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CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Report of Cases of Lead Poisoning by which eight persons were the victims of Colica Pictonum. By THOMAS J. O. EARLE, M.D., St. John, N. B.

About eleven in the evening of June the ninth, I was called to see a family who were said to be suffering from cholera or some dangerous poison, I went to the scene as soon as possible, and found six men stretched on the floor of a large room vomiting and suffering excruciating pain which they located in the gastric region. Their pulses were feeble, slow and irregular, pupils of eyes normal, skin clammy, some tympanites, bowels constipated. They were so extremely weak, I at once administered alcoholic stimulants. It was evident some irritant poison was at work, so I gave oil, whites of eggs and milk *ad libitum*. In about half an hour the vomiting ceased and they had rallied considerably, though still suffering intense pain. Hot flannels and turpentine were applied to abdomen and "Liquor-Opii Sedativus" (Battley) was given to each, which relieved them considerably. I now searched the house thoroughly for poison, examining the edibles and also the spring from which they obtained their water, but could find no clue to the mystery. No rooms had been newly painted and no new pails had been in use. I had given up the search as fruitless when one of the women asked me if lead in the "Tea kettle" would do it. Here was the key of the secret. On examining the kettle, the bottom and sides were coated with lead.

She then gave the following history.

About ten days before the men had used the kettle to melt lead to pour into the journals of some mill machinery, and without washing it had continued to use it for culinary purposes right along. The lead taken up by the boiling water accumulated in their systems causing the poisoning symptoms. Next morning the two women who resided in the house were seized with the same symptoms, thus including the whole family. The treatment continued was: Sulphate of Magnesia and dilute Sulphuric Acid in water with sufficient opium to relieve pain. They are all recovering and no doubt will appreciate the aphorism Cleanliness is next to Godliness."

72, Main Street, St. John, N. B.

The Physiology and Psychology of the Brain. By HORATIO R. BIGELOW, ESQ., Boston, Mass.

The province of physiology in all ages, has been the localization of the functions of life, circulation being ascribed to the heart, respiration to the lungs, and digestion to the stomach, but it was not until after the days of Buffon, who described the brain as a mucous substance unworthy of notice, that the intimate causative relation between the cerebral hemispheres and thought received an enlightened investigation, and here tradition hypothecated an intangible entity, which presided over the intellectual outcome; the intellect and moral power were not the effect of cerebral re-action, but the manifestation of a misty, spiritual vagary governing the physico-chemical changes. But a later period, and a more unbiassed habit of thought, has taught us to seek the solution of the mysteries of vital phenomena, in the general laws of physics and mechanics.

As in the fourth century, he who cherished a belief in antipodes was shunned as a blasphemer, so until very recently, he who would defend his belief in evolution

and the correlation of forces, was railed at by that school of theologians who transcending their legitimate limits of thought, tortured their brains with the *order* of Nature, as well as its cause, and was hesitatingly patronized by society. But now that science is exerting its supreme control, the old chains of tradition are rapidly unloosening: religious toleration is supervening upon the exaltation of God, which arises from a study of geology, and from a severance of the unalterable belief in the accuracy of the Mosaic Law. The heresies of yesterday are the creed of to-day, and while we see the human institutions of religious sects, change with every century and every variation of latitude and longitude, Science keeps on its way, unswervingly, pointing upward, higher and higher, to a final perfection. So that, now, among men whose opinion is valuable, there is no appeal from the theory of evolution among men, among animals and in the vegetable kingdom, just as we also rest assured in the verity of the "Nebular Hypothesis." As then we study matter in all its relations, as we approximate to just theories of force, which is simply matter in motion, by comparisons with similar phenomena, so, too, we must correlate these attested facts, with the hypothetical theories of brain force, and from the relation deduce new theories. Descartes, recognizing this truism, and adopting the views of Galen, locates in the brain the function of the distribution of "animal spirits," the distribution to those parts in need of certain stimuli being effected through the nerves. But over and above this power, was an all governing essence, which had its seat in the pineal gland and which he called *soul*. This great Philosopher, and I may add physiologist as well, recognized a physiological mechanism, and over that the thinking power of a *soul*. This view prevailed among those of like persuasion for many years; the brain was merely the substratum of thought; while the physiological order of the correlation of forces, was plainly visible, even by the

greatest skeptic, in all the other viscera of the body, it was held that thought and will, must be referred to other methods of analysis. This was the great mistake arising from a just apprehension of chemical mechanism and metaphysical phenomena.* De Blainville fell into a similar error, and held that in certain cases of insanity the reason might be affected essentially, while the brain remained absolutely normal, and that conversely, there might be unimpaired intellectual vigor in persons with indurated or softened brains.

Modern science has destroyed such illusive doctrines; and while there is much material hypothesis, in the theories of those eminent investigators in this particular field, yet by a judicious combination with objective metaphysical study, and by an educated observation of the various forms of the "mind diseased," a great preponderance of probability will result.† As the Bacteria and Torula, are spontaneously generated, as we have reason to believe that the amœba can boast no longer of an ancestral race, antedating primeval man, so, the human mind, evolved by purified generalizations of heredity, is progressively upward, and we are justified in the belief, that these speculations of to-day, relative to the functions of the brain, will in after-generations, receive the testimony of direct proof. There are certain facts, which have already been established by experiment. We know that consciousness resides in the cerebral lobes, while the lower portions of the brain, contain nervous centres destined for organic functions of a lower kind. In the lower and higher orders of the animal kingdom, removal of the cerebrum does not impair motion, though certain stimuli are required to develop it, and the motion, once originated, continues until forcibly arrested.‡ If the movement of one limb

* De Blainville: Lecture on Zoology.

† Bastian: Beginnings of life.

‡ M. Onimus: Physiology of nervous system.

be stopped, the other limb will cease moving also. Pigeons when deprived of the cerebrum, will perform vital functions, though they require to be fed, and the instinct returns with the regrowth of the cerebrum. Animals deprived of the cerebral lobes also exhibit a forced tendency to maintain their equilibrium, showing that the cerebellum alone originates this power. There are, among the encephalic centres at the base of the brain, centres of co-ordination and direction of movement, which preside over the details of external life (walking, flying, &c.) Now the motions of the body originated by these centres, under the influence of the brain are of two orders: those of instinct or hereditary acquisition (Herbert Spencer) and those of habit. If you remove the cerebral lobes of a duck that has never been in the water, and then place it in water, it will swim regularly, but it will not, like an old duck deprived of its cerebrum, make certain habitual movements of the neck. The eye is merely the medium, through which a sensation is conveyed to the brain, or sensory tract, and converted into an impression, and this is so intricately interwoven with tactile sensibility, that the one exists but imperfectly without the other. Color, is the abstraction formed by one mind, out of the number of millions of undulations of light per second, impinging upon the retina. Sound is the transmitted impression of the auditory nerve. A large tree falling in a forest would occasion no noise, unless there were some one by to hear it. Lesions of certain kinds, within the brain, produce certain well authenticated results; softening of the peduncles brings about a peculiar gait, extravasation into the corpus striatum, hemiplegia, multilocular cerebral sclerosis, a species of paralysis agitans. These are all incontrovertible facts revealed by recent intellectual experiments. When we stretch out farther into the hidden land, and strive to locate the various phases of thought, the will, the intellect, we must deal in individual hypothesis, which will differ in the direction of each investigator's bias.

The absolute connection between mind and matter, is as yet beyond the pale of human inquiry, and hence however erudite and extended our studies, we must all be arrested at that final change in molecular disposition which "immediately and causatively precedes inchoate consciousness." Yet, at a very early stage of physiological inquiry the Seat of the Soul or Conscious Principle,* was a theme of elaborate and ingenious hypothesis. Hippocrates and Hierophilus placed it in the fibres of the brain; Democritus in the region of the temples: Strabo in the space between the eyebrows; Epicurus allocated it in the breast; Diogenes in the left ventricle of the heart; the Stoics, with Chrysippus, in the whole heart; Empedocles placed it in the blood; Plato and Aristotle connected the soul with the whole body; and Galen suggested that each part had its separate soul. Dr. Gall towards the close of the last century, was the first to enunciate clearly the doctrine, that different parts of the encephalic mass fulfil different functions. Just prior to the publications of Gall's doctrine, Prochaska had written "Since the brain, as well as the cerebellum, is composed of many parts, variously figured, it is probable that nature, which never works in vain, has destined those parts to various uses; so that the various faculties of the mind seem to require different portions of the cerebrum and cerebellum for their production."

It would consume too much time, to enter into a detail of this system of *Phrenology*, it is sufficient to know, that it has not received from investigation that confirmation which was anticipated for it—some of its great underlying principles are doubtless correct, and outward arrangements claim attention—we know that a high broad forehead, with prominent frontal eminences, is indicative of intellectual ability; a retreating forehead, low, and running to a point at the cranial vertex, implies a low

* Noble: Human Mind.

grade of humanity; and if a link were needed to substantiate the theory of evolution between men and animals, we could not be far wrong in suggesting the Theroid Idiot. Then followed the cranioscopy of Dr. Carus*—consisting of a three fold division of the encephalon, each corresponding to certain psychical qualities. But the defects of this system, were so numerous and obvious, that it has never received great attention, although it seems to have furnished the germs of the existing teachings. The present tendency is to look upon mind as the force generated by the chemical re-actions in the vesicular neurine of the cortical and hemispherical cells of the brain. This is a very probable and scientific theory, and it is by adopting some such concession only, that we can hope to treat effectually mental diseases; for as in every other other disease in the body, the remedies are applied to the suffering viscera, so too, in this, the highest of all, we must address ourselves to the brain. If this be materialism, then it is the essence of human charity. If mind be a spiritual gift, beyond the ken of investigation, then every case of mental alienation must be treated as such, and left to perish in its wretchedness! all brain lesion passed by unnoticed, and herein Theology by going beyond the pale of its legitimate offices, may tend to cause great evil, and seduce the ignorant from Christian duties. Starting out then, with this theory of mind, we at once ignore the reception of any such teachings, as those of *intuitive ideas.* The new born babe, possesses not these. It suckles by the reflex operation of the nervous action of the spinal cord. It *learns* to walk, the reflex impression, occasioned by the pressure of the foot upon the floor, excites coordinated movement, and through a better experience, the automatic habit is acquired. The moral test of Right and Wrong, is the generalized expe-

* Grundzüge einer neuen und wissenschaftlich-begründeten cranioscopie. Stuttgart, 1841.

rience of previous generations, indeed we might almost say that the mind itself was an ancestral product. The child is taught to recognize, that certain actions will call forth reproach or punishment, and hence avoids them. The abstract idea of virtue, which Socrates called "The harmony of a man's powers"; Kant, "a will in harmony with the universal moral sentiment"; and which utilitarianism refers to a species of self-interest within a man, is acquired. The *Will*, is a product of mind, and hence as a dependent force, the paradox of Free Will becomes apparent. In certain cases of insanity, a person may have a thorough appreciation of Right and Wrong, yet, by uncontrollable force of Will, be urged into crime, despite himself. Herein lies the great injustice of this olden, judicial test. Maudsley defines the Will to be "the desire or aversion, sufficiently strong to occasion action, upon reflection." In nature, certain stimuli, call forth a resultant force. In the brain, the necessary stimulus, brings about a like result. In certain cases of melancholia, the patient however great his riches, may imagine himself a pauper. The one aim of his life has been the acquisition of wealth—for this end all his mental power has been put into action, the fluctuations of the money market have depressed his spirits, while an influx of wealth has unduly exalted him, and just as the hand, by constant use, may become palsied, so the mind by the constant inspection of this one idea, breeds unhealthy chemical action in the cells of the brain and originates as delusion that which the patient has so feared and warred against.* As I have shown elsewhere the integrity with which a person's ideas re-act outwardly towards nature, and the measure of his proto-typical cerebral arrangement will be the standard of his mental trustworthiness. As in nature, there is a conservation of force, so too, in nature's work, the brain, an idea which re-acts but par-

* The insanity of Hamlet, a psychological study.

tially externally prolongs its tension in a nerve cell and becomes consciousness, or it may impress itself, to react at some future time as memory, or by its association with a particular physical condition, may for ever call forth pain or laughter, when a similar condition obtains.

In cases of melancholia, where there is morbid self-introspection and religious depression; the first aim in the treatment, is to withdraw the mind from this concentration upon itself, to interest it and to bring it into harmonious relationship with nature, and to excite its normal tone, by association with healthy minds.

OXIDE OF ZINC IN INFANTILE DIARRHŒA.—In the *British Medical Journal* of July 12th, Mr. Edward Mackey, M.B., recommends oxide of zinc in infantile diarrhœa, especially in those forms complicating nerve troubles or whooping cough. He points out that it has "tonic and anti-spasmodic, as well as astringent qualities, a combination in a non-irritant substance, exactly suited to many cases of the malady." It does not irritate, as chalk sometimes, does, or gripe as acids do occasionally, and is a better nerve tonic than Bismuth. Mr. Mackey says that it has given him excellent results in all varieties of infantile diarrhœa, in conjunction with suitable diet. Dose, one grain for any age under two years, with a little syrup, mucilage and dill-water three or four times daily, not on an empty stomach. A larger dose may nauseate. He says that oxide of zinc will give us in many cases the maximum of good with least liability to harm, an advantage to be desired, especially in out-patient and distant cases. Dr. Waring-Curran has referred to this use of oxide of zinc, in the *Lancet*, October, 1868, and Dr. Brakenridge in the *Medical Times and Gazette*, Feb., 1873, points out its tonic and antispasmodic, as well as astringent properties.

Hospital Reports.

Medical and Surgical Cases Occurring in the Practice of the Montreal General Hospital.

Case of Compound Fracture of the leg from a Railway accident, treated with Carbolic Acid injections; recovery without amputation. Under the care of Dr. G. E. Fenwick. Reported by Mr. J. C. Cameron.

R. C. æt. 30, admitted to the Montreal General Hospital, April 18, 1873. Is a strong, healthy, vigorous man, remarkably cool and self-possessed, temperate in his habits, married and the father of several children. Has been in the employ of the G. T. R. for some time in various capacities; has been brakesman for more than a year. The accident happened somewhat as follows:—His train had stopped for wood at Acton, a small place some 54 miles from Montreal; a large framework used for measuring wood was left standing, through the carelessness of the wood-man, too close to the track. C. was standing near this cord measure on the side furthest from the engine, a few yards ahead of the hind-car. As the train began to move, he saw the conductor jumping on at the rear of the hind-car, and, as two persons could not get on there at the same time, he had the alternative either of jumping on in front of the hind-car or being left behind altogether. He, of course, chose the former and sprang on in front; but before he could scramble up to a position of safety, he was carried against the projecting frame-work, knocked off, jerked round and thrown on his back across the rail between the front

and rear trucks of the hind-car. Realizing his danger, he at once with great presence of mind, attempted to drag himself out; but the place was so icy that he succeeded in drawing out his body and left leg only when the hind-truck caught the right one and ran over it just above the ankle. The accident happened about 7 a. m., and he arrived at the Hospital about 1 p. m., accompanied by a resident doctor of the place.

Condition.—Had lost but little blood, seemed in excellent spirits, suffering but slightly from shock. Upon examination, compound fracture of both bones was discovered, of the *Tibia*, about the junction of middle and lower thirds, of the *Fibula*, somewhat higher up. The wound was very small, scarcely admitting the point of the little finger. Very little extravasation in the leg, no crushing or injuring of surrounding parts. The case was so recent, the man so vigorous and self-possessed, the shock so little, the extravasation so trifling, and the wound so small that Dr. Fenwick determined, if possible, to save the leg. He accordingly injected the wound thoroughly with a solution of carbolic acid in water 1 x 10; and the leg was put up in a box splint, comfortably packed in bran and supported on a pillow. Pulse good, temperature normal, spirits excellent.

Diet, milk and beef tea in abundance.

April 13th.—Has been doing nicely, sleeps well. Has taken a draught of Sol. Morph. Mur. 3i for several nights, spirits excellent. Leg was taken down, a small slough separated leaving a second opening on the other side of the leg. The wound was syringed out thoroughly with carbolic acid lotion 1 x 40, in through one opening and out through the other. The temperature of the leg was good, circulation in the foot excellent, inflammatory action quite localized. Swelling in the upper part of the leg very slight. Was put up again in the box splint with bran. Was ordered beefsteak, 1 pt. ale., 1 pt. porter.

April 20th.—Leg taken down again, a small fragment of bone was removed. Parts nice and healthy. Put up in a gutter splint and the wound dressed with carbolic acid lotion 1 x 40, three times a day. Draughts discontinued. Urine voided freely. Bowels open about every second day.

May 1st.—Sore granulating nicely. Dressing changed to equal parts of red wash and carbolic acid, lotion 1 x 40.

May 4th.—Pus burrowing about the leg, drainage tubes introduced in three places. Everything looking well.

May 18th.—Two drainage tubes removed and a fresh one introduced to prevent burrowing up in the thigh.

From this time, the sore improved rapidly, bony union was formed, and the general health became much better. Fragments of bone came away at various times, the last and largest was removed on the 6th of July, since which date recovery has been very rapid. Drainage tube were all taken out, the sores dressed with red wash, and on the 31st of July the gutter splint was removed altogether, and a side splint substituted to give support to the limb and to allow suitable dressings to be applied. The sores are now granulating nicely, the bones are well united and will soon be quite strong. Patient is in excellent condition and will probably leave the Hospital very shortly, quite cured.

Case of Acute Urethritis, Extravasation of Urine, Sloughing of the Scrotum Recovery. Under the care of Dr. Fenwick. Reported by Mr. G. NELSON JONES.

J. S., aged 23. Entered Hospital 12th April, 1873.

History.—Had gonorrhœa about three months before admission, which was never treated and never altogether disappeared. About a month after gonorrhœa first appeared, he had slight difficulty in passing water, but only

for a few days. A week before admission his penis and scrotum commenced to swell. On entering Hospital, his scrotum was about four times its natural size, and his penis also much swollen. There were several sloughs in the groin below Poupart's ligament, and one on scrotum. There was also erysipelatous swelling at lower part of abdomen.

April 13th.—A catheter was passed after much trouble and retained. Several incisions were made in scrotum and urine trickled through. A linseed poultice was applied over affected parts. Was ordered Potas. Chlor gr. V. and Quin. Sulph. grj. every four hours.

April 14th.—The catheter by some means became displaced, and after several attempts a gum elastic one was passed and tied. Sloughs are extending on scrotum, but the erysipelatous inflammation of abdomen has gone down. Feels better and has a good appetite.

April 15th.—Front of scrotum sloughing away rapidly. A very large slough on penis.

April 16th.—Sloughing continues, right testicle almost bare.

April 18th.—A large abscess had formed in left iliac region. This was opened and a large amount of pus escaped.

April 19th.—Both testicles perfectly bare. Linseed poultice changed for carbolic lotion.

April 21st.—Catheter removed—he now passes his water without difficulty.

Shortly after this date the parts commenced to cicatrize, and when he left the Hospital about the middle of June, a new skin had formed over the testicles and the man was well in every respect.

Case of stone in the bladder in a child of seven years—Lateral operation. Recovery. Under the care of G. E. FENWICK, M.D.

This spring, while on a visit to the country to see a clergyman who was ill, I was shown, by the medical man of the village, a case of a child who was suffering from the symptoms of stone in the bladder. Not having anything at hand, in the shape of a sound, I requested the parents to bring the child to Montreal. This they did on the 1st of July.

The following day, the boy was placed under the influence of chloroform, and a short-beaked sound passed into the bladder, when the presence of a small stone was readily detected. The history of the case is as follows :

H. D., aged seven years, was admitted to the Montreal General Hospital, on the 1st of July, 1873, and the following facts relating to the progress of disease, made out: When about two years of age, he had passed a small concretion, which was about the size of a small pea, circular in shape, and of a brownish colour, evidently uric acid. Nothing further was noticed in connection with the child, leading to the suspicion of the presence of stone, until about two years ago, when incontinence of urine occurred, more especially at night, and even in the day time the boy would constantly wet his clothes, and suffered considerable agony at intervals. The penis was larger than is usually seen in a child of his age, the prepuce was long, and the mother stated, that occasionally, when he could not make water, he would seize hold of the penis, drag it forward, and strain to such a degree, that the rectum became prolapsed.

Having made out the presence of a stone, I determined upon its removal by the lateral operation. The child was ordered overnight a dose of castor oil, and on the following morning, July 3rd, the rectum was well washed out with an injection of tepid water. The child was then placed under the influence of chloroform, and a grooved

staff passed into the bladder, and made to rest on the stone. The staff was held by my friend and colleague, D. C. McCallum, M. D. The operation was proceeded with and the stone removed. There was slight hemorrhage, which appeared to come from the venous Plexus round the rudimentary prostate. This, however, soon subsided, and the child was removed to bed. There was no subsequent bleeding, and the usual after-treatment of these cases was pursued, and on the ninth day after the operation, urine was voided in small amount through the natural passage. Micturition was painful at first, but the pain gradually subsided. The child left the Hospital on the 18th of July with the wound almost closed.

Books Received for Review.

Medical and Surgical History of the war of the Rebellion 1861 to 1865; prepared under the direction of Surgeon-General Joseph K. Barnes, United States Army; Washington Government Printing Office. 1873.

The Pathology and Treatment of Skin diseases, by J. L. Milton, Senior Surgeon, St. John's Hospital, &c., pp. 358, 8vo: London, Robert Hardwicke, 192 Piccadilly. 1872.

Experimental Researches on the causes and nature of Catarrhus Æstivus, Hay Fever or Hay Asthma, by Chs. H. Blackley, M. R. C. S, Eng., 8vo., pp. 202, London, Baillière, Tindall and Cox, King William Street, Strand 1853.

Report of Columbia Hospital for Women and Lying-in Asylum, Washington, D.C., by J. Harry Thompson, A.M., M.D., Surgeon in chief, with an appendix, 4 to pp. 430, Washington Government Printing Office, 1873.

Correspondence.

LONDON CORRESPONDENCE.

JULY 10, 1873.

Nothing has been talked about here, lately, but the Shah of Persia and his visit. He seems highly delighted with his reception, which has been of a somewhat different description from that with which our Eastern allies have usually been favoured, and he leaves our shores with a very high opinion of the power and wealth of England. He has not seen many signs of the much-talked of degeneracy of the country, and the political results of his visit will probably be most important. We have had uncommonly hot weather here lately, and the thermometer has frequently stood at 85°.

The recent election for members of the Council of the Royal College of Surgeons, took place on July 3rd, and Sir James Paget, Mr. Haynes Walton, Mr. George Southam and Mr. John Marshall, were elected. The other candidates were Mr. Savory, Mr. Hussey, Mr. Hird and Mr. Cooper Forster.

On Monday, June 23rd, the United Hospitals Athletic Sports came off at Lillie Bridge Grounds, where the Oxford and Cambridge Sports and various other athletics come off. In spite of the counter-attractions of the Shah at Spithead, and the Oxford and Cambridge cricket match at Lord's, there was a very large attendance. A portion of the band of the Royal Artillery, was on the ground, and everything passed off very well, the weather being beautiful. This year, St. Bartholomew's Hospital holds the champion shield, for the first time. Guy's has taken the shield three times, King's twice, and St. George's once.

The other day at St. Bartholomew's, Mr. Callender performed Litho-nephrotomy, for the first time in this country, upon a woman, aged 44. An incision 4 or 5 inches long being made in a line corresponding to the outer border of the right quadratus lumborum, he divided each layer of tissue on a director until he reached the border of the quadratus and displayed the kidney. He then introduced a fine trochar and canula, and some thick pus escaped, after which he enlarged the opening and a large quantity of very fetid pus was evacuated, and he was able to feel the stone. The calculus was divided with the bone forceps, as it could not be taken out whole on account of its irregular shape, and two large pieces and a large number of small ones were removed. The wound was well washed out with Condy's fluid, and dressed with carbolic-oil. The woman was much relieved by the operation, but sank from exhaustion 71 hours after the operation. Her state before the operation was extremely low.

Mr. Callender also resected the elbow-joint in an old case of strumous disease. The patient, a boy aged 14, had been previously treated by Mr. De Morgan's plan, namely, free incision into the joint, and injection with chloride of zinc solution. Since the operation the boy has done well.

Mr. Smith at St. Bartholomew's, on June 26th, removed almost the whole uterus from a woman, aged 29 years, by means of the écraseur. Scarcely a drop of blood flowed during the operation, and since then the patient has done well. Mr. Savory performed colotomy, on a woman aged 54 years. The peritoneal sac was opened in the operation as the colon was attached to a fold of it. The operation was performed on the descending colon, and owing to the emaciated condition of the patient, and the distended state of the bowel, it was easily done. This week at Guy's, Mr. Birkett performed several operations, among which were excision of a cystic tumour from

the back of a woman, and amputation through the tibia for disease of the bone and ankle joint. For a case of disease in the elbow-joint, Mr. Durham removed as much dead bone as he could, but left the cartilage, perichondrium and periosteum.

In the *British Medical Journal* of June 4th, is a very interesting account, which I transcribe, of excision of the superior maxilla, at the Middlesex Hospital, by Mr. Hulke, and of Amussat's operation at University College Hospital, by Mr. Heath : "*Excision of Superior Maxilla.*" —Mr. Hulke operated on a country lad, aged 18, for a large tumour, growing, apparently, from the orbital part of the left superior maxilla. Instead of the hollow between the eye and the nose, there was a prominent rounded swelling; the left nostril was obstructed, and the eyeball pushed forwards and upwards, though the sight was not affected ; there was but little fulness of the lower part of the cheek, indeed, the antrum had been explored, and found to be empty. The tumour had been fifteen months growing, though it had increased more rapidly during the last three months. Mr. Hulke made an incision over the tumour, along the lower margin of the orbit from without, inwards, and then cut downwards, along the side of the nose, into the mouth. The flap thus formed, was dissected off, and turned outwards ; the malar bone was then divided with strong bone-forceps, the nasal process of the maxilla divided in the same way, and the anterior wall of the antrum cut through horizontally, above the roots of the teeth. The malar, and upper part of the superior maxillary bone was then removed. The large exostosis was thus exposed, and found to be deeply and firmly attached to the lower and back part of the orbit. It was seized with the lion forceps, and removed partly with a narrow-bladed saw, and the rest with the bone forceps. There was free oozing of blood ; this was soon stopped by plugging the wound with lint, soaked in solution of Perchloride of Iron. The opera-

tion would have been performed a fortnight before; the patient was placed on the table, and was scarcely under the influence of chloroform, when he had a slight, but distinct, epileptiform attack, attended with arrest of respiration, muscular spasm, etc., the operation was therefore postponed. Both the patient and his parents declared that he had never had any fit previously. The boy did not take the chloroform very well on the second occasion, but there were no convulsions.

"*Amussat's Operation.*" Mr. Heath performed Colotomy on a woman who had been for many months under treatment for a chronic syphilitic stricture of the rectum, rather high up, and attended with extensive ulceration. An O'Beirne's tube was first passed through the stricture, and an enema injected, to assist in distending the gut. Mr. Heath then made the usual incision, about four inches long, parallel to, and a little above, the crest of the ilium. The transversalis fascia, when reached, was divided on a director, and the fold of peritoneum, behind the colon, separated with the handle of the scalpel. A knuckle of gut was then pulled forward, and a couple of threads passed through it, and through the lips of the wound. The bowel was then opened, the thread inside it, cut, and the cut edges of the colon securely attached to the skin by the four sutures thus formed. The rest of the incision was then closed, and the whole covered with a thick layer of picked oakum. Mr. Heath observed, before the operation, that as the obstruction was not complete, he did not expect to find the bowel much distended. There was considerable narrowing of the rectum, and prolonged treatment, with bougies, etc., had not effected any lasting benefit. The chief trouble of the patient, was, however, due to the great pain, and the large amount of discharge caused by the constant irritation of the ulcerated surface by the passage of the fæces over it. After the operation, he called attention to a point which is mentioned in Mr. Bryant's *Surgery*. After dividing the transversalis fascia,

a yellowish band is seen through the peritoneum; this is the fat on the colon; if one cut down upon this, the peritoneum is opened, and the front of the gut is reached; it is necessary to seek behind it for the fold of the peritoneum, and, this having been separated further, if necessary, the bowel can at once be opened. The arteries were closed by torsion. The picked oakum is largely used at this Hospital (University College) as a dressing for suppurating wounds, it is very warm and comfortable, and effectually conceals the purulent odour.—*British Medical Journal*, June 14th, 1873.

USE OF GELATIN SUPPOSITORIES IN OBSTINATE CONSTIPATION DUE TO ACCUMULATION OF FÆCES IN THE RECTUM.—In the above cases, and when there exists an accumulation of hardened fæcal matter in the rectum or colon, Dr. Nagel (*Allgemeine Wiener Med. Zeitung* April, 1, 1873) finds that when purgatives and enemata have failed, and in order to dispense with the use of the anal *curette*, suppositories of gelatin constitute an easy, harmless, and effective means of removing the evil. The suppositories are made of brown gelatin. They are steeped in water for twelve hours, and being thus softened and enlarged are introduced into the rectum. By subjecting the patient to a suitable regimen, an evacuation of pultaceous matter is obtained in twenty-four hours. The author attributes these effects to the hygrometric properties of the suppositories.—*Lancet.*

Medicine.

CHOLERA STAMPED OUT.

SUMMARY DEALING WITH CHOLERA AT THE WORKHOUSE, BLACKWELL'S ISLAND, 1866.

To Professor Frank H. Hamilton, New York, we are indebted for official and other papers, of which the following is an abstract, of his success in stamping out cholera:

July 26th, 1866, at midnight, the Asiatic cholera broke out with great violence at the Workhouse on Blackwell's Island; sixteen cases occurring within the next twenty-four hours. One case had been recognized on the 22nd of July, but no more occurred until the night of the 26th. The number of new cases rose and fell from this date until the 2nd of August, on which day there were reported 33 new cases, making in all up to this date 127 cases. At the time of the outbreak of the epidemic, July 26th, there were in the building 649 prisoners, of whom 435 were females, and 214 males. Of the whole 127 cases, 85 were females and 42 males. During the first three days there were 29 females attacked and only three males.

As Chairman of the Committee of Inspection of the Medical Board of Charity Hospital, including the Workhouse, Almshouse, and Penitentiary, it had been his custom to make only occasional visits to the Workhouse, and no report of the outbreak of cholera in this building was made to him until August 2, on which day, as already stated, 33 new cases occurred.

A careful inspection of the building and its inmates was immediately made, and the Board of Commissioners of Public Charities and Corrections was notified of the result, and permission was asked to introduce at once certain sanitary measures. Observing some apparent hesitation on the part of the Board to accept of the sug-

gestions, perhaps on account of the expense it would necessarily involve, the urgency of the case was pressed upon them, and they were assured that if full authority were given to him in the matter, the epidemic could be arrested in three days. "This was said deliberately, and without fear of a failure, because the special causes of the epidemic were apparent to me, as they would have been to any other educated physician, and the remedies were within reach."

Before the close of the day authority was given to Dr. H. to make such changes in the management of the various institutions upon the Island as he saw fit. His orders were issued, and began to take effect on the 3rd of August, but they were not in full operation until the 4th. On the 7th of August there was but one new case, "and the epidemic was virtually at an end."—*Official Report of Leroy Milton Gale, M. D.*

The promise was therefore kept. Science and humanity are too much interested in these results to permit us to withhold the testimony of the Board of Commissioners upon this point. It is as follows: "And in this connection it is proper to advert to the invaluable services of Dr. Frank H. Hamilton, the Chairman of the Committee of Medical Inspection of the Board. When the cholera broke out, isolated hospitals were, at his instance and under his directions, established. A code of sanitary regulations, formed by him, was adopted, and radical changes in diet, and in the forms and hours of labor, at his suggestion, were made. To his resolute and intelligent action may be attributed the arrest of the disease, and so confident was he of the efficacy of his proposed treatment, that he foretold the number of days in which the disease would disappear. The last case occurred within twenty-four hours of the period he had designated." —*Annual Report for* 1866, p. xv.*

* Not exactly correct: but the epidemic had ceased from August 6, to September 23—28 cases in forty-eight days—or a little more than one case for every two days.—*H.*

General Causes of the Epidemic at the Workhouse.

The weather was exceedingly hot, and continued so for some time after the cessation of the epidemic; and there was infection abroad, as shown by the prevalence of cholera in the city and in other places.

General Condition of the Workhouse and Island.

"The Island is at all times, in a great measure, free from malarial and other atmospheric poisonous influences. It is usually well supplied with water from the Croton mains. The diet is better than is elsewhere supplied to penal and purely eleemosynary institutions, so far as my personal experience with other similar institutions enables me to speak. Great attention is paid to cleanliness and to the ordinary hygienic rules, but there are no properly constructed water-closets attached to the Workhouse. Probably the omission has been justified on account of the proximity of the river-side closet."

Three or four weeks before the epidemic, there was an epidemic of diarrhœa, etc.

Special causes which contributed chiefly to propagate the Cholera Epidemic in the Workhouse.

1. Many of the cells were overcrowded, four persons in some cases occupying one cell of 16 feet by 8. This overcrowding was especially in the female cells.

2. Open buckets were used at night for the excreta by both males and females, and these remained in the cells until morning.

3. During the day most of the women remained within the building sitting in the sewing-room without employment, while large numbers were crowded into a single room making hoop-skirts. A few only were employed in scrubbing, washing, etc. The men were occupied out of doors.

4. The water-closets used during the day by the women were in two empty cells on the third floor of the building, in each of which were two or three tubs of the size of half

barrels, placed under properly constructed seats. These tubs were emptied at night into the river, filled with water and left out twenty-four hours, other tubs taking their places during the next day. "Most of the day these closets were thronged with women, part of whom came of necessity," but many came merely to avoid work, and to meet and converse with their companions.

4. The soiled clothes and bedding were put in water over-night, sometimes piled up without water, and subsequently washed in hot water.

6. Mush and molasses constituted the evening meal, and there was not a sufficient supply of vegetables. The bread was sour.

During the month of July, the water pipes conveying the Croton water under the East River to the Island were more than once broken, which in some degree interfered with the thorough cleansing of the Island and of the buildings.

Hygienic Changes instituted at the Workhouse.

1. The women were distributed and made to occupy as far as possible, separate cells. About 100 were discharged.

2. No buckets were allowed in the cells for excreta, and neither the doors of the cells nor the outer doors of the Workhouse were locked at night. Those having occasion to rise in the night were required to go to the river-side closets, to tubs placed outside of the building, or to the hospital.

3. During the day none of the unemployed women were permitted to remain in the building; the hoop-skirt shop was closed, and the women employed on this contract were sent into the grounds and allowed to sit in the shade of the buildings or of the trees from 4 A. M. to 8 P. M.

4. The cells heretofore used as water-closets were cleansed and closed, all the men and women being required during the day to resort to the river-side closets.

5. All clothes and bedding used by hospital patients were ordered to be removed promptly, and to be placed in large vats containing boiling hot water, and not to be washed until they had been in the water several hours.

Through some inadvertence, the orders given for the management of the laundry were not literally carried out for several days. The clothing, instead of being at once placed in boiling water, was submerged in cold water for a few hours, often over night, and then treated with hot water. The result of this omission was that of 34 women employed in the laundry, 12 died, 35 per cent. of the whole number.

6. At breakfast, coffee was substituted for rye-coffee; potatoes were added to the meat dinner; rice and tea were substituted for mush and molasses for supper. (Dr. O. Dwyer reported that the resumption of the mush and molasses at the Penitentiary, a few weeks later, considerably increased the amount of diarrhœa.)

7. A large proportion of the cases being developed during the night, and most of the inmates, both men and women, being accustomed to the free use of stimulants, a "night-cap" was ordered for each person composed as follows: Whiskey, one fluid ounce; Tr. Capsici, fifteen minims; Aquæ, three fluid ounces; M. For those who had already some diarrhœa, Tr. Opii m. xv. was added.

8. Stoves were placed in the rooms occupied as hospitals, and fires were kept in them constantly to improve the ventilation, the windows being kept constantly open.

9. Disinfectants were employed freely everywhere they might prove useful. But cleanliness being enforced, there was very little of these agents used.

The isolated hospital tents referred to in Report of the Commissioners were for the inmates of other buildings.

Quite a number of cases were noted where choleraic symptoms rapidly supervened upon a debauch, or the free use of alcohol under the impression that it exercised a prophylactic influence. Several of these were less than

ordinarily exposed to recognized sources of infection. Of the nurses who were seized, a debauch had very uniformly preceded the attack. One nurse—who was very faithful in the performance of her duties—experienced choleraic symptoms on three different occasions, after having on each time too freely taken whiskey to support her strength.—*The Sanitarian.*

THE OBSTETRIC JOURNAL OF GREAT BRITAIN AND IRELAND.

Some months since, it was announced that there would issue from the press, on or about the 1st April, a monthly journal, devoted to Obstetric medicine, and the treatment of diseases of women, to be under the editorial charge of Drs. Aveling and Wiltshire. The scheme was supported by nearly all the prominent obstetricians of Great Britain and gave promise of being a valuable addition to the medical periodicals of the day.

We learn from the prefatory note published in the first number "The establishment of this journal, was suggested "by two facts. The large number of medical practitioners "interested in midwifery and the treatment of diseases of "women and children, and the insufficient space allotted "to these subjects in the general medical periodicals." Without entering into the question whether insufficient space is allotted to these subjects by the general medical press, we can alone heartily welcome the appearance of this periodical and believe fully that it is destined to do much good in forwarding the best interests of a most important branch of the healing art.

We have received the three first numbers of the American reprint of this journal brought out by the enterprising publisher Henry C. Lea of Philadelphia. The journal as received is a literal copy of the English periodical most creditably got up on tinted paper with an American supplement edited by Dr. W. F. Jenks.

Lecture on Hypochondriasis, delivered at St. Mary's Hospital, June 25th, 1873. By THOMAS KING CHAMBERS, M.D., Honorary Physician to His Royal Highness the Prince of Wales; Consulting Physician to the Hospital, &c.

MISERY! — that is the subject of my lecture to-day. Perhaps you think you have had enough of that. The shadow of pain has been hanging like a gruesome cloud over the whole weary way through the systematic courses of medicine and surgery. But bodily pain is not misery; you must have seen patients jocose, or even cheerful, though daily racked with tortures, the sight of which has brought tears into your eyes. I would even go so far as to say that bodily pain does not cause misery in a normal man, at any rate, not misery at all comparable with that which arises independent of pain. Yet we lavish our pity upon the one, while we allow the other often to excite a feeling not far removed from anger in our breasts. Of course we sympathise with that of which, in minor degrees, we have all experience, while we (that is, the healthy-minded among us), fail to understand that of which our senses are not cognisant. Normally, the mere process of living is, of itself, a positive delight, a continuous delight, with comparatively short interruptions, arising from sickness and death; and the smile with which we greet everybody and everything is not taught by convention, but by instinct, or hereditary reason. Misery is abnormal; a disease, a terrible disease, as those who have felt it know well. It is constitutional disease, idiopathic, not dependent on external circumstances for its origin. Disappointment, loss of wealth, loss of husband, wife, children, friends, of health, character, or social position, are often alleged as causes, and sometimes they may be the final excitant; but shrewd observation will show that usually they are mere pretexts, offered in explanation of a mystery. Thanks to the All-merciful, all these things are borne daily by millions with cheerfulness:

"Some natural tears they drop, but wipe them soon," and involuntarily protracted sorrow is always a pathological state.

This state is called, in the nomenclature of the College of Physicians, "Hypochondriasis," and is rightly classed as a disease in which there is disorder of the sensitive parts of the nervous system, but no disorder of the intellect. For the patient feels all wrong, but understands all right. There is no perversion of the understanding, such as frees the insane from the responsibility of moral agency. The understanding, indeed, is usually very clear, so that it is easy, in the case of educated persons, to demonstrate to them the true nature of their malady, and to elicit evidence that it is idiopathic, and independent of, if not anterior to, the accidental causes assigned. I mean, it is easy to a persevering and earnest will.

The distinction drawn, as above mentioned, is of the highest importance to us as practitioners of general medicine, and to our patients; for while we are inclined, and I believe do right, to hand over those whose intellects are disordered for treatment by the special means which our alienists apply so skilfully, hypochondriacs are better kept in our own care. They are not *alienati mente*, and are injured by being treated as such.

Yet, though the College has acted well in drawing a distinct broad line between hypochondriasis and disorder of the intellect, the nomenclature does not quite satisfy me in its definition. The disturbance of the bodily health is put so prominently forward, that the reader is led to expect to find it preceding the deranged feelings, whereas, in a great many cases, no such sequence of events can be shown. The pasty tongue, the difficulty of swallowing, the loss of appetite, the painful and slow digestion in the stomach, the flatulence in the bowels, the weak, languid circulation, the loss of adipose tissue, and in long cases the atrophy of heart, liver, pancreas, are consequences of the imperfect innervation.

The most vivid picture extant of an hypochondriac is contained in the autobiography entitled, *Grace Abounding Unto the Chief of Sinners.* It is a history of the feelings of "God's poor servant, John Bunyan," as he styles himself. The plain tale of his inward misery, from boyhood up to his imprisonment in Bedford Jail, explains many passages in his larger work, *The Pilgrim's Progress*, which do not accord with the psychical experiences of healthy Christians. I refer especially to the Slough of Despond, the Man in the Iron Cage, the description of Doubting Castle, Mrs. Diffidence, and Giant Despair. He says, in words which naturally break into poetic rhythm, "I beheld the condition of the dog and toad, and counted the estate of everything that God had made far better than this dreadful state of mine." No healthy man ever felt like that; but to the hypochondriac, alone in creation, no past, no future, can be so bad as the present—*hora novissima, tempora pessima.*

One feature especially noteworthy is the suddenness of the attacks. Bunyan describes himself as arrested by one in the middle of a game of tip-cat, so that he left the cat he was about to strike on the ground. But on "returning desperately to his sport again," he felt his soul "possessed," as he words it, with despair of ever attaining happiness. The suddenness of invasion is most striking when the patient is in the company of others, as Bunyan was. He may be in the middle of an ordinary conversation, when a dark cloud seems to overshadow him, and henceforth all is gloom and unutterable misery. Perhaps, under such circumstances, the attention is diverted from minor degrees of disease, and is drawn towards it only when it has got to the worst; for, in solitude, a more gradual progression is often observable.

A vague alarm of impending evil very frequently accompanies the misery, and sometimes (as in Bunyan's case), it takes the concrete form of a dread of hell, and thoughts about devils. In dreams they assume a definite

shape, and seem trying to draw the sufferer along with them. Sometimes there is a dread of death; but I think it is exceptional, and that when you find such a fear in a diseased degree, the case is likely to turn out one of ordinary insanity, delusion of the intellect supervening. More commonly death is looked forward to as a relief from misery, and would be considered not unwelcome. In such cases patients will sometimes commit suicide, not like madmen, in a sudden whim, or uncontrollable impulse, but in a deliberate manner. Indubitably, suicide would be much more common, but for the reason which Hamlet, the prince of hypochondriacs, rightly assigns. "The dread of something after death," acts as a powerful safeguard. I wish Shakespeare could have truthfully written "The *hope* of something after death," which is a much better reason for avoiding suicide; but such a feeling is inconsistent with the character he is painting. While the fit is on, the only motive influence over the soul is fear, and that, I believe, preserves many an one from self-destruction. It is a stupid and a blasphemous act to hurl back the Creator's best gift in his face, and it well deserves the disgrace and punishment which men attach to it. But irrational it is not, for the hypochondriac may with reason argue that he had rather be or do anything than "grunt and sweat under this weary life." Nay, more if a man be so credulous as to think the grave the end of his being, and can imagine "this sensible, warm motion, to become a kneaded clod," it is difficult to answer his arguments for extinguishing himself. Suicide is a cure for hypochondriasis, as a cure the hypochondriac seeks it, with a full knowledge of the nature and bearings of the action, and therefore he should be held entirely responsible. To call the deed one of "temporary insanity," where there is no evidence of delusion, is pure effeminacy. Some sciolists have lately promulgated what may be called an "euthanasian" creed, advocating both suicide and murder. Yet mad they cer-

tainly are not, and are guilty of any consequences which may follow the paradoxical dogma which they are vain enough to print. They are shown up in *The Pilgrim's Progress* under the guise of a wicked old woman, Mrs. Diffidence, who suggests "knife, halter, and poison," as a cure for the pilgrim's doleful state. Hypochondriasis never disposes the patient to injure others. Without disorder of the intellect, evidence of which may be wormed out, homicidal tendencies do not appear, so that you have no right to lock the poor man up in a madhouse on the grounds of social policy.

Hypochondriasis sometimes appears very early in life. John Bunyan suffered from it when he was a mere child, and quite as much when he was a blackguard swearing tinker, as after his marriage and conversion. Oftener it comes on in manhood, rarely after the meridian of life. Its early supervention would be enough to show its hereditary nature, but you can almost always obtain individual proof of the same, as it is not made a family secret, like madness. Sometimes insanity, more often hysteria, may be traced in sundry of the kindred, but most frequently chronic invalidism, or something which puzzled the doctors but did not shorten life, is the form which the disease assumes in the domestic records.

The intellect of hypochondriacs is usually of a superior order. The author whose case I have quoted is an instance in point. Again, Shakespeare makes Hamlet a courtier, soldier, scholar, "the observed of all observers;" and Shakespeare is never wrong in such matters. The patients who come to us are often shrewd men of business, pushing inventors, judicious speculators, so long as the disease does not interfere with their usefulness. If skaters, they are distinguished by cutting the most elaborately graceful figures; if sportsmen, they are deadshots. I select these instances purposely, because sedentary and scholarly habits have been popularly associated with the disease; but I think the association arises from

the accident that the higher intellects are naturally attracted to literature. I have not found hypochondriasis oftener preceded by excess of brain-work or of desk-work, than by athletic training.

A common symptom in hypochondriasis is a temporary loss of power in the voluntary muscles of a part, or more often of the whole body, *paresis subitanea*. The patient is coming up hill from the railway station to dine with a friend, when he suddenly finds himself unable to proceed. Bunyan makes Giant Despair lose the use of his hands at a most lucky moment for the pilgrims, just as he is rushing at them with a club. In my experience, the lower extremities are most affected, but still the paralysis is of the partial character indicated; the Giant is described as withdrawing quietly, and when the legs are seized, the patients can still crawl along. There is no loss of sensibility, not even giddiness. The patient can stand, but he cannot go. He does not fall, but from utter prostration and weariness he throws himself into the nearest resting-place; and there he will remain, if allowed, till the misery gradually passes away, or is relieved by the stimulus of food.

Bunyan parenthetically remarks, that these attacks of paresis came on when the sky was bright: "he sometimes, in sunshiny weather, fell into fits:" a very shrewd observation, and one not likely to occur to any but either an actual sufferer, or to the sensitive penetration which always makes real genius hit the bull's eye of fact. Listen to Shakespeare's hypochondriac. "I have of late (but wherefore I know not), lost all my mirth, foregone all custom of exercises; and indeed, it goes so heavily with my disposition, that this goodly frame, the earth, seems to me a sterile promontory; this most excellent canopy, the air, look you—this brave o'erhanging firmament—this majestical roof fretted with golden fire, why it appears no other thing to me than a foul and pestilent congregation of vapours," says Hamlet, pointing out of window to a

bright starry sky. A common-place artist would have put in a background of mist and lowering clouds; but our poets know better, and rightly describe a high state of barometer as an aggravating condition.

It is very seldom that an hypochondriac escapes without the general misery being localised in pain of some part or another, either continuously or at irregular periods. An observant person can usually detect the nature of the pain by noticing that it is not antecedent to, but consequent on the mental distress. Bunyan says, "I felt such a clogging and heat at my stomach, *by reason of this my terror*, that I was, especially at some times, as if my breast-bone would have split asunder." This is the pain in the hypochondria, whence the disease gets its name. The "clogging and heat" is very graphic; the sharpness, the stabbing, the aching characteristic of neuralgia, are not found here, but instead, a dull sort of burning sensation, deeply seated in the interior of the body. It moves about, but slowly, and when it begins to move is usually moving off. Sometimes, what the patient calls a "scratching," or a "scraping," and which pathologists Latinise into "formication," § is felt more superficially than the deep burning. The back of the head and neck, the soles of the feet, the palms of the hands, are favourite points for this sensation; but some also describe it as occurring in the abdomen. A feeling of weight in the rectum, in the uterus, or in the bladder, is often experienced, though they may be all no fuller than natural.

The *paresis subitanea*, which I described in the muscles of the limbs, still more frequently affects the involuntary

§ "Formicatio" means properly pain like that caused by the bites of ants, such as arises in the action of cantharides on the skin. I do not think that it describes well the sensation in hypochondriasis. I have always found sufferers repudiate the comparison of their feelings to the bites of ants or the stinging of a blister. For obvious reasons, I never use the word *formication* in their presence.

fibres of the intestinal canal. The peristaltic movements become sluggish, and do not press upon the contents of the bowels. The portal veins fail to re-absorb the air thrown into the area of the tube, and so it becomes rapidly distended. If the air pass off, it is evident, from its odour, that it does not consist of the gases of decomposition, but is mostly atmospheric and carbonic, exhaled from the blood. But the air rarely does pass off by the external vents; it gives a great deal of trouble by remaining in the bowels, distending them inconveniently and painfully. Poor John Bunyan seems to have been so blown up, that he says he feared he was going to suffer the fate of Judas Iscariot, and "burst asunder in the midst." In process of time the whole may be re-absorbed, without necessitating any explosion.

If the paresis of the bowels be long continued or frequently repeated, it retards digestion, and the food decomposes and fills the abdomen with fœtid gurgling gases, there are a nauseous taste in the mouth, eructation, and malodorous flatus. But these cases are by no means so much the rule as to make indigestion an essential feature of hypochondriasis. When the flatulence is most marked there is often much confusion and giddiness of head.

A feature which is almost universal in long cases of hypochondriasis, is loss of weight during the attacks. I am not sure whether it precedes or follows their commencement; but at all events it disappears very rapidly immediately on a normal condition of feeling being recovered, in such a marked way as that the patient considers the change a cause of restored health. In his *Grace Abounding*, Bunyan describes himself several times as suffering from this symptom—as he words it, "inclining to a consumption, wherewith, about the spring, I was suddenly and violently seized with much weakness in my outward man." And a few pages afterwards he speaks of being "very ill and weak," presumably from a similar cause, when his spirits suddenly revived, and he

thought of the angels carrying Lazarus into Abraham's bosom. Then he mused with comfort on "O grave, where is thy victory." "At this," he goes on, "I became well both in body and mind at once, for my sickness did presently vanish." He typifies this symptom in the person of one of the prisoners in Doubting Castle, "Mr. Despondency, who was almost starved to death."

The male genital functions are frequently much deranged in hypochondriasis. Their condition may be described as exhibiting a want of harmony. There is at one time desire without erection, and at another time erection without desire, and sometimes emission without either. This distresses patients very much, for it affects, or is supposed to affect, their social relations to others, and it often leads them to submit themselves to injurious local treatment at the hands of dishonest and ignorant practitioners.

The urine of hypochondriacs is apt to be deficient in due acidity, and variable in specific gravity. Crystals of oxalate of lime often float in it, and an abnormal quantity of renal and vesical epithelium. Mucus also often is formed in excess in the urethra, and is squeezed out during straining at stool, or even stains the linen. These symptoms are all exhibitions of imperfect nutrition, and are analogous to the leucorrhœa of the female. I have, however, known the urine to contain an unusual amount of urea; and then I have found that the patients have been gorging themselves with meat in excess of appetite, sometimes from gluttony, sometimes on theoretical grounds.

The impression that they are the victims of some organic lesion is the well known commonest, and often called the distinctive, feature of hypochondriacs. Feeling general misery, often accompanied by local pain, they construct a theory to account for the same; and, as they are for the most part intelligent and ingenious persons, the theory runs a chance of being a very plausible one, and of convincing themselves and their friends, and often

their medical advisers. They have been led into a wrong judgment, doubtless, but so have the doctors; but there is a most distinct broad line to be drawn between an error of this kind and one that is the result of hallucination, illusion, or delusion. The common sense of mankind is, as Dr. Maudsley points out (Reynolds's *System of Medicine*, vol. i. p. 20), the final court of appeal for what constitutes evidence of insanity; and you will find that the impressions of hypochondriacs regarding their bodily health are not repugnant to the common sense of mankind. This is an all-important test, for we often have people coming to us and complaining of things which are utterly preposterous—the mere statement of which is a proof of their non-existence. I refer to such a statement as that made to me by a tradesman's wife, that she had become solid, and that there was no space to contain the food, which nevertheless she ate; or that of a banker, that his abdomen was full of tadpoles; or that of an idle country gentleman, that some stones, which had been thrown in his face weeks ago, had gone down into the stomach and could be heard rattling. All these turned out lunatics in the end, and so, I feel sure, must almost all those laughable but misplaced examples with which writers on hypochondriasis are wont to enliven their treatises. Of course instances occur where the diagnosis is difficult; but they are really rare, and the moral of them is, let us not be in too great a hurry to make the diagnosis.

One usually employs the masculine article in speaking of hypochondriacs, but women are not wholly exempt I have now a mother and daughter under my care for the disease, the nature of which they thoroughly understand, and are learning to subdue. Their intellects are of a superior order, and perhaps what one would call masculine in a favourable sense; I mean, they are not the least emotional or hysterical. It may be noted that Bunyan places one, and only one, woman in Despair's dungeons.

Her he does not describe; because, indeed, he knew nothing of the other sex "but by their apparel" beyond his own family circle. He says he was "shy of women." "The common salutation of women I abhor; 'tis odious to me in whomsoever I see it. Their company alone I cannot away with." So he naturally did not receive their confidences.

It is a great comfort that hypochondriacs rarely if ever have that love of lying which angers us so much in hysterics. It is true that Hamlet shams madness; but that is for a definite politic object, as anybody else might sham, and not for the purpose of deceiving, like a hysterical girl. Now, hypochondriacs will argue with you interminably, but they will not swindle you; neither have they that unamiable suspiciousness of madmen: indeed, they are usually confiding patients. A few years ago, the wife of a hydropathist, who did not believe in her husband, said to me that she was obliged to return home, because the house was full of "the lunatics," meaning their patients. I said it was a wrong word to use—not only because it is stupid to revile one's bread and butter, but because lunatics are too suspicious to be profitable pigeons, and that her nest was more likely to be feathered by faithful hypochondriacs.

The corporeal symptoms so closely resemble those which are produced by excessive exertion, that I should conjecture the pathology of the two states must be the same—namely, a drain upon the voluntary nerve-force beyond the supply. In health, this arises from a temporary and intentional excess of the drain; in the disease, it arises from deficient supply. The part in which changes recognisable by the anatomist would be found, would be the grey matter of the nervous centres probably; but the anatomist never gets a change, for hypochondriacs are usually cured of their life-borne misery by the supervention of the lesions, which finally prove fatal, and which are generally quite unexpected; or, haply, they are carried

off by some acute disease, as Bunyan was by an ardent fever caught in riding from London to Reading and back in stormy weather, on the errand of reconciling a prodigal son to his father.

The only anatomical lesion I know of which produces hypochondriasis is of the rectum, in the shape of piles or ulceration; and it is by no means common. However, it is certain that the nervous condition may be cured by curing the local.

The best general treatment is that which is the most rational deduction from the pathology. It may be divided into *physical* and *moral*; and we will consider the physical first, because it is the easiest prescribed. The point of prime importance is the due nutrition of the nerve-substance, and that is effected by keeping up in the body a treasury of freshly renewed adipose tissue. In two instances since Christmas, I have had the remark made by patients that an increase in weight was coincident with a renewal of healthy thought and feelings. This store of adipose tissue, as a basis for the molecular growth of nervous matter, may be accumulated by leading up to the acme of cod-liver oil, through the ladder of Devonshire cream, bacon, olive oil, pancreatic emulsion, marrow pudding, or any other oleaginous substance which may be invented for educating the gustatory nerves to bear our fishy friend. At the same time, it is desirable to bring the digestive functions into good working order by means of strychnia and henbane, *secundum artem*. Some persons will not grow fat without a large amount of bodily rest; and it is necessary to enforce it upon them by medical prescription. I have found fidgets more often interfere with the cure of hypochondriacs than laziness. Even the most untoward accompaniments will sometimes not diminish the value of rest. The being shut up as a Nonconformist for twelve years in Bedford Jail seems to have cured John Bunyan, though it was a filthy and noisome "den," as he justly terms it. He says: "I never

knew what it was for God to stand by me at all times, as I have found him since I came in hither;" and confesses that he passed his time there "in much content." It was at this period he was lighthearted enough to compose the characteristic and descriptive anagram of his name, Iohn Bunyan, "Nu hony in a B." Indeed, he is a bee full of new honey. Nor does it seem that he relapsed afterwards. The fact is, that he was well fed up by admiring friends, and entered on his true vocation of writing the life-dramas which enshrine him in our hearts along with Homer and Shakespeare and "George Elliot."

I have been the more particular in alluding to the importance of rest, because all non-professional and some professional authorities exalt the opposite course—namely bodily exertion, as a panacea for hypochondriasis; but it certainly does not answer. Beguiled by these theorists some years ago, I put them to the test. Corresponding with a hypochondriac, whom I had not seen, in the North of Scotland, I told him I would give him no more advice unless he walked fair heel and toe all the way to London. In a few weeks he presented himself, having conscientiously obeyed my prescription; but, I am sorry to say, he was decidedly the worse for it, and, as may be imagined, not grateful.

But the excess of rest is apt to produce constipation; and if the strychnia and oil be not sufficient to obviate that, an habitual aid must be given to the peristaltic movement, and to the liquefaction of the fæces by green vegetables, salads, or even by such drugs as taraxacum, or Seltzer water taken as a regular diet. Powerful or occasional purgatives are injurious. I have found a very small dose of belladonna—say one-eighth of a grain of the extract at most—combined with half a grain of aloes, serve the turn very well. What is wanted is, not a free action of the bowels—for moderate sluggishness is normal—but a prevention of obstruction.

In the moral treatment of hypochondriasis, Bunyan is an excellent guide. You remember how, when Christian and

Hopeful were in the dungeon, in doleful case indeed, the former suddenly be thought him that he had a key in his bosom called Promise, with which he picked one after another the locks that lay between them and liberty. "And so they went up to the mountains, to behold the gardens, and orchards, and fountains of water, where also they drank and washed themselves, and did eat freely of the vineyards." There is no key equal to it; it is somewhere in every body's pockets; but the prisoner must find it himself, and the medical adviser seldom has an opportunity of helping him. Nevertheless, I trust that no sufferer will come across such miserable comforters as our poor hero. He tells us, in *Grace Abounding*, "I took an opportunity to break my mind to an ancient Christian" (I should call him an old Job's wife), "and told him all my case. I told him also that I was afraid I had sinned the sin against the Holy Ghost; and he told me he thought so too." It is all very well to agree with a maniac's whims, but a hypochondriac may claim a right to be reasoned with, and John Bunyan was badly used.

Several other hints equally suggestive may be found in the *Pilgrim's Progress*. Though the pilgrims managed to escape, the Giant was not destroyed, but afterwards fell under the swords of Mr. Greatheart, Mr. Dare-not-lie, and their companions. In fighting to make others happy, the suffering soul is drawn out of itself, and conquers its own foes. You may do much by interesting hypochondriacs in thoughtful works of charity, and by leading them to ornament life with beauty and pleasure. They must hate ugliness in any shape, not for their own sake, but for that of others.

Bunyan feels very clearly the antagonism between hypochondriasis and the æsthetic life. Puritan though he is to the backbone—fanatic, nonconformist, martyr, satirist, woman-hater, a foiled reformer, at war with the age, and getting the worst of it—yet he had the true poet's sympathy with all that is human; and he celebrates the

dinging-down of Doubting Castle in a fashion that his sour-faced coreligionists would have denounced as

"Idolatrous and pagan,
No less than worshipping of Dagon."

For "Christiana, if need was, could play upon the viol; and her daughter Mercy on the lute. So, since they were so merry disposed, she played them a lesson; and Ready-to-halt would dance. So he took Despondency's daughter, Much-afraid, by the hand; and to dancing they went in the road. True, he could not dance without one crutch in his hand; but I promise you he footed it well: also the girl was to be commended, for she answered the music handsomely."

What is Ready-to-halt's "crutch," which he could not lay aside? The author leaves us to interpret it, each according to his own experience; as for me it shall be the medical treatment, which cannot safely be laid aside, even when the disease appears subdued by the moral. One crutch—that is, half doses—may be sufficient; but the patient should be warned that his disease is constitutional, and that he is liable to relapses. When Ready-to-halt went over the dark river, he bequeathed his crutches to his son; and I hope they have been of use to him.

I am always very unwilling for a patient to give up his regular occupation; for this brings him into social relations with others, and he may think of them instead of himself. Doubtless, worrying hard work may be a severe trial, and be bad for him; but idleness is much worse. It was by going out of their way, and falling asleep, that the pilgrims fell into the clutches of Giant Despair. I have had as patients two of our professional brethren, confirmed hypochondriacs, who were perfectly well and happy so long as they were engaged in that most trying of all lives, the charge of lunatics—the one in a private capacity, and the other as assistant in an asylum. When unemployed, their misery was frightful.

With respect to the palliative treatment of the pains in hypochondriasis, I must earnestly entreat you not to give opiates. An increased dose is demanded with alarming rapidity; and, when you have once begun, there is no stopping. With opiates I include alcohol. The only admissible cases for the employment of this class of drugs are those where there is an actual deficiency of sleep, confirmed by independent evidence. But the sedative that is chosen must be given in very small doses, and, above all, must not be increased.—*British Medic. Journal.*

NOCTURNAL INCONTINENCE OF URINE CURED BY CHLORAL HYDRATE.—Dr. Girolamo Leonardi has recorded in *Raccoglitore Medico* five new cases of the above, in which the use of a solution of chloral hydrate was entirely successful. The patients were all aged eight to ten, and the disease had resisted various means which had been previously employed. In all the cases the cure was effected most promptly, and was permanent. The dose was from seven to fifteen grains in about an ounce and a half or two ounces of water, taken at once or in two doses. In some cases the very first dose was successful, in others five doses were necessary to effect the cure. The drug was administered in the evening, two hours at least after food; and Dr. Leonardi strongly recommends that the patient should drink as little water as possible.—*Lancet.*

ENLARGEMENT OF THE TONSILS AS A CAUSE OF NIGHTMARE (*British Medical Journal*, June 7, 1873):—J. Warrington Haward, F. R. C. S., relates some cases of nightmare occurring in children, resisting ordinary methods of treatment, and increasing in frequency and severity, which were at once permanently cured by the

removal of a portion of the tonsils. As these glands were enlarged, he was led to believe that the obstruction to respiration and consequent cerebral congestion were sufficient to produce the disorder. Nightmare due to gastric irritation or dentition occurs, as a rule, only once in the night, while that due to enlarged tonsils often recurs several times in the same night, and is invariably observed to be aggravated by the child catching cold.

FATAL POISONING FROM CHLORATE OF POTASSA.—In the *Pacific Medical and Surgical Journal* for June, Dr. A. M. Ferris gives a case of supposed poisoning from chlorate of potassa, where a "large spoonful" of the salt was swallowed by mistake, and was followed by congestion of the surface, blue lips, cold extremities, inability to empty the bladder, hæmaturia, and death. At the post-mortem examination the auricles were found filled with large coagula, and the ventricles empty and contracted. The lungs and abdominal viscera were healthy. As the brain and kidneys were not examined, absolute proof appears to be wanting that the symptoms were really due to the salt of potash.

DELIRIUM TREMENS AFTER CHLORAL-DRINKING.—Dr. George F. Elliott (*Lancet*, May 24) relates an interesting case where the excessive use of chloral produced inaptitude for exertion, muscular pains in the upper extremities, loss of appetite, great thirst, constantly fetid breath, constipation, and finally a semi-comatose condition. The patient, a man æt. 35, had been in the habit of taking fifteen grains of opium daily for many years, but had for a few weeks substituted chloral, taking two hundred grains in the twenty-four hours. Its withdrawal produced at first sleeplessness, and then all the phenomena of delirium tremens, which subsided under the use of large doses of tartar-emetic and opium.—*Medical Times*.

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1873.

THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

In our last we published a synopsis of the proceedings of the Medical Council of the College of Physicians and Surgeons of Ontario, taken from the Toronto *Globe*, confining ourselves to the report of the bill as amended, of the present Ontario Medical Act, and which will be submitted to the Local Legislature during their next session. In this amended bill, we notice that the College propose taxing the profession generally, in the Province of Ontario, for the purpose of defraying the working expenses of the College. This is not objectionable and we suppose will not receive opposition. The present is certainly a more rational scheme than the one formerly proposed, which was to issue an annual license, the defaulter being liable to all the pains and penalties of an unlicensed practitioner, and the onus of proof as to his having taken out his annual license and having paid his annual license fee, resting, not with the College, but with the defaulter. We thought at the time, that few men if they carefully looked into the subject would submit to such an oppressive act. Pay the annual tax certainly, support the College, by all means, but not at the hazard of being declared an unlicensed practitioner and forced to prove the fact of being licensed, or being summarily condemned to pay a fine of one hundred dollars or of submitting to imprisonment for the space of three months in the common gaol of the district, if unable to pay the fine. We always thought that the principle of British Equity was to regard an ac-

cused innocent until proved guilty; but the College in its bill submitted at the last session, which was fortunately withdrawn, instituted a new rule of equity by stating that the accused was to prove his innocence, and, if he failed so to do, he should be subject to all the pains and penalties imposed by the Act.

It strikes us very forcibly, that a good opportunity is offered for the Ontario College to secure an act, which would be acceptable to the other provinces of the Dominion, so that we could amalgamate and have a central examining board for the whole country. The old saying that union is strength is well illustrated in the case of our medical institutions. We in Canada are divided, and in consequence we are weak, possess small influence, and no power. A bill was submitted to the profession some years ago but it was not acceptable, or rather was not accepted, it was regarded as a McGill College affair, a sentiment expressed to the writer by one amiable little gentleman who admitted the necessity of having a central examining system, but who, when asked why he did not support the bill submitted before the Canadian Medical Association, replied because it was a "McGill College affair." Now if the Ontario Medical Council will take the initiative and secure an act which will be operative in their own section of the country, but which will be adaptable for other sections of the Dominion, we have no hesitation in believing that they will do good and secure to themselves the credit of having moved the first step in the right direction. There should be no rivalry except that of endeavouring to elevate the standard of medical education. If the schools in the various sections of the Dominion unite, and hold out inducements to students in increased facilities for acquiring practical knowledge, a better class of practitioners will be sent out to the country in future. The number of teaching bodies may be increased *ad infinitum*, let us have as many teaching bodies as can possibly hold together, good alone can come out

of it, because although some men will give, as Dr. D. Campbell expressed it in the *Globe*, a rehash "possibly in very bad English," of what the student will find better expressed in Watson, Flint, Carpenter, Holmes, Gross, &c., still the lecturer will, must indeed, increase his store of knowledge by reading, studying and copying out in his own style the remarks of standard authors on diseases that he may have possibly never before read; in this respect at least the lecturer will be benefited. But in advocating the multiplication of teaching bodies, we should insist on having but one licensing body. If this system is adopted the evil, if it becomes one, will very soon be checked, each school or teaching body will soon find its level and the majority will die a natural death from want of support. Medical students as a rule are quite capable of judging for themselves, and where real earnest hard work is accomplished by the teachers of any school, that school will secure the largest share of the students of that year. Then again in the interest of the student, each school should be required to have a full staff of teachers; no one individual should pretend to teach two branches of medical science, and each lecturer should be required to deliver in each session a regular course of a prescribed number of lectures in his branch within a stated period. Any school possessing such requirements should receive full recognition, and students hailing from that school should be entitled to an examination after having attended a stated curriculum. If we in Canada desire recognition by the Medical Council of Great Britain and Ireland on equally favourable terms as we offer to those registered in that country, we can alone expect that privilege by placing our medical institutions on a broader and better footing than is in existence amongst us to-day. Nor need we expect recognition under the present system, if as we before observed, we are divided, and in consequence hold no status, nor can we under present circumstances secure any influence towards that desired end.

CORONER'S INQUESTS.

We have before alluded to the glaringly absurd verdicts rendered by our coroner's courts in Canada, and we have again in the interest of public morality to call attention to this subject. The object of a coroner's court is to ascertain the actual cause of death when it occurs, under suspicious circumstances. No man has a right to deal with his own life any more than he has with that of his neighbour. In either case if he premeditates and carries out the destruction of another person, or of himself, it is murder in the first degree,—the greatest crime that can be inflicted against the laws both of God and man. The only punishment awarded to the self murderer in olden times was to deny him Christian burial; but in these strange times of ours, the man who dares to usher himself unsummoned into the presence of his maker is sure of exciting the sympathising charity of a pitying coroner's jury who return a verdict not in accordance with the facts as they are, but as they ought to be.

Whose is the fault? Is it the Government who refuse to expend the necessary amount to secure efficient and skilled evidence bearing on the case. Is it the Government official in the person of the coroner who burks investigation and suggests a verdict of death by the visitation of God? or is it the jury, who refuse to order the necessary post-mortem examination, and prefer returning a verdict which will at least satisfy a portion of the community, if it is not altogether in accord with the facts as they are.

The sale of poisons by druggists and apothecaries is prohibited by law, except when ordered in a physician's prescription. And furthermore when poisons are dispensed, a poison label should be pasted on the bottle with a death's head and cross bones. It is well known that this law is being constantly set at defiance and we should suppose that it becomes the duty of a coroner if he finds this law has been set at nought by any druggist or apothecary, to intimate the fact

to his jury who try the case, and if the druggist or apothecary is proved guilty simply hand him over to the authorities for breach of the statute. Cases of this kind are constantly coming up before the courts in Great Britain and men are put on their trial on a charge of manslaughter and in some instances severely punished.

In such cases the rights of society are assailed, and the offenders are dealt with as the law provides. These is no hardship in this. If for the well ordering of society and for the safety of individuals a law is enacted, which is made public, and which every good man is desirous of seeing carried out, the offender or controvener of that law has no just cause of complaint if made to suffer for his guilty neglect or obstinate refusal to regard the conditions of that law. What shall we say of the court official or of his jury who wilfully neglect to "well and truly try, and a true "deliverance make between our Sovereing Lady the "Queen," and the individual so implicated whom they are supposed to have in charge and a true verdict render according to the evidence, to which they called upon God Almighty to help them in making. It is a farce, it is worse than a farce, it almost comes within the meaning of blasphemy.

An individual well known in this community was found by our police in a dying state, he was taken to the Montreal General Hospital and shortly after his admission died; after death in his pocket was found two bottles, one marked aconite, the other belladonna, but no poison label was attached in either case. A hurried inquest was called, no post-mortem examination of the deceased was made, no analysis of the contents of the stomach was ordered, no evidence was sought to be elicited touching the actual cause of death. The man may have died from natural causes, although there is nothing to show that such was the case. The farce of a coroner's inquest was gone through and a verdict rendered of death by disease of the heart. When will our Government apply the necessary pruning knife and put a stop to such monstruous public immorality. Was it to screen the druggist who sold the poison? possibly he may have possessed a physician's order. Such did not appear in evidence before the coroner's jury and it remains a question unsettled to the injury of the druggist. Such things ought not to be.