to raise the limbs to the extent of a few inches without the greatest difficulty, and complained that they felt as though made of lead: they were hyperæsthetic and hyperalgic. He suffered intense agony from cramps in the muscles of the thighs, with numbness and pricking pains in the legs and feet.

The boundary line between complete and partial anaesthesia was upon a level with the umbilicus; and in this region he said that it felt as though a cord was bound round him. There were occasionally clonic spasms, but these were unfrequent. There was incontinence of urine for twenty-four hours, which passed off and did not return. The bowels were most obstinately confined. There was no especial tenderness down the spine; no intolerance of light. [This sign, though not authentically recorded, I have invariably found to be pretty conclusive evidence as to the seat of the cerebral meningeal lesion. There is not, as a rule, photophobia in basic meningitis; but when the meninges covering the superior cerebral convolutions are inflamed, and more particularly when the inflammatory action becomes intraventricular, then intolerance of light is always attendant, and furnishes a marked symptom.] He occasionally complained of great pain and heaviness in the occipital region. He was especially deaf upon the right ear; and, although his intellect was clear, there was at times considerable amnesia and thickness of speech, which never amounted to aphasia. The progress in the acute stage was exceedingly interesting, and for about three weeks his condition varied little from that just described; the temperature ranging from 101 to 105 degrees, and in proportion as it decreased, so sensibility and voluntary power began to return. The sub-idence, however, of the ravages produced by the nature of the malady and the repair of the degenerated tissues was extremely gradual, so that for months he was unable to walk unaided.

When he was discharged, six months after he was first attacked, he appeared to be perfectly well. The facial paralysis, as well as that of other parts of the body, had completely gone. He closed his eyes, masticated his food, moved his arms, and walked almost as well as ever he did. At times he staggered momentarily, but this seemed to be due more to the atonic condition of the muscles than from any central ataxic cause, as the other signs of locomotor ataxy were absent. The deafness of the right ear, however, remained persistent.

After the more acute symptoms had subsided, large doses of iodide of potassium were freely administered, as well as the syrup of chloral and bromide of potassium to relieve pain.

For some time after he first got out of bed, his legs were of no use to him; the muscles were lax and devoid of tone; but by the aid of cold douches to the spine, and persistent rubbing as well as galvanism, with strychnine injections, he progressed rapidly, and left the institution perfectly well.

CASE OF INTESTINAL OBSTRUCTION IN COLIC: EVACUATION OF FLATUS BY PUNCTURE: RECOVERY.*

By SAMUEL MARTYN, M.D., F.R.C.P.,

Physician to the General Hospital, Bristol.

ON July 16th, 1873, I was called to Mr. B. B., a short, strongly built man, aged 60, who, up to the time of this attack, had been in good health. In his family, there is a strong gouty tendency, but he has never suffered in that or any other important way, unless from occasional bronchial catarrh. As this gentleman was a deaf-mute, we had to converse on the fingers, which was a little difficult, owing to his having very imperfect sight. Mr. B. had had diarrhoea for a few days, referred to taking fruit. Just now, he was found in an attitude described as "doubled up" on the staircase, with extremely violent colic. He made constant efforts to pass a stool, but the greatest straining produced no result. Pulse 60. Tongue very furred. I ordered a dose of castor-oil, two successive doses of chlorodyne, and fomentations of "liquor papaveris."

July 17th. In the morning, the symptoms were equally violent, the pain occurring in paroxysms at short intervals. He rolled on the floor. Pulse 50-60. I gave one-fifth of a grain of morphia subcutaneously. At 10 P.M., he again had a dose of castor-oil, a quarter of a grain of morphia subcutaneously, and fomentations.

July 18th. He slept a few hours after the sedatives. When seen, at 5 A.M., he had been since three again in violent pain, diffused over the central region of the abdomen chiefly, with tenesmus. His urine was normal. The long tube passed nine inches, when the orifice brought back blood and mucus; an enema was, therefore, given, with turpentine,

oil, and egg, but soon returned. Morphia was injected subcutaneously. At 10 P.M., the pain was as violent, but he slept a little between the attacks. He took a little fluid food. Pulse 60. Tongue very furred. I ordered two drachms of brandy at intervals, and a pill of extract of opium and extract of belladonna every fourth hour.

July 19th. He had been drowsy between the attacks, which continued the same. There was universal abdominal distension, with flatus, and incessant short sharp borborygmi, with metallic ring. He took only a little milk and yolk of egg.

July 20th. The abdominal tension had increased to a distressing extent. Pulse 100. Respirations 33. The peristaltic movements, which had been very distinct, seemed arrested by the tympanitic distension. The colonic regions were now the most amphoric. Failing again to introduce the long tube, on account of opposition at the brim, or sigmoid flexure, I punctured the descending colon with a smallish trocar, and evacuated much flatus, so that the left abdomen became markedly softer. Half a grain of opium was given.

July 21st. The pain was still very severe. The abdomen was not quite so tense, but again very large. Pulse weaker, intermittent, 80-100. The legs were cold; the tongue was dry and furred. He had not slept. He took iced milk and soda-water with champagne, alternately. I gave one-third of a grain of morphia subcutaneously, and half a grain of opium.

July 22nd. He had scarcely any sleep last night. This morning an enema of turpentine and oil returned. A dose of chlorodyne gave some freedom from pain, but no sleep. This evening he was evidently in extreme danger. Pulse very weak, thready and irregular. Face dusky. The abdominal wall now projected at a right angle from below the costal cartilages. No peristaltic action could be felt, and the borborygmi had almost ceased. I then made two punctures, one into the transverse and the other into the ascending colon, with the effect of an immense exit of air. [Each puncture emptied the part only in its immediate vicinity, probably up to the nearest flexure. Thus, the ascending colon remained perfectly distended after the transverse had collapsed. I may note that I incised the cutis first, and found that, when the tension had been lessened by one puncture, a second required a very quick and perfectly vertical impulse to penetrate.] The abdomen became completely soft, and peristalsis was soon felt commencing in the still large and tense coils of the small intestines. The pulse improved at once; and circulation and respiration appeared much relieved; in fact, he implored by gestures to have more punctures made. I gave one-third of a grain of morphia subcutaneously.

July 23rd (one week since attack). After the morphia, last evening, he dozed at intervals between moderately severe attacks of pain; and, shortly after midnight, he passed a large motion, followed in the course of some hours by two others, all semifluid, with admixture of small hard masses. He was now not in much pain. His abdomen was soft. There was no tenderness near the punctures. Pulse 80-100. Temperature 100.3. His tongue was very furred. He took milk a little thickened, and brandy with soda-water, alternate hours. A third of a grain of morphia was injected subcutaneously.

July 24th. He was improving. His bowels acted three times profusely. The tongue was cleaning. Pulse 80-100. Temperature 100.4 A.M., 99 deg. P.M. I ordered weak chalk mixture and chloral at night.

July 25th. He had slept fairly for the first time. The bowels were moved three times. The tongue was improving. Temperature 98.4.

July 26th. He was much better. Pulse 70. Tongue clean. Temperature normal. His bowels were still rather active. He was ordered aromatic iron mixture.

REMARKS.—From the last date, Mr. B. made a slow but steady recovery, the bowels remaining irritable for several weeks. Fruit and vegetables had to be excluded from an otherwise generous though simple diet.

The site of the obstruction can only be determined, inferentially, as not having been in the duodenum or jejunum, vomiting having been absent except quite at the first onset; while the colon, at first empty, became enormously distended at the worst stage. At that period, all expulsive effort had ceased, and overdistension may have paralysed the muscular walls. Probably a similar overdistension, with faecal matter, of some coils of the ileum, may have induced, firstly, spasmodic colic (colica stercoracea flatulenta), and subsequently entire stagnation in that region. Uncomplicated colic rarely lasts so long; but when it does, has been known to issue in fatal intussusception. But, in this case, the patient having a very rigid chest, chronic bronchial irritation, and a weak heart, death would probably have been caused by interference with the circulation before either intussusception or enteritis had ensued. I imagine that powerful purgatives, by forcing still more faecal matter into the overdistended and occluded part, would have been certain to do harm; while, peristaltic action being active and obvious

* Read before the Bath and Bristol Branch.

enough up to the period of greatest distension, they could scarcely have done any good.

The case is not free from the difficulties which always surround "intestinal occlusions," but I cannot resist attributing recovery to the re-establishment of peristaltic contractions by removal of general flatulent overdistension, and this in the absence of irritation by drastic purgative medicine.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

REMARKS ON COLOURED VISION PRECEDING EPILEPTIC SEIZURES.

By J. HUGHLINGS JACKSON, M.D., Physician to the Hospital.

It is said that, in cases of colour-blindness from disease, red is, in most cases, the first colour to go, and that the further progress in loss of colour-sight is towards the violet end of the spectrum. (In the great majority of cases of congenital colour-blindness, red is the fundamental colour not seen; all people are red-blind in the most peripheral parts of the retina, and more extensively so to its nasal side.) Loss of power to see colours is one of the sensory analogues of palsy of muscles (of motor nerves). Now, just as palsies have mobile opposites in spasm, so, in opposition to loss of colour-sight, there are cases of development of coloured vision. (Of course, the physiological comparison is, strictly speaking, betwixt excitations in motor and sensory nerves.) Thus occasionally a patient, who is subject to epileptic or epileptiform seizures, may have, as a first symptom (so-called aura), a colour, or "all manner of colours," before his eyes. It is well, when the patient is intelligent, to ask which colour is first developed, and the order in which they come. Theoretically, one would expect that the first colour to be developed would be red, because it is the one first lost in cases of colour-blindness. For, returning to paralytic symptoms for an analogy, we find that those very movements which are first lost in destruction of nervous organs are those which are first developed in epileptic discharges of nervous organs. Dr. Hughlings Jackson thinks, so far as limited and recent inquiries enable him to judge, that red is usually the colour first developed when colour-development is a "warning" of an epileptic seizure. It is not always so; one of his patients has blue vision before severe epileptic fits, and she has had attacks of the blue vision followed by temporary and complete darkness, without anything further. (Blue, according to Maxwell, is the fundamental colour most removed from red. Helmholtz adopts the theory of Thomas Young, that the three fundamental colours are red, green, and violet.) To ask patients to note the order of development of colours, would, however, avail little in the majority of cases; probably, there is, in most cases, a development of colour rapidly becoming complex ("rainbow").

ON THE AFTER-EFFECTS OF SEVERE EPILEPTIC DISCHARGES: SPECULATION AS TO EPILEPTIC MANIA.

By J. HUGHLINGS JACKSON, M.D., Physician to the Hospital.

After epileptic spasm of muscles, if the spasm be severe enough, there is paralysis; as, for instance, in epileptic hemiplegia. Is there loss of power to see a colour after strong and continued development of that colour? Dr. Hughlings Jackson has had no opportunity of testing this. It is most important to note the after-effects—the "paralysing effects"—of strong epileptic discharges. The presumption is, that strong discharges temporarily paralyse much of the centre in or through which the discharge spreads. For example, epileptic hemiplegia is probably the result of temporary paralysis of the corpus striatum, the centre discharged through.

There is no subject in the inquiry into epilepsy more important than the after-effects of epileptic discharges. Dr. Hughlings Jackson believes that, in epileptic mania, the maniacal phenomena occur when the discharge has ceased; the discharge leaves the highest sensori-motor processes *hors de combat* (there is loss of consciousness). The mania he attributes to action of processes more automatic; they act uncontrolled; they are not "inhibited". By an epileptic discharge the patient is "reduced" to a more automatic condition of mind, just as in epileptic hemiplegia the patient is reduced to a more automatic condition of gross movement; and as in epileptic aphasia, the patient is reduced to a more automatic condition of speech. In so-called masked

epilepsy, he believes there is at the outset a transitory and unobserved fit. He does not believe that an attack of mania "replaces" an epileptic paroxysm.

REMARKS ON SYSTEMIC SENSATIONS IN EPILEPSIES.

By J. HUGHLINGS JACKSON, M.D., Physician to the Hospital.

The order of frequency in which the higher senses suffer in epilepsies is, Dr. Hughlings Jackson believes, sight, smell, hearing. An aura of taste is very rare; a "sting," or other non-gustatory aura from the tongue, is not so uncommon. It is not easy to say where touch comes.

In our investigation of epilepsies, we must not pass over those sensations which Lewes calls systemic sensations, and which Bain calls organic sensations. Speaking of the error of restricting sensations to the reactions of the five senses, Lewes says, "Physiology teaches us that there is another, and, indeed, far more important class of sensations, arising from what I have proposed to call the Systemic senses, because, distributed through the system at large, instead of being localised in the eye, ear, tongue, etc., . . . they make up the greater part of that continuous stream of Sentience, on which each external stimulus raises a ripple." It is probable that the "aura" from the neighbourhood of the epigastrium (sensation referred there, that is) is a crude and excessive development of visceral and other systemic sensations. However, if so, it seems strange that these sensations should, as is most common, occur in those cases of epilepsy in which loss of consciousness is, next to such warning, the first event in the paroxysm. For it implies that systemic sensations are first and most represented in the highest processes. Epilepsy, in which loss of consciousness is the first, or one of the first, events, is often preceded not only by development of systemic sensations, but is attended by pallor of the face. Indeed, the experiments of disease seem to show that the very highest processes (those underlying consciousness) sum up and re-represent all lower processes of the body. The epigastric sensation, so-called "aura," is variously described by patients. Some speak of it as a "fear:" a woman, nineteen years of age, said it was "a frightened feeling, as if I had done something wrong." Another patient said it was "an indescribable feeling of horror". Women at the change of life and other persons will complain that they feel depressed, and as if they had done something wrong; and, when asked the seemingly ludicrous question, "Where do you feel it?" will put the hand over the epigastrium. The local physical sensation is usually described as a "sinking". These are, probably in most cases, referred sensations; but, probably, organic changes in the abdominal viscera will provoke mental depression in the predisposed; it is, indeed, almost proverbial that dyspepsia goes with melancholy, and sometimes with uncertainty of temper.

For what is called the physiology of the mind, the development of all kinds of sensations in cases of epilepsy, from the most impersonal (as of sight) to the most personal, the systemic, deserves serious consideration.

To show the importance of the Systemic Sensations, we will quote again from Lewes's *Problems of Life and Mind*, p. 134. After remarking that "their immense superiority as *motors* has been singularly overlooked," he writes: "They make up by far the larger portion of our sentient material, since from them issue the Emotions, Sentiments, etc.; combined, indeed, with the objective sensations, but subordinating these as means to their ends, inasmuch as we only see what interests us."

BELFORD HOSPITAL, FORT WILLIAM, N.B.

CASE OF FUNCTIONAL CARDIAC DISORDER CURED BY ADMINISTRATION OF DIGITALIS.

(Under the care of JAMES W. ALLAN, M.B., C.M.)

MARGARET MCL., aged 12, was admitted to the hospital on September 18th, 1873, suffering from palpitation of the heart. The fluttering came on when she lay down on returning to rest, and when she got up in the morning; running upstairs also induced it. The history of the case was briefly as follows. On one occasion the child was returning home, when a lame (?) man sitting by the roadside requested that she would help him up. She declined to do so, whereupon the fellow got up and ran after her. She got a dreadful fright, and dated her palpitation from that event. I came to the conclusion that the case was one of functional cardiac disorder. In the first place, a belladonna plaster was applied over the heart. Then antacids (calcedine magnesia and aromatic spirits of ammonia) were given, on the supposition that gastric derangement might be present. No benefit was derived from these measures, however, and the same may be said of a somewhat prolonged administration of bromide of