two months the wound had cicatrised, and the patient retained a useful arm.

CASE 2. *Treated by antiseptics.*—This case occurred in South Australia, in the year 1873, at the Moonta copper mines, to which place I had, in the meantime, removed, and where accidents were of daily occurrence. In the Australian colonies, from the excessive heat during the summer months, compound fractures are more dangerous to life, and more liable to perverted action of the capillary system than in this country. The patient was a boy, aged fifteen years, employed during the night shift about the crushing machine. Dr. Bull, who acted as one of the mine surgeons, was called during the night when the accident happened, and superintended his removal home; I was sent for in the morning to assist him at the amputation. On examining the injury I objected *in toto* to removing the arm, and related my experience of the first case, and pointed out the similarity of the two cases; the doctor, however, would not consent to delay the operation, and withdrew entirely from the case, burdening me with the whole responsibility. Nothing daunted, I proceeded to dissect out all the loose fragments of bone from the lacerated tissue, I then thoroughly swabbed out the entire joint with pure carbolic acid, inserting the antiseptic into every crevice that I could find, then brought the wound together and covered the whole with lint saturated with carbolic oil (1 to 15), supporting the limb with a figure-of-8 bandage. I now placed the arm at right angles on a pillow. The patient was very comfortable, and complained little of the dressing. The carbolic oil was continued without interruption throughout the whole treatment; and although suppuration took place to a certain extent, no untoward accident occurred. After the first week I had an annular splint made of perforated zinc, with a movable joint, which enabled the patient to exercise his arm, which was done gently and diligently, with the result of a very useful joint, having considerable flexibility, and strong enough for the boy in three months after the accident to return to his employment.

These cases are, I think, sufficient proof that in compound comminuted fracture of the elbow-joint—and I might even now include all other joints—Nature has a wonderful restorative power, and they certainly show that surgeons are often too ready to condemn a limb. Even although the elbow should remain stiff and motionless, if the hand could be preserved entire, this would be infinitely preferable to taking away the limb.

Strone, Argyleshire.

CONVULSION COMMENCING IN THE FACE AND HAND FROM THE INFLUENCE OF NITROUS OXIDE GAS.

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

ASSISTANT-PHYSICIAN TO THE LONDON HOSPITAL AND TO
THE EAST LONDON HOSPITAL FOR CHILDREN.

THE examination of the muscular system as an index to the condition of the brain is one of the principal means at our disposal for studying the nerve centres. It is well, then, as a method of scientific inquiry, to examine the physiological brain under unusual circumstances, such as the coma produced by anaesthetics. The following case is interesting from this point of view.

A gentleman in good health, about thirty years of age, required to have a large molar tooth removed, and at the request of the dentist I administered nitrous oxide gas. No difficulty occurred in producing anaesthesia; the patient respired the gas freely and easily; he became pale, then slightly cyanotic, and then, desiring full anaesthesia for a difficult operation, he was allowed to take one more full respiration of the gas. Carefully observing the patient all the time, and feeling his left pulse while viewing the face, I now noted distinct twitching of the right angle of the mouth (zygomatic upward twitching), and this was immediately followed by twitching of the right hand; first the thumb twitched mainly in the direction of flexion, and when it was semiflexed the fingers began to fold over it. Anaesthesia was now very complete, the gas was discontinued, the molar was removed by the dentist, and the patient recovered consciousness quickly, and, as is usual after the administration of gas, felt completely well.

This gentleman was in good health, had not suffered from any brain disturbance, and there was no reason to suspect brain disease. Had such a local convulsion commenced in a patient with the signs of brain disease, one would have suspected a local lesion of the left hemisphere, or described the attacks as Jacksonian epilepsy. In this experiment the two hemispheres did not act equally; it is probable that the gas acted equally upon both hemispheres; if this be so, the two hemispheres cannot have been alike. Possibly there was some local difference in the two sides of the brain, but still it was consistent with health, and we should not have suspected any such difference but for the experiment with the gas.

For the purpose of examining the normal functions of the brain, it is *primâ facie* more satisfactory to observe healthy brains rather than those diseased. A brain may be said to be healthy when it is able to discharge its social duties or functions without producing a state of over-work, irritability, spasm, weakness, &c.—in short, without the signs of any abnormal or pathological results. In most clinical investigations of the brain we seek knowledge by observing what muscles are affected with palsy or spasm, and at the post-mortem record the area of brain disease corresponding. In this kind of observation the inference is drawn from the comparison of the abnormal nerve-muscular conditions with those corresponding to the normal brain; in a case of hemiplegia, the healthy and the abnormal sides can be compared, and thus information is gained respecting brain functions. In such observations, by selecting cases where certain muscles are paralysed, &c., we may find what local brain areas of lesion correspond. Now, I would argue that we may look to physiological conditions of man, and selecting cases where certain local nerve-muscular signs are observed, we must conclude that a local change has occurred in some nerve-centres, producing the nerve-muscular signs observed. I would further maintain that the observations of a healthy brain under such circumstances as called forth the exercise of or the temporary abeyance of the function of certain parts, are as scientifically admissible as evidence of local brain function as investigations in pathology. The same principle is, in fact, involved in both kinds of investigations—viz., the observation of local muscular phenomena which we believe to depend upon local brain change. When a general condition—e.g., sleep, uræmia, or the “typhoid condition”—chloroform, alcohol, or other drug produces special local muscular change, it must depend upon conditions in the corresponding nerve centres, and there must be such corresponding centres, whether pathology and anatomy can demonstrate their locality or not.

Harley-street.

A CASE OF POISONING BY ACONITE LINIMENT.

By CECIL A. CORKE, F.F.P.S. GLAS., L.R.C.P. E., &c.

A YOUNG woman suffering from suppression of the menses together with hysteria and mental depression developed a suicidal tendency, getting up at night and wandering about in such a manner as to lead her friends to keep a strict watch over her. In spite, however, of every care taken, she, on Jan. 13th, possessed herself of a bottle of liniment and drank some of the contents; the exact quantity was uncertain, but as well as could be estimated about two fluid drachms. The liniment was a mixture of equal parts of lin. aconiti (P.B.) and lin. saponis co., which had been prescribed for her mother some months previously. Directly it was known that she had taken poison, a mustard emetic was administered, and I was sent for. The mustard produced vomiting, but not to such an extent as to empty the stomach, the vomited matter smelling very strongly of the liniment. The patient, who at no time will give much information, and when ill generally states she is quite well, said she felt no inconvenience, and was quite well. An emetic of sulphate of zinc was prescribed immediately, but only taken on being threatened with the stomach-pump. The patient, who appeared somewhat frightened, but not then under the influence of the poison, suddenly became very giddy and faint, and the skin bedewed with a cold perspiration. Much pain at the stomach was complained of, and earnest entreaties were made by her that we would let her alone. The pupils

of the eyes were widely dilated, and there was great restlessness. The emetic acted well, the vomit still smelling strongly of the liniment; some brandy was given frequently, but not being satisfied that the stomach was emptied, another scruple of the zinc was administered, followed by very free vomiting, which was kept up, as long as particles of food were ejected, by frequent draughts of warm water, and when vomiting ceased brandy was again given.

The case seemed now to be going on well, and I left, giving directions that stimulants should be freely administered, and a careful watch kept. On returning in about half an hour I found the patient, who had refused to take the stimulants, in a state of collapse: she had no power over her legs, and seemed to be sinking. Finding it useless to persist in trying to make her swallow, fifteen minims of rectified sulphuric ether were administered hypodermically. Its stimulating effects were immediately manifested, and a threat of repetition of the injection was sufficient to cause the necessary stimulants to be swallowed. A second injection was, owing to a return of the fainting condition, given, and the patient gradually recovered, and in three days seemed none the worse for all she had suffered.

The characteristic tingling sensation was, on putting the question, denied, but was afterwards frequently complained of, tingling and numbness extending to the fingers and toes.

Prescott, Salop.

A CASE OF TWO-HEADED MONSTROSITY.

By MILNER MOORE, M.D.

ON March 25th I was sent for to see Mrs. A. B—, aged thirty-one, who had had labour pains for more than ten hours, increasing gradually in severity and frequency. She had borne two full-sized children previously by natural means, the last being two and a half years old. Liquor amnii had escaped at 7 A.M., March 24th, but no pains occurred until midnight, when they set in with regularity. When I saw her at 10 A.M. March 25th the os uteri was only partially dilated, very high up, and the occiput presented anteriorly; pains occurred with severity every five minutes. I watched the case anxiously until 5 P.M., when but little progress in the passage of the head had occurred, but the os uteri was more dilated, pains were strong and frequent but ineffectual, and all the signs of weariness were coming on. I applied the forceps with some difficulty, owing to the partial dilatation, administered chloroform, and proceeded to use traction, which after some minutes brought the head well down on the perineum and partially through the vaginal outlet. I could not succeed in delivering the head, and at the cessation of traction it receded completely. Examining then once more and passing my fingers beyond the head I found what I considered to be the vertex of a twin which seemed to prevent the passage of the body belonging to the first head. At this juncture I sent for my partner, Dr. Dewes, who speedily came. I put the patient completely under chloroform. Dr. Dewes reapplied the forceps, and succeeded in delivering the head, but it receded as soon as released from the blades. Dr. Dewes agreeing with me, after another examination which revealed an ear high up beyond the promontory of the sacrum, that we had to deal with a monstrosity, decapitation was decided upon, and carried out with some difficulty. As soon as this was done I could feel a shoulder above the pubis, and a neck and head above the promontory; then, with the concurrence of Dr. Dewes, I passed my hand, seized a foot, and turning the child, delivered with comparative ease.

The monster proved to be a large female child, with two heads and necks, one trunk, and two upper and lower extremities. The circumference of its chest at axilla was $15\frac{1}{2}$ in., length $19\frac{1}{2}$ in., and weight $8\frac{3}{4}$ lb. The right head presented, with occiput anteriorly, and in the second position. On dissection, the following were the positions of the viscera:—The sternum was to the left of the body, but the complex heart, which lay behind it, was directly in the centre. The heart consisted of one auricle, from which projected vertically downwards two distinct cone-shaped pairs of ventricles, those on the left lying one in front of the other, while those on the right lay side by side. From the anterior, thicker ventricle on the left side there proceeded a large vessel which first gave off the pulmonary artery, and

then formed a communication with another vessel, which arose from the posterior thinner ventricle, and gave off two branches to the upper limb, and head and neck; by the joining of these vessels a large trunk was formed, which met a similar artery from the right side, and formed the descending aorta. On the right side a large vessel originated from the thick outer ventricle, gave two branches to the upper extremity and neck, and a communicating branch to the smaller artery, proceeding from the inner thin ventricle, which then went to the lungs; the vessel formed by this junction met its counterpart of the left side two inches from its origin. There was a complete set of lungs on each side of the thorax—that is, two lungs with three lobes in each. The other organs were as in a single child. The spinal column consisted of two spines, having origin from one sacrum, blended together as far as the third dorsal vertebra, where they separated, and rudimentary ribs appeared to be starting from the inner side of the right spine.

The patient made a good recovery.

Coventry.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

GUY'S HOSPITAL.

TRANSFIXION OF NECK BY A WALKING-STICK; RECOVERY;
REMARKS.

(Under the care of Mr. DAVIES-COLLEY.)

THE report of this curious and interesting case is printed from notes taken by the dresser, Mr. G. F. Dixon, and the ward clerk, Mr. G. B. Slader.

Henry C—, aged eighteen, was admitted on March 20th, 1881. Shortly before, he was walking along the side of the kerb, carrying in his hand a stick, about as thick as his index-finger, and holding it by the middle, when he slipped, and fell upon it. The blunt point entered his neck upon the right side, went through, and projected for about two inches upon the opposite side. With his neck thus transfixed he walked about 250 yards to a doctor, who pulled the stick out for him, and sent him on to the hospital, after he had plugged up the left opening, from which there was a little bleeding.

On admission, he was a healthy-looking, well-nourished boy, and he had not the appearance of having met with any serious injury. He had not spat any blood, nor vomited, nor had there been any difficulty in breathing. On the right side of the neck there was a wound half an inch long, directed downwards and forwards, two inches below the tip of the mastoid process, and one inch in front of it. The adjacent skin was slightly abraded. On the left side there was a transverse wound, also half an inch long, directly below, and an inch from, the tip of the mastoid process. A few drops of blood had escaped from the left wound, that of exit, but barely a trace from that upon the right side. He could raise his head from the pillow with little or no pain. There was some pain on swallowing about the pomum Adami. His voice was not at all affected. The stick was of blackthorn or holly, stripped of the bark, polished and black, with rounded knots upon it. The lower extremity was three-eighths of an inch in diameter, without a ferrule, smooth, and cut transversely, with a somewhat rounded edge. The rest was from half to five-eighths of an inch thick. His wounds were washed with carbolic lotion, and lint soaked in a mixture of oil and carbolic acid applied. He was kept in bed, and had low diet for four days, after which he was allowed to take first fish and then meat. No rise of temperature followed the injury.

March 23rd: Still a little pain in swallowing.—24th: Wound on left side healed.—27th: Allowed to get up.—28th: No pain in swallowing. Feels slight pain when the head is forcibly extended.—29th: Right wound healed: