

for three days, and in the confluent for four days. In reference to the *modus operandi* of the treatment, Dr. Olliffe asks, "Ought we to admit the existence of animalculæ?" and that they are destroyed by the mineral; or, "Does the metal act by diminishing the coagulating power of the blood?"

Before we can arrive at a knowledge of the *modus operandi* of the treatment, we must previously investigate the cause of the scar, or pit. Mr. Ceely gives this explanation.

The eruption commences in papulæ, which have their seat in the corium. These papulæ consist of an adventitious membrane, formed in the corium, from a secretion by the papillæ. This membrane is raised in the form of a zone, and is intimately connected with the epidermis. When the pus forms, it separates the epidermis from the subjacent adventitious membrane.

When the pustules burst, or are broken, secondary inflammation is set up, the corium is destroyed, and the subjacent cellular tissue sloughs, leaving a deep red excavation, which forms the small-pox pit.

We believe that the effect of the plaster is mechanical. It produces absorption of the peculiar secretion which forms the papulæ by an equable and continued pressure, and by a removal of the cause the secondary inflammation never occurs, and its ravages are thus prevented. That this is the *modus operandi* would seem to be proved by the fact, that the remedy loses its effect if not applied before the pustular stage. The mercury may have, besides, a specific effect, by stimulating the absorbing vessels.

CASE OF

EPILEPTIC CONVULSIONS,

ARISING FROM FRACTURE OF THE SKULL AND EXTENSIVE LESION OF THE BRAIN.

By GEORGE P. MAY, M.D., Maldon.

THE history of this case is comprised in the following particulars, obtained from the friends of the patient:—

William Ford, aged 29, had enjoyed a good state of health until the summer of 1834, when he received an injury on the forehead from the bursting of a gun, whereby he was knocked down, and lay insensible for half an hour. The wound healed imperfectly, and remained in an irritable condition some time, and a few small pieces of bone were discharged from it. About six months subsequent to the accident, he was attacked with fits, which were described as being very violent in their nature. From these he recovered in a few days, and suffered no inconvenience, except from occasional pain in the head. He first came under my care in August, 1837. He then had a

smart attack of rheumatic fever, which terminated in his convalescence, without presenting any feature beyond the ordinary symptoms of that disorder.

On the night of October 4th, in the same year, he went to bed in his usual state of health; and was discovered, about half-past twelve, on the floor, in violent convulsions. On visiting him, about one, P.M., his struggles were so tremendous, that several men were necessary to keep him in bed, and to prevent him from injuring himself. The accession of the fits was marked by a tetanic contraction of every visible muscle: to this succeeded immediately severe convulsive efforts, the fits recurring at intervals of about a quarter of an hour, and lasting from three to five minutes at a time. During their continuance the face was swelled and livid, and much foam was ejected from the mouth. In the intervals he lay in a semi-comatose condition; breathing somewhat stertorous; pupils sensible to light; pulse full and bounding; head very hot. He was bled to $\frac{3}{4}$ xl, the head shaved, and an evaporating lotion applied.

Seven, A.M. Fits as frequent, but not so violent. The left side appeared now to be more convulsed than the right; pupils dilated; pulse full and frequent. Bled to $\frac{3}{4}$ x, and a blister applied to the nape of the neck.

Two, P.M. Since the last report has had but two fits, which were succeeded by great jactitation of the head, and some disposition to bite.

Six, P.M. Has had two more fits; one very violent: remains insensible, but swallows gruel, which was offered him, with avidity. To have a strong aperient immediately.

Oct. 5. At the visit this morning he was quite sensible, and answers questions rationally; has no recollection of what has passed, and complains of pain "and queer-ness in the head." Pulse rapid; skin hot and dry; tongue coated with a moist white fur; the bowels have been freely moved by the cathartic; has had no return of the fits during the night, but is reported to have been very restless. From this condition he soon recovered; and, ere long, was able to resume his ordinary avocations, those of agricultural labour. For more than three years his health continued tolerably good; and, during this period, I am not aware that he had any particular ailment, beyond a slight febrile attack, with some disorder of the digestive functions.

On March 4, of the present year, my attendance was requested, as he had experienced a return of his old disorder. The symptoms were similar to those already detailed; but more distortion of the muscles of the face was observed. The convulsions continued, at intervals, for two days, when he became comatose, and died sixty hours after the seizure.

Sectio capitis.—A slight scar was visible in the skin, a little above the right superciliary ridge. This was stated by the attendants to be the mark of the wound received by the bursting of the gun. Corresponding with this, and immediately above the right frontal sinus, a piece of the frontal bone was found fractured: the portion was irregular in shape, and nearly the size of a sixpence. It had suffered little displacement. Its edges were quite smooth, as were those of the surrounding bone, but no attempt at union could be perceived. A spicula, half an inch in length, evidently a piece of the internal table, protruded from the fractured portion horizontally into the brain, or rather into an excavation of the organ, about the size of a blackbird's egg. This cavity was lined with a yellow granular deposit, tough, and of a semi-cartilaginous consistence. Three or four spiculæ, of smaller size, and of new formation, were observed shooting from the inner table, around the fractured part. The dura mater terminated abruptly at the edges of the excavation. There was a copious effusion of lymph under the arachnoid of the right hemisphere; bloody serum in the ventricles; and an erosion at the under part of the left anterior lobe, lying on the ala minor of the sphenoid bone, about half an inch in length and a quarter in breadth; its base was tough and membranous.

This case is an additional instance to those already on record, illustrating the amount of injury and disorganisation which the brain will sometimes suffer without life being destroyed, or its peculiar functions being permanently interrupted. In ordinary cases of fracture with depression, it frequently acquires a capability of accommodating itself to the change in the shape and size of the skull which such injury produces. In the present instance, this peculiar tolerance is especially remarkable; as there can be no doubt that the dura mater and brain were lacerated so long back as the period of the accident; and by the protruding spicula a constant source of irritation must have been kept up, which ended ultimately in the total destruction of that portion of the organ in its immediate locality. The want of union in the fractured part, although in nearly direct opposition, is also a circumstance worthy of notice.

ON A PECULIAR DEFORMITY OF THE CHEST IN INFANTS.

To the Editor of THE LANCET.

SIR:—Perceiving, in the last Number of THE LANCET, the report of a paper, read by Mr. Snow before the Westminster Medical Society, on “a peculiar deformity of the chest and spine in children,” which, I find,

is the same I had previously pointed out in the “Medical Gazette,” Jan. 12, 1839; of which I presented an example before the London Medical Society on Feb. 12, 1839, and which was noticed in No. 24 of THE LANCET of that year, under the head, “Peculiar deformity of the chest in infants;” I shall feel obliged if you will allow me to repeat, through the pages of your extensively-circulated Journal, my conviction that such deformity is dependent upon a morbid condition of the lungs.

That the deformity mentioned in Mr. Snow's paper is the same as I had noticed in mine, I gather from the similarity of the sentences describing it, which, considering that Mr. Snow had not, of course, read my paper, since he did not refer to it, is somewhat singular. Thus, Mr. Snow says, “The chest became depressed laterally, the sternum projected forwards, and a *channel* was left down each side of the thorax, where the cartilages united to the osseous portions of the ribs.” I had stated before, “The deformity consists in a depression existing at the line of union between the ribs and their cartilages, in consequence of which the arched form of the front of the thorax is lost, and a *channeled* appearance, external to the sternum on each side, produced.”

Again, Mr. Snow says, “And the sides of the chest were pressed further in during inspiration, and returned again during expiration; thus the motion of the ribs became the reverse of the natural one.” I had before written, “At the moment of inspiration, they (the ribs) being forced inwards instead of drawn outwards, and thus the size of the thorax transversely diminishing, instead of being augmented.” No doubt, therefore, can be entertained, that the cases alluded to by Mr. Snow and by myself are the same.

There are several reasons why I cannot agree with that gentleman as to the cause of such deformity being enlargement of the abdomen. Firstly, Because I have seen cases where there has been very inconsiderable enlargement of the abdomen; and where, nevertheless, the deformity has been very distinct.

2ndly. I see infants and young children with the abdomen much enlarged, where no such deformity exists; and, therefore, cannot think “the degree of deformity is always in proportion to the enlargement.”

3rdly. The altered movement of the ribs in respiration is very common in the course of diseases of the lungs in children, without any tumidity of the abdomen, or any deformity of the chest.

Neither can I agree with Dr. Chowne and Mr. Chance, that it is a scrofulous affection. Rickety or strumous malformation of the chest, which is very common in children, is shown by lateral contraction, as in other cases of rickets the bones themselves are distorted; and hence the alteration of form