

twisted awry. In all such cases he fears amputation is still the remedy; but with the full effects of chloroform, all other cases are thus manageable under the indications first stated.

**OPERATION FOR EXTERNAL HÆMORRHOIDS: ACTUAL CAUTERY: ADVANTAGES OF THE "ÉCRASEUR".**

One of the last operation days at Guy's, Mr. HILTON operated on a very bad case of external hæmorrhoids, which had resisted all other treatment. As the hæmorrhage threatened at one time to be excessive, it was found necessary to have recourse to the actual cautery. Hæmorrhoids, it need hardly be observed, are found of various kinds. Sometimes we find a mere dilated vein or varix covered by mucous membrane; or, again, as in the present instance, a large tumour, consisting of areolar, spongy, soft structure, very liable to hæmorrhage, or to repeated attacks of inflammation, with deposit of coagulable lymph. The base of the hæmorrhoidal growth in the present case was so broad that it did not seem possible to apply ligature; indeed, the practical rule in the hospitals seems to be to remove all external piles by the knife; all internal piles, by strangulation.

We may here mention a new instrument—the *écraseur*, now very much used in continental hospitals, and mentioned at Guy's, which is said to be quite perfect in its efficiency in removing hæmorrhoids, without a drop of blood being lost. There is not much experience of its use, at present, at this side of the Channel.

**VALUE OF SETONS IN CASES OF PARALYSIS FROM DISEASED VERTEBRÆ, AS DESCRIBED BY POTT.**

We alluded recently to the disuse of issues, and of setons generally, in hospital practice, of late years, as much perhaps from a matter of fashion or growing opinion in London against the trouble to the patient incident to their proper trial, as from any very positive evidence of their evil effects. Painting with tincture of iodine or acetic tincture of cantharides, as in diseased knee-joints, seems to have superseded issues in many instances. Two cases at present in the London Hospital, under the care of Mr. ADAMS, appear, however, to indicate that, in particular forms of disease, the proper use of the seton is highly beneficial. One case is that of H. B., a young man, aged 20 years, of scrofulous appearance, admitted the first week in April, complaining of paralysis of the lower extremities, induced by diseased vertebræ. The history of the case does not present any special feature of novelty. Mr. Adams placed him under a course of alteratives, with cod-liver oil; and issues are applied at the side of the spine, as described in the elegant but old fashioned work of Mr. Pott. The young man is now six weeks in hospital, and is vastly improved, the issues having acted very satisfactorily in removing the disease.

In the second case, C. F., aged 7 years, and admitted April 22nd, the disease is situated in the cervical vertebræ, like a case we recently saw under Mr. Coulson, at St. Mary's. The latter surgeon does not approve of issues. Mr. Adams, however, in this case also, found their application of advantage.

**COLOUR BLINDNESS: PROBABLE CAUSE A MOLECULAR CHANGE IN THE VITREOUS AND CRYSTALLINE HUMOURS.**

A very remarkable case of colour blindness has recently come under the notice of Mr. WHITE COOPER, at St. Mary's, in a Captain C., who mistakes the colour red for green, or rather conceives both to be alike. He has a keen appreciation of blue. A stick of sealing-wax, though ever so red, is described as drab colour. Being engaged in a steamer, he mistakes a sixpence for half a sovereign; and not long since, in paying in change a shilling, could scarcely be made to understand it was a sovereign. An interesting fact was discovered, that, in establishing a very strong red light, as by passing the electric light through a red glass, he at once exclaims "that is red", and appears pleased to be able to renew his acquaintance, as it were, with this colour. In another case met by Mr. White Cooper, a little

girl about 7 years old, it seemed to be an hereditary affliction. Professor Tyndal, who was consulted in these cases, seemed of opinion it was not a disease of the retina, but rather caused by some molecular change in the humours of the eye.

**NEW OPERATION IN PARAPHIMOSIS.**

A new plan of reducing obstinate paraphimosis recently suggested by Malgaigne, promises to render this operation more effectual, and this disease less formidable. The obstacles to the reduction appear to be due to the strangulation effected by the preputial ring, and certain attachments or false membranes thrown out by the inflammation thus excited, which partially glue the tegumentary layers to the corpus cavernosum. The remedy consists in a sort of subcutaneous section or freeing of the parts about the ring, on the same principle as freeing the stricture in hernia, without opening the sac. K.

**Original Communications.**

**CASE OF PUERPERAL CONVULSIONS.**

By R. T. WOODHOUSE, M.D., Physician to the Royal Berkshire Hospital, and to the Reading Dispensary.

[Read before the Pathological Society of Reading, August 1854.]

In bringing forward the following case of puerperal convulsions, I do not flatter myself that I have anything novel to present which may not have been witnessed again and again by those extensively engaged in obstetric practice; yet I think it possesses some points of interest which I trust will repay the attention with which I hope to be favoured while I enter somewhat into detail.

Amongst the almost innumerable diseases which affect humanity, there is, perhaps, none more full of perplexity to the practitioner, or more appalling to those present, whether anxious relatives or sympathising friends, than eclampsia parturientum, which, like the lightning's flash, or an electric shock, seizes in an instant on the unconscious sufferer at the most interesting and important moment of her existence, hideously distorting the "human face divine", and casting the trunk and limbs into writhings of seeming agony the most severe.

CASE. Mrs. H. M., aged 37 years, of ordinary stature, fair complexion, and of sanguineo-nervous temperament, is an only daughter, and during the lifetime of her father was brought up with every comfort and luxury, and all the indulgences of a spoiled child. After his decease, the family experienced a great reverse of fortune, and she was compelled, after many vicissitudes, to employ those talents and accomplishments for her maintenance which, under happier circumstances, might have rendered her an ornament of that circle in which her fond parents intended her to move. About the age of 23 she married a medical practitioner, then just commencing the up hill struggle of professional life in London; but he, not meeting with that success in practice which he expected, moved from one locality to another, which, with the anxieties arising from an increasing family, added a moral to the physical excitability natural to her constitution. I mention these circumstances, as they have some apparent weight in the subsequent history of the case.

She bore eight living children in a little less than thirteen years, and recovered from each of her labours within the usual periods, no untoward event occurring to mar her convalescence. There is one peculiar circumstance reported to me by her husband; that when the child was a male, she complained more of pain in the brain and spine than in the back or abdomen; when it was a female, the pain was abdominal. At the birth of the sixth child, she was in very delicate health, having grieved much for the loss of an infant, fourteen months old, to which she was

particularly attached, and lived many months on stimulant—brandy and port wine—taking very little food; and when that was taken, it consisted of a mutton chop under done, and washed down with the same kind of beverage. At this period she suffered much from a sense of bearing down in the womb, with irritable bowels, and frequent diarrhoea, and occasional attacks of well marked hysteria.

Between the birth of the sixth and seventh children, the hysterical paroxysms became more severe, coming on with great flatulency of the stomach, and intense pain in the spine, from the neck to the loins; pallid and sharpened features, rigors, cold extremities, borborygmus, but no loss of consciousness. Relief from these sufferings was generally obtained by one or two tablespoonfuls of brandy, frequently repeated, and rubbing the spine with some anodyne liniment; after one, two, or three hours friction, a violent evacuation of flatus took place, and relief was obtained. When she is pregnant, these attacks do not recur. During the period of lactation (twelve months) and the last pregnancy her health was tolerably good, and she appeared to gain flesh and strength, and she abstained very much, if not entirely, from the use of stimulants; she stated that she frequently felt the movements of the fœtus cause the womb to feel exquisitely tender.

April 27th, 1854. At 3 A.M., after one hour's labour, she was safely delivered of a living male infant, by a natural presentation; the pains being felt in the brain and spine, none in the abdomen on this occasion, as well as when the other boys were born. There was no hæmorrhage, the quantity of blood lost being less than usual; the placenta was expelled by the natural efforts of the womb. After the labour, the bandage was adjusted, and ten drops of laudanum given in two teaspoonfuls of brandy with water. In an hour or two afterwards, she voided about a quart of urine without assistance.

The nurse who had been engaged arrived after the labour was over; but as this had taken place a fortnight earlier than was expected, she was not free to leave the lady on whom she was then in attendance, and could only remain till morning. This disappointment produced considerable excitement in the mind of our patient, and no sleep was obtained for six hours after the delivery, when ten drops more of laudanum were given, but without the effect of inducing repose. On all such occasions Mrs. M. refused gruel and arrow-root—the ordinary sustenance of mothers in the first days of accouchement—but preferred chocolate, which she took during the day with some thin bread and butter. She expressed a desire for a Bath bun, which was procured for her at a most respectable confectioner's, but not given to her that day.

April 28th. 3 A.M., just twenty-four hours after her delivery, she requested the nurse (a stranger to her, who was obtained for the emergency) to give her a bason of chocolate and with it the Bath bun. She then dismissed the nurse to an adjoining room, and said she would call her if she wanted her; she would try to compose herself to sleep, as she had not had any all day. She complained also of headache. Soon after this, her husband, who lay on a small bed in the room with her, was roused by some peculiar noise, and on looking at her, found she was in violent convulsions, every feature being contorted, and the countenance almost black. He called the nurse, and desired her to go for me and for Mr. May, saying that her mistress was dying. He, either overcome by his feelings, or alarm at the appalling sight, fainted and fell on the floor.

About ten minutes or a quarter past four, I was roused by a loud ring at my bell, and a hurried breathless message left that I would go immediately to Mrs. M. On my arrival at the house I was admitted by the nurse, who begged me to proceed up stairs at once, as her mistress was dying.

On entering the room I found the patient with a purple countenance, sibilant breathing, and all the phenomena of a convulsive fit, which terminated in a few minutes. The husband soon returned, followed by Mr. Harrinson. When the struggle ceased, the face became pale; the pulse quiet;

no stertor. There was bloody froth about the lips. Pupils active; the bowels had been moved two or three times the preceding day. The epigastrium was enormously distended, and tympanitic, while the lower part of the abdomen was loose and flat. She had passed water freely, as before mentioned. There had not been any œdema of the face or extremities, or any other reason to suspect uræmia. Neither had there been hæmorrhage or other exhausting cause. We could find no other source from whence these symptoms could arise than the irritation of the stomach from the chocolate and Bath bun. On the supervention of a second convulsion, we determined, if possible, to empty the stomach, and with this view gave her one scruple of sulphate of zinc in an ounce of water, which I passed down to the pharynx by teaspoonfuls, while Mr. Harrinson forcibly separated the jaws by the handle of a toothbrush; this, in due time, failing to produce the desired effect, Mr. Harrinson tried to excite vomiting by passing his finger, and afterwards a feather, into the fauces, both of which also failed. We then gave her half a drachm of ipecacuanha with another scruple of zinc, but without success, not even provoking retching. As we could not succeed in bringing it up, we determined to try and drive it downwards, and accordingly gave her ten grains of calomel by placing it on the tongue and washing it down with a draught of compound senna mixture, with three drachms of Epsom salts; and an enema of castor oil and turpentine, of each an ounce, in a pint of gruel, were thrown up. Twelve leeches were applied to the temples; cold lotion to the forehead; hot bottles to the feet, and sinapisms to the legs. A blister had been already applied to the nape of the neck by the husband. The fits continued to recur every half hour, and no signs of returning consciousness had yet been exhibited.

About seven o'clock we determined to wait the effect of these means, and to meet again in two hours. We had not reached home when we were summoned back with the message that another frightful fit had come on. Convulsion followed convulsion with increased severity, in quick succession; the interval was diminished; the cheeks became more relaxed, and flapped more audibly and freely, with the heaving respiration. The tongue was severely bitten; each successive fit told fearfully in every way; and it was manifest (I use the words of Mr. Harrinson) "that if relief was not obtained in some way, and that speedily, her destruction was not threatened, but imminent." None of her medicines had taken effect.

At this juncture it occurred to me to suggest the employment of turpentine by the mouth, from its warm stimulating, as well as its aperient power; and to assist the latter quality, castor oil was added, with a little syrup, and was passed over the tongue by a teaspoonful at a time, as the former draughts had been. This had a most marked effect; the first teaspoonful had scarcely been swallowed, when the machinery of relief was set in motion, as Mr. Harrinson expressed it; the bowels were copiously relaxed, volumes of flatus were disengaged and expelled, her face brightened up, and her consciousness so far returned as to offer resistance to the remainder of her potion. She had no convulsion from this time. At nine o'clock, after four hours anxious attendance, we left the house to meet again at half-past ten A.M. We found there had not been any return of convulsion, and she seemed disposed to be quiet.

At 2½ P.M. I found her more conscious, but still unable to speak. The bowels had been moved twice—once involuntarily, and once she called out for the bed-pan. Beef-tea was ordered.

7½ P.M. She is still comfortable. To have a mixture of bicarbonate of potash, mucilage, and liquor opii sedativus, if the bowels are irritable.

April 29th. 10½ A.M. She has had a good night; is quite conscious; complains of sight being confused; no pain; bowels moved four or five times; stools black. I ordered a mixture of bicarbonate of potash, mucilage, and liquor opii, in cinnamon water; beef-tea, arrow-root, sago, etc. The milk began to be secreted. The lochia were scanty, yet all seemed to be going on well.

In the evening I found she had been rather rambling in her conversation during the day, and complained of seeing ugly faces on the bed furniture, and strange figures in the room. A draught composed of extract of hyoscyamus and liquor opii sedativus in camphor mixture, and quiet, were ordered.

April 30th. She has had a bad night; no sleep; talking incoherently; fancying she saw strange things, and that her mother, nurse, and husband were evil spirits, with other threatenings of delirium tremens, probably arising from exhaustion, or a state of anæmia, requiring quiet and stimuli. Bowels moved three or four times; motions bilious, and natural in colour. To have beef-tea *ad libitum*, and a teaspoonful of brandy in water every three hours, and a draught containing fifteen drops of chloric ether every six hours.

Under this treatment the cerebral functions were gradually restored, and with a cautiously augmented nutritious diet she ultimately got quite well, and continues to nurse her infant with sufficiency and ease. The legs were severely vesicated by the sinapisms, and were troublesome to her for several days.

REMARKS. I would ask, to what species of the genus convulsions is the foregoing case to be referred? Is it to be called one of hysteria? Was it a true eclampsia, or epilepsy? Or was it apoplectic? The previous history of the patient, the occasional hysterical attacks, with flatulency of the stomach and pain in the spine, its appearance twenty-four hours after the birth of the child, the emotion occasioned by the introduction of a strange nurse, and, more particularly, the great distension of the stomach by flatus, would incline us to refer it to the first of these.

Yet most of the authorities—Burns, Davis, Churchill, and Locoek—refer hysterical fits to the early periods of gestation; and the latter author, in the article "Puerperal Convulsions", in the *Encyclopædia of Medicine*, says "That there are convulsions of a less formidable character than those above described—unless, indeed, they are mistaken for them—and which consist of rather unusually violent paroxysms of hysteria than proper convulsions; as, however, they may occur during, or shortly after parturition, they are very frequently confounded with them, and treated accordingly. They may easily be distinguished by the absence of stertor and perfect coma, by the great quantity of flatus discharged from the stomach and heard rumbling in the intestines, by the less violent agitation of the body and limbs, etc., etc."

On the other hand, the distortion of the face, the froth about the mouth, the violent throws of the body, the purple turgescence of the face, and suspension of the respiration from the spasmodic closure of the glottis, the absence of consciousness in the intervals of the fits, the convulsive closure of the lower jaw, would lead us to call it epilepsy.

That it was not the apoplectic form may be inferred from the absence of stertor and permanent paralysis, and more clearly still from the result of the case.

Other and more recent authors distinguish these cases into two classes—the *spinal* and *cerebral*: the latter the most rare, and frequently resulting from the former; the erethism or congestion ending in the effusion of fluid, or of a clot, in the substance of the hemispheres. This seems the most simple and practical division, and comprehends perhaps both the hysterical and epileptic forms, without the necessity of those nice shades of distinction which at the bedside are difficult to recognise.

Whether we designate our present case one of aggravated hysteria, or epilepsy, or, as nearer the truth, partaking of both, the term *spinal*, as distinguishing it from the cerebral or apoplectic, arising from some irritation of the cerebro-spinal axis, will be the most useful and appropriate.

A more recent writer (Dr. West, of Alford), in an able and excellent paper in the ASSOCIATION JOURNAL of May 26th, 1854, has made a subdivision of these cases according to the source from which he supposes the irritation to arise; first, irritation uterine; secondly, extra-uterine, and a

mixed class; thirdly, irritation, sometimes mental, sometimes of a physical extra-uterine nature; fourthly, a mixed class. These subdivisions are useful when one can make them out, and assist in the direction of the line of treatment most suitable to each individual case.

As to the cause of the attack in the case of Mrs. H. M., I think there can be little hesitation in ascribing it to the irritation of the stomach by the undigested Bath bun and chocolate, acting on a system already predisposed to some outbreak of nervous symptoms. That toxæmia had anything to do with the symptoms in this case, as I have already stated, we had no reason to infer, as there was neither œdema of the face or extremities, nor any suppression of urine before or after the delivery. Irritation in the primæ viæ has long been admitted amongst the exciting causes of convulsions in the puerperal as well as other states of the system; but it was not until the discoveries of Flourens in France, and Dr. M. Hall in England, that we had anything approaching to a proper clue to this mysterious class of diseases. To the latter author more especially are we indebted for that brilliant and beautiful theory of the reflex function, which will illuminate his name in the page of medical history as long as science itself shall endure. Prior to the period to which I refer, puerperal convulsions were always attributed to congestion of the brain, produced either by the pressure of the gravid uterus on the abdominal vessels, or the violent straining efforts of the patient during labour. Modern experiments have shown that convulsions may occur without the intervention of the cerebrum, and may be excited after it is removed, by irritating the medulla oblongata, and are observed to attack anencephalous monsters. The genius of Dr. M. Hall and his followers, Dr. Tyler Smith, and others, has beautifully worked out the problem. But, as I am not writing a monograph on convulsions, but simply attempting to illustrate the phenomena in this individual case, I will briefly recapitulate the various links in the chain of symptoms on the reflex theory.

The chocolate and bun in this instance proved an irritant to the nervous filaments of the pneumogastric on the mucous membrane of the stomach, which, extending to the sympathetic through the filaments of the cardiac plexus, reached the spinal cord through the incident nerves. This produces in the cord an exalted excitability, or erethism, which may lie dormant, or in a state of incubation, for some time. The first motor result of this morbid condition is sphagiasmus, or contraction of the muscles of the neck. In puerperal convulsions, this takes place to such an extent as considerably to impede the return of blood from the head. It is to this that Dr. M. Hall chiefly refers the insensibility of convulsion. The mechanism of this symptom is a reflex action of the platysma myoides, and other muscles of the neck, compressing the superficial and deep seated vessels conveying the returning blood from the head, as shown by the swollen state of the neck and turgidity of the superficial veins, and the more or less perfect loss of consciousness and volition.

Then followed laryngismus—a partial or entire closure of the larynx by spasmodic action of the laryngeal muscles, the primary result of which is an impeded or suspended oxygenation of the blood, and a partial or complete asphyxia ensues. Then comes the terrific convulsion of the fully formed puerperal attack. Dr. M. Hall believes that, without the laryngismus and the partial asphyxia, with the circulation of venous blood in the brain, and its impeded return, from the contraction of the muscles of the neck, true convulsions, with loss of consciousness, could not occur. The convulsive closure of the lower jaw was sufficiently manifested in the difficulty experienced in opening the mouth. The spasmodic closure of the pharynx was not complete, or more than probable, it relaxed in the intervals of the fits, as she could swallow fluids when passed over the root of the tongue. All these phenomena were present in a severe degree from the commencement, each successive fit aggravated in severity, till the remedies took effect—a period of six hours.

The succession and partial cessation of fits is thus simply and beautifully described by Dr. Meigs in his forty-fourth *Letter on the Diseases of Women*, p. 655. After describing the earlier and outward phenomena of the attack, he goes on to say: "The rapid convulsive movement of the diaphragm being accompanied with spasm of the glottis, the blood of the lungs does not receive the benefit of a true and loyal respiration. It does not get its full dose of oxygen, but is hurried off, imperfectly decarbonated, to the systemic auricle and ventricle, whence it is injected into the brain and the whole system. The darkening hue of the countenance, the deep venous tint of the tongue, and the blueness of the hands and feet, show that the patient is passing into a state of asphyxia; and she does blacken her blood more and more, until the brain no longer receiving oxygen sufficient to extricate the nerve stream, the convulsive innervation ceases, from want of the means to extricate the nerve force, or neurosis, as Dr. Corrie calls it.

"It is also a curious circumstance, and one well worthy of your attention, that the blackening of the blood, or its conversion into venous blood, by the interruption of the respiratory or oxygenating function, should be the means provided and designed by Providence for the cure of the paroxysm. When the whole sanguine mass has become carbonated, the brain and the spinal cord must cease to innervate the muscles convulsively, and the speedy relaxation of every rigid muscle permits the restoration to the lungs of their oxygenating power; for, while even the muscular system is convulsed in the spasm, the movement of the mass of the blood is greatly modified by the alternate violent contraction and the relaxation of the muscles—a modification that ceases as soon as the muscles come to a state of rest; so that, in a few moments after the countenance has been black and deformed in every feature, you have the pleasure to see it recover its whiteness, though ghastly pale; while the brain—I mean the whole brain—wakes up to the renewed performance of its organic as well as its intellectual offices. When, therefore, in looking upon these frightful scenes, you see the face of your patient growing darker and darker, you will discover in that very circumstance the hopeful announcement of a speedy close of the distressing exhibition.\*"

The prognosis in the spinal form of the disease is generally favourable. In the cerebral, when we have to contend with apoplectic mischief, the danger is more imminent, and our opinion must be less propitious. Fortunately, these cases are comparatively rare. Dr. Collins, of Dublin, in his experience, gives 30 cases as occurring to him in 16,414 labours, of which 25 recovered, 5 died. Dr. Churchill has collected tables of 96,903 labours, in which 159 cases of convulsions occurred, giving 1 in 609.

Now, as to the treatment of this case; all writers, with few exceptions, concur in the necessity and advantage of copious blood-letting, both as a curative means, by lessening the excitability of the spinal system, relieving congestion, and as a preservative of the brain from rupture of some vessel within the cranium; and, accordingly, it has been almost indiscriminately resorted to. Dr. Tyler Smith, I believe, was among the first, if not the first, to lay down some proper directions for our guidance in these trying emergencies. After some very judicious remarks on the effects of blood-letting as a sedative on the spinal marrow, and as a protection to the cerebrum, he goes on to say: "The propriety and extent of venesection must be estimated, not by the violence of the disease, but by the state of the circulation in the intervals of the fits, and with especial reference to the different effects of vascular plethora and vacuity on the spinal marrow. I should avoid these manifest repetitions, had I not thoroughly convinced myself that patients rightly bled in the first instance are frequently subjected to successive depletion, until the loss of blood itself becomes a cause of the final seizures." We did not bleed in this instance. The pulse was quiet; the

face pale; no stertor, or other evidence of vascular congestion. We did not shave the head. A few leeches and a cold lotion were applied to the temples, as a guard to the cerebrum; and, having discovered the distended state of the epigastrium, and believing the cause of the irritation to exist there, we directed our chief efforts to its removal in the first instance: the history of the case tells with what result.

As to the share which the turpentine given by the mouth had in effecting the desired relief, I am not sure that we are to ascribe the whole of the merit to it alone. It certainly appeared to act instantaneously, but it is not improbable that the calomel and black draught and the enema may have acted as pioneers to it. At the time, it certainly responded to the train of reasoning in my mind which prompted its suggestion; namely, its cordial, stimulating, and astringent operations on the mucous surfaces. I had often seen it employed in the wards of the Dublin Lying-in-Hospital, in cases of flatulent distension of the bowels, where it was in my day an established remedy; but in this instance its use was not prompted, though supported by past experience.

A late writer in the ASSOCIATION JOURNAL recommends the internal use of spirit of turpentine by the mouth, with something of the air of novelty about it; but I believe its introduction to obstetricians, as a remedy for puerperal disease, is due to Dr. Brennan, of Dublin, who wrote a pamphlet on the subject about the beginning of the present century.

The relief obtained at once by the removal of the irritating cause rendered the employment of all other remedial means unnecessary. Opium, antispasmodics, and chloroform are in certain cases valuable adjuvants; but here they were not required, and would have been useless until the exciting cause was removed.

The after treatment of the case requires little comment. The mixtures containing the bicarbonate of potash and liquor opii were intended to soothe and allay the irritation of the bowels after such irritating purgatives; and the slight delirium which arose on the third day, from exhaustion, yielded to a more generous diet and the slight stimulus of brandy and chloric ether.

#### CASE OF INDENTED SKULL IN A CHILD.

By S. H. SWAYNE, Esq., Bristol.

[Read at the Meeting of the Bath and Bristol Branch, April 24th, 1856.]

A GIRL, aged 9 months, when being carried by her mother in a public covered van at Minehead, Somerset, on July 15th, 1855, was, by the upsetting of the vehicle, thrown out on the road, and the head of the van fell partly upon her, so that it was obliged to be lifted up before she could be drawn from under it. It was then seen that the side of the child's head and face was much bruised, and a large indentation produced on the crown of the head. Blood was flowing from the mouth, and continued to do so for some time. She seemed quite conscious, and sat up in her mother's arms. She afterwards looked drowsy and depressed, and, in an hour or two later, vomited a quantity of clotted blood. She was taken to a neighbouring medical man, who gave an unfavourable prognosis, but recommended the parents to continue their journey by steam-packet to Bristol. As I was absent from home at the time of their arrival, the child was kindly visited for me by Mr. Coe. He found a circular depression, with rather rounded edges, about two and a half inches in diameter, and from half to three-quarters of an inch in vertical depth, situated near the posterior superior angle of the left parietal bone, and so as to be bounded in front by a line drawn across the vertex from ear to ear. The head looked as if twisted to one side, and greatly disfigured, much of the distortion being no doubt due to swelling.

I saw the child on the 18th. The swelling and ecchymosis were then diminishing; she seemed lively and well; there was no sickness, or any other symptom indicating disturbance of the brain.

\* See further, p. 658, for the beautiful analogy he draws between these convulsive fits and the phenomena of etherisation.