hæmorrhage. She is nearly at her full time, and states this is her third pregnancy, and the two previous labours were perfectly natural, and she recovered from both without a single unfavourable occurrence. Both of the children are now living.

At about the seventh month of this (the present) pregnancy, she had some slight hæmorrhage while engaged in some domestic occupation, but there was nothing in the nature of this which she could assign as a cause of the flooding, which was unaccompanied by pain. At this time she was ordered a mixture with sulphuric acid diluted, and opium, which speedily checked the dribbling discharge, which had continued. She felt the movements of the child soon afterwards. She has been free from the discharge up to my visit. On now making an examination, I found one or two small coagula of blood in the vagina; the os uteri dilated to about the size of a shilling, and I thought I detected the placenta presenting on the left latero-posterior part of this part of the uterus. She had then no pain, and, since the morning, no return of bleeding. Her pulse was tolerably good. Plumb. acet.; tinct. opii; rest; cold applications to the vulva; and the room to be kept cool.

Monday, October 29th. She has had no return of hæmorrhage; has no pain. She slept part of the night, and has taken some gruel at intervals. On an examination, I found the os uteri in the same condition as before reported. She was this evening carefully and safely conveyed (in the horizontal position) on slings to the (St. Mary's) hospital. Ordered to take an opiate draught.

October 30th. No return of hæmorrhage; she has had a comfortable night. She has no pain; she takes nourishment. Her pulse is good. Dr. Radford examined her with the stethoscope; he heard the fetal cardiac sounds; the placental souffle most distinct over the left lateral portion of the cervix uteri.

November 1st, 2 o'clock P.M. Labour suddenly commenced. The membranes ruptured, and a full grown living foetus was expelled by two or three strong pains. Mr. Runcorn (our Resident-Apothecary) was summoned up stairs. There was not the slightest flow of blood, although Mr. Runcorn had to introduce his hand to detach the remaining large portion of placenta, which was rather firmly adherent. There was only the ordinary lochial discharge. She rapidly recovered, and was discharged cured, on November 10th.

REMARKS. These cases are, in my opinion, sufficient in number to prove the fallacy of the dogmatic rule, which inculcates that active operative interference is necessary in all in which the placenta is implanted on the lower (cervical or oral) portion of the uterus.

These labours were, in the main, natural, and required only the same management as is adopted in such cases. It is true there was an unavoidable contingent—the abnormal position of the placenta; but, fortunately, the perils which frequently happen in placenta prævia, and not only threaten the woman's safety, but sometimes destroy her, were here naturally averted.

In all these cases (and in others of similar kind which have come within my observation) the mothers survived, and all the children but one were born alive; the death of this one was not traceable to any incident which happened before or during the labour, but was to be attributed to some constitutional cause which had previously destroyed the lives of two children. Examples like these are important to warn against rashness, but ought not to lead carelessly to overlook the possibility of dangers supervening, even in cases which at first promise a propitious termination. On the contrary, we should ever be watchful, and endeavour to make them lessons to teach us to adopt, artificially in other cases, the same plan which nature has wisely pointed out in these. They afford us ample evidence that several conditional circumstances must exist in order that a safe termination of labour, without artificial aid, may take place in cases of placenta prævia. A limited portion of the placenta must only be connected with the dilating portion of the uterus, whilst the great bulk of it

(the placenta) must be placed beyond the sphere of those actions which prepare for the egress of the child. The edge of the placenta, which is usually fixed to the os uteri in such cases as the above, is usually comparatively thin, and contains fewer and lesser sized vessels than those which belong to the central portions of this organ. The degree of separation of the edges of the placenta in the above cases was small, so that the natural anti-hæmorrhagic powers were equal to suppress the bleeding. The death of the child in Case iv, doubtless contributed to prevent a repetition of the flooding.

(For a more full exposition of my opinions on the subject, *vide* remarks "On the Suppression of Uterine Hæmorrhage without Artificial Assistance."—*Lancet*, vol. i, 1847, p. 296.)

The soft dilatable state of the os, and the energetic action of the body and fundus uteri, which recurred in these cases, most certainly contributed, in some measure, to a happy issue.

[To be continued.]

CHLOROFORM IN MIDWIFERY.

By EDWARD W. MURPHY, A.M., M.D., Professor of Midwifery in University College, and Obstetric Physician to University College Hospital.

[Read before the Medical Society of London, January 26th, 1856.]

HAVING already brought the use and advantage of chloroform in the practice of midwifery before the profession on three different occasions, I should not now venture to do so a fourth time were it not that on the last occasion, when the president (Dr. Snow) honoured this Society with a valuable paper on its application to surgery, there seemed to be on the part of the Fellows a strong desire to discuss its application also to midwifery. They were, however, prevented from doing so, because that question was not properly before them; and if I now introduce this subject, it is because I have been apprised of his intention to read another paper on chloroform; and I am persuaded the society will admit that it is desirable that the use of this agent should be freely examined wherever it may be employed.

I have not the slightest reason to deviate from the opinion I first expressed in 1848, of its extreme value, not only in relieving the sufferings of the parturient female, but also in promoting her more favourable recovery; but I regret to perceive that the question is even yet so enveloped in clouds of prejudice that it is scarcely capable of a fair examination.

I cannot but protest strongly against the violent and most unphilosophic anathemas which have been hurled, not only against the agent itself, but all who use it. Such a mode of treating an important subject has not added to the reputation of those who adopt it, nor of the Society where it has been thus introduced. I shall be happy, indeed, to find that this our Society—the oldest Medical Society in London—shall be distinguished for discussing the properties and value of this new agent with that moderation and gravity which befits its age.

In the use of chloroform in midwifery there are three points to which I should wish to direct the attention of this Society. *The first* is its progressive influence on the nervous system: *the second*, the difference that exists in its effects upon different constitutions: *the third* is the remarkable disparity in the amount of suffering from the pains of labour which women experience when going through what is commonly called "natural labour".

From the truth of the first I derive the safety of its application: from the second, the importance of a cautious and guarded use of it. The third proposition will, I think, prove its infinite value, not only in assuaging an amount of agony which overcomes the fortitude of women of the strongest resolution, but also in promoting their more rapid recovery.

The progressive influence of chloroform on the nervous

system has been already alluded to in several papers on the subject. I shall briefly recapitulate the results of my own observation. If a small dose of chloroform be taken, the first effect is to diminish sensation without disturbing any other portion of the nervous system than the sentient nerves. This fact admits of an easy experiment. Let any one inhale the vapour, and before it produces any influence on the brain pinch the cheek or the hand: they will perceive that sensation is diminished, if not lost. If the inhalation be continued, the brain begins to be affected, and the power of motion impaired. At this point every variety of what are called "nervous sensations" exhibit themselves. Giddiness, palpitations of the heart, a sense of sinking, or faintness, may be complained of by different patients; but if the pulse be examined, its beat is perfectly tranquil and unaffected in any manner. The arm cannot be so easily raised, or, if lifted, it drops more heavily. The patient may ramble or mutter incoherently; the reflex nerves begin to shew its influence, and sopor supervenes. I do not wish to go beyond what I may call this, its first stage, because I think this is quite sufficient for ordinary obstetric purposes. The profound stertorous sleep required for surgical operations I do not think necessary in midwifery, although it may be induced by those whose experience and practical knowledge of the vapour will authorize them so to employ it. I would wish to confine the attention of the Society to a mode of its administration which I think any one may with ordinary caution and judgment safely adopt.

If we suppose, then, a case of labour where chloroform is employed in the manner I have described, its effect will be nearly as follows. If the patient inhale just before the commencement of her pain, she perceives the difference in its severity; her sense of pain is not lost, her consciousness is undisturbed, she feels the pain, but also experiences the relief which the vapour gives her. If the inhalation be continued in this manner at the commencement of each pain, and ceasing as it subsides, presently it will be observed that she sleeps in the intervals more or less profoundly; she may ramble, perhaps, but when the pain returns she is seemingly quite alive to it. She will cry out, but in a more subdued tone, or bear down with her pains just as before: presently the sopor in the intervals becomes more profound, and here it is important to watch carefully its effect on the reflex nerves. If stertor be observed, the vapour should be withdrawn; but this very seldom occurs. If its administration be continued in this interrupted manner for some hours, sopor is noticed during the pain; she no longer cries out, but manifests its presence by becoming restless, or by a dull moan. When this is the case she is quite unconscious; and if the birth takes place she is not aware of it. But there is a great difference in this respect. Some remain quite conscious to the conclusion of their labour; bear down strongly with the final pains, but do not exclaim or give any expression of severe suffering. In other instances the patient bears down with deep groaning pains until the child is expelled, and yet is unconscious of its birth. The vapour gradually accumulates, and the dose that at first only lulled the pain, renders the patient unconscious towards the conclusion of the labour.

To produce an effect of this kind, I find it sufficient to inhale the vapour by the mouth—a mode which I prefer, because inhalation cannot take place without the inspiration of a large volume of atmospheric air by the nostrils, which shields the lungs from its too powerful influence. A very simple inhaler, contrived on this principle, perfectly answers the purpose. In thus using chloroform in small doses, repeated only with the pains and discontinued in the intervals, no danger, that I can perceive, can arise. The patient is not put to sleep, her pains are only controlled, rendered tolerable, and when, from the accumulation of the vapor, sopor is more distinctly observed, chloroform may be withdrawn, or, at least, given at much longer intervals.

Such a use of this anæsthetic may be considered inefficient, because the patient still suffers pain. I have found it quite the contrary; the pain she suffers is as nothing, compared with what she would otherwise have endured,

and her recovery is always rapid: she does not suffer from the exhaustion that frequently follows severe labours, which renders the patient restless, and obliges the practitioner to have recourse to opium to procure sleep. She sleeps in the interval between the pains, and after delivery sleeps for several hours, waking quite refreshed. I have thus administered this agent in a very large number of cases, quite sufficient to form a correct opinion of its effect; and, so far from finding as the result of its use any of those terrible circumstances which have been portrayed in such vivid colours, I have, on the contrary, been led to the conclusion that it is *the most valuable assistant in the management of labours that has ever been discovered*. The patient goes through her labour quietly, without those distressing exclamations of agony, painful to her friends and embarrassing to the practitioner, and a favourable recovery is, I might say, insured.

The difference in the effect of chloroform upon different constitutions is the next point to which I should wish to direct attention. All women are not equally susceptible to its influence. With some, the first two or three inhalations are sufficient to control all pain, and even to put them to sleep; while others continue to inhale for a long time before they experience any relief. Again, there are some in whom the pains seem to be exaggerated; they cry more loudly than before, and are evidently under a state of excitement. In all these instances caution is necessary, and it is very easily exercised when chloroform is given in the gradual manner I have stated. The first class of cases require very little of the vapour; the inhalation need not be repeated until the effect of the preceding dose is evidently passing off, and in this manner the patient may be kept moderately under its influence for a long time, without any other result than the relief of pain. The second are more difficult to manage, because, while on the one side chloroform seems to have little effect, on the other, it is evident it has been largely inhaled. It is necessary, therefore, to watch carefully the reflex nerves, because in such instances they may become affected even before the nerves of sensation. Irritation of the eyelids or the nostrils may be adopted; but, I think, the respiration in the intervals and the action of the uterus during the pains are the best guides. The patient generally sleeps, apparently soundly, until the pain returns; she then exclaims loudly, and the pain may be short and feeble.

It is of importance to watch for stertor during this sleep, and to recollect that this short and feeble pain, which some have supposed a proof that chloroform paralyzes the uterus, is only an evidence of impaired reflex action. The womb is not paralysed, but the aid which it receives from what I might call the reflex muscles is diminished. In such cases, some have recommended ergot of rye to be given, to counteract this effect. It may be done, but I prefer trusting to time. I have found this suspension of uterine action only temporary; the pains presently become longer and more effective; labour proceeds more decidedly; but the patient still complains of pain.

It is in the power of the practitioner to put his patient asleep, and remove all pain. Whether this be done or otherwise, the result is the same. When labour is concluded in these cases, I find that the sound sleep which follows removes all recollection of suffering: the patient is equally refreshed as in the former case, and her recovery equally promoted.

The third variety is rarely met with. When such cases do occur, they are very perplexing, because chloroform, so far from relieving pain, seems to increase it. I can give no explanation of this effect; but it seems to me probable that it arises from the influence of the vapour on the brain. The leading idea which occupies the mind is exaggerated in a kind of dream. I am led to this conclusion from observation of one of the few cases where I noticed this effect. A lady had been confined of her fourth child: I was summoned to her rather late, and, when I entered the room, found her in the middle of a very severe pain. I at once gave her chloroform, which she inhaled with avidity, but

apparently without any relief; she cried out rather more than before. I continued, however, to administer it with each pain. She exclaimed loudly during the pain, but slept in the intervals profoundly. At length I observed stertor in this sleep, and withdrew the chloroform. The child was born; and, on placing my hand on the fundus of the uterus, to assist in the expulsion of the placenta, she cried out just as loudly. When it was removed, my patient lay asleep, but moaning at intervals, as if she were in pain. After some hours, she awoke, and had no recollection of anything that happened from the time she first inhaled chloroform. She did not know she exclaimed so loudly, nor was she aware the child was born. I can only attribute this exceptional effect to a kind of dream. The impression of suffering which the pain produced was exaggerated when chloroform began to act on the brain; and what in other patients gave rise to the mutterings and rambling of delirium, was here fixed on the one idea—pain. However this may be, I never afterwards gave chloroform to a patient in the middle of her pains.

These varieties in the manner in which this anæsthetic acts in parturition are only exceptions, and some of them rare exceptions, to a general rule. Its value is, however, most clearly proved in those cases where there is an exalted sensibility of the sentient nerves.

And this leads me to the third proposition to which I would ask the attention of the Society:—*The remarkable difference in the amount of suffering which women experience when going through a "natural labour"*. Some suffer comparatively little; at no period of labour are the pains beyond their power of endurance; and it proceeds to its conclusion without any of those wild expressions of agony which are too often met with. Chloroform is not called for here; no one would think of using it. But cases of a very opposite character too frequently are met with—cases in which the patient is acutely sensitive; where even slight pains, that in others would almost pass unnoticed, cause great distress; and with whom the more powerful pains, which few can bear patiently, become so intolerable and cause such an amount of suffering as to interrupt and suspend the action of the uterus. It is in such instances that the value of chloroform shines most conspicuously; and it is here that the practitioner will find its aid most clearly unquestionable. This constitutional difference in tolerance of pain seems to me altogether unnoticed in the practice of midwifery. If a woman get through a most agonising labour without the necessity for artificial assistance, she is placed in exactly the same category as another who is delivered with scarcely any suffering. Both are called natural labours, and are considered alike as to treatment. There is the utmost possible difference. That acute sensibility to pain is not natural; it is a frequent cause of protraction in labour; and not only so, but often retards the recovery of the patient. Chloroform, by controlling it, becomes most valuable; labour proceeds without interruption, and the recovery of the patient is proportionately rapid.

I have now, directed the attention of the Society very briefly to some points which seem to me of importance in the administration of this agent. I have avoided entering upon or replying to the objections offered to its use, not only because I have already fully examined, and, I hope, answered them, but I am unwilling to make this most valuable agent a kind of battle-field for the collision of strong and decided opinions. It is a question which can always be tried by the test of experiment. It is in the power of every one to arrive at a just conclusion from their own experience; and I would only entreat those who would follow this rational mode of investigation not to be led away from it by *post hoc ergo propter hoc* arguments; not to believe that all the well-known casualties of labour are caused alone by chloroform, if this agent happen to be used. I would ask them not to take second-hand histories of its effects, but, as it seems to me the members of a highly scientific profession are bound to do, to take nothing for granted—to examine for themselves. If this course be

taken, I see but one result of such inquiries—its more general use, and appreciation of its value. There is nothing singular in the reception it has as yet met with in this great metropolis. I think it occupied fifteen years before gas-light triumphed in London. The light shone conspicuously wherever it was introduced, but it only made more manifest the prejudices and apprehensions of the public. It was declared to be most offensive—most dangerous. Some houses were blown to atoms by explosions of the gas, and the event was recorded with all the avidity of a death from chloroform. Still it continued to be used by its advocates: they gradually increased; at length its use became general; explosions were only recorded as unfortunate accidents, and now gas-light has obtained its triumph. It gives not only light, but heat; it supplies the place of coals as well as candles, and almost every house in London considers this noisome and most dangerous agent an indispensable requisite.

I anticipate for chloroform the same career. It is now under its trial; but, as it becomes better understood, it will be more generally used, and ultimately be as indispensable in the lying-in apartment.

I have to apologise for this very short and imperfect paper. I should not have brought this subject at all before the Society, but have suffered it to make its own way, only for the reasons which I have stated. I have been requested to limit myself to twenty minutes, which I the more gladly do, because, if I entered at length into the use of chloroform, and into the arguments and objections in reference to it, I should only repeat what I have elsewhere stated, and trespass largely—too largely—on your time. I trust that what I have said is sufficient for its discussion in the practice of midwifery.

Reviews and Notices.

THE JOURNAL OF PSYCHOLOGICAL MEDICINE AND MENTAL PATHOLOGY. Edited by FORBES WINSLOW, M.D., D.C.L. London: John Churchill.

THE commencement of the present year with a new series of this highly interesting quarterly enables us to draw the attention of all those interested in the subject of mental pathology to its pages. The establishment of a quarterly organ devoted to the great subject of Psychology is calculated to give an impulse to the science, inasmuch as it brings discussion to bear upon cases of interest whilst they are still fresh in the public mind. The habit of seizing quickly upon the important points of cases of insanity which will, we think, be induced by the publication of periodicals of this nature, must have a tendency to produce practical ability in the treatment of mind diseases. The physician who promptly deals with cases of this nature requires more daily food, if we might so term it, than can be found in the various philosophical treatises which from time to time are published upon the subject. The number of the Journal for January contains, among other interesting articles, a very well written and instructive one on Somnambulism, and an interesting communication by the Rev. J. F. Denham, on the Connexion between Morbid Physical and Religious Phenomena—a subject of the deepest importance to all psychologists. Neither must we omit to mention the contribution from the editor, on some Unrecognised Forms of Mental Disorder, in which he makes some pregnant remarks on the vast amount of latent insanity which exists in society. The Autobiographies of the Insane, which have now reached their fifth article, are admirable photographs of mental disorder (if we might use the term), in which the physician sees pictures of the extraordinary ebullition which sometimes exists in the minds of the insane—pictures which are invaluable, as giving the key to many of the strange acts which they commit.

We are not surprised to find this journal is so much