PROVINCIAL MEDICAL & SURGICAL JOURNAL.

MEMOIR ON TURNING, AS AN ALTERNATIVE FOR CRANIOTOMY AND THE LONG FORCEPS, IN DEFORMITY OF THE BRIM OF THE PELVIS, &c. &c.*

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SECTION VII. (*Continued.*)—PHYSIOLOGICAL AND PATHOLOGICAL REASONS FOR THE LIFE OF THE CHILD NOT BEING NECESSARILY COMPROMISED UNDER THE PROPOSED PRACTICE.

We have already found, that when the child is extracted by turning through a contracted pelvic brim, its life is not necessarily sacrificed, (as has been alleged by some,)—either, 1st, by the injurious compression to which its head is consequently subjected; or, 2nd, by the degree of traction required to be made upon its neck.

One more special objection to the proposed operation of turning remains for our consideration, viz. :—

3. IS THE PRACTICE INCOMPATIBLE OR NOT WITH THE SAFETY AND LIFE OF THE CHILD IN CONSEQUENCE OF THE COMPRESSION OF THE UMBILICAL CORD?

In speaking of the propriety of delivery by turning in the class of cases for which I have proposed it, Dr. Radford states as an objection to it, the danger and death to the infant from pressure upon the funis, and consequent obstruction of the umbilical circulation. In footling presentations, "the funis, (he observes,) is subject to fatal compression;" and he imagines this danger must be greatly increased in cases in which the child has been turned, on account of distortion of the maternal pelvis.

Perhaps the proper and the most direct answer to this, as to the other objections to turning, drawn from supposed dangers to the child, is simply a reference to the actual results of the cases which I have already quoted, and may yet have occasion to quote in the sequel. In many of these the child will be found to have passed or been drawn footling through a contracted pelvis, and yet, in despite of the alleged fatal danger of compression of the funis between the body

or head of the child, and the interior of the maternal passages, the infant *has* been born alive. The infant has been subjected to the alleged cause of danger and death without the alleged effects following; and hence we are surely entitled to conclude that the influence of the cause is not so likely to interfere with the operation of delivery, as has been theoretically presupposed.

Let me not be misunderstood. I by no means wish to argue that in turning in distorted pelvis there is no danger to the child from umbilical compression, for I believe quite the reverse; but I imagine, at the same time, that on first thinking over this undoubted source of danger, we are apt in our own minds to magnify its effects. Experience, as I have just now stated, teaches us that they are not so great as theory might lead us *a priori* to believe; and when we consider the subject for a moment, we shall find, I think, sufficient reason for seeing,—1st, that the risk and occurrence of umbilical compression in footling presentations and turning is not so very great as to invalidate the practice, and it is in part averted by the very form of distortion to which the pelvic brim is most usually subject; besides, supposing, 2nd, the compression to take place, there may still, I believe, be measures in the resources of science, by which, if we cannot now avert the occurrence of compression of the cord, we may prevent at least the more dangerous consequences of the complication for the child. I shall speak briefly of each of these points.

The Danger and Mortality from Compression of the Cord is not so great as to invalidate the Practice of Turning.—Dr. Churchill has published a table of 542 cases of turning in which the result to the child is mentioned. In these 542 cases 182 children were lost, or rather less than 1 in 3. And when we recollect that no doubt in many of these 182 cases the child was dead *before* turning was adopted, and that in others the cause demanding the delivery, such as presentation of the placenta, was the cause also of the infant's death, &c., we shall see reason to believe that the chance of death to the child from the compression of the cord would be found to be less than the chance of death from the application, and compression, and traction of the long forceps; for, even in the more

* Continued from page 176.

common form of delivery by the short forceps—an operation which is generally looked upon as less dangerous to the child than delivery by the long forceps—the mortality among the infants is as great or greater than from turning.

Out of 871 cases of delivery by the forceps, and almost always the short forceps, collected by Dr. Churchill, 175 children were lost, or 1 in every 5.

Out of twenty-four short forceps cases which occurred in the Dublin Hospital during Dr. Collins's mastership, eight of the children were still-born, or 1 in 3. Out of thirty-three cases of presentation of the shoulder or arm which he treated by turning, in two the child was putrid, and in two others there was hæmorrhage, in one of the unavoidable, and in the other, of the accidental form, and death of the children. Among the twenty-eight remaining cases nine were born dead, or nearly 1 in 3. Here, suppose we admit that the cause of death in these nine children was traceable to compression of the umbilical cord; still the infantile mortality was probably as little or indeed less than would be found to result from delivery with the long forceps.

Out of forty-two forceps cases related by Dr. Lee in his "Clinical Midwifery," in thirty-one cases the child was still-born, or 3 out of every 4 of the infants were lost. In thirty-nine instances in which he had recourse to turning in transverse presentation, twenty-nine of the infants were born dead, or about 3 out of every 4. His deliveries by the forceps were fatal to the children in 3 out of every 4 cases; and his deliveries by turning were fatal to the children in nearly the same proportion of 3 out of every 4 cases.

Out of ninety-three forceps cases related by Madame Lachapelle in her "Pratique des Accouchemens," in fifteen the children were still-born, or 1 in every 6 of the infants was lost. In sixty instances in which she had recourse to turning in transverse presentation, eleven of the infants were born dead or 1 in every 5½. Her deliveries by the forceps were fatal to the children in the proportion of 1 in 6; her deliveries by turning were fatal also in a similar proportion, namely, about 1 in 5½. Of ninety-six forceps cases occurring in the practice of Madame Boivin, (*Memorial de l'Art. des Accouchemens. Table, p. 464.*) in twenty the children were born dead, or 1 in every 5 of them was lost. In sixty-two cases in which she resorted to turning in transverse presentation, seven of the infants were still-born, or about 1 in 9 was lost.

To obtain with more certainty the general comparative average mortality of forceps cases and cases of turning in transverse presentation, let us combine the data above given from the practice of Collins, Lee, Lachapelle, and Boivin.

The following table exhibits in an abridged and simplified form, the results of this collection of cases:—

TABLE VII.

Comparative Mortality of Children in Cases of Delivery by the Forceps and by Turning in Transverse Presentation, in the practice of Collins, Lee, Lachapelle, and Boivin.

<i>Mode of Delivery.</i>	<i>No. of Cases.</i>	<i>No of Children still-born.</i>	<i>Proportion of Still-born Children.</i>
Forceps cases	255	74	1 in every 3 died
Turning in transverse presentation	194	58	1 in every 3½ died

Arrangements and Means by which Compression of the Cord, in its Effects, may be averted.—Dr. Radford believes that when the child is extracted by turning on account of distortion of the maternal pelvis, the danger of fatal compression of the umbilical cord is then greatly increased by the fact of the distortion. But the common variety of contracted pelvis requiring turning is, (as I have already stated, and will insist upon more afterwards,) the peculiar and common kidney-shaped distortion of the pelvic brim, which is produced by the anterior prominence and projection of the sacral promontory. When the foetal head enters it, as it does under extraction by turning, with its long or occipito-frontal diameter lying in the transverse diameter of the brim, then we have, [See Fig. 4, Journal for January 12,] a free space left of greater or less size between the face or forehead of the child, and the ilium to which it looks. In this space, sufficient room may certainly, in general, be found for the free lodgement of the cord without injurious compression. The very narrowness of the conjugate diameter of the brim prevents this space being entirely filled up and encroached upon, by preventing the great mass and breadth of the head (from the coronal suture backwards,) from further passing over to this partially-occupied side of the pelvis. Besides, this uncompressed lateral space is the very site along, or near which the cord necessarily passes in descending from the uterus, and stretching between the placenta and umbilicus. For the anterior surface of the abdomen of the child to which the lower end of the cord is attached, always, of course, looks to that side of the pelvis to which the face is directed, and it is on that side that we have the free and uncompressed space I speak of, as fitted for the safe transit and lodgment of the cord. In thus stating the space as free and uncompressed, I mean in so far as the adjoining opposite surfaces of the child's head and interior of the pelvis are concerned. The space itself may be filled up, or the cord in it pressed upon by the circle of the cervix uteri or other soft parts; but certainly a little adjustment and management may often prevent any fatal compression from these sources. For the cord may be carried round by the accoucheur to that point in which there appears the greatest space, and consequently, the greatest freedom from compression,

and he may sometimes defend it from the pressure of the cervix by allowing it to pass between two fingers, introduced either for the sole purpose of protecting it, or with the view of simultaneously assisting the extraction of the head by applying some force to the cheeks or lower jaw. In both natural and artificial footling presentations it has even been proposed to defend the cord more methodically by shielding and enveloping it at the part liable to compression in a kind of special protecting instrument. Dr. Joos, of Schaffhausen, has ingeniously proposed an instrument for this purpose. (See *Medical Gazette*, Oct. 22, 1847.) It consists of a tube from four to eight inches in length, and of calibre sufficient to contain the umbilical cord, leaving a longitudinal slit or fissure equal to 1-12th of its circumference. It is composed of caoutchouc or leather, in which are embedded a series of steel rings three lines broad, and at the distance of one line from each other. The slit is opened up at one end by the finger, so as to admit the umbilical cord, and in the same manner it is made to receive it along its whole length, the fissure closing up as the finger is removed. A handle may be required subsequently to keep the instrument in its proper place. "The application of the instrument" (says Dr. Joos,) "takes place during the act of birth, by presentation of the breech or feet, in cases where delivery is effected by version and bringing down the feet, and in cases where the cord is prolapsed and cannot be returned." But I greatly doubt whether, even if we were provided with such an instrument, as Dr. Joos describes, we should not find the difficulties of applying it, and the time required for that purpose, more dangerous to the infant, than the extraction of the child's head by more simple and direct means. It is always well to avoid instruments when we can avoid them, and such an one as the present might not be used without some danger to the structures at the os uteri.

Suppose, however, that the means we used to avoid compression of the cord, by placing it in the least occupied point at the brim, or by preventing the soft parts pressing upon it by the fingers, or otherwise, were in vain, and that at last it really became irretrievably compressed, and its pulsations arrested before the head could possibly be extracted, is the safety of the child utterly hopeless? I believe not. Long ago, Pugh and Morlaine recommended a practice that has been latterly followed by Bigelow and others, and which, I believe, is calculated in some instances to enable us to continue the life of the child, by continuing its respiratory function, whilst we go on exerting, from time to time, those cautious yet decided means, which we have seen Dr. Denman recommending, for effecting the complete extraction of the obstructed head. The means to which I allude consist in exciting pulmonary respiration in the half-born child, now that its placental respiration is stopped,

and in making it continue that vital process by the action of the lungs, now that it is prevented by being exercised, by the medium of the placenta and umbilical cord. "When the parts are well made," says Pugh,* "and the child in proportion, happy the case! It will come then any way; the arms being brought down, the head only remains to be extracted, which must be done with as much expedition as possible, as indeed the arms ought to be; for, consider, when the child has passed the navel, the circulation between it and the mother is stopped from the pressure of the umbilical rope; you must then introduce the fingers of your left hand into the vagina, under the child's breast, and put the first and second fingers into the child's mouth pretty far; so far, however, that you are able to press down the child's tongue in such a manner, that by keeping your hand hollow, and pressing it upon the mother's rectum, the air may have access to the larynx; you will soon perceive the thorax expand, as the air gets into the lungs. *By this method* (he adds,) *of giving the child air, I have saved great numbers of children's lives, which otherwise must have died.*"

Acting on the plan thus suggested by Pugh, we may in some cases be able, with a little management, to change thus the respiration of the infant from its intra-uterine to its extra-uterine type, though the head were still held and arrested at the brim; for the mouth of the infant is always then within reach, and could, I believe, be used for the purpose of admitting a proper quantity of air into the pulmonary passages, even when the great bulk of the head is still held above the brim. It is a practice, at all events, which sometimes succeeds sufficiently well when the head is down in the pelvis, and we have all the difficulties of a rigid outlet and perineum to contend against, in our attempts either to extract the head, or to admit a sufficiently free access of air to the mouth of the foetus. The two following cases which I extract from Dr. Lee's "Clinical Midwifery," will illustrate and impress the practice and the remarks upon it, which I have just made:—

CASE XXXII.—The nates presented, the trunk and extremities were extracted, "but the head could not be drawn through the external parts, from the rigid state of the perinæum, and the pulsations of the cord were becoming more and more feeble. So great was the resistance of the perinæum, that it was impossible to overcome it without destroying the child. I pressed back its edge, however, so far, that the external air could enter the mouth of the child, and it respired in this way fully twenty minutes after the pulsations of cord had ceased. In spite of all our care, the edge of the perinæum gave way as the bulky part of the head passed through the external parts, but the child sustained no injury, and continued to live."†

CASE XXXIII.—I attended a lady in her first labour, on the 22nd October, 1837. The nates

* "Treatise on Midwifery," 1754, p. 49.

† "Clinical Midwifery," Case 239, p. 129.

presented, and the cord ceased to pulsate after the trunk and extremities of the child had been extracted. The perinæum was so rigid, that the head could not have been delivered without using so much force, that the parts must have been torn, and the neck of the child injured. I held the body of the child as far forward as possible, while Dr. H. Davies assisted me in holding back the perinæum, that the air might enter the mouth of the child. The respiration went on for nearly half an hour before the head could be safely drawn into the world, and during the whole of the time there was no pulsation in the cord. The child is alive, and the perinæum was not injured.*

The child may not only be able to breathe, but even heard to cry, with the head still unborn, when this form of treatment is adopted. In his paper on the subject, published in the *American Journal of Medical Sciences*, for 1829, Professor Bigelow states, among others, the following case:—

CASE XXXIV.—In a case (No. 3, p. 288,) of arm-presentation, in which the feet were brought down, and the body delivered, “the face turned towards the perinæum, the mouth was easily reached, and the fingers were opened to give passage to the air as before described. No struggle nor attempt at respiration however occurred. A handful of cold water was then dashed upon the body, upon which the child immediately gave a spring, and began to cry. The head was not delivered till some minutes afterwards.”

In his observations and directions upon this modification of practice, Dr. Bigelow observes:—“After the body is expelled (p. 285,) if the head can be seasonably delivered, either by the recurrence of pains, or by the successful efforts of the practitioner, no difficulty ordinarily occurs. But this desirable state of things cannot always be realized; too frequently the size of the head, and the resistance of the pelvis or soft parts, renders the delivery difficult or hazardous, and the practitioner, in the midst of his efforts, is apprised by a convulsive jerk, or spring of the body, that a state of extreme danger exists, and that the time has come at which the child must breathe, or will speedily die. If at this period the fingers be introduced, so as to reach the mouth of the child, it will be perceived that each jerk of the body is attended with a gasp, and convulsive effort at inspiration, performed by the mouth and chest of the child. In this state of things, if air be conveyed to the mouth of the child, it will immediately breathe, and the efforts of nature, as will hereafter be shown, may, in most cases, be safely waited for to assist in expelling the head.”

“The method to be pursued,” he continues, “in conveying air to the mouth, depends upon the situation of the head. If the chin has descended low in the pelvis, so that the mouth rests upon the perinæum, or lower part of the sacrum, and can be readily reached by the fingers, the hand of the operator alone is sufficient to give the assistance required.

But if the mouth is situated so high in the pelvis as to be reached with difficulty, or if, from the large relative size of the head, there is much compression, the assistance of a tube may be of use. The mode of proceeding which I have found successful in various instances, is as follows:—As soon as the body and arms are extracted, supposing the face towards the sacrum, an assistant supports the body, carrying it towards the pubes; or the reverse should the position of the face be to the pubis. The accoucheur should then introduce the hand to which the face looks, till the middle fingers rest upon the mouth of the child; the hand is then to be raised from the throat of the child, making the ends of the fingers a fulcrum, and pushing the perinæum backwards; the air will thus pass upwards as far as the chin of the child; the middle fingers are now to be separated about half an inch from each other, and thus a complete passage will be formed between them, by which the air will reach the mouth of the child. If the child be in a healthy state up to this period, it will immediately breathe and cry, and the delivery of the head may be safely postponed till the natural pains recur. If, from any degree of asphyxia, the child does not immediately breathe, it may often be made to do so by dashing cold water upon the body, or by other stimulating processes. It has even appeared to me practicable to inflate the lungs in some cases, through an elastic catheter. When the mouth is so high in the pelvis as to be reached with difficulty, or when the compression is so great as to obliterate the cavity between the fingers, a flat tube will be found useful, made of metal of spiral wire covered with leather, or of elastic gum, and having its largest diameter about half an inch. If the tube be of metal or of any incompressible material, it should be withdrawn during a pain, to prevent contusion of the soft parts, and immediately replaced, if the pain subsides without expelling the head. Such a tube may be considered as a prolongation of the trachea, and is fully sufficient to sustain life by respiration for a considerable time. The tube must be guarded and directed by keeping it between the fingers of the inserted hand.”

In addition to the above remarks on the possible means of preventing fatal compression of the umbilical cord, there is one observation more which I am anxious to make. If all the preceding measures fail to avert compression, there is always still one strong hope left, namely, that if after complete compression of the umbilical vessels has occurred, no very great length of time is lost in the extraction of the head, the child may yet be born alive. For the type of vitality in the unborn infant is such that it will often survive, and be capable of being resuscitated, although the placental respiration be arrested for several minutes before its actual birth. And with others, I have been repeatedly surprised, in such cases as we are considering, both at

* “Clinical Midwifery,” Case 241, p. 131.

the great amount of extractive force which the structures of the infant will sometimes undergo without life being destroyed, and at the apparent great length of time, during which, in making these extractive exertions, the infant will still survive, and that too, although the cord was compressed during their continuance. If the infant be perfectly viable, and its heart sounding normally at the time that turning is adopted, there are perhaps comparatively few cases in which it will be requisite to expend so much time upon the forcible compression and extraction of the head as to destroy during that time the child's life by simple compression of the cord alone. The following case (which occurred within the last few days,) may perhaps impress this remark. In it the foetal heart continued to beat regularly, not only after the cord was compressed for a considerable time, during which very strong exertions were made in order to extract a large and very firm head through a pelvis three inches in its antero-posterior diameter, but its pulsations went on for several minutes, even after the head was perforated, an operation that required some time for its performance, and after the cervical spine had yielded under the traction applied.

CASE XXXV. Along with Drs. Ziegler and Weir, I delivered, at the Maternity Hospital, on April 17th, a woman, aged 19, in labour with her first child. The os uteri was fully dilated, and the child's head had remained at the brim during nearly ten hours of active labour-pains. The parietal bones were riding over one another at the sagittal suture, and the right parietal bone was somewhat indented by the sacrum, upon which it rested. The conjugate diameter measured about three inches. A very deep dose of chloroform was given. Turning was effected, and the body of the child delivered. Strong traction was applied in vain to bring the head through the contracted brim, and at last the bones of the neck offered to give way. The cranium was then perforated behind the ear, and by the aid of a crotchet in the mouth the delivery was completed. The child did not breathe, but the pulsations of its heart went on regularly for several minutes after delivery. The child weighed upwards of seven pounds. It measured twenty-one inches in length. Its head was large, and firmly ossified.

CONCLUDING REMARKS REGARDING THE OBJECTIONS TO THE PROPOSED PRACTICE FOUNDED ON THE ALLEGED DANGER AND DEATH OF THE CHILD.

In terminating the present section of our subject, I would again repeat in regard to the whole, the argument which I have used against the alleged fatality of the individual sources of danger that we have inquired into. It has been averred that under the proposed practice of turning in distorted and contracted pelvises the injury which the foetal head must sustain would be fatal to the child,—the injury of the neck would be fatal to it,—the injury of the cord would be fatal to it. I have shewn the principal fallacies to which these arguments are individually liable. Against the truth of the whole in a combined form, I would

here again simply and strongly appeal to the evidence of facts and experience. For the results of the cases of the practice that I have given and of others that I may yet have occasion to give, amply attest that in various instances in which it has been adopted, the indentation and depression of the skull of the infant were not fatal to it, nor was the traction of the neck fatal to it, nor the pressure upon its funis. It was submitted to one and all of these sources of supposed danger and death, and yet escaped alive from all. And having done so when the principles and details of the practice were not at all understood, may we not expect still happier and more successful results when these principles and details come to be better comprehended and more systematically acted upon?

I have heard turning objected to by some in arrestment of the head at the brim, on the ground of its inevitably occasional, or rather frequent, fatality to the child. But when we have any new operation proposed, with the view of replacing other operations, such as turning in distorted pelvis, instead of delivery by the long forceps or craniotomy, we can only properly judge of the real and relative value of the new operation, not by looking at its own absolute and isolated results, but by looking at its results as compared with the results of those other operative measures for which it is suggested as an alternative. Now, as regards the respective value of turning to the infant in comparison with the two operations for which I propose it as a substitute, the case is, of course, very different, according as we contrast it, *first*, with the long forceps; or, *secondly*, with craniotomy.

We have seen that the fatality to the child from the common operation of turning in transverse and cephalic presentations, was, in the Dublin and Parisian hospitals, nearly the same as the common operation with the short forceps, or indeed was in favour of turning, in neither set of cases there having been any very special state of pelvic contraction; and perhaps, if we had any adequate data, we should find that the same analogy in their results held good when they were respectively applied under greater and increased degrees of difficulty as in morbid contractions of the pelvic brim, always, however, with this important difference in favour of turning,—that it could be employed at a much earlier, and, consequently, as respects both the mother and child, at a much safer period of the labour than was fitted for the adoption of delivery by the long forceps; and always, also recollecting that the comparison of the results of turning, with the results of short-forceps operations, is imperfect in this respect,—that from the *direction* of the compression in long-forceps operations,—*viz.*, in the antero-posterior or oblique diameter of the foetal head, the danger and mortality to the child is generally far greater than when the short instruments merely are used, the direction of the compression with them being transverse.

But, delivery by the long forceps, under any conditions, is an operation entirely rejected by many eminent accoucheurs, and very seldom indeed adopted in country practice. And I have already often stated, but cannot, perhaps, too often repeat, that it is principally as a substitute and alternative for craniotomy in contracted states of the pelvic brim, that I bring forward the operation of turning. Now, as far as regards the child, the results of these two modes of delivery—craniotomy and turning, in this special and not unfrequent set of cases, is easy of comparison and settlement. For the very essence of the one operation, (craniotomy,) is the actual death and instrumental destruction and mutilation of the child. The object of the other operation, (turning,) is to offer the child, under the very same circumstances, a chance of escape and of life. Craniotomy implies the inevitable sacrifice of the infant. Turning implies its possible safety and probable survival. And the distinction between them which has latterly been always uppermost in my own mind, is this:—delivery by craniotomy consists in opening and breaking down the skull so as thus to reduce it to such dimensions as will allow it to pass through the contracted pelvic brim; but the operation which I propose to substitute for it, and by which the requisite diminution of the foetal head may likewise be produced, consists, not in fatal opening and emptying of the skull, but in compressing, and, if necessary, depressing its flexible and elastic parietes; and further, I have shewn that extraction by turning affords us the means of effecting this compression and indentation without always compromising the life of the infant. As far then as regards the safety and life of the infant, I hold that any general comparison between craniotomy and turning is altogether and entirely in favour of the new practice. But how stands the comparison between the effects of the two operations in relation to the safety and life of the mother? To answer this question a separate section is required.

(To be continued.)

CASE OF SPASM OF THE LARYNGEAL MUSCLES.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,

I should not have thought the accompanying case worthy of being offered to you for publication, as it appeared to me so obviously explicable on the principles of modern physiology, if it were not that it bears directly upon a point which I see, with some surprise, has been made a subject of controversy between two gentlemen who have lately written in the Journal, Dr. Ogier Ward, and Dr. Wardell.

It occurred, as appears by the date, more than two years ago. The subject of it was a young lady, aged about 28, of a delicate constitution, and much deformed, a teacher in a school. I transcribe it from my case-book,

as it was hurriedly written down at the time, with only some slight verbal corrections; as I have no wish to take any share in the controversy, I send the simple facts, without comment. It is to be supposed that the object of both the gentlemen referred to is, rather to elucidate truth, than to maintain a theory, or gain a victory; and that any example which may contribute to that end, and to the clearer understanding of an important point of pathology and practice, will be acceptable to either party, and to your readers generally. I trust, therefore, that the subjoined simple narrative, in illustration of the disputed question, will neither require apology, nor be considered an intrusion on your pages. I am happy to be able to add, in confirmation of my own views of the case, that of my friend Mr. Forman, who kindly saw the patient with me at my request. We neither of us had the smallest doubt as to the spasmodic and reflex nature of the symptoms. The case is headed in my notes, "Spasms of the Laryngeal Muscles."

February 17th, 1846. Called this morning in haste to Miss M. R., whom I found in the following state:—She was sitting in a chair, supported by attendants, labouring for breath, which she drew at long intervals, with a loud inspiratory crow; at each inspiration the chest heaved strongly. She could speak only with great difficulty, and pointed to the throat, where she said she felt a constriction. The face was pale and dusky; the hands cold; the pulse feeble, not quick; no palpitation of the heart; complained of *intense pain in the head*. The spasmodic action varied in intensity; at times the heaving effort of the chest in inspiration was much more prolonged than at others, and this was at times so great, and the intervals between the inspirations so long, that I feared immediate suffocation. Some ether and spirit of lavender being at hand, were given in warm water, and the feet were placed in hot water, with mustard. These means were quickly followed by considerable relief to the spasms. Previously to this, some fluid, apparently wholly mucus, was discharged by spontaneous vomiting. She was now undressed and got into bed, and was breathing with but slight spasmodic action, accompanied still by the crow in inspiration. The urgent symptoms were passed, but they returned from time to time in a less severe degree.

The patient is subject to violent attacks of pain in the head, vomiting, and other symptoms of gastric and hepatic derangement. This state of things appears to be the cause of her present distress, the irritation returning by reflected action to the respiratory muscles. The indications, therefore, are—the most urgent symptoms being removed—to get rid of unhealthy gastric or intestinal secretions or other offending accumulations, and to soothe the general and local nervous excitability.

An antispasmodic draught, containing a sixth of a grain of muriate of morphia, with æther and compound tincture of cardomums, to be given, if the spasms returned strongly, and repeated in half an hour or an hour, as required. As she had taken no food, a little piece of dry toast, and a small cup of coffee, without milk, were allowed, to be followed in an hour by a warm aperient draught of rhubarb and senna.