eases of the Lungs, 4th edition, p. 156). But, for the production of a true amphoric blowing, I am firmly persuaded that a free current of air into a large cavity is essential. In all the cases in which the phenomenon of amphoric blowing has come under my observation, this physical sign has been associated with one or other of the three following conditions: 1. A large cavity in the lung communicating with a bronchus; 2. Perforation of the lung, with an inspiratory current of air into the cavity of the pleura; 3. Pneumothorax, with a fistulous opening in the chest-wall, and a consequent inflow of air during inspiration. Some of you will probably remember a boy named Ratcliffe who was under my care in Sambrooke Ward in the summer of 1875. After being tapped for empyema, he had a fistulous opening in the chest-wall for several weeks, but ultimately recovered completely. While the fistulous opening with pneumothorax continued, we heard sometimes amphoric crepitation (metallic tinkling) caused by air-bubbles bursting through the fluid secretion of the wound into the air-containing cavity of the pleura; at other times, amphoric blowing, when a fuller current of air was inspired through the fistulous opening nearly or quite free from fluid. These phenomena could at any time be temporarily suspended when the fistulous orifice was closed by the pressure of a finger or a plug of lint.

In the great majority of cases of perforation of the pleura with pneumothorax, the diagnosis is attended with little or no difficulty. The physical signs which I have before referred to, occurring in a patient who has been suddenly seized with hurried and difficult breathing and pain in one side of the chest, are in the highest degree conclusive. In some cases, however, the physical signs are not so unequivocal as in that which I have here recorded. Some years since, I had in the hospital two cases in which there was a somewhat perplexing inconsistency of physical signs. In one case, with tympanitic resonance over the lower and back part of the chest, amphoric blowing and amphoric echo of the voice and cough, there was dulness on percussion over the upper and front part, with moist rattling sounds. This was explained after death by a pretty extensive adhesion of the upper lobe of a tuberculous lung to the chest-wall. As these adhesions between the pulmonary and the costal pleurae are the chief protection against perforation, so the forcible tearing asunder of an adhesion during a fit of coughing is the most frequent cause of the accident. The other case of pneumothorax to which I referred was one in which, with tympanitic resonance over the whole of one side, a distinct, though feeble, respiratory murmur could be heard down to the very base of the lung. On inspection, it was found that the centre of the base of the lung, over a surface about two inches in diameter, was firmly adherent to the diaphragm. This adhesion prevented the complete collapse of the lung, and the descent of the diaphragm in inspiration drew a limited amount of air into the lung.

The case which we have been considering affords an illustration of the fact that perforation of the pleura with resulting pneumothorax may occur in an early stage of phthisis. Many years ago, I saw, with my old friend the late Mr. Lavies, a case in which this fatal accident occurred at a yet earlier stage. An adult male prisoner in the Westminster House of Correction, having had a cough for a few weeks, was suddenly seized with pain in the right side and distressing rapidity of breathing. There was excessive resonance on percussion over the affected side, while the normal respiratory sound was replaced by a loud amphoric blowing. The diagnosis of perforation of the pleura with pneumothorax was obvious. The man died in a few days, and in the apex of the lung was a scanty caseous deposit, the only part that had undergone softening being a piece not larger than a pea immediately beneath the perforated pleura. In all cases, perforation of the pleura with pneumothorax is attended by the sudden onset of symptoms of more or less intensity. The collapse of the lung and the consequent sudden great diminution of the vital capacity of the chest always causes more or less urgent dyspnoea. The pain and the other symptoms associated with the onset of acute pleurisy are, I believe, mainly influenced by the amount of purulent secretion which escapes from the lung into the cavity of the pleura. When a pus-secreting cavity of considerable size opens into the pleura, the escape of its contents rapidly excites intense inflammation in the serous cavity; while, on the other hand, a perforation which does not communicate with a cavity is attended with little or no pleuritic inflammation. On looking back to some notes of cases seen when I was physician to the Public Dispensary, I find that, in the case of a man whom I saw in March 1847, although he lived for five days after the occurrence of perforation with pneumothorax, no liquid in the pleura or other evidence of pleurisy was found after death. In that case, a very small perforation had occurred at the apex of the left lung in contact with a piece of softening tubercle, but not communicating with a cavity; and this, as I believe, explains the absence of pleuritic complication.

In that case, there was absence of amphoric blowing, explained, as I then believed and noted, and as I still believe, by the extreme smallness of the aperture in the pleura. The diagnosis of perforation with pneumothorax was based upon the sudden onset of pain and dyspnoea in a phthisical subject, exaggerated percussion resonance over the left side, very feeble breath-sounds and crepitation, which was attended with amphoric echo, beneath the clavicle. From this, I inferred that the apex of the lung was partially adherent to the chest-wall; and this diagnosis was verified by the *post mortem* examination.

You are aware that when there is a mixture of air and liquid in the pleura, a sudden jerk (succussion) of the patient's body when he is standing or sitting causes a splashing sound, which is easily heard when the ear is applied over the affected side. This physical sign has been known to the profession since the time of Hippocrates. We did not seek for it in our patient's case. We had abundant diagnostic evidence without it; and the patient's feebleness and suffering were so great, that it was undesirable to add to his distress by the rather rough procedure which is requisite to develop the phenomena in question. An over-zealous auscultator is in some danger of forgetting that a minute and prolonged, and especially a rough, examination of the chest may be a source of fatigue, distress, and even danger to the patient. A short time since, a case of aneurism of the aorta came under my care in the hospital. After two or three days' stay in the ward, the patient discharged himself, and wrote me an impertinent letter complaining of the repeated and prolonged examinations to which he had been subjected. This man, although he had a very serious disease, was not suffering acutely either from pain or from weakness; and I consider that he had no sufficient cause for complaint against me, or against any of you who may have examined him in my absence. I refer to the case only to remind you of the need for so tempering your diagnostic zeal with discretion, that you may avoid giving just ground for complaint even to a captious and querulous patient, such as we sometimes though rarely meet with either in public or in private practice.

FEEDING VERSUS FASTING.

By J. A. CAMPBELL, M.D., Medical Superintendent, Garlands Asylum, Carlisle.

In the *JOURNAL* of February 2nd, the case of "the Market Harborough Fasting Girl" appears. An account of the symptoms of the malady, the treatment pursued, the result, and the *post mortem* appearances of the thoracic and abdominal viscera, are given. Now, when cases are published in the medical journals, it is understood that they may be made use of, if such be possible, discussed from all points of view, and fairly criticised. From an asylum physician's point of view, a short *résumé* of the salient points of this case, the treatment it received, and the result, a consideration of the subject of "fasting girls" generally, and some remarks on the subject of persistent refusal of food and its proper treatment, may not be out of place.

1. *The Market Harborough Case*.—Martha White had been healthy up to 1872; then she had an attack of real or feigned illness, during which she thought she could not swallow. An explanation of the mode of using, and a threat of the use of, the stomach-pump made her swallow. She recovered and went to work. In 1873, another attack is reported, which was considered principally, if not entirely, hysterical; "but, on this occasion, moral force was futile, and all we could do was of no avail". After this had gone on for some weeks, hypodermic injection of morphia and nutritive enemata were recommended, "as the girl seemed sinking for want of food". At this time, she took nothing but butter-candy, of which she sucked nearly one pound daily. In April 1874, the patient had convulsions; after which she took no food, and died on December 15th, 1877. No urine or fæces were supposed to be passed for twelve months. The account of the body and the viscera examined was what might be expected. The body was very emaciated; the organs are reported to have been free of organic disease, and the stomach and intestines from contents, except that, in the stomach, there was half an ounce of dirty mucus, and from four to six ounces of the same material in the small intestine, and a few lumps of hard fæces in the rectum. The urinary bladder is reported as atrophied.

In the remarks made on this case by Mr. Frederick Grant, he states that there was no difficulty of diagnosis; and that there can be no doubt that it was hysteria; and he calls attention to the singular point of the prolonged starvation.

2. *The Welsh Fasting Girl*.—In vol. ii of the *BRITISH MEDICAL JOURNAL* for 1869, at page 685, particulars concerning this case are to be found. It suffices for my purpose to say that, after much wonder was excited by reports of the case, four trained nurses were set to

watch the girl, in order to detect imposture, if it existed. The patient was well watched for eight days, and then died. She never asked for food from the nurses, and it was never given to her by them during this time. This girl had attacks of hysterical crying and sobbing, and went off into what was called "a fainting fit". The *post mortem* appearances stated at the inquest were that the organs were healthy; no obstruction in the alimentary canal; a small quantity of semi-gelatinous fluid in the stomach; small intestine empty; half a pound of hard excrement in the large intestine and rectum.

To my mind, these two cases were much alike, and were both cases of hysterical insanity. No one can be considered sane who, without cause, starves so as to endanger health and life. Should cases of "fasting girls" continue to crop up, I think it would be well if the subject were brought under the notice of the Commissioners in Lunacy, as, at their instance, inquiries are at times made into cases where sanity is dubious.

It is quite admitted that the standard of sanity and insanity varies much in different parts of the United Kingdom; but when, as the result of some mental change, a patient acts in such a way as to endanger his own life, or even to become a local nuisance, it would be well at least to make a careful examination into his sanity. Old ladies who keep a house full of cats in town, thinking that they have souls, find it now-a-days scarcely safe to carry out their opinions; and the race of hermits who lived in dirt and discomfort has become almost extinct by the active discharge of duty of the country relieving officers.

In the case of the Welsh girl, eight days of careful watching and the death of the girl clearly prove that even "fasting girls" cannot live on air. I think that there can be little doubt among medical men or others that human life can only exist for a short period (limited to days) without nourishment; and that, if ordinary food be taken into the system, evacuations must follow, though, of course, they may be lessened by the nature and quantity of the food, and the alvine evacuations may be at very considerable intervals. Though it may be interesting to know how long cases may exist with very little food, yet this treatment does not conduce to recovery.

In the present state of our knowledge of the vagaries, the simulations of diseases, and the moral depravity noticed in patients suffering under the hysteric state, I think that no more "fasting girls" should occur. I do not see why many cases of mental disorder should not be treated at home, and by any medical practitioners who choose to treat them; but I certainly think that the necessary physical as well as moral force should be used, and that the treatment which has proved efficacious in asylums should be applied to similar cases when treated outside.

In the JOURNAL for February 9th, I notice that another "fasting girl" is reported from Wales. Surely efforts will be made to prevent her from starving herself to death. If the patient be not rich enough to afford proper home treatment (which, to my mind, would consist principally of at least two good meals a day, and the attendance of a sensible, intelligent, strong-minded woman, who would do all in her power to help the girl to get rid of the idea of making herself notorious and ill), the proper mode to pursue in such a case would be to give notice to the relieving officer, who is bound to call in the medical officer of the union; the mental state of the patient would be inquired into, and the case sent to the county asylum.

3. *Persistent Refusal of Food.*—In this asylum, it is and has been the practice that, in all cases of refusal of food for two full days, it should be administered artificially; of course, in feeble cases, one does not wait so long. I quote the following from Dr. Clouston of Edinburgh, my predecessor in office, under whom I acted as assistant for several years:—"Forcible Feeding" (*Lancet*, November 30th, 1872): "Hundreds of patients are fed with the stomach-pump in our asylums every year, and no bad result follows to them; but quite the contrary; in a prolonged case, I have scarcely known anyone who did not take to the stomach-pump. I have myself so fed thirty patients in the last ten years, all of whose lives were probably saved by this means; ten of whom recovered, and a large number of whom gained weight during its use; one to the extent of a stone. I am sure that a thousand patients are allowed to die by the gradual process of starvation, because they are not fed in time with good full meals regularly given by the stomach-pump, for one who is injured by using it." Dr. Clouston mentions that Dr. Maclaren of Carlisle suggested to him the use of a stomach-tube made of India-rubber, like the French flexible catheters, which, he considered, would completely obviate any risk of injury even in clumsy hands. Shortly after that date, I got tubes made of this material, and have used them since and found them most satisfactory. During the last five years, thirty-five cases have been fed in this asylum; one of them for a continuous period of two years and one month. I may mention that this patient was

phthisical, and ultimately died of phthisis. She took her food herself for five months prior to her death.

Among these cases, four were hysterical cases in girls; three of them recovered, and the fourth was removed to another asylum; and three were youths in a somewhat similar state, produced by sexual causes (the latter were all discharged recovered): the principal feature of their cases being silly emotional excitement, alternating with a trance-like or cataleptic-like state, in which the patient would lie for hours, taking no notice of what went on around, and apparently unconscious of pain or discomfort, and refusal of food for considerable periods.

Considerable numbers of girls in the hysteric state, who had refused food at home, when they were brought here, and the means and manner of giving it were explained to them, have at once given in and taken their food. I always make a point of taking such patients to see another fed with the pump, if one is being fed in the house at the time.

I believe that in certain cases persistent refusal of food may be caused by disease, or by the sequelæ of former diseases. I reported in the *Journal of Mental Science* (January 1875) two cases of melancholia presenting similar mental manifestations to each other, evidently the result of visceral lesion. Great depression, suicidal longings, abdominal discomfort, and refusal of food, were the chief symptoms. Both died above sixty years of age. In one, a stricture of the large intestine was found; in the other, occlusion of the bile-duct.

In conclusion, I admit that there are three apertures by which food can be introduced into the alimentary canal (I refer to the nose, mouth, and anus), independently of the will of the patient, and a variety of instruments are available. Under any but extraordinary circumstances, I certainly prefer the use of the natural entrance, with the stomach-pump and soft tube as appliances. I however admit that rare cases may arise where the other methods may present advantages, almost solely where cut-throat or disease of the œsophagus exists. Dr. Brown-Séquard, in the *Lancet* of January 26th, 1878, records cases where nutritive enemata were employed for periods of three, six, and eight days. Two were cases of hysterical spasm of the œsophagus, and recovered. A case of severe cut-throat was treated in this asylum in 1874, and recovered. The patient was sustained entirely by enemata for twenty-one days, and only lost 1.6 lb. in weight. The case, in full, was reported by Dr. Macleod of this asylum in the *Journal of Mental Science* for July 1875.

ON THE TREATMENT OF UPWARD DISPLACEMENT OF THE ARMS IN HEAD-LAST DELIVERY.

By GEORGE ROPER, M.D., M.R.C.P.,

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WHOEVER has had much experience in complex labours must have observed that in head-last deliveries, the upward displacement of the arms constitutes a great difficulty in the completion of delivery—a difficulty exceedingly perplexing to the operator, very painful to the mother, and often making the difference between life and death to the child. Smellie had observed this difficulty, for he says, "If one of the child's arms, instead of being placed along the side of the head, is turned in between the face and sacrum, or between the hind head and os pubis, the same difficulty of extracting occurs as in a large head or a narrow pelvis" (McClintock's edition, New Sydenham Society, vol. 1, p. 309). This upward displacement of the arms is at times attributable to the unskilful procedure of the operator, who, from eagerness to expedite delivery, for the purpose of saving the life of the child, brings about this very difficulty, which to a fatal degree retards delivery. Such an accident, however, frequently occurs independently of unskilful treatment. I believe it unavoidably occurs in breech-cases, and in cases of podalic version, when the child is of an unusually large size, rendering the case one of disproportion; so that we have a large child with a large head *plus* the arms upwardly displaced jammed in the pelvic brim.

The upward displacement to which I refer is one of such degree, that the arms are so entirely extended above the head, after the trunk is born, that only the anterior folds of the axillæ can be felt, tightly stretched, and it is simply impossible, without injury to the child, to get down an arm. My chief object in remarking on this difficulty is to call attention to a very simple contrivance by which it is to be prevented. It consists in passing a noose of narrow tape round the wrist of the child. In presentations of the upper extremity, when an arm can easily be secured, this can be done at once. In the severe forms of breech-presentations, as where the legs are extended on the thighs, or where podalic version is to be effected in head-presentations, the