questions of preliminary education, on the necessity of adopting such means as will ensure a uniform and elevated standard of medical education, and also on the best means of having a uniform system of granting license to practise medicine, surgery, &c., throughout the Dominion of Canada. There can be little doubt that any report emanating from an association of the medical fraternity, will have due weight in any future action of the Legislature, on the subject of the study and practise of the profession of medicine and surgery throughout the Dominion.

It is very desirable that a uniform law should be introduced, bearing on the practise of the profession of medicine in Canada. We fear that perfect uniformity is not attainable, inasmuch as all questions pertaining to education are left in the hands of the Local Legislatures. We would wish to see a medical act introduced before the Dominion Parliament, having a similar tendency and bearing to that which is in force in Great Britain. A general council of medical education and registration for the Dominion, with powers of supervision to inspect the method of teaching and examination in all our educational institutions, would do more to elevate the character of those institutions, and their various exercises, than a continuance of the present varied system of licensing. The General Council should have the power of recommending for registration all graduates or licentiates of those universities or colleges whose curriculum and method of examination shall be deemed sufficient. They should not be an examining body, but a corporation holding a higher office than that of either teacher or examiner. All colleges and universities should examine their own pupils, but if their curriculum or examinations are deemed by the Medical Council to be insufficient or irregular, their graduates or licentiates should not be entitled to enregistration.

The Canadian colleges and universities are seeking recognition from the General Medical Council of Great Britain, and the chief obstacle to that end is the want of supervision. In Great Britain all universities and medical schools are under the control of the General Medical Council. In the matter of preliminary examination, they exact a certain status which has been adopted by all the educational institutions of the mother country, and also by many of those in Canada; those institutions in Canada that have followed the requirements of the General Medical Councils, as regards preliminary education, have received at their hands recognition. We doubt not that, with a general law, which should be operative in all the provinces, giving us a council with similar powers and authority, such supervision and control would be deemed sufficient by the home authorities, and we would at once secure to our graduates and licentiates that desirable recognition which would place our institutions, educationally, on a par with those in the mother country.

The time has arrived when we should come out from our shell, and make known to our friends on the other side of the Atlantic that we have in Canada the men and the means of imparting knowledge in our colleges equal to some, at least, of the institutions of Great Britain, and, furthermore, that our test of proficiency in our students will bear the light of day.

Another most important subject which will be submitted to the meeting, is the report of the Committee on Statistics and Hygiene. It is a lamentable fact that statistical inquiry is with us an impossibility. To arrive at any definite and reliable information of the prevalence in any given district of any class of disease, is simply not attainable, and the reason is, because we have no reliable source from whence to draw information. To arrive at a definite conclusion of the mean duration of life is equally impossible. The influence of climatic changes on disease is another subject on which we can give no information. The whole system of collecting information on these points has to be changed, and we have the admirable system in vogue in other countries, but especially that under the direction of Dr. Farr, the Registrar General for Great Britain, from which to copy. We hope to receive for publication in these columns a well digested report, containing suggestions which will go far to induce our Legislature to introduce a law which will be of lasting benefit.

THE DOMINION RIFLE MEETING AT LAPRAIRIE.

The Canada Rifle Association will hold its first Rifle Match on the 15th instant, on the Laprairie Common. It is proposed to place the men in camp, the Government furnishing all necessary camp equipage. The following is an official announcement:

"Laprairie Canada Rifle Association meeting, 15th of September—Volunteers regulations—No volunteer allowed to appear in uniform, or fire with any Government weapon or ammunition unless enrolled on arrival as required. Men enrolled will have supplies furnished. Rations must be purchased."

We trust that arrangements will be made for providing a proper hospital marquee and surgery. We may state that at the Wimbledon meeting in July last there was an unusual amount of sickness, and that, had not the War Office provided for the emergency, it is quite possible that valuable lives would have been sacrificed. We sound the note of warning to our militia authorities, and trust that ample provision will be made with a regular staff of medical officers attached, so that in case of accident or disease they may be prepared to act with promptitude.

If it be desirable to make this an annual gathering, so as to disseminate amongst our volunteers a spirit of rivalry in the use of the rifle, it is necessary that everything should be done to render the arrangments as complete as possible.

Another subject which deserves attention is the dry-earth system for closets and urinals. Last year this system was experimentally tried at the Volunteer Camp at Wimbledon, a few closets only being erected. This year the earth-closet was introduced to the exclusion of all other methods. There were erected at that camp one hundred and forty-eight dry-earth closets and urinals, some fifty of these were used daily by about two thousand men with such marked results, as not to produce the slightest annoyance to sight or smell.

VIEW OF THE PARLIAMENT BUILDINGS, OTTAWA.

We beg to call the attention of subscribers to an arrangement entered into by the enterprising publishers of this journal, with Messrs. Burland, Lafricain & Co., the well-known lithographers, whereby subscribers will be entitled to receive a copy of a beautiful cromo-lithograph of the Parliament Buildings at Ottawa, finished in the highest style of art, upon their paying up all arrearage, and also paying the sum of four dollars, which includes the price of the lithograph and of the current volume of the Journal. This arrangement has been made by the Messrs. Dawson Bros. at considerable outlay, as the price of the lithograph alone is the sum asked for it and the fifth volume of the Journal. To those gentlemen who desire to commence the subscription to the *Canada Medical Journal* the same inducement is held out. This arrangement will be held open up to the 1st October next. In speaking of the lithograph,

we can commend it as a most beautifully finished work of art, accurate in all its details, with the exception perhaps of the foreground, which is still in an unfinished state. The artist, however, has adorned the grounds with fountains and walks, a garden, and other et ceteras, which will in course of time add beauty to the already unrivalled buildings. As a Canadian work of art it should be encouraged. Messrs. Burland, Lafricain & Co. have spared no expense in getting up this lithograph. It is a specimen of what can be done in Canada. Like every other place, Montreal alone requires capital and enterprise to enter the lists of competition, and in this instance we must say she has produced a most creditable work. We would beg to call the attention of our readers to the circular on this subject of Messrs. Dawson Bros., which accompanies each number of the Journal.

TREATMENT OF HERPEZ ZOSTER.

Dr. Jos. Konrad, in the *Wiener Medizinische Presse*, March 1, 1868, advices painting the parts twice or thrice a day with collodion, and administering an opiate at night. By this simple means he completely cured fifteen cases—all he treated—in four to six days.

TREATMENT OF CHOLERA AND EPIDEMIC DIARRHŒA.

Geo. Johnston, M.D. (*Medico-Chirurgical Transactions*), has communicated a paper showing the correctness of his views of the treatment of cholera. The number of cases treated was 375. Of those treated with castor oil alone, 30.45 per cent. died; of those treated with castor oil and the liberal use of stimulants 41.37 per cent. died; of those treated with astringents, stimulants, ice, hypodermic injections, camphor, etc., 71.42 per cent. died. In no case is there reason to suspect that there was any selection of cases made.

The conclusion is drawn, of course, in favour of what is known as the eliminative plan of treatment.

Errata.—In Dr. Pott's article on Obstinate Constipation, caused by eating the fruit of the Wild Raspberry, in the August number. Observe first on page 61, 3rd line, the words "suffering some pain," should be "suffering *severe* pain;" on page 62, 17th line, "produced intense agony induced by his screams," should be "produced intense agony *evidenced* by his screams;" page 62, 3rd line, "inflammation did not extend along the arms," should be "upwards from the arms;" page 62, 40th line, "relieving the arms," should be "*relaxing* the arms;" page 63, 16th line, "a relaxation of the arms," should be "relaxation of the arms," (the article should be left out); page 63, 29th line, "produce a descent of them at last," should be "produce a descent of the contents," ("them at last" should be left out, and the word *contents* inserted); page 63, 37th line, "until operated," should be "until *it* operated."