seeing one or two cases of hysteria. In his experience, one of the most essential points of treatment was to remove the patient from her usual surroundings; the next was to obtain her confidence. One thing that ought to be considered was, the want of power of co-operation possessed by the patient. Too much must not be attempted, but strong measures must be brought down to the weakness of the power of co-operation in the patients. A further plan was to encourage them in well-doing, as the recovery of many patients was retarded as much by the cold-heartedness of their friends as by the injudicious sympathy of some of them. He was perfectly well aware of the difficulties of dealing with these cases, but he was pleased to hear this paper, because he was perfectly satisfied that these cases were very much misunderstood, both by the patients' friends and the medical attendants.

Dr. DRUMMOND (Newcastle-on-Tyne) said he was exceedingly pleased to have had the opportunity of listening to the able exposition of Dr. Weir Mitchell's plan of treatment of aggravated hysteria by Dr. Playfair. He must confess that in a very great measure his cases of aggravated hysteria were amongst hospital patients, and he must add that he had not succeeded as well as he could have wished in his attempt to treat them by that method; the fact being, that the nurses are capable of being appealed to by the patient. In his opinion, there were, generally speaking, three gross forms of hysteria—(1) that entirely independent of the will; (2) that under the control of the will; and (3) the more or less malingering form. Dr. Drummond gave instances in illustration of his views.

Dr. RANSOME (Manchester) remarked that, in several cases of hysteria associated with incipient phthisis, Dr. Weir Mitchell's plan of treatment had not only cured the hysteria, but had also been of great service in improving the condition of the lungs.

Dr. HENRY BENNET (Weybridge) remarked that the interest connected with Dr. Playfair's paper had attracted many members from the adjoining section, the Obstetrical. In the absence of any other volunteer, he felt called upon to break a lance in favour of the old Hippocratic doctrine, which referred hysteria in many cases, not in all, to the uterine organs, especially in young females. He prided himself in having been the first to introduce to the profession, many years ago, a fact now generally acknowledged—viz., that uterine disease, inflammatory as well as others, was not unfrequently found in virgins, young or otherwise, and was often the real cause of the worst forms of hysteria. Owing to his having brought these facts before the profession when he was in full practice, he had seen very many cases of this kind, in consultation or otherwise. He had usually cured them merely by getting at the disease and removing it, without any special treatment of any other kind. He fully admitted that aggravated hysteria existed without uterine disease, or might continue to exist even when the originating uterine disease had been cured, and that it might require other than surgical treatment. Dr. Mitchell had cured one of his own cases, that of a young American lady, who remained all but bedridden after the removal of uterine disease. This fact, however, is not a reason for ignoring the practical facts to which he alluded, which the experience of a long clinical career had proved to be true. He constantly read in the writings of pure physicians (not gynaecologists), treating of aggravated hysteria, cases which to him were, most undeniably, forms of uterine disease, although the writers did not recognise the fact, for want of gynaecological knowledge.

Mr. ROSS JORDAN (Birmingham) said he thought very highly of the views so ably and forcibly expressed by Dr. Playfair. From the experience of one or two cases, imperfectly carried out, he thought the plan of treatment of the greatest advantage. He wished more particularly to say a word or two on some of the opinions expressed by one of the speakers (Mr. De Berdt Hovell), as to hysteria not being the result of uterine disease. He thought many of the cases had such origin; and that physicians, more particularly those who professed a special knowledge of the nervous system, took a heavy responsibility on themselves, when they systematically ignored the existence of uterine and ovarian mischief in its earlier stages. No doubt, many cases of aggravated hysteria may be found without a trace of uterine disease, simply because the rest of chronic invalidism has allowed such disease to get well. He had found hysteria much more common in slight than in severe uterine or ovarian disease. He wished to say that, if such cases were properly treated, in their earlier stages, there would not be so many chronic invalids, nor so much profound hysteria.

Dr. LEECH (Manchester) called attention to two cases of neurasthenia in men, which had recently come under his notice. He noted that, in both, relapses had occurred after apparent recovery; and he asked whether Dr. Playfair had noticed relapse in the cases which had been under his care.

Dr. MAHOMED (London) remarked on the frequency of relapse in all

cases of hysteria; and asked whether Dr. Playfair had seen relapses in his own cases, or knew of them in those of Dr. Weir Mitchell. He wanted to know what had been the experience of others in the history of these cases, and their final termination, before the introduction of this treatment. He believed that the secret of the whole matter was the thoroughness of the treatment, and the complete confidence in its success. He believed that we much needed the same thoroughness in the treatment of other cases; and this could only be obtained by recognising the truth of the plan of the treatment which it was proposed to employ.

Dr. PLAYFAIR said, in answer to the President (Dr. Clifford Allbutt), that he had not sufficient experience of the effect of the treatment in men, although doubtless in suitable cases it might answer well. In other diseases it certainly did good—as in chorea. He had himself recently cured a most intense case of chorea, of nine years' duration, by this means, which had previously resisted every treatment. He had little to say in answer to the other speeches, except that the explanation of the enormous quantities of food taken was, beyond question, the excessive tissue waste produced by massage. The waste required increased fuel, and in the process of assimilation the patient recovered. It was a strictly physiological process, based on improving the nutrition of the patient. He looked upon real organic disease as a positive contraindication. As to the question of relapse, all he could say was that hitherto none of his cases had relapsed; although, as a matter of common sense, every now and again these interesting neurotic women must be expected to go wrong again.

ON A CASE OF ACUTE ASCENDING PARALYSIS: CHRONIC ALCOHOLISM.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Worcester, August 1882.

BY A. S. MYRTLE, M.D., HARROGATE.

THE following case I have thought worth bringing before your notice, not only on account of its rarity and connected history, but as affording an example of metastasis of disease, such as I have never either seen or read of. For years the organs which exhibited the poisonous action of alcohol were the liver, stomach, and uterus, all were kept in a state of irritability and hyperæmia; and both liver and uterus were materially enlarged, the latter failing in the performance of its functions, with sterility as the natural result. As soon as the first symptom of spinal mischief made its appearance, the organs previously affected began to show an amount of healthy activity which puzzled and misled me: the usual sickness and vomiting ceased, the appetite for wholesome food and capacity for digesting the same returned, the tenderness and fulness over the liver gave way, the bowels acted regularly, the urine became healthy, and the function of menstruation natural.

In order to obtain a clear history of this exceptional case, let me carry you back to 1870. A. B. was then 13 years of age, and at school. She went to bed quite in her usual health. About 2 A.M. she was seized with pain in the epigastrium, this was followed by hæmatemesis, and when I got to her about seven, she was drained of blood, the lips and gums were pale, the pulse running at a rate which defied counting; skin hot. On examining the abdomen, I found that the liver was the source of mischief, it was greatly enlarged and tender. Obstruction to the circulation in the portal system had resulted in rupture of vessels. On inquiring into the history of the girl, I found she had always been delicate, that from infancy she had given to her large quantities of wine, and that her allowance at school had been two glasses of strong beer and two glasses of full bodied port daily. This explained the condition of my patient. With suitable treatment and complete stoppage of all stimulants, she rapidly regained health, her liver speedily losing all signs of congestion.

She continued well as long as she remained at school, and I did not see her until 1878, a year after marriage. She then consulted me on account of dyspeptic, biliary, and uterine functional disturbances, and showed all the usual symptoms attending such a condition. I found that, after she left school, she had again been ordered wine, beer, and even brandy, and that she had been in the habit of taking the first two every day. Since her marriage, she had rather increased than diminished her allowance, and generally finished with some brandy-and-water at bedtime. She concealed nothing. She was not a drunkard; she had been told she required stimulants, and she took them, not

because she liked them, but because she felt she could not get on without them. I told her that her organs were in such a state that treatment would do little good unless she, in a great measure, gave up taking the amount of drink she was having. I persuaded her to take light hock or claret, and with treatment she soon improved.

In 1879, she came again before me. She had gone back to her old ways—had become more indolent and self-indulgent. Having no child, she had nothing to interest her, and her husband allowed her to do as she liked. She was much troubled with sickness, and, as she had ceased menstruating, she fancied she was pregnant. This, I found, was not the case; her uterus was as large as a cricket-ball and hard; the ovaries tender; and the abdomen greatly distended. She had an unnatural appetite, and craved for cockles, etc. The liver was felt below the ribs, and the slightest pressure on the stomach caused attempts to vomit. She could not take any food before one o'clock. On rising, she had a glass of sherry; then, feeling exhausted from dressing, she took another about twelve; also beer with an early dinner; more wine after it, and spirits at night. I reasoned with her, but she shut me up by saying, "Well, if it will kill me, I must just be killed; life is not worth much."

In 1881, I found all her symptoms greatly aggravated. Every morning, she spent from an hour to two hours in vomiting, bringing up very little mucus tinged with bile. She complained of great sinking at the stomach; pain in the liver; a filthy taste in the mouth; total loss of appetite; and was very hysterical. I sent her from home, and, while away, she had a severe epileptic fit, after some excitement. She returned to my care, but was now irritable and sleepless, and the attacks of vomiting were more severe than ever. She continued to suffer throughout the whole of 1881, more or less, from these symptoms.

Early in January 1882, she had another seizure, and two minor attacks after it; then she began to complain that she could not walk as far as usual; she felt weak, and each day found she could walk less and less. The vomiting, however, ceased; she could take some breakfast with relish; the bowels began to act naturally; the pain and fulness of the liver diminished; the menses appeared, and returned at the usual period; the tenderness over the ovaries left, and the uterus felt soft and much smaller. She also, of her own accord, took less stimulants; and I began to think matters might turn out better than I had ever hoped. Still the weakness of the knees increased, and she complained of a feeling of coldness in her legs and numbness in her arms; also, that her feet felt hot and burning; and that, when out walking for the shortest distance, unless she had a wall, railing, or person close to her, of which she might catch hold, she felt she must stop and dare not go on. Numbness now affected the legs; and, when she walked over the floor, she felt as if a piece of thick matting intervened between the soles of her shoes and the carpet. The fingers now began to give her trouble; she could not control her pen, nor hold any minute object, unless she kept her attention to it. She could not fasten a button or a pin in her dress, and everything she took hold of gave her an unnatural sensation.

About the end of February she was roused out of sleep about 4 A.M. by severe shooting pains in the calves of both legs, which, increasing in intensity, did not leave her for a couple of hours. These pains returned regularly for some weeks, and sometimes were so bad she became delirious. Physical examination at this time revealed nothing; there was no constitutional disturbance, no fever, no painful spot on pressing over the spine, no paralysis of any muscle or group of muscles, and no hyperæsthesia or anæsthesia localised in any part. With her eyes shut she could walk steadily and straightly across the room. About the end of the third week in March profuse menorrhagia set in. Weakness increased rapidly, and about the 14th of the month I got Dr. Clifford Allbutt to see her with me. He made a most careful examination. She was very clear and collected in all her statements. Patellar tendon-reflexes were manifested. I do not think we tested her for ankle-clonus, but we found no very marked sensory or motor manifestations, no wasting of muscles; in fact, at that consultation she appeared in her best form; and although we saw there was grave cause to fear the early approach of serious organic changes in the nerve centres, still, considering the great loss of blood recently incurred and her hystero-epileptic history, we concluded that we might possibly find that her present symptoms were traceable to functional causes. We gave a very guarded prognosis, and enjoined great moderation in the use of stimulants. Two days after Dr. Allbutt saw her, she said, "I wish you had never brought him to see me; he has made me so much worse. All the things he asked me about, and which I told him I had not got, have come upon me. My toe-nails feel as if they were being torn out by the roots; the skin of some portions of my legs, if touched, gives me excruciating pain; when one leg rests upon the other I cannot move it back again, and now I cannot stand alone but tumble

down, and when I walk with help I drag my legs after me. I have shooting pains from my spine down to my finger tips; my feet feel ever so much bigger than they are, and I have the sensation as if a tight cord were tied round my waist."

On examining the spine, I found her wince on slight pressure over the second, third, fourth, and fifth dorsal vertebrae; and with deep pressure she cried out. Portions of the skin were exceedingly painful even if touched lightly; other parts close to these might be pinched or pricked without her feeling anything. The galvanic current caused intense agony, but no muscular contractions. Her breath, I observed, was most putrid. She could not turn in bed, and her feet and ankles were swollen; this swelling disappeared on elevating the limbs for a few seconds—showing that it had its origin in vaso-motor paresis.

On April 6th, I called in Dr. Broadbent of London, who examined her with me on that day and on the 7th, and he pronounced the case to be one of ascending paralysis. By this time, the muscles of the thumbs had wasted very perceptibly; the vaso-motors had become implicated, and had lost control over the vessels; and the symptoms already enumerated had increased greatly. Dr. Broadbent thought it would be well to try the effect of opium internally, and the thermo-cautery to the spine, as he considered the degeneration of the cord had not reached parts essential to life, and possibly might be arrested even yet. I had to wait for three days before I got the thermo-cautery. On the morning I received it, I found my patient worse in every way. She was rambling; her right eyelid drooped; she had a double squint, and saw only half my face; her breathing was deep and slow. I at once made up my mind not to use the cautery. The disease had spread rapidly along the spine to the base of the brain, and no good could follow any treatment. She fell into a semi-unconscious state, but could be roused to answer questions. On the 15th, her nurse directed my attention to a curious appearance on the thighs. The posterior half of both was white, bloodless, and looked like a portion of a dead body. A line of demarcation ran from the centre of the knees up the thighs to the hips. Above that line, the skin presented its natural life-like characters; below, all was without any sign of vitality. Two days after that, the body was equally divided into a dead lower and a living upper segment by a line as distinct as if it had been made artificially. She continued to take nourishment. All the muscles of her body became paralysed. She never moved any portion of her body except the muscles of her face, and died from coma on April 30th.

There was no necropsy, which I regret, because we are really in the dark as to the pathological changes which occasion the symptoms of this rare and fatal disease. Dr. J. Magee Finny of Dublin has given the best account of it, in the *BRITISH MEDICAL JOURNAL* for May 20th, I have yet met with; no mention is made of it in Dr. Bristowe's last edition of his *Theory and Practice of Medicine*; and Dr. Byrom Bramwell, in his work on *Diseases of the Spinal Cord*, states that "the conditions which predispose to and excite this disease are unknown." It is therefore most desirable that all cases of this nature should not only be carefully studied, but brought before us. I was much struck with a remark made by Dr. Clifford Allbutt during our consultation. He said: "I have often seen women given to the abuse of stimulants suffer from severe shooting pains in the legs, and these were always accompanied by great muscular weakness. The spine of women seems to be more affected in alcoholic poisoning than men, whose brains become affected instead; so we have spinal paralysis in the one; delirium in the other. Of this I am certain, that delirium tremens seldom appears among women; in my long experience, I cannot recall a single case, and among men I have met with hundreds." In the outset, I spoke of the sudden disappearance of the symptoms arising from dyspeptic, hepatic, and uterine derangements, as soon as the first sign of mischief affecting the motor tract showed itself; and, rightly or wrongly, I look on this as a form of metastasis as true in its nature as that which we frequently meet with in gout and rheumatism, where the local symptoms in distant joints suddenly subside, and we, with that, have the sudden development of cardiac or cerebral evils threatening the life of the patient. I have not said one word regarding the treatment adopted in this case, because I have nothing new to tell you, and am bound to admit that all the remedies tried were of no use whatever; even sedatives failed to alleviate, and sometimes I thought actually aggravated, the very symptoms they were intended to relieve.

Dr. CLIFFORD ALLBUTT said, he was bound to admit that he did honestly think in his own mind, knowing also that she came of an exceedingly neurotic family, that the case was one of functional organic disease. He had been under this misfortune for his diagnosis, that the symptoms which were asked for had not appeared. The cases of acute ascending paralysis, of which he had seen several, were, as described in the books, very much more rapid than this one. It was im-

possible at the time he examined the case, he thought, to have avoided being misled. Those shooting pains were not, he thought, mentioned in any of the books. They were familiar, however, to him, and he was struck by their absence in this case. They did not necessarily mean ascending paralysis, as the alcohol being withdrawn at certain stages, a cure might result. They, no doubt, pointed to some early and perhaps remedial spinal attack.

Dr. BROADBENT (London) had had the advantage of seeing the case described by Dr. Myrtle at a later period than Dr. Allbutt, when there was no longer any possibility of misapprehending the serious nature of the disease; the paralysis was marked and associated with a peculiar flabbiness of the muscles; there was wasting of the muscles of the thumb, and especially swelling and congestion of the limbs when they were in the dependent position for a few minutes. He would not himself have placed the case in the category of acute ascending paralysis. He was familiar with this disease, having seen several cases; and, in addition to the length of time over which the symptoms extended, the physiology of the case in question was different from that of acute. He considered the case to belong to a group of which he had seen four or five examples besides that of Dr. Myrtle's patient. The disease was a peculiar form of paralysis which he had only met with in women, and as a result of alcoholic excess. The loss of power did not affect the lower extremities first and completely, gradually ascending to the chest and arms, but was more or less present in all the limbs; in the upper extremities the extensors of the wrist were often predominantly affected at first, but later the flexors suffered, and then the hand dropped according as the forearm was pronated or supinated; there was a peculiar softness and flabbiness of the muscles when they were handled, and the very remarkable congestion and swelling of the feet and hands mentioned by Dr. Myrtle when they were allowed to hang down even for a few minutes. This was of course due to vaso-motor paralysis, and probably had much to do with the peculiarities of the affection. All the cases he had seen proved fatal except one, but he had obtained a *post mortem* examination of only one of the patients, and that at too late a period after death for microscopic investigation. To the naked eye, the spinal cord presented no abnormal appearances. His experience coincided with that of Dr. Myrtle with regard to delirium tremens in women. He had never seen a well marked example of delirium tremens in the female, and he had never seen the form of paralysis under consideration in the male.

Dr. FITZPATRICK (Liverpool) asked Dr. Myrtle whether, before or after the succession of epileptic convulsions, there was any trace of albumen in the urine. He agreed with the remarks of the President (Dr. Allbutt) that the case was not one of acute ascending paralysis. He had a similar case of a lady, aged 32, in whom the acute symptoms as described in the paper came on only in August once. The case terminated fatally in the following January. Albumen was present in the urine in his case.

Dr. CUMING (Belfast) had seen two cases of acute ascending paralysis in which no alcoholic history whatever was present. He had been struck by the retention of power of the sphincters and of urination. He had often observed the pains in the lower limbs in females with suspicion of alcoholism. Delirium tremens, although less common in females, was by no means unfrequent, probably owing to differences in the way in which the alcohol was taken.

Dr. HARE (London) confirmed, both from the experience of hospital and of private practice, the statements as to the different results of alcohol-taking on the two sexes. Delirium tremens he had met with, relatively, very rarely amongst women, and he was inclined to think that alcohol produced fatal effects less rapidly amongst women than amongst men. These points were the more remarkable, because, from inquiries amongst publicans, he had learnt that while men were the great consumers of beer (or diluted alcohol), women were the great consumers of spirits or the more concentrated drinks. He had been assured by intelligent publicans in London, that where they sold one pint of spirits to men, they sold fully five to women.

Dr. MYRTLE, in reply, said he had examined the urine very frequently, and had never found a trace of albumen nor any abnormal product. He had called it acute ascending paralysis, because, although not so very acute in its earlier course, yet the fresh burst of symptoms preceding death was very acute and very marked, three different sets of symptoms coming on within a few hours. There was no need for passing the catheter; and the bowels acted even more regularly after paralysis than they had done before.

THE salary of the apothecary to the Bandon Dispensary has been increased by £10 per annum.

THE STUDY OF THE FACE AS AN INDEX OF THE BRAIN.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Worcester, August 1882.

By FRANCIS WARNER, M.D.Lond., M.R.C.P.,

Assistant-Physician and Lecturer on Botany at the London Hospital; Assistant-Physician to the East London Hospital for Children.

THE face is a region of the body well worthy of clinical study. We may observe its form, colour, and mobility; and the effects of movement in causing expression. The movement is the outcome of the action of the brain.

The tissues forming the structure which we call the face are mainly the skin, with its vessels and vaso-motor system; the subcutaneous fat; the facial muscles, supplied by the facial nerve; and some of the masticatory muscles, supplied by the fifth nerve.

Most of the variations of facial expression are produced by the facial muscles, which are acted upon by the changes in the brain; and these are the special indications of the cerebral condition to which attention will here be called. The muscles of mastication are less expressive of the condition of the brain than are the facial muscles; but they may become the subject of spasm, atrophy (see Case, *Lancet*, January 7th, 1882), or may produce teeth-grinding, as the result of conditions of the brain.

In almost all cases, the best indications of the conditions of the central nerve mechanism are its effects as seen in the spontaneous action of the muscles; and it is by the result that we usually judge of the central condition. Such effects are conveniently spoken of as nerve-muscular signs. Nerve-muscular signs are the best indices of the brain; the change in the brain affects the muscles; these control the position of the visible parts; and, from the facial changes resulting, we gather our information.

We are here studying the results of cerebral action upon muscles, according to well understood principles of physiology; while physiognomy deals mainly with the shape of the brain-case, and the passive condition of the face.

The principal movements of the facial muscles are these.

1. Dilatation and contraction of the facial foramina; probably this corresponds in significance to flexion and extension.

2. Elevation and depression of parts. Such conditions are well seen by comparing the two sides of the face in a case of Bell's paralysis.

3. Retraction and drawing forward of parts, as in grinning and screwing up the mouth.

To examine a face, hold a piece of paper in front of it, with one edge vertical; either half of the face can then be covered in turn. Again, the face may be divided into three zones, by holding the paper with one margin horizontal, leaving the forehead above the eyebrows uncovered; or, the face below the lower margin of the orbits may alone be exposed, showing the mouth, most of the cheeks, and the *alæ nasi*; or, again, the middle zone, including the eyes with the upper and lower eyelids, may be viewed alone.

After looking for symmetry in a face, the nerve-muscular condition of the individual parts may be compared. A different condition of the different zones has, possibly, about the same kind of significance as an unequal condition of flexion and extension of the different fingers. A condition of different activity in the three zones of the face is a departure from physiological calmness (*e.g.*, a smile, or snarl); it may be normal or abnormal. An unequal condition of the different zones is very common in "nervous people."

In the upper zone, we have the occipito-frontalis and the corrugator supercilii. Here we see the outcome of brain-action in those conditions termed grief, surprise, etc., producing muscular action and corrugating the forehead. The occipito-frontales are often seen overacting in imbeciles, and in cases of chorea; sometimes, also, they overact as a mere "chronic nervous habit." Symmetry in this zone is usually maintained. In the middle zone asymmetry is less uncommon, but is seen in winking and in ptosis. The important muscles here are the orbiculares oculorum. With megrim, and in conditions of depression, a marked change is often seen in the midfacial zone, due to a fulness about the eyes, especially about the under eyelids; the orbiculares have lost their tone, the skin hangs too loosely, the skin of the lower eyelid, instead of forming a convex surface, passes as a plane from the ciliary margin to the lower margin of the orbit. If the patient be made to laugh, the orbiculares are energised for the moment, and the look of depression is lost.

Passing on to the consideration of the lower facial zone, we see here the most marked effects of facial spasm or palsy from brain-disease—*e.g.*, in hemiplegia and lesion of the *crus cerebri*. Thus the weakness of the face is well demonstrated by making the patient show his teeth or smile. Now, the muscles of this region are those most commonly