facial only are injured, they are, at later periods, affected far more severely than the nuclei of the other bulbous nerves.

3. *Muteness occurring in General Paralysis.*—Lastly, there is a whole order of lesions which one of my pupils, M. Hanot, first observed in the muscles of the tongue in some patients in my practice, and which also produce muteness in general paralysis. I refer to fatty alteration of the muscular fibres of the tongue, and the multiplication of the nuclei of the sarcolemma. I have recognised that this alteration may correspond either with a lesion of the cells of the nuclei of the nerves arising from the medulla oblongata, and which are crammed with yellow granulations not coloured by carmine tincture, which are more or less deformed, and the nuclei of which have almost or quite disappeared; or with atrophic lesions of these nerves at their apparent origin; or, finally, with both these orders of alterations.

I have observed this pathological state in cases where patients with general paralysis are unable to protrude their tongue from the mouth, or to articulate any other than incomprehensible sounds. This state ordinarily coexists with paralysis of the pharynx and with dysphagia.

Upon the whole, patients suffering from general paralysis present troubles of speaking, the etiology of which is multiple. The causes of stuttering, of hesitation, of drawing in speaking, originate in the brain, because they are morbid phenomena, involving disturbance of the intellect, of the will, and of the memory of words.

The causes of jabbering, of stammering, of quavering in speaking, have their origin in the medulla oblongata; they are symptoms corresponding with disturbance of automatic and involuntary co-ordination.

Finally, the causes of muteness in the paralytic insane are of lingual and pharyngeal origin, being occasioned by paralysis of the tongue and pharynx.

The first order of troubles of speaking is determined by the infiltration of the cortical substance of the frontal circonvolutions and of the island of Reil with blastema, and by the softening of it by the production of embryoplastic nuclei, first in the vessels, next in the nervous substance among fibres conducting the will, and by the ulterior organisation of these embryoplastic nuclei into fibrillary tissue.

The second order of symptoms is occasioned by the infiltration of blastema, and by the multiplication of embryoplastic nuclei in the vascular sheaths of the perivascular spaces; next, amidst the nerve-fibres of the bulb; and by necrobiotic alterations of the cells of the original nuclei of the nerves of the medulla, and especially of the facial.

The third group of the troubles of speech is produced by atrophic lesions at the apparent origin of the bulbous nerves, and by fatty degeneration of the muscles of the tongue and pharynx.

THE DIAGNOSIS OF INSANITY, AND THE METHOD OF INVESTIGATING CASES OF SUPPOSED INSANITY.*

By JOHN MANLEY, M.D.,

Medical Superintendent of the Hants County Lunatic Asylum.

IN all well-marked cases, the physician can have no doubt that his patient is insane, and little difficulty in naming the form of disease the malady has taken; but it happens, in a great number of cases, that the early diagnosis of insanity is difficult; and, more unfortunately still, that insanity, to be treated successfully, must be treated early; whereas a delay in the diagnosis, and the consequent neglect of those precautions which are absolutely necessary in cases of mental derangement, has in too many instances led to the suicide of the patient, or to injury to those about him.

The diagnosis of mental disease is difficult, because it is so dependent on the evidence which the intellect alone appreciates, and because it presents itself in such a variety of forms, from idiosyncrasies in the patient. It is always well, when one has to examine a patient who is suffering from great excitement, and is supposed to be insane, to ascertain some particulars respecting him and his habits of life, and to inquire if there be any sufficient cause to account for the excitement, to find out if there be an hereditary tendency to insanity in the family, or if he have himself ever been insane. All this will probably be better learnt from neighbours and acquaintances than from relatives; for, in families who have a strong taint of insanity, many of the members are often themselves strange and eccentric, and not to be depended on for the information they give. It is advisable also to notice any

peculiarities about the house and furniture, and to watch the patient's conduct and demeanour, though without a seemingly marked attention. With a little tact, a clue will be probably obtained to the patient's state; and, by allowing him to talk, and showing oneself an interested listener, leading him on from time to time, as some salient point occurs, the subjects which are uppermost in the patient's mind will be discovered.

In the early stages of insanity, there is frequently a wasting of tissues, and a tendency to become thin. The head is often hot, the face flushed, and the skin does not look clear and healthy. The expression and the attitudes of the patient to a great extent indicate the state of his mind.

The descriptions of insanity given by Locke and Cullen embrace only those forms of the disease in which the intellects are affected. There are, nevertheless, cases in which the disorder is manifested chiefly in the state of the feelings, temper, and habits. An hallucination depends on an overactive sensorium, which gives to the visionary the conviction of the perception of a sensation when no external object suited to excite the sensation has impressed the senses. When a nerve is stimulated, a sensation is conveyed to the sensorium; but, if the sensation be wrongly interpreted, it is a delusion. All cases of delusion or hallucination, to be indications of insanity, must be fixed, persistent, and the subject of actual belief.

In making a diagnosis of insanity, there is a certain amount of assistance to be derived from a knowledge of the causes which are known to have more or less influence in producing the disease. These causes are generally divided into moral and physical. The moral causes are found in disappointed affections, grief and domestic troubles, excitements of every kind, wounded self-love, fright, over-study, and such like. The physical causes embrace epilepsy, intemperance, vice and dissipation, injuries, disease of the nervous system, and all disease of a depressing character, and intense disturbance, from whatever cause it may arise.

Of 962 patients admitted into the Hants County Lunatic Asylum during the past six years, the probable cause of insanity was ascertained in 828, or 86 per cent.: 263, or 31.8 per cent., were attributable to moral causes; 331, or 40 per cent., to physical causes; 54, or 6.5 per cent., to epilepsy; 30, or 3.6 per cent., to general paralysis; 99, or 11.9 per cent., to congenital defect; whilst 51, or 6.2 per cent., were probably due to strong hereditary disposition. Amongst the moral causes, 6 per cent. of the admissions were said to arise from intemperance, and 5.4 from religious excitement.

Passing over the forms of mental disease known as mania, melancholia, monomania, dementia, and idiocy, which are so well known as to require no description, I come to a form of mental disease which is rarely seen in its earliest stages in an asylum, whilst in its latest stages it is rarely met with elsewhere. It is the general paralysis of the insane. It is the most insidious form of insanity; and those suffering from it are constantly, before the disease is recognised, getting themselves into all sorts of trouble. I have recently had under my care two patients suffering from it, both of whom were sent from our county prison, and both of whom were, in my opinion, insane when they committed the offences for which they were subsequently punished. The subjects of this form of disorder, whatever their condition in life, become boastful, excitable, and reckless, and consider themselves possessed of boundless wealth. On investigating such a case, it will probably be found that, after a short period of excitement, the patient has become strange in his manner; that he has a little impediment in his speech, and talks like a man who has been drinking; whilst at the same time his gait is unsteady. He shows, however, none of those signs so often met with in a patient after an attack of apoplexy. Gradually all these symptoms increase; the senses are deadened, and the want of cleanliness is extreme. At last, the injuries of the nervous system, which affect the powers both of body and mind, approach their last point. Motionless and insensible, the patient exists simply in a state of vegetation.

In diagnosing insanity, we must guard against confounding the eccentricities which are the result of hysteria with the vagaries of the madman. So also must we recollect that there is a great deal of difference in the characters of eccentricity. A man of one class is endowed with strong good sense and moral courage, and acts in a manner contrary to his neighbours from conscientious motives founded on his own reasonings, setting at nought the ridicule of the world. The other class consists of weak-minded persons, whose conduct is influenced by vanity and the caprice of the hour, and in whose families probably there is often a strong hereditary predisposition to mental disease.

We may fairly agree with the dictum of Cullen, that hypochondriasis passes into insanity when it is accompanied by an hallucination. In distinguishing between real and feigned insanity, it is always advisable to watch the patient without being seen by him, so as to take him off

* Read before the South Hants District of the Southern Branch.

his guard. The feigning madman either breaks down in or overdoes his part; for every case of real madness is a consistent whole, and to imitate it well requires great intelligence, great endurance, and great dramatic power.

A CASE OF SCALD OF THE GLOTTIS, WITH RECOVERY AFTER TRACHEOTOMY.*

By T. SYMPSON, F.R.C.S.,
President of the Midland Branch.

ON December 9th, 1874, at about 7 P.M., I received an urgent message to visit a boy, aged 2½ years, living with his father on the Burton Road. On my arrival, I found the patient extremely restless, and breathing very rapidly, inspiration being accompanied by a harsh croupy sound. The lips, the tongue, and the inside of the cheeks and throat, were swollen, red, and blistered. The face was livid, the extremities were cold, the skin cool and clammy, and the pulse was feeble, and too rapid to be counted.

I was informed that, two hours previously, during the temporary absence of the housekeeper from the room, the child had drunk through the spout of a teapot some very hot water which had just been poured out of a kettle. For some time, he did not seem to suffer much; but, during the last half-hour, the symptoms had become alarming. As the performance of tracheotomy evidently offered the only chance of saving life, I sent to the hospital for our excellent house-surgeon, Mr. Lill, and, with his assistance, commenced the operation at 7.30, but had scarcely completed my first incision when the child ceased to breathe, and became livid, cold, and pulseless. I rapidly opened the trachea and inserted a cannula, through which Mr. Lill sucked out the blood from the air-tubes; and then artificial respiration was practised after Silvester's method, whilst vigorous friction was applied to the extremities by the attendants. In about ten minutes, the child gave a gasp, which was soon followed by others; and, at the end of an hour, we had the extreme gratification of finding respiration well established through the tube, warmth restored to the surface, and the heart beating perceptibly, though very feebly. The occurrence of reaction appeared to have been considerably hastened by the frequent administration of strong brandy and water. At midnight, the child was composed, and had slept quietly at intervals. He was ordered to take milk and beef-tea at short intervals; the temperature of the room to be kept at about 60 deg., and the air to be moistened by steam from a kettle having a long tube attached to its spout.

He progressed favourably until early on the morning of the 14th, when I was requested to visit him. On seeing him at 3.30, he appeared moribund; he had urgent dyspnoea, extreme restlessness, a clammy cold skin, and no pulse; and his lips and cheeks were livid. On removing the tube, I found it almost entirely blocked up by mucus, which I cleared out with a feather. I reintroduced the tube, employed artificial respiration, placed the child in a hot bath, and had sinapisms applied to the chest, with speedy relief to all the symptoms. The report in the evening was to the effect that he had appeared comfortable during the day; had breathed quietly through the tube, and had taken nourishment freely.

He went on well until the night of the 17th, when, at 11.30, he had become very fretful, and suffered from dyspnoea and frequent violent paroxysms of cough. The *alae nasi* were dilated, and there was marked retraction of the abdominal parietes and intercostal spaces during inspiration. On auscultation, fine crepitation was audible over the whole lower lobe of the left lung, and bronchial breathing near the spine. There was some dullness on percussion of the lower left half of the chest, posteriorly. Respiration could not be counted, on account of the cough. Pulse, 150; temperature, 103. A large linseed-meal poultice sprinkled with mustard was ordered to be applied to the side after the child had been placed in a hot bath. A mixture, containing ipecacuanha, spirit of nitrous ether, and solution of citrate of ammonia, was ordered to be taken every three hours.

These formidable symptoms appeared to be due to a chill, owing to the fire in the room in which the child lay having been allowed to go out, in consequence of a down draught in the chimney. The weather was extremely cold, and the wind very boisterous.

On the 18th, the paroxysms of cough were less frequent, and were accompanied by copious white frothy expectoration. Respiration was more free. Loud mucous *râles* were heard in the trachea. There was large crepitation over the lower half of the left side. Less dullness on percussion. Pulse, 136; temperature, 100. On the 19th, the child

had passed a quiet night. The cough was neither so frequent nor so violent, and attended with less expectoration. Pulse, 120; temperature, 99. The tube was removed, and the wound was found to be granulating healthily. From this date, the child progressed uninterruptedly towards recovery. He began to speak on the 23rd, and the wound had healed by the 30th.

The case I have just related presents various points of extreme interest, not the least of which is the survival of the patient; for we know that recovery is a very rare event when, from the severity of the symptoms in cases of scald of the glottis, it is deemed necessary to open the trachea; in proof of which I may cite the fact stated by Durham in the second volume of Holmes's *System of Surgery*, that, "out of twenty-eight cases of tracheotomy in scald of the larynx (of which he had notes), twenty-three terminated fatally".

Other noteworthy facts are the occurrence of apparent death just prior to the trachea being opened, and the gratifying result of perseverance in the practice of artificial respiration; the narrow escape from suffocation due to want of attention to the state of the tube on the 14th; the sharp attack of pneumonia, induced by sudden change of temperature in the room on the 17th; and the state of the general health of the little patient, who was delicate, rickety, often suffered from attacks of bronchitis, and who had fractured his femur a year ago, from which, however, he made a good recovery.

In conclusion, I would just remark, that occasionally recovery takes place in these cases independently of the performance of tracheotomy, even when they appear in a very desperate condition. One such instance fell to my lot some years ago in the parish of Nettleham, where the parents of the child refused their consent to the operation, but where a good result was obtained by the application of hot mustard and linseed-meal poultices to the front of the chest, the administration of frequent small doses of calomel, and of nourishment in the form of brandy and milk given at short intervals.

CASE OF PARACENTESIS PERICARDII: IODINE INJECTIONS.

By G. E. MOORE, M.R.C.S.,
House-Physician to King's College Hospital.

THE following case of suppurative pericarditis occurred in the practice of Mr. E. Pearl of Windsor, who kindly permitted me to watch and share the treatment with him.

I need not detail the pericarditic symptoms; suffice it to say, that the patient, a strong lad, aged 13 years, living in Windsor, was taken ill on the 15th of last October; that ten days after a loud "to and fro" friction-sound was heard, which was soon followed by extension of the area of pericardial dullness; that, from October 27th until November 7th, he gradually got worse, in spite of the application of all the ordinary methods of treatment; and that the heart-sounds became fainter and more distant, with gradual diminution, ending in complete subsidence of the pericardial rub. An abscess formed on the dorsum of each foot in the second week of the disease.

On November 8th, Dr. George Johnson was called in consultation. He diagnosed suppurative pericarditis, and agreed in the proposal to perform paracentesis, as, under ordinary treatment, the case was sure to prove fatal.

On November 9th, before the first operation, the boy was very exhausted, and desirous of some relief. There was great dyspnoea. Respirations 50 in a minute; pulse 160, very irregular. The præcordium was prominent. The heart-sounds were a confused murmur, heard only at the base. There was extensive pericardial dullness. Paracentesis was performed by Mr. J. W. Gooch of Eton with the aspirator, the previously formed vacuum being put in communication with the needle as soon as the distal aperture had passed through the skin. The puncture was made in the fifth left intercostal space, just internal to the normal situation of the heart's apex, and the needle was directed inwards, upwards, and a little backwards. By this means, twenty-one ounces of purulent fluid were drawn off. During the withdrawal of the fluid, the patient complained only of the needle pricking in the skin; there was not the least symptom of syncope, and he expressed himself as much relieved. Immediately afterwards, the respirations came down to 30 a minute. The pulse was 120, much stronger and regular. For about twenty minutes, there lasted an incessant cough, with a little viscid frothy sputum. Normal heart-sounds could be heard both at the base and apex. The pericardial dullness was diminished to almost the normal limits.

On the 10th and 11th, he seemed much better.

* Read at a quarterly meeting of the Midland Branch held on May 5th.