A practical treatise on midwifery : containing the result of sixteen thousand six hundred and fifty-four births, occurring in the Dublin Lying-in Hospital, during a period of seven years, commencing November 1826.

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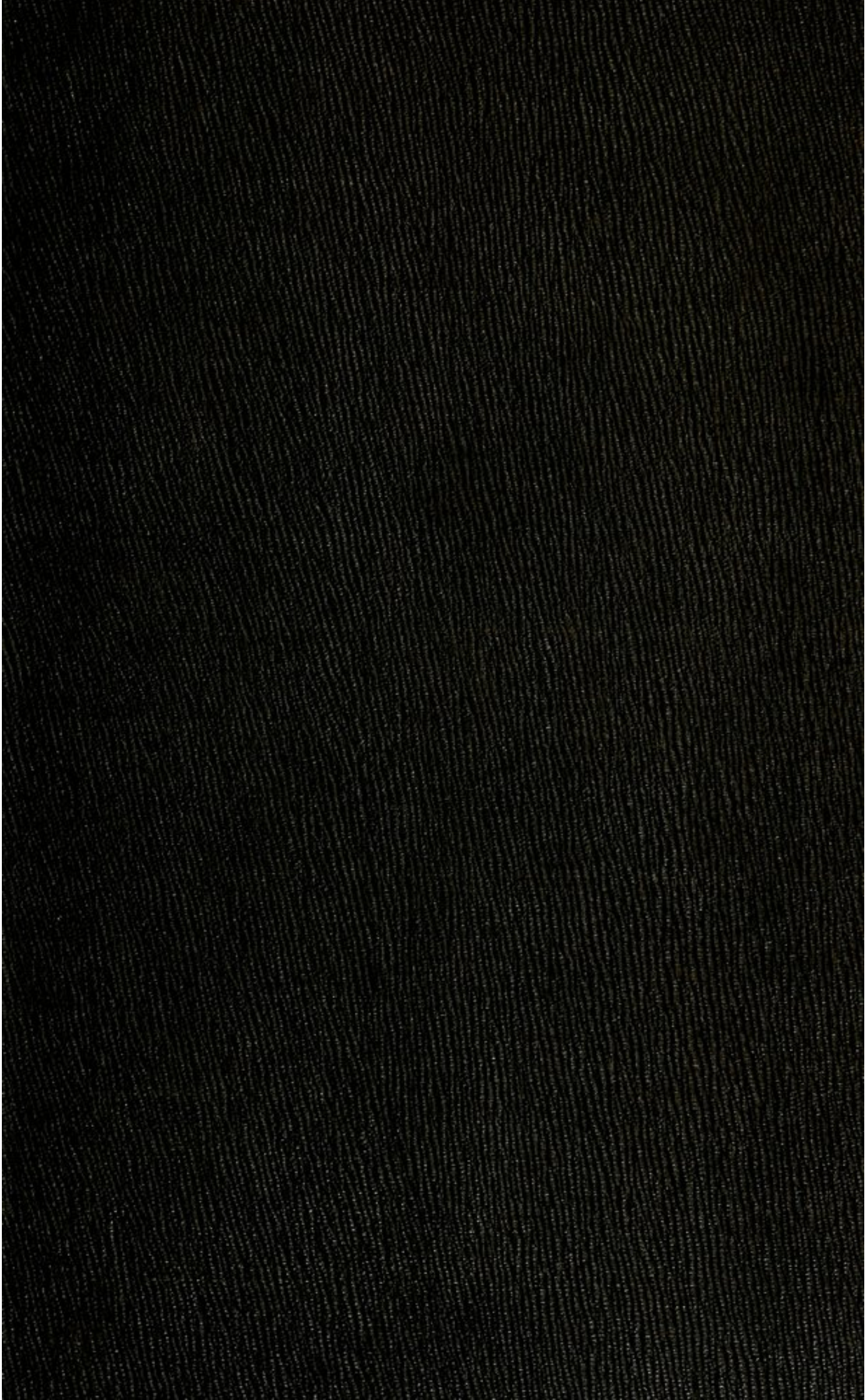

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A

PRACTICAL TREATISE

ON

MIDWIFERY,

CONTAINING THE RESULT OF

SIXTEEN THOUSAND SIX HUNDRED AND FIFTY-FOUR BIRTHS,

OCCURRING IN

THE DUBLIN LYING-IN HOSPITAL,

DURING

A PERIOD OF SEVEN YEARS,

COMMENCING NOVEMBER 1826.

BY

ROBERT COLLINS, M.D.

LATE MASTER OF THE INSTITUTION.

LONDON.

LONGMAN, REES, ORME, BROWNE, GREEN AND LONGMAN.

MDCCCXXXV.

HERM. SCHWARTZ

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TO THE MEMORY

OF HIS

REVERED RELATIVE AND BENEFACTOR,

JOSEPH CLARKE, M.D.

WHOSE TALENTS AND ACQUIREMENTS

RAISED HIM,

AT AN EARLY PERIOD,

TO THE HIGHEST PROFESSIONAL EMINENCE IN THIS METROPOLIS,

A STATION WHICH

HE HELD DURING NEARLY HALF A CENTURY,

WHEN HE RETIRED INTO PRIVATE LIFE.

HE WAS A TRULY SINCERE, PIOUS, AND HUMBLE CHRISTIAN,

A BENEVOLENT AND ZEALOUS FRIEND,

AND

DIED UNIVERSALLY LAMENTED,

AS HE LIVED RESPECTED AND BELOVED.

TO HIS MEMORY

THIS VOLUME IS INSCRIBED,

BY AN

AFFECTIONATE AND GRATEFUL

SON-IN-LAW.

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PREFACE.

My object in the publication of the present volume is to give a minute and faithful detail of what *actually passed* under my observation in the Hospital, during the seven years it was intrusted to my care, so as to enable the reader to form his *own conclusions*, and thus avoid the error into which so many have been drawn, of remaining satisfied with assertions made by men no wiser than themselves, and whose opinions often rest on the same foundation.

An extensive record of this nature will, I should hope, materially assist the experienced Physician in obscure investigations; and with the view of rendering the facts detailed more useful to the junior, I have subjoined such practical observations as experience suggested.

These opinions, I can with truth state, have not been rashly formed; on the contrary, they are the result of an anxious and diligent attention to the duties of my office as Assistant and Master in our Hospital, where I resided for a period of *ten years*, commencing February 1822; during which time 24,119 deliveries occurred, the results of which, I almost in every instance witnessed; being thus afforded ample opportunity of acquiring information.

The details here given are immediately connected with my Mastership,* and occupied the last seven years of my residence, when I had the medical charge of the Institution, during which 16,414 women gave birth to 16,654 children.

In the conclusions which accompany each section, it has been my wish to state concisely, the treatment my long residence in this invaluable school furnished me with abundant means of testing as the most eligible. I might, without much effort have recorded these facts in a more fascinating form; to this course, however, I preferred what appeared to

* Master is the title of the Physician, to whose care this Hospital is intrusted, for a period not exceeding seven years.

me the *simple truth*, which is when unadorned adorned the most, and bears examination best.

To arrange the cases, even in the hasty manner I have done, so as to enable me to state the general results in so great a number of deliveries, required *much perseverance;* yet it was *trifling* when compared with the time expended in abstracting the *tables* subjoined to each article. As, however, the chief pleasure of life is the sense of discharging our *duty*, I should feel my efforts amply rewarded could I hope I had succeeded; that the *intention* was good my own feelings leave no room for doubt.

No tables in any way similar, so far as I know, have ever been published; I therefore hope the present attempt may have the effect of directing the attention of physicians connected with extensive Lying-in Hospitals to this subject, so as to furnish from year to year a form of Registry progressively more perfect; than which, in my opinion, there is no method better calculated to afford the practical man satisfactory information.

In my remarks on the several subjects, I endeavoured to introduce few which did not appear

practically useful, this being the object contemplated. In the article with which the volume commences, viz., Natural Labours, I have given merely a few preliminary observations as to the treatment of the patient; to have entered more fully into this important subject in this place, would have caused lengthened repetitions in some of the subsequent sections, where a detail of the treatment necessary is unavoidable, and is in my mind placed with better effect.

In conclusion, I have to observe, should the tables or calculations deduced appear obscure or unsatisfactory to any engaged in the like pursuit, it will give me great pleasure, if in my power, to assist in removing the difficulty.

MERRION SQUARE, *November*, 1835.

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PRACTICAL OBSERVATIONS.

ON NATURAL LABOURS.

THE proper treatment of a patient, in the progress of an ordinary natural labour, is a subject which should engage the anxious attention of every one wishing to become a successful midwifery practitioner. From ignorance on this head, many unfavourable results ensue; for which, in the present improved state of midwifery, there is no excuse.

In all labours, from their commencement to their termination, the patient should be kept cool; by admitting a free circulation of fresh air, using light clothing, with mild nourishment, and most carefully shunning all kinds of stimulants. The bowels should be strictly attended to; as this not only facilitates the passage of the child, but protects the intestines against the injurious effects of pressure; and is at the same time of much

benefit, in diminishing any tendency to fever during labour, and subsequent to delivery. Our patient should therefore be cautioned, on the very first symptoms of labour, to take medicine, so as to effectually empty the bowels.* When labour has decidedly set in, it will much assist our efforts to ensure a state of quietness and absence of fatigue or feverishness, if we can persuade her to abstain from making any voluntary exertions during the dilatation of the os tincæ; at the same time not confining her to bed, or any particular posture, until the head descends so low as nearly to press on the perinæum. Where the labour is protracted, the state of the bladder is to be carefully attended to; and if from pressure, or any other cause, retention of urine should take place, the catheter must be passed. A large and stimulating injection thrown up every five or six hours, will, in such cases, be found useful, and will often prevent the necessity of removing the urine artificially. The young practitioner, in his anxiety, is to avoid making frequent examinations in the early stage of labour; as no useful infor-

* It may be here remarked, that the necessity for pregnant women preserving a regular state of bowels during gestation, cannot be too frequently insisted on by their medical advisers; as there is no period at which they act more reluctantly, nor during which there is so great inattention paid to this point by the female herself. In the great majority of cases no advice will be found more beneficial.

mation can be thus obtained; and when the labour is slow, the patient is injured by the inflammation so excited. This, I consider a very frequent cause of laceration of the perinæum; as, in proportion to the amount of inflammation in this part, the more reluctantly will it be found to yield to the passage of the head, and the more likely laceration to be the consequence. It is necessary to make an occasional examination, to ascertain the progress of labour, and this should be performed with caution, so as to avoid rupturing the membranes; as in almost every instance, the more progress has been made previous to the discharge of the liquor amnii, the more safe is it for both mother and child, particularly when there is any difficulty in the passage of the head.

There will occasionally be some cases met with, where all the parts are well dilated, and yet, the uterine action is so feeble as not to cause the membranes to give way: in such, when tedious, they may be punctured; this, however, should be an exception to the general rule. *Immediately* on the discharge of the waters, an examination should be made; as this is the time the presenting part can generally be ascertained with accuracy, and altered if necessary, or practicable. When the head has descended so low, as to form a tumour on the perinæum, great attention is to be paid to prevent laceration, during not only the expulsion of the

head, but also the shoulders. This will be best accomplished by pressing gently *forward* the distended perinæum with the palm of the hand, having a soft napkin interposed; and, in this way, endeavouring to keep the back part of the head as close to the arch of the pubes as possible, without using strong pressure, or applying our force so as to tend in the slightest degree, to drag the perinæum *backwards*. When the head is about to pass, the nursetender should be directed to elevate the right knee with her hand, as much as can be done, so as to facilitate the distension of the perinæum; this, I think much preferable to the use of a pillow. The patient should, at this time, where the tension is great, be earnestly enjoined to avoid bearing down, and thus permit the head to escape *slowly* and *gently*. By preventing inflammation of the soft parts in the progress of the labour, and using these precautions during the expulsion of the head and shoulders, laceration of the perinæum will seldom occur.

As soon as the head and shoulders are expelled, the medical attendant has a most important duty to perform; which is, by every means in his power to endeavour to promote as complete a contraction of the uterus as possible; the safety and speedy recovery of his patient being most intimately connected with the gradual and perfect contraction of this organ.

The means best calculated to ensure the accomplishment of this object are, to allow the uterus slowly to empty itself, leaving the body and limbs of the child to be expelled by uterine action only; and by pursuing the fundus uteri in its contraction, with the left hand placed on the abdomen, not only until the fœtus be entirely expelled, but continuing this pressure steadily afterwards, so as to keep the uterus in a state of *permanent contraction*. For the measures I would venture to recommend the junior practitioner to pursue, in the treatment of the labour *during* and *subsequent* to this stage—a period of such vital importance to the patient's welfare, to avoid repetition, I refer to the articles on Hæmorrhage, subsequent to the birth of the child, and also on Retention of the Placenta.

There is one observation I would make, with respect to leaving the child *in every case*, to be *entirely* expelled by uterine action *alone*. Although, generally speaking, no assistance whatever should be given, yet I have known several instances where the child was lost by adhering strictly to this rule, where uterine action was tardy in returning after having expelled the head. When, therefore, in three or four minutes after the head has been protruded, the pains do not return, particularly if the face be observed to be very livid, or still more, where the child makes efforts to *breathe*, we should give *gentle* assistance, so as merely to excite uterine

action ; but the moment we notice the body making the *least progress*, we must desist, and leave the expulsion to be effected as before stated. These means, it is carefully to be recollected, are only to be employed in such cases as described ; they are chiefly met with where the child is unusually large, or the labour protracted.

In all labours, when the head is expelled, the finger should be passed up on the child's neck, to ascertain if the funis be around it, which is often the case, and if so, where practicable without using force, it should be brought over the head, or where this cannot readily be effected, passed back over the shoulders. If this be not attended to, the child may be injured where the funis presses strongly on the neck, both by the cord acting as a ligature, and having its circulation checked ; also in consequence of the funis being thus shortened, the placenta might be dragged away, causing serious injury to the mother, either by inducing hæmorrhage or possibly inverting the uterus. Here, as well as in *all other cases*, where the child is born in a *feeble state*, the ligature should not be applied until the pulsation entirely ceases, except the child cries strongly or breathes freely.

ON TEDIOUS AND DIFFICULT LABOURS.

THERE is no subject connected with the practice of midwifery, so difficult to acquire a sound knowledge of, as the treatment of tedious and difficult labours. It is one of the most vital importance, and, in the most marked manner, distinguishes the experienced from the inexperienced practitioner. This information can only be obtained by diligent and persevering attendance at the patient's bedside; all other sources are comparatively worthless, and when not conjoined with practical experience, dangerous.

The causes, which may produce tedious or difficult labours, are numerous. They are found detailed in the different standard works. The most frequent are, imperfect uterine action; rigidity of the os uteri, and soft parts; early rupture of the membranes; disproportion between the head of the child and the mother's pelvis; or, in some cases, the head being much ossified, not admitting readily of compression; in others, distension of the child's body with air, when dead for some time. Many causes, not so common, might be mentioned, such

as, adhesions in the vagina,* excessive distension of the uterus with liquor amnii, &c.

Doctor Joseph Clarke states, and in my opinion, with great truth, "that since it became usual to "keep women in labour in a cool atmosphere, to "prevent them making voluntary exertions during "the dilatation of the os tincæ, and to support them "by mild, instead of stimulating nourishment and "medicine, the powers of the constitution fail but "seldom in expelling the fœtus, *where there is no* "*material defect in the formation of the pelvis.*"

We must be guided, as to the propriety of giving assistance, chiefly by the present symptoms, and previous history, and not by the length of the labour; as some will suffer more in 30 hours, than others in 90. If our patient have had severe labours before, or given birth to many children, we should not, on any account, permit her to remain so long in labour as we would, if the case were otherwise. Generally speaking, so long as the pulse remains good, the bowels and bladder act well,

* Four very interesting cases of this nature occurred to me in the Hospital, in each of which, adhesion, the consequence of previous difficult labour, had taken place, to such an extent as to form a band in the vagina, of a dense structure, which completely resisted the descent of the head. In these, I divided the band with a probe pointed bistoury, always making the incision laterally, to avoid injuring the rectum or bladder. They all recovered favourably.

See another case, where the uterus ruptured.

the soft parts remain free from severe pressure, and uterine action continues, so as to cause the presenting part to descend ever so slowly, the patient having no pain in the abdomen on pressure, or local distress, the child at the same time being alive, as indicated by the stethoscope, I am satisfied, no attempt should be made to deliver with instruments, and that he who does so, wantonly exposes both mother and child to danger.

A prudent use of instruments in the practice of midwifery, is of great importance; but the necessity alone of freeing our patient from impending or present danger, should induce us to resort to them. In every instance, where practicable, previous to doing so, it is desirable a second physician should be consulted, in order to satisfy both the friends of the patient and ourselves, that we are doing what is essential for her safety.* Some practitioners never think of taking this precaution, nor do they ever attend a patient without the lever or forceps in their pocket, and use them, without even apprising the female herself; such conduct I look upon as unjustifiable in the extreme, and am happy to think it is the practice of those only, who have little character to lose.

* The propriety of consultations, previous to the use of instruments, I first heard strongly urged by Doctor Labatt, in his excellent lectures, when master of the Hospital; few men have had more ample opportunities of acquiring experience.

In tedious labours, where the mouth of the womb is fully dilated, the soft parts relaxed, and the head so low in the pelvis, as to bring the ear within reach of the finger, if there be a necessity for interference, the forceps may be used with advantage; but ample experience has most fully proved to me, that under these circumstances, uterine action fails but seldom in expelling the child; and that it is only in cases as above described, where the *safety* of the patient *requires assistance*, that we are justified in using this instrument.

In 16,414 deliveries in the Hospital, we met with but fourteen cases answering this description; in eleven of which, the forceps was used, and in three, the lever. In the other instances where the forceps was applied, the labours were complex.

There are several other situations, in which the forceps may be employed with much benefit, as, in convulsions, hæmorrhages, &c. where the case is, in other respects, suited to their application; these are pointed out in the remarks on the treatment of such labours.

The forceps was used during my mastership, 24 times, and the lever 3 times; total 27; making the average about 1 in 608 deliveries. According to this calculation, most physicians, in private practice, would require to use them but seldom; as, supposing an individual to attend 4000 cases in the course of his life, which is a greater number than

falls to the lot of most men, the forceps or lever would be necessary in little more than *six* cases.

I consider the forceps, when used with prudence, a most valuable instrument; but its utility is greatly lessened by the injury so frequently inflicted on the patient, by having recourse to it, where *no* instrument is *necessary;* but *much more so* by using it where, in my mind, it is not only inapplicable, but highly dangerous to the patient's safety.*

The delivery of a female with the forceps, when the os uteri is fully dilated, the soft parts relaxed, the head resting on the perinæum, or nearly so, and the pelvis of sufficient size to permit the attendant to reach the ear with the finger, is so simple, that any individual, with moderate experience, may readily effect it. I have no hesitation in asserting, that to use it under other circumstances, is not only an abuse of the instrument, but most hazardous to the patient. It is from being thoroughly convinced of these facts, by long and

* Doctor Denman states—"It has long been established, in "this country, that the use of instruments of any kind, ought "not to be allowed in the practice of midwifery, from any motives "of *eligibility*." He adds, "Whoever will give himself time to "consider the possible mistakes and want of skill in younger "practitioners, which I fear many of us may recollect; the in-"stances of presumption in those, who, by experience, have "acquired dexterity, and the accidents, which, under certain "circumstances, seem scarcely to be avoided, will be strongly "impressed with a sense of the propriety of this rule."

extensive observation, that I consider the forceps quite inapplicable where the head becomes fixed in the pelvis, and that the ear cannot be reached by the finger, except by violence, in consequence of disproportion existing between the head and pelvis, either owing to the former being unusually large, or the latter under size; in most instances measuring little more than three inches from pubes to sacrum, and in others less than this. When we consider, that the blades of the *smallest* sized forceps used in Britain, even when *completely closed*, measure from 3⅛ inches to 3½, it is clear that were the bones of the pelvis denuded of their *soft parts*, there would not be space to admit of their application. The French forceps measures, when closed, from blade to blade, on the upper side, 2½ inches, and are about one-eighth wider on the opposite side; meeting at the point of the blades to within one-eighth of an inch. Were we even to overlook altogether the safety of the mother, where the child's head, which meaures 13½, 14½, or 15 *inches* in circumference, is so compressed, as it must be when the instrument is closed, there can be scarcely a hope of life. Of course, where the pelvis is *roomy*, this compression of the head, so as to *close* the forceps, is unnecessary, and in such cases the child is uninjured. How is it possible with the forceps, to drag a child through a pelvis, where there is not space,

except by *force*, to introduce (as is commonly said) a straw, or where the smallest flexible catheter cannot, in some instances, be passed into the bladder? The results I have witnessed, from such practice, were most distressing; in some, the neck of the bladder, or urethra, either lacerated, or the injury by pressure from the forceps so great, as to produce sloughing, and consequent incontinence of urine: in others, the recto-vaginal septum destroyed, either of which, renders the sufferer miserable for life; and in two cases, where the mouth of the womb was imperfectly dilated, so much injury inflicted on this part, as to terminate in death. Such melancholy consequences strongly shew the necessity of having recourse to the forceps with great caution, so as to avoid the abuse of an instrument, which, when judiciously applied, is occasionally most beneficial. Almost all the unfavourable results may be prevented, by using this instrument only when *necessary* for the *safety* of the patient, at the same time attending to the circumstances already stated; which are dwelt upon by many of our best writers on this subject, when treating of the nature of the case in which it is *eligible*.

Doctor Denman observes, "It is improper to "attempt to apply the forceps, before an ear can "be felt, either because the head is too high, or it "is so closely locked in the pelvis, that there is "not sufficient room to pass the finger, for that

" purpose, between the head of the child and the " sides of the pelvis."

Doctor Burns says, " The lower the head has " descended, the more easy and safe is the use of " the instrument. In almost every case where the " Forceps are beneficial, the head has so far entered " the pelvis as to have the ear corresponding to the " inner surface of the pubes, and the cranial bones " touching the perinæum. When, he adds, the " finger, without the introduction of the hand into " the vagina, can easily touch the ear, and when " the cranium is in contact with, although not pro- " truding the perinæum, the forceps is applicable."

Doctor Merriman says, " No case is to be es- " teemed eligible for the application of the forceps, " unless the ear of the child can be distinctly felt; " by which time it is presumed that the *os uteri* will " be fully dilated, and the perinæum somewhat " relaxed; should the perinæum be rigid, there will " be hazard of lacerating it, when the head is " brought down. So careful, he adds, have the " best professors of midwifery been to guard " against the improper use of these instruments, " that it has been laid down as a *rule* of *practice*, " that the forceps shall never be applied, till the " ear of the child has been within reach of the " operator's finger, for at *least six hours*."

Much has been written to induce practitioners to use the forceps in preference to the crotchet; but

in my opinion the one never can be substituted for the other without exposing the patient unjustifiably to great danger; as, where the case will admit of the forceps, according to the rules stated by those who have had most experience, no man possessing a practical knowledge of midwifery, would even think of using the perforator; and he who uses the forceps under other circumstances, will find reason to regret much he had the misfortune to do so, and his patients will regret still more they had the misfortune to employ him.

Four of the 24 women delivered in the Hospital, with the forceps, died—not, however, from any injury connected with the actual delivery. *Eight* of the children were still-born. *Sixteen* of the 24 were males. *Eighteen* of the 24 were *first* children.

The following Table shews the duration of labour in each: thus 1 woman was 4 hours, and so on. In one case of hæmorrhage the patient was delivered without delay, and in another it was the second child of a twin birth:—

Hours in labour,	4	5	6	8	10	11	12	16	18	24	28	32	35	36	40	48	50
No. of Women,	1	1	1	1	1	1	1	2	1	1	2	1	1	2	1	3	1

The only means of effecting delivery, where the disproportion between the head of the child and the pelvis is so great as to prevent us reaching the ear with the finger, is by reducing the size of the head

and using the crotchet. This, however, is an operation that *no inducement* should tempt any individual to perform, except the imperative duty of *saving* the *life* of the *mother* when placed in imminent danger. I have no difficulty in stating, and that after the most anxious and minute attention to this point, that where the patient has been properly treated from the commencement of her labour; where strict attention has been paid to keep her cool; her mind easy; where stimulants of all kinds have been prohibited, and the necessary attention paid to the state of her bowels and bladder; that, under such management, the *death* of the *child* takes place in laborious and difficult labour, before the symptoms become so alarming, as to cause any experienced physician to lessen the head. This is a fact, which I have ascertained beyond all doubt by the stethoscope; the use of which has exhibited to me the great errors I committed, before I was acquainted with its application to midwifery, viz. in delaying delivery, *often*, I have no doubt, so as to render the result *precarious* in the *extreme*, and in some cases, even *fatal*.

When uterine action continues regular and strong, for 12 or 24 hours after the os uteri is dilated or nearly so, without the child's head making progress; it being firmly compressed in the pelvis, not leaving space for the introduction of the finger to feel the ear, or in some the passage of a catheter into the

bladder; the urine perhaps retained from severe pressure on the urethra; or when removed, bloody or very scanty, and of a deep colour; the patient complaining of acute pain on pressure, in any part of the abdomen, the pulse being at the same time hurried, and the strength failing; these are symptoms indicating the use of the perforator, and their being *urgent* or *otherwise* should make us deliver sooner or later. The difficulty, in such cases, is caused by a disproportion between the child's head and the pelvis; and, except where this is very great, no individual can foretel whether the uterine action may be sufficient or not to expel the child; therefore the most certain proof we can have of such disproportion existing is, the head remaining stationary for a number of hours after the dilatation of the mouth of the womb, uterine action during this time continuing strong. This is a more certain proof than any derived from the most accurate examination; for though, in this way, we may be able to inform ourselves, with tolerable correctness, as to the size of the pelvis; yet the size of the child's head, its degree of ossification, or the amount of compression it may undergo from uterine action, never can be correctly ascertained. Let it be carefully recollected, at the same time, that so long as the head advances *ever so slowly*, the patient's pulse continues good, the abdomen free from pain on pressure, and no obstruction to the

removal of the urine; interference should not be attempted, unless the *child be dead.*

I know of no case where the advantage derived from the use of the stethoscope is more fully demonstrated, than in the information it enables us to arrive at with regard to the life or death of the fœtus, in the progress of tedious and difficult labours. It is, in my opinion, one of the greatest improvements that has been made in the practice of midwifery; and what adds much to its value is, that an acquaintance with its application is not so very difficult of acquirement to any one, whose hearing is unimpaired—it being only necessary the ear should be accustomed to the sounds for some time, to be able to apply it with advantage. Heretofore, we were in a great measure ignorant of the time at which death took place; and the practitioner, imagining the child alive, from want of satisfactory evidence of its death, delayed interfering, until his patient was in the greatest possible danger; whereas, had he been assured the child was dead, he would have delivered her before life became actually hazarded, and thus prevented her not only enduring for hours, but even days in some instances, the most torturing pain, the result of which continued suffering was not unfrequently death, or what was perhaps worse than death, extensive sloughing of the urethra or of the recto-vaginal septum, establishing a communication between these two cavities,

reducing the unfortunate sufferer to a state of extreme misery.

How often have I known patients permitted to endure the most urgent distress for a period of 40, 50, 60, or 70 hours; and at the expiration of this time of sorrow, giving birth to a child, evidently dead for hours, and occasionally putrid.

The following cases point out, in a most striking manner, the immense value of the stethoscope in ascertaining the life or death of the child; as had its application been known at the time of their occurrence, and delivery effected shortly after the child's death took place, without waiting till the natural efforts expelled it in a *putrid* state, I have little doubt these women would have escaped the truly deplorable consequences that ensued.

A. B. delivered of a boy dead and *putrid;* was *fifty* hours in labour, although the os uteri was not entirely obliterated more than twelve hours before delivery. Inability to retain urine came on the second day. On introducing a catheter into the bladder some days after, and passing a finger under the urethra, an aperture was discovered about an inch and a half from its orifice, which also extended to the inferior part of the bladder.

C. D. delivered of a boy dead and *putrid;* was *seventy-two* hours in labour; after some days inability to retain urine supervened suddenly, and

on examining as above, a large aperture was discovered in the bladder and urethra.

G. H. after *twenty-six* hours' labour, was delivered of a boy dead and *putrid*. Involuntary discharge of urine ever since delivery. On examination, the urethra was found lacerated to a great extent. The head of the fœtus, in this case, was protruded at the os externum, without any assistance whatever.*

In the 6th vol. of the Medico-Chirurgical Transactions of London, there is a very interesting case by Mr. Barnes, where the child had been *dead, apparently for two days*, previous to delivery being effected by the perforator and crotchet. This is one, amongst the *very rare* instances of recovery, from this lamentable accident.

Similar melancholy cases might be detailed, at great length, if necessary. I selected these, from the eminence of the physicians in whose practice they occurred, as few would venture to doubt their judgment in the treatment of a patient in labour.

Such must ever have continued, to the incalculable injury of the patient, and disgrace of

* For these cases, see Doctor Joseph Clarke's most valuable Abstract of the Dublin Lying-in Hospital ;—Vol. I. of the Transactions of the Association of College of Physicians Ireland.

the medical attendant, exhibiting his imperfect knowledge; had not the means of detecting the death of the fœtus with accuracy been found out.

I cannot, therefore, too strongly impress on the mind of the junior practitioner, the absolute necessity of making himself acquainted with the use of the stethoscope, considering it, as I do, of the utmost importance in these cases.

I can safely say, I should feel most unhappy without it, in any attendance, where the labour was protracted or severe; I am satisfied there is no mode of diagnosis more truly useful, and feel convinced, that all who accustom themselves to its application, will eventually agree with me in this opinion.*

I shall now give a concise statement of the duration of labour in the 16,414 women delivered, and also of the result to the mother.

The following table shews the duration of labour; thus 161 women were ¼ of an hour, and so on. In 564 cases, the duration cannot here be stated, many having been delivered immediately

* I would particularly recommend the careful perusal of a Treatise on the Stethoscope, as applied to Midwifery, by Doctor Evory Kennedy, my late Assistant, now Master of the Hospital. It contains every information necessary to acquire a competent knowledge of this instrument, and at the same time most convincing proofs of its utility.

on admission, others on their way to hospital, and some were not noted :—

Hours in labour,	¼	½	1	2	3	4	5	6	7	8	9
No. of Women,	161	309	3067	3513	2487	1920	923	1032	333	553	156

Hours in labour,	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No. of Women,	209	63	358	38	59	32	41	29	63	10	42	8	5	9	166	2

Hours in labour,	26	27	28	29	30	32	33	34	35	36	38	40	41	42	43	44	48
No. of Women,	12	6	18	7	40	6	6	2	3	32	3	21	2	3	2	1	47

Hours in labour,	50	51	53	56	57	58	59	60	62	63	65	66	70	72	74	80	84	90
No. of Women,	12	2	2	4	1	2	1	8	1	1	3	1	6	3	1	1	1	1

Thus, of the 15,850 cases noted, 15,084 were delivered within *twelve hours* from the commencement of labour; 15,586 within *twenty-four;* 15,671 within *thirty;* and 15,720 within *thirty-six* hours; leaving 130 above that period.

Of the 16,414 women delivered, 4969 were *first* pregnancies; of which 72 were twin births. These 16,414 women gave birth to 16,654 children, including twins.

In *seventy-nine* of the 16,654, delivery was effected by lessening the head, (on account of extreme difficulty in the labour, or where the child was dead and interference desirable, owing to the state of the mother,) when, after the most

patient trial, the impracticability of the labour being terminated in safety by any other means, was clearly proved to us. In *six* of the 79, delivery with the forceps was attempted; but no force consistent with safety could, in this way, accomplish it. *Fifteen* of the 79 women delivered by the crotchet in difficult labour, died. See article on still-born children, where the particulars of twelve are recorded, viz.:—Nos. 173=210=257=303=504=665=686=745=817=873=1038=1095. *Seven* of the twelve died from the following causes:—No. 173 from stricture of the intestine, with effusion into the thorax. No. 210 from the effects of abdominal inflammation *previous* to labour. Nos. 257=303=504, from the effects of labour *previous* to admission. No. 665 from puerperal fever, which at the time was prevalent in the hospital. No. 745 was admitted labouring under typhus fever. The *five* remaining cases died from the effects of inflammation and hæmorrhage, or injury produced by pressure. *Two* of the five suffered from hæmorrhage: one previous to the delivery of the placenta, and the other subsequent to its expulsion. In both, it was necessary to *pass the hand into the uterus.* One of the two had been force-delivered with a former child, and *all* her children were still-born. These circumstances added considerably to the bad effects arising from the difficulty experienced

in the present labour, and must have contributed much to the fatal termination.

Of the *three* women who died of the effects of labour, previous to admission, *one* was *three* days in labour; the *second*, *four;* and the *third*, *five* days. Of the *nine* remaining cases *one* was 26 hours in labour, viz. the woman admitted in typhus fever; *one*, 35; *one*, 40; *one*, 48; *one*, 56; *one*, 59; *one*, 64; and *two*, 72 hours.

The following is a short outline of the three cases not recorded in the article on still-born children:—

A. B. was admitted in a state of great exhaustion, apparently from disease and poverty. On examination, per vaginam, the head was found low in the pelvis, with a portion of the vagina next the pubes, in a very diseased state, protruded before it. It was much thickened, and presented to view several large cicatrices with hardened edges, similar to those observed after old ulcers. As the child was evidently dead, the head was lessened and brought cautiously away; it was in a very putrid state. She died shortly after delivery.

On examining the body, there was found extensive disease of the cervix uteri and vagina. There was no disease of any other part.

B. A.—This woman was idiotic; poor and starved in appearance. She was very feeble, and the uterine action was trifling. The head had re-

mained fixed in the pelvis for 18 hours. The catheter could with difficulty be passed, and the urine was thick, fœtid, and bloody. The child being dead, the head was lessened, and delivery finished with the crotchet. The child was found to be putrid. She died on the fourth day after delivery.

On dissection, the neck of the bladder, and vagina, were observed completely eroded, and in a state of gangrene; the former, at its upper part, was adhering to the uterus.

B. S. was admitted, having been *three days* in labour; she was much exhausted, her pulse 140; the os uteri not more dilated than the size of a half crown, and the uterine action trifling. One grain of opium was given, and repeated in some time after, followed by refreshing sleep; after this, the os uteri became tolerably well dilated, but the head remained high in the pelvis. As the woman's strength was failing, and the child dead, delivery was accomplished by the crotchet. The child was quite putrid. She died on the second day.

Fourteen of the 15 women were delivered of *first* children; all *males;* the other was a fourth child and a female; this was one of the two hæmorrhage cases. *Seven* of the 15 children were born *putrid; three* of the seven were the children of the women who had been a length of time in labour before

admission. In none of the fifteen was death caused by any injury sustained in the actual delivery.

I shall now give a short statement of the cause of death, in *all cases* where the patient was more than *twenty hours* in labour. These were 42 in number, or in the proportion of *one* in nearly 391. Of the 42, *three* died of typhus fever; *nine*, of puerperal fever; *one*, of stricture of the intestine with effusion into the thorax; *three*, where the placenta was retained; *two*, of convulsions; *one*, of abdominal inflammation previous to labour; *nine*, of rupture of the uterus; *one*, of inflammation of the intestines with pus in the uterine sinuses; *two*, of anomalous disease; *one*, where labour was not severe, see 171 on children dying; *one*, of diffuse cellular inflammation; *six*, of inflammation, &c., subsequent to difficult labour, see above; *one*, of ulceration and sloughing of the vagina; *one*, of disease of the lungs and hæmorrhage; and *one*, of abdominal abscess. In addition to the 42 deaths here noticed, *six* women died, who had been reported *several days* in labour previous to admission; of course the duration of their labour could not be stated in the general table on women dying.

The following table shews the age of each of the 16,414 women delivered; thus 3 were 15 years of age, and so on. In 29 instances the age was not ascertained:—

Age,	15	16	17	18	19	20	21	22	23	24	25	26	27
No. of Women,	3	19	70	237	433	926	682	1142	1023	1089	1174	1295	983

Age,	28	29	30	31	32	33	34	35	36	37	38	39	40
No. of Women,	1340	517	2346	242	467	378	384	396	379	153	217	65	326

Age,	41	42	43	44	45	46	47	50	53
No. of Women,	15	21	18	17	11	5	6	5	1

I have endeavoured, in this article, to state as clearly and concisely as possible, the result of all the tedious and difficult labours met with in the hospital, during my seven years' residence; and at the same time pointed out the treatment which, the most mature and anxious consideration has satisfied me, was most desirable. Of the *seventy-nine* cases, in which delivery was effected with the crotchet, I have recorded *forty-nine* in the section on still-born children. It was my intention to have given the entire number in detail; however, I found their similarity so great, that to avoid being tedious, I thought it better to omit some. To these cases, in connection with what has been here stated, I request *particular attention;* as from a careful perusal, the reader will be enabled to draw conclusions, far more satisfactory to himself, than any I could place before him. It has cost me much consideration, in each division in the present volume, how to communicate the different facts so as to insure this important ob-

ject; I trust, therefore, that the minute details given, together with the full record of cases on the different subjects, will prove as satisfactory as it is my wish they should. Conclusions thus arrived at, by the individual himself, either of the utility or otherwise of the practice adopted, must prove beneficial.

The *frequency* with which instruments are used, varies much in the practice of different individuals. By continental physicians, and also by some in Britain, artificial delivery is often resorted to. The crotchet is used by many, as frequently as in our hospital, and by others, much *oftener*, notwithstanding the forceps being in *constant* requisition.*

Thus in Dresden Lying-in Hospital, Dr. Carus, in 2549 cases, used the crotchet 9 times, or 1 in 283, and the forceps 184 times, total 193; so that every thirteenth patient was delivered artificially.

In Geissen Lying-in Hospital, Dr. Ritgen in 103 cases, used the crotchet 1, and the forceps 10 times; total 11, or every ninth patient.

In Berlin, La Charitè, Dr. Klugè in 1111 cases, used the crotchet 6 times, or 1 in 185, and the forceps 68 times; total 74, or every fifteenth patient.

In Cologne Lying-in Hospital, Drs. Minden and Merrem in 295 cases, used the crotchet 4 times, or

* See Dr. Churchill's Table in the Dublin Medical Journal, Vol. 7, No. 19.

1 in 73, and the forceps 19 times; total 23, or every twelfth patient.

In Breslau Midwifery Institution, Professor Andrèe, in 356 cases, used the crotchet 3 times, or 1 in 118, and the forceps 7 times; total 10, or 1 in every 35.

In Heidelberg, Nægelè, in 1711 cases, used the crotchet 5 times, or 1 in 342, and the forceps 55 times; total 60, or every twenty-eighth patient.

In Magdeburg Midwifery Institution, Doctor Voigtel, in 29 cases, used the crotchet 2, or 1 in 14, and the forceps 3 times; total 5, or every fifth patient.

In Breslau Royal Lying-in Hospital, Doctor Kûstner, in 368 cases, used the crotchet 2, or 1 in 184, and the forceps 8 times; total 10, or every thirty-sixth patient.

In Marburg Lying-in Hospital, Doctor Caspar Siebold, in 340 cases, used the crotchet 1, and the forceps 35 times; total 36, or every ninth patient.*

In Vienna Lying-in Hospital, Doctor Boer, in 9589 cases, used the crotchet 13 times, or 1 in 737, and the forceps 35 times; total 48, or 1 in 199, and turned the child in *fifty-one* cases; total 99, or 1 in 96 delivered artificially.†

The practitioners in the Paris Lying-in Hospitals, as also in Vienna, differ widely from us

* Dr. Churchill's Table as before. † Merriman's Synopsis.

in the use of the crotchet, in instrumental deliveries. They almost in every instance use the forceps.

Mad. Boivin, in 20,517 cases, used the crotchet 16 times, or 1 in 1282, and the forceps 96 times; total 112, or 1 in 183.

The mortality in the maternitè, however, is so vastly beyond what we are acquainted with elsewhere, as completely to discourage a similar practice.

See Observations in Section on Prolapsed Funis.

Dr. Merriman, London, in private practice, in 2947 cases, used the crotchet 9 times, and the forceps or vectis 21 times; total 30, or 1 in 98.

Dr. Bland, Westminster General Dispensary, in 1897 cases, used the crotchet 8 times, or 1 in 237, and a blade of the forceps 4 times; total 12, or 1 in 158.*

Dr. A. B. Granville, in same institution, in 640 cases, used the crotchet 3 times, or 1 in 213, and the forceps 5 times; total 8, or 1 in 80.†

Drs. Cusack and Maunsell, Wellesley Dispensary, Dublin, in 1268 cases, used the crotchet 6 times, or 1 in 211, and the forceps 31 times; total 37, or 1 in 34.‡

* Merriman's Synopsis.

† Dr. A. B. Granville's Report of Westminster General Dispensary, 1818.

‡ Dr. Churchill's Table as before.

Dr. Beatty, New Lying-in Hospital, Dublin, in 399 cases, used the crotchet 2, or 1 in 199, and the forceps 2; total 4, or 1 in 99.*

In the Dublin Lying-in Hospital, Dr. Joseph Clarke, in 10,199 cases, used the crotchet 49 times, or 1 in 208, and the forceps 14 times; total 63 times, or 1 in 162 nearly.

In the Dublin Lying-in Hospital, during my residence, in tedious and difficult labours, the crotchet was used 79 times, in 16,654 births, or 1 in 211, besides 39 times, in cases where the uterus was ruptured, or the umbilical cord prolapsed and pulseless, or where the patient was labouring under convulsions; total 118, or 1 in 141, also the forceps and lever 27 times; total 145, or 1 in 114.

These cases will be found particularly noticed under the different heads specified.

The general table of all the women who died in the hospital, to which is affixed a particular table shewing the *cause* of death in each, may be consulted with advantage, in the investigation of this subject. It will there be seen that the number of women who died from the effects of tedious and difficult labours, is comparatively inconsiderable.

* Dublin Medical Journal, Vol. VIII. No. XXII.

The following is a résumé of the average proportion of instrumental deliveries above stated:

Dresden—Dr. Carus, delivered with instruments,	1 in every	13
Geissen—Dr. Ritgen,	1	9
Berlin—Dr. Klugè,	1	15
Cologne—Drs. Minden and Merrem,	1	12
Breslau—Professor Andrèe,	1	35
Heidleberg—Nœgelè,	1	28
Magdeburgh—Dr. Voigtel,	1	5
Breslau—Dr. Küstner,	1	36
Marburg—Dr. Caspar Siebold,	1	9
Vienna—Dr. Boer,	1	96
Paris—Mad. Boivin,	1	183
London—Dr. Merriman, in private practice,	1	98
London—Dr. Bland, Westminster General Dispensary,	1	158
London—Dr. A. B. Granville, (same institution),	1	80
Dublin—Drs. Cusack & Maunsell, Wellesley Dispensary,	1	34
Dublin—Dr. Beatty, New Lying-in Hospital,	1	99
Dublin Lying-in Hospital—Dr. Joseph Clarke,	1	162
Dublin Lying-in Hospital—Dr. Collins,	1	114

ON PRESENTATIONS OF THE FACE, AND WITH FACE TO PUBES.

In *thirty-three* cases the face of the child presented; *four* of the 33 were still-born; with the first, the labour lasted thirty-six hours; the second was an acephalous fœtus; with the third the labour lasted eight hours, and with the fourth, seven hours; all were delivered without assistance. In *twelve* cases the head presented with the face to the pubes; *six* of the twelve children were still-born; with the first, the mother had been a considerable time in labour before admission; with the second, there were three convolutions of the funis on the neck; the labour lasted sixteen hours, and the forehead suffered much from compression; with the third, the mother was deformed, and the pelvis very defective; with the fourth, the mother had been in labour before admission, this was her second pregnancy, and both deliveries were effected with the crotchet; the 5th was the above-mentioned woman, No. 3, with the defective pelvis, who returned with a similar presentation; with the 6th, the funis and

hand descended with the head. The 3d, 4th, 5th, and 6th, were delivered with the crotchet, see cases No. 20=23=28=37. By reference to these, it will be clearly seen that the *position* of the child did not in any instance, render artificial delivery necessary. With *three* of the four children thus delivered, the pelvis was greatly defective, all their previous children had been still-born; and with the 4th, the funis and hand descended with the head, and pulsation ceased.

Of the 45 children presenting as described, 35 were born alive; *twenty-six* of the 45 were males; of the *ten* still-born, six were males. *One* of the 45 women died, viz. the deformed patient.—See article on hæmorrhages, No. 79. In 35 of the 45, the labour was terminated within eight hours.

Some cases of face presentation, I am disposed to think, were not noted, delivery having taken place so very speedily, as to excite little attention, and caused it to be overlooked. Much caution should be observed in making a vaginal examination where the face presents, lest, should we perform it rudely, injury to the eyes or mouth be the consequence. The face often suffers from ignorant persons probing it with the finger, in order to ascertain the nature of the presentation. In other cases where the labour is tedious, pressure produces much swelling and inflammation.

Where the face is turned to the pubes, the perinæum is greatly distended during the passage of the head, in some instances, so as to endanger its safety; in such, the distension may be much relieved by passing up the finger and freeing the chin, so as to cause it to escape the arch of the pubes. All attempts to alter the position of the head in the early period of labour, when found presenting in either of the above-mentioned ways, are, in my opinion, injudicious. The labour should be treated as one perfectly natural.

The following cases are referred to from the general table, see letter *v* in the column headed observations.

No. 5 was delivered without assistance four hours after admission; she had been in labour a considerable time previous to coming into hospital.

No. 7.—There were *three* convolutions of the funis on the neck of the child; in the centre of its forehead there was a transverse mark, of one inch and a half in length and a quarter of an inch broad, deeply impressed and black, the effect of pressure.

No. 14 was an acephalous fœtus.

No. 20.—See observations on still-born children, No. 441; mother deformed.

No. 23.—See observations on still-born children, No. 526. This was her second pregnancy; both deliveries were effected with the crotchet.

No. 28.—See observations on hæmorrhages, No.

79. This is the same patient as No. 20, with a similar presentation in a subsequent pregnancy.

No. 37.—The funis and hand descended with the head. After pulsation had ceased for some hours, delivery was accomplished with the crotchet.

The following tables shew the length of time each woman was in labour; her age, and the number of children she had given birth to.

Duration of labour; thus: 6 women were 1 hour, and so on. See cases for 2.

No. of Hours,	1	2	3	4	5	6	7	8	12	16	21	24	36	40
No. of Women,	6	8	4	5	4	1	3	4	3	1	1	1	1	1

Age of patients; thus: 1 was 19 years, and so on.

Age,	19	20	21	22	23	24	25	26	27	28	30	31	32	33	35	36	38	40	45
No. of Women,	1	2	2	2	1	2	1	2	4	4	10	3	2	2	1	2	2	1	1

First or subsequent pregnancy; thus: 11 were 1st, and so on.

No. of Pregnancy,	1	2	3	4	5	6	7	10
No. of Women,	11	9	6	6	4	4	3	2

In the following general table in the columns marking the presentation, the figure 1 is placed according to the position of the face.

No. of Case.	Face Presentation.	Face to Pubes.	First or Subsequent Pregnancy.	Sex of Child.	Child Alive or Dead.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Face Presentation.	Face to Pubes.	First or Subsequent Pregnancy.	Sex of Child.	Child Alive or Dead.	Hours in Labour.	Age of Patient.	Observations.
1	..	1	10	G	1	4	35	..	24	1	..	4	B	1	4	36	..
2	1	..	3	B	1	1	31	..	25	1	..	1	G	1	12	19	..
3	1	..	2	B	1	1	24	..	26	1	..	6	G	1	2	31	..
4	1	..	6	G	1	2	32	..	27	1	..	6	G	1	1	30	..
5	..	1	7	B	D	..	28	V	28	..	1	4	G	D	40	27	V
6	1	..	1	G	D	36	30	..	29	1	..	2	B	1	2	26	..
7	..	1	1	B	D	16	20	V	30	1	..	5	B	1	2	27	..
8	..	1	3	G	1	8	26	..	31	1	..	5	B	1	3	36	..
9	1	..	1	B	1	4	21	..	32	1	..	5	G	D	8	38	..
10	..	1	3	B	1	7	28	..	33	1	..	4	B	1	5	33	..
11	1	..	5	G	1	12	40	..	34	1	..	6	G	1	2	32	..
12	1	..	4	B	1	2	30	..	35	1	..	1	G	1	12	20	..
13	1	..	1	G	1	6	22	..	36	1	..	1	B	1	2	31	..
14	1	..	2	B	D	7	25	V	37	..	1	3	B	D	8	30	V
15	1	..	2	B	1	24	21	..	38	1	..	2	B	1	5	24	..
16	..	1	2	G	1	4	30	..	39	1	..	10	B	1	3	38	..
17	..	1	1	G	1	5	30	..	40	1	..	1	G	1	4	30	..
18	..	1	3	B	1	1	23	..	41	1	..	3	B	D	7	27	..
19	1	..	2	G	1	3	27	..	42	1	..	4	G	1	3	28	..
20	..	1	1	G	D	21	30	V	43	1	..	7	B	1	1	45	..
21	1	..	4	B	1	2	33	..	44	1	..	1	B	1	8	22	..
22	1	..	7	B	1	1	30	..	45	1	..	2	B	1	5	30	..
23	..	1	2	B	D	..	28	V									

PRETERNATURAL LABOURS.

PRACTICAL OBSERVATIONS ON BREECH PRESENTATIONS.

The frequent occurrence of the breech presentation, makes the proper management of such, an object of much interest to the junior practitioner, involving, as it does, the welfare of both mother and infant, but especially the latter. The most common and dangerous error, committed by the medical attendant, arises from officious and injudicious efforts, to hasten, or assist, during the early stages of labour; than which, he could not well adopt a more hazardous course. No interference, whatever, is required, until the breech shall have been expelled through the external parts, unless the uterine action be inadequate to effect this; otherwise, the child must often be forfeited, owing to difficulty experienced in consequence of the soft

parts being badly prepared to admit the passage of the head. This being the most critical part of the delivery, should much delay take place, the continued pressure on the funis, speedily deprives the child of life. To guard against this, therefore, the breech should be permitted to pass, slowly and unassisted, so as gradually and perfectly to dilate the soft parts, thereby greatly facilitating the completion of the labour.

Symptoms have been enumerated, by different authors, to enable us to detect preternatural presentations, even previous to the commencement of labour; these are, for the most part, doubtful; we have, however, not unfrequently diagnosed the presenting of the breech or inferior extremity, before there was any appearance of labour, from the situation in which the fœtal heart's action was audible; in such cases, it will be *most distinctly* heard, near the umbilicus of the mother. A knowledge of this fact may assist us, where we are doubtful as to the presenting part; but until the os uteri is considerably dilated, little practical benefit, further than putting us on our guard, can be derived from it. In all cases where we suspect the presentation to be preternatural, we should be careful not to rupture the membranes, as the more relaxed and dilated the parts shall be, before this takes place, so much the more favourable will be the result.

The *total* number of preternatural presentations met with in the hospital, during my residence as Master, was 409; *not including* those occurring in twin cases. This is, as nearly as may be, in the proportion of *one* in every *forty* women delivered, if we add to this 140 preternatural presentations in twin cases, it will make the total 549, or 1 in 30.

Some women are undoubtedly more predisposed to these presentations than others; one instance occurred in the Hospital, where a female had given birth to *nine* children, all of whom presented preternaturally.

The breech of the child may be distinguished from any other part, by its softness, the depression between the nates, the organs of generation, the anus, and the discharge of the meconium. Although this latter is sometimes observed when the head presents, in consequence of severe pressure, yet, under these circumstances, it comes away in a more fluid state, and has not its natural appearance, being mixed with the discharges from the uterus and vagina.

We should be cautious, in making our examination, to avoid injuring the organs of generation; as these parts at times suffer so much from pressure, as to be readily hurt by rude fingering. Doctor Denman remarks, that in a few instances, he had known the scrotum to slough from pressure; this we have never witnessed, yet we have seen in-

stances, where much care was required to prevent its occurrence. Where there is much tumefaction, and the scrotum assumes a very dark appearance, we have always found the application of a leech, which may be repeated if necessary, with frequent change of poultice, highly useful; this, and bathing the parts repeatedly with equal portions of brandy, vinegar, and water, in a tepid state, will seldom fail in reducing the inflammation, the bowels being at the same time well acted on.

When the breech is passing through the external parts, we should guard the perinæum carefully, as there is considerable danger of laceration. Doctor Denman and others state, that, when the breech and inferior extremities are expelled, we should pay great attention to the position which the child holds with regard to the mother. "As soon, therefore," say they, "as these parts are expelled, if the back of the child be not turned to the mother's abdomen, the practitioner should, in extracting, turn the child so, that the hind part of its head may be towards the pubes." It is very desirable the child should be delivered in this position, as it renders the getting away of the head much less difficult; yet, where there has been no interference by the attendant in the previous part of the labour, he will rarely find it necessary to alter, subsequently, the child's position; the breech naturally making the turn above alluded to in its passage.

When the labour has advanced so far, we are to draw down, gently, a portion of the umbilical cord, both in order to ascertain the state of its pulsation, as also to prevent its being severely stretched. If we find it pulsate strongly, we need not hurry the remainder of the delivery, but cautiously assist the uterine effort, so as to allow the womb gradually to empty itself: should its pulsation be feeble, the child must be brought away as expeditiously as is consistent with the mother's safety, lest the circulation in the cord should subside altogether.

In bringing down the arms, care should be taken, as well to avoid injury to the extremity itself, as also to the soft parts of the mother. It is of no consequence with which we commence, always endeavouring to free that one first, where we find the least difficulty or resistance; directing it over the child's face and chest, by means of the finger placed in the bend at the elbow. In getting down the arm next the bed, which is generally the right, we should well elevate the child's body, thus affording ourselves much more room. Having proceeded so far, the forefinger of the left hand is to be passed up, and introduced into the mouth, so as gently to depress the chin on the sternum; but, in doing so, no extracting force whatever is to be used, as the jaw would thus be in danger of fracture or dislocation; or severe injury might be inflicted on the inside of the mouth. Our extracting force should

be applied, by the right hand, to the back part of the neck and shoulders, at the same time inclining the body towards the pubes. In some difficult cases, advantage is derived from pushing up the head a little, so as to alter its position.

Should there be any considerable obstruction to the getting away of the head, we are by no means justified in using *violence:* the soft parts of the mother will be sure to suffer from such a mode of proceeding, and, on the child's part, nothing is to be gained; as it is destroyed by pressure on the funis, continued during the time the ordinary efforts have been diligently, but unsuccessfully, employed for its delivery. The only safe plan, under these circumstances, will be to lessen the head by means of an opening made behind one or both ears. This expedient, however, is *very seldom* necessary, provided the early part of the labour be not hurried, or the pelvis not much under size. We only met with *one* case requiring this method of delivery.

Where the uterine efforts are, from any cause, inadequate to the expulsion of the breech; or some occurrence takes place rendering speedy delivery necessary; the attendant, by passing one or two fingers into the groin, and assisting during each pain, will almost invariably be able to get it down, if great deformity do not exist. We would strongly deprecate the use of the blunt

hook, or forceps, as advised by some authors; as such practice is very likely to be followed by fracture of the thigh bone, or at least considerable injury of the soft parts. The force we employ, even with the finger, must be exerted with caution. In cases of extreme deformity, desperate measures are necessary, and instrumental delivery unavoidable; yet we never met more than *one* instance, out of between 24,000 and 25,000 deliveries, where any instrument was required under such circumstances.

In all preternatural presentations, it is prudent after the birth of the child, before leaving the house, carefully to examine its limbs, joints, &c.; and should we discover any injury inflicted, on no account to attempt to conceal it, as, by early neglect, we might entail on the child most unpleasant consequences; whereas, by proper attention, little bad permanent effects need be apprehended.

Of the 409 preternatural presentations met with in the hospital, 242 were breech. Of these 242 children, 73 were still-born, of which 42 were putrid. *Forty* of the 242 were premature births, 28 of which were still-born. *Fourteen* of the 28 were born at the eighth month; *twelve* at the seventh; *one* at the sixth; and *one* at the fifth. *Twenty-six* of the 28 were putrid. *Twelve* of the 40 premature children were born

alive, viz. *two* at the sixth month; *seven* at the seventh; and *three* at the eighth month. *Seven* of the 12 were males. Of the 28 still-born premature children, 13 were males. Of the total number of still-born children, 38 were males.

One hundred and sixty-nine of the 242 children, were born alive, 96 of which were males. Of the total number of breech presentations, 134 were males.

I shall now give a brief statement of each case, where the least peculiarity occurred, to which there is reference from the general table.

No. 1—Was 48 hours in labour, the hip presenting when the membranes gave way; there was very little uterine action, and the labour made no progress. At length the finger was introduced into the groin, and the breech brought down.

No 17.—The funis prolapsed; all pulsation ceased in a few minutes.

No. 20.—All this woman's children were still-born.

No. 25.—This was her second child; she had been force-delivered of her first.

No. 26.—This was a premature birth, at the seventh month, putrid. It was her second pregnancy; her first child was expelled at the fourth month, also putrid.

No. 27.—The head was remarkably large, and delivered with difficulty.

No. 32.—This woman was delivered of a putrid child at the seventh month; she had been a length of time in labour previous to admission.

No. 40.—This child weighed above 13 lbs. There was considerable difficulty in the delivery of the head.

No. 54.—The pupil on duty did not give notice of the nature of the presentation, till the head became locked; when it was with difficulty got away. The child was very large, and quite lifeless.

No. 55.—This child was putrid, yet there was considerable difficulty in getting away the head, owing to its being much ossified.

No. 64.—See rupture of the uterus, No. 11.

No. 75.—This patient was only ten hours in labour. Child putrid.

No. 87.—This woman was delivered in the porter's lodge.

No. 100.—This child only respired for a short time; the labour lasted but five hours.

No. 103.—It was this woman's *ninth* child; all preternatural presentations.

No. 113.—It was this woman's *second* child. *Eleven* years had elapsed since the birth of the first.

No. 121.—The right foot came down with the breech. The child was premature, eighth month, and putrid.

No. 127.—The pelvis was under size, and no force consistent with the mother's safety, could effect the delivery of the head, till it was lessened.

No. 137.—The hand came down with the breech.

No. 142.—The feet came down with the breech.

No. 146.—There was much difficulty in the delivery of the head.

No. 154.—This child was putrid, and born at the eighth month; both her former children were putrid.

No. 162.—The labour lasted 21 hours; the pains, although strong, producing but little effect, it became necessary to hook the finger on the groin, and assist in the delivery. The breech was thus, with a good deal of exertion, got down. The child was small; yet there was some difficulty in extracting the head, owing to the small size of the pelvis.

No. 168.—See observations on hæmorrhages, No. 83.

No. 179.—This woman had been 42 hours in labour before admission; the child was dead. As the breech was nearly pressing on the perinæum, the fingers were passed into the groins, to assist during the pains. All aid, thus afforded, was found fruitless. The blunt hook was then passed over the thigh, and by great exertion, the breech got down. The child was very large, and putrid; the body distended with air. This was the only

breech presentation we ever met with, requiring the aid of instruments for its delivery. The large size of the child, but chiefly its great distension, sufficiently explain the difficulty. Some of the most tedious labours arise from the latter cause. The use of the stethoscope, under these circumstances, is invaluable.

No. 205.—This was a first child: the labour lasted 24 hours.

No. 211.—This child had spina bifida, with distortion of both feet.

No. 214.—When the waters were discharged, the breech was found presenting, with one hand between the legs. It was a premature labour at the seventh month.

No. 215.—The labour lasted 50 hours; the heart acted about two minutes, and there were a few laboured respirations, before the child died.

No. 225.—The funis prolapsed in this case.

No. 235.—This child weighed ten and a half pounds.

The following are the numbers of the cases, where the children were prematurely expelled, still-born. The first fourteen were born at the eighth month, and so on—Nos. 34, 83, 108, 121, 123, 133, 152, 154, 185, 194, 198, 202, 218, 236; twelve at the seventh month, viz.—Nos. 16, 26, 32, 57, 62, 89, 110, 124, 181, 196, 212,

216; one at the sixth month, viz.—No. 114; and one at the fifth month, viz.—No. 208.

The following are the numbers of the cases, where the children were expelled prematurely, alive. The first three at the eighth month, viz.—Nos. 37, 39, 197; seven at the seventh month, viz.—Nos. 22, 51, 70, 77, 98, 177, 214; two at the sixth month, xiz.—Nos. 61, 140.

The three succeeding tables show the age of the patients, the length of time in labour, and the number of children each had given birth to.

Age of patients—thus, 1 woman was 16 years of age, and so on.

Age,	16	18	19	20	21	22	23	24	25	26	27	28
No. of Women,	1	7	6	24	11	17	15	12	11	15	17	22

Age,	29	30	31	32	33	34	35	36	38	39	40
No. of Women,	10	30	5	9	6	4	2	5	3	2	7

Length of time in labour—thus, 4 were $\frac{1}{4}$ of an hour, and so on. See Observations on Cases for Length of Labour in Four Instances.

Hours in labour,	$\frac{1}{4}$	$\frac{1}{2}$	1	2	3	4	5	6	7	8	9	10	11	12
No. of Women,	4	8	34	43	39	35	17	13	6	7	1	6	2	4

Hours in labour,	14	16	18	20	21	23	24	30	34	36	38	48	50
No. of Women,	1	2	1	2	1	1	5	1	1	1	1	1	1

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First or subsequent pregnancy—thus, 98 were 1st, and so on.

No. of Pregnancies,	1st	2d	3d	4th	5th	6th	7th	8th	9th	11th	13th
No. of Women,	98	48	29	11	11	15	9	12	5	3	1

The following general table will be found to afford materials for making many interesting calculations. In the column headed "*Observations*," where the letter V is found, it has reference to the case by number, for some additional remarks; where there is no reference, nothing worthy of particular notice occurred.

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
1	B	Dp	7	48	30	V	14	G	1	4	2	27	..	27	B	D	2	4	26	V
2	G	1	7	1	33	..	15	B	Dp	11	5	34	..	28	G	1	1	4	18	..
3	B	1	1	1	23	..	16	G	Dp	1	8	28	V	29	B	1	5	4	30	..
4	B	1	1	3	20	..	17	G	D	2	1	27	V	30	B	Dp	9	2	36	..
5	B	1	2	½	33	..	18	G	1	1	7	20	..	31	G	Dp	7	2	30	..
6	B	1	11	4	33	..	19	G	1	5	3	28	..	32	G	Dp	3	5	22	V
7	B	1	1	4	21	..	20	B	Dp	3	5	20	V	33	B	1	1	8	24	..
8	B	Dp	3	5	28	..	21	G	D	1	..	24	..	34	G	D	1	1	21	V
9	G	1	3	2	28	..	22	B	1	2	2	26	V	35	B	D	4	3	26	..
10	B	1	2	6	27	..	23	B	1	6	4	28	..	36	B	1	1	6	20	..
11	G	1	5	7	31	..	24	B	1	4	6	29	..	37	B	1	7	7	32	V
12	B	1	8	2	33	..	25	B	D	2	4	27	V	38	B	D	2	24	28	..
13	G	Dp	1	1	22	..	26	G	Dp	2	2	26	V	39	G	1	1	1	16	V

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
40	B	1	6	2	32	V	69	B	Dp	8	4	25	..	98	B	1	7	3	30	V
41	B	1	5	4	31	..	70	G	1	1	2	20	V	99	B	1	2	10	30	..
42	G	1	1	10	20	..	71	B	1	4	5	29	..	100	B	1	1	5	20	V
43	B	1	1	4	26	..	72	B	1	6	½	28	..	101	G	1	3	4	32	..
44	G	1	2	2	31	..	73	G	1	1	24	24	..	102	B	1	1	12	23	..
45	B	1	1	5	20	..	74	G	1	9	1	30	..	103	B	1	9	3	34	V
46	B	1	2	2	28	..	75	G	Dp	1	10	23	V	104	G	1	1	18	22	..
47	B	D	7	1	30	..	76	B	1	9	½	35	..	105	G	1	1	3	26	..
48	G	1	1	2	25	..	77	G	1	1	1	22	V	106	B	1	2	10	24	..
49	B	1	1	½	28	..	78	G	Dp	2	1	20	..	107	G	1	8	3	36	..
50	G	1	1	3	19	..	79	B	1	6	2	29	..	108	G	Dp	2	2	22	V
51	G	1	1	½	20	V	80	B	1	1	6	21	..	109	G	1	1	6	22	..
52	G	1	1	8	19	..	81	B	1	2	36	28	..	110	B	Dp	1	2	20	V
53	G	1	1	3	26	..	82	G	1	1	2	20	..	111	G	Dp	1	3	21	..
54	G	D	8	2	30	V	83	G	Dp	2	1	23	V	112	G	1	2	3	30	..
55	B	Dp	4	3	30	V	84	G	D	1	6	40	..	113	B	1	2	30	40	V
56	B	D	1	6	25	..	85	G	1	3	2	30	..	114	G	Dp	2	1	27	V
57	B	Dp	1	3	20	V	86	G	1	1	2	20	..	115	B	1	1	1	20	..
58	B	1	3	2	30	..	87	G	1	3	..	24	V	116	G	1	2	4	22	..
59	G	1	1	3	20	..	88	B	1	7	4	38	..	117	G	1	1	38	18	..
60	B	1	1	3	23	..	89	G	Dp	2	2	20	V	118	G	1	4	2	38	..
61	B	1	1	4	20	V	90	G	1	8	1	39	..	119	B	1	1	11	19	..
62	G	Dp	1	½	24	V	91	B	1	2	2	32	..	120	G	1	2	2	26	..
63	G	1	2	1	27	..	92	G	1	4	6	30	..	121	B	Dp	1	2	21	V
64	B	D	6	8	34	V	93	B	1	9	1	40	..	122	B	1	2	4	53	..
65	B	1	1	12	25	..	94	G	1	1	6	22	..	123	G	Dp	6	3	33	V
66	B	1	1	6	26	..	95	G	1	3	4	21	..	124	B	Dp	1	3	20	V
67	G	1	1	2	19	..	96	B	1	3	3	26	..	125	G	I	3	4	22	..
68	G	1	8	3	29	..	97	B	1	1	½	32	..	126	B	1	1	4	19	..

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
127	G	D	3	4	30	V
128	G	1	1	5	38	..
129	B	1	1	5	22	..
130	B	1	3	3	28	..
131	B	1	1	4	20	..
132	G	1	3	2	26	..
133	B	Dp	2	2	21	V
134	B	1	8	1	32	..
135	B	1	1	20	27	..
136	B	1	2	4	30	..
137	B	D	5	3	40	V
138	G	1	2	2	28	..
139	B	1	2	4	29	..
140	B	1	1	4	18	V
141	B	1	8	4	32	..
142	B	1	7	3	40	V
143	G	1	6	3	30	..
144	G	1	1	1	20	..
145	B	1	3	3	24	..
146	B	D	2	3	22	V
147	G	D	1	1	22	..
148	B	1	3	4	30	..
149	G	1	1	4	20	..
150	G	1	5	2	25	..
151	G	D	8	5	40	..
152	B	Dp	1	3	21	V
153	B	1	2	4	27	..
154	G	Dp	3	4	27	V
155	B	1	1	4	21	..
156	B	1	2	3	24	..
157	B	D	1	24	28	..
158	B	1	1	2	21	..
159	B	Dp	3	3	30	..
160	B	1	2	1	24	..
161	B	1	1	1	25	..
162	B	D	1	21	30	V
163	B	D	1	2	25	..
164	B	1	1	3	26	..
165	G	D	1	34	30	..
166	B	1	1	10	30	..
167	G	1	1	8	25	..
168	G	1	2	12	28	V
169	G	1	13	3	36	..
170	G	1	2	4	29	..
171	B	1	8	5	30	..
172	B	1	11	2	39	..
173	B	1	1	8	31	..
174	B	1	4	2	23	..
175	B	1	2	24	23	..
176	B	1	1	10	30	..
177	B	1	2	8	23	V
178	G	1	3	3	25	..
179	G	Dp	1	..	22	V
180	G	1	2	16	23	..
181	G	Dp	2	¼	22	V
182	B	1	1	12	20	..
183	G	D	2	5	28	
184	B	1	1	1	27	..
185	B	Dp	3	1	23	V
186	B	D	3	1	27	..
187	G	1	5	1	25	..
188	B	1	6	7	31	..
189	G	D	5	..	35	..
190	B	1	3	16	28	..
191	G	1	1	2	18	..
192	B	1	1	5	22	..
193	G	D	1	7	24	..
194	B	Dp	2	¼	26	V
195	B	1	1	11	22	..
196	B	Dp	1	2	26	V
197	B	1	1	1	28	V
198	B	Dp	6	1	30	V
199	G	1	6	2	29	..
200	G	Dp	1	23	33	..
201	B	1	1	14	24	..
202	B	Dp	3	3	30	V
203	G	1	1	2	26	..
204	B	1	5	3	27	..
205	B	D	1	24	30	V
206	G	1	8	1	40	..
207	B	D	1	20	30	..
208	G	Dp	3	1	24	V
209	G	1	2	¼	22	..
210	B	1	3	1	29	..
211	B	D	1	2	23	V
212	G	Dp	3	4	27	V
213	B	1	2	3	23	..

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
214	G	1	2	2	20	V	224	B	1	2	¼	23	..	234	B	1	4	6	30	..
215	G	1	1	50	18	V	225	B	D	8	5	34	V	235	G	1	6	3	36	V
216	G	Dp	6	3	28	V	226	B	1	6	5	30	..	236	B	Dp	3	3	29	V
217	B	1	2	1	20	..	227	G	1	1	6	18	..	237	G	Dp	6	1	29	..
218	B	D	5	4	28	V	228	G	1	7	2	32	..	238	B	1	1	4	25	..
219	B	1	4	½	27	..	229	G	1	2	2	21	..	239	G	1	1	7	28	..
220	G	1	6	2	32	..	230	B	1	3	4	27	..	240	G	1	5	1	23	..
221	G	1	2	1	36	..	231	G	1	3	4	27	..	241	B	1	1	6	27	..
222	B	1	1	3	19	..	232	B	1	1	5	18	..	242	G	D	1	5	28	..
223	B	1	1	9	23	..	233	B	1	4	3	30	..							

ON PRESENTATIONS OF THE FEET.

As the treatment of a footling presentation is similar to that of the breech, we shall not here repeat what has been already recommended under that head, further than to particularly caution the junior practitioner to avoid all interference until the hips shall have been completely expelled; attention to this being of more importance here, than even in breech cases. The safety, in the latter case, results from the breech being so nearly of a size with the head, and consequently dilating the parts so much better than the feet; the shoulders and head follow with comparative ease, and the pressure on the funis is thus greatly lessened; hence in feet presentations, we permit the hips to be expelled slowly and gradually, in order, as far as possible, to effect this desirable object.

In all such cases, when about to give assistance, we should throw a napkin over the body, to prevent the cuticle being rubbed by the pressure of our hands, and also to enable us to hold the child with sufficient firmness.

As it is the duty of the medical attendant to

apprise the friends of the patient, wherever danger exists, it is advisable, both in breech and footling presentations, to inform them of the risk to the child, the moment we are satisfied as to the presenting part; of course intimating it to them in such a way, as to prevent the patient herself suspecting any thing unusual.

In the very early stage of labour, we must be careful not to mistake the hand for the foot, the treatment in each case being diametrically opposite. Great as this blunder may seem, it has been committed, and that too, by individuals of some experience; when the hand has been introduced into the uterus for the purpose of turning the child. A little attention will prevent our falling into this error. The shortness of the toes as compared with the fingers, also the length of the foot, together with the heel and ankle joint, if examined with moderate care, must make the distinction obvious.

One hundred and twenty-seven cases of presentation of the feet occurred in the Hospital, during my mastership; *not including* those met with in twin cases. *Sixty-two* of the 127 children were still-born; *forty-one* of which were putrid. *Thirty-six* of the 127 were premature, viz. *four* at the fifth month; *eight* at the sixth; *seventeen* at the seventh; and *seven* at the eighth month. *Twenty-eight* of the premature children

were *putrid; four* were dead, but *not* putrid; and *four* were born living. *Fourteen* of the *premature* children were *males; three* of which were born alive.

Of the 127 children, 61 were males; of which 25 were still-born; 15 of which 25 were putrid. *Sixty-five* of the 127 children were born *alive;* 36 of which were males.

The following are the numbers of the premature births from the general table, viz. the first *four* at the fifth month, and so on, Nos. 35—57—81—104; *eight* at the sixth month, Nos. 2—16—18—62—85—88—101—112; *seventeen* at the seventh month, Nos. 6—10—15—20—21—33—37—40—44—46—54—59—68—74—75—84—123; *seven* at the eighth month, Nos. 11—55—79—93—110—115—119.

We shall now give an abstract of each case that manifested the least peculiarity:—

No. 3.—See observations on children dying, No. 19.

No. 5.—The mother had been in a bad state of health for a month before admission.

No. 9.—Child breathed but for a few minutes.

No. 12.—The knee presented.

No. 13.—The funis had prolapsed before admission, and was without pulsation.

No. 14.—See observations on convulsions, No. 4.

No. 24.—This was a first child, putrid; the labour lasted but five hours.

No. 25.—This child had been expelled as far as the head, for some time before the Assistant arrived.

No. 29.—This child was lost owing to the great difficulty in getting away the head.

No. 30.—This child died shortly after birth; it was premature, at the seventh month.

No. 31.—This child was deformed in both upper and lower extremities; it breathed but for a short time.

No. 34.—The funis prolapsed. Child putrid.

No. 36.—When the membranes ruptured, the funis was discovered in the vagina with the foot. The pulsation became gradually fainter, and, before the breech had passed the os externum, ceased altogether. The child was large, weighing 9 lbs., which, with the very feeble uterine action, and the undilated state of the parts, caused much delay in the delivery.

No. 45.—See observations on hæmorrhages, No. 36.

No. 48.—This patient came in labouring under cough, with copious expectoration; she was five hours in labour; child putrid.

No. 50.—This woman was delivered in the street.

No. 58.—The knee presented; child putrid.

No. 64.—The external parts were badly dilated, thereby affording considerable obstruction to the delivery. The patient was exceedingly violent and unmanageable.

No. 67.—When the body and arms were delivered, which was effected with some trouble, no exertion, unattended with risk to the mother, was sufficient to get the head away, it being firmly fixed at the brim of the pelvis. The perforator was therefore introduced behind the ear, and the head brought down by the crotchet. The bones were much compressed. She had been delivered with instruments, twelve months before, followed by sloughing of the urethra, since which she has been unable to retain her urine.

No. 70.—See observations on retention of the placenta, No. 41. Funis prolapsed.

No. 71.—The funis prolapsed in this case.

No. 78.—The feet were forced into the vagina, at a very early stage of the labour, when the os uteri was little dilated. It was necessary to perforate behind the ear to complete the delivery.

No. 82.—The knee presented in this case.

No. 92.—The funis came down with the feet.

No. 97.—The funis was prolapsed, and without pulsation on admission.

No. 100.—See observations on hæmorrhages, No. 92.

No. 103.—The knee presented; the head was delivered with difficulty.

No. 107.—The knee presented.

No. 108.—The funis prolapsed, and the os uteri being well dilated, the delivery was effected without delay.

No. 117.—This child weighed 9¼ lbs.

An attentive perusal of these cases will clearly shew, that, the *very great mortality*, in footling presentations, is comparatively little owing to any difficulty experienced in the actual delivery of the child, but must be referred to causes operating previous to the setting in of labour. This observation will also hold good in breech presentations. Thus, of the *sixty-two* children still-born, where the feet presented, *forty-one* were born in a *putrid* state; of which 41 *thirty-two* were *premature*; and in no instance, was the putridity the consequence of the length of the labour, as clearly demonstrated by the general table. Of the 21 remaining cases, *three* were complicated, either with convulsions or hæmorrhage; *four* had the funis prolapsed, causing death; in *four* the mother's pelvis was much under size; in *four* the children were premature, but *not putrid*; and in *one* the child was lost by remissness on the part of the pupil, not sending for assistance in proper time. Thus, in *fifty-seven* of the 62 children still-born, death did not follow on any

difficulty encountered in the delivery, owing to the *preternatural* presentation. In the *five* remaining cases, viz., Nos. 77, 91, 111, 113, 114, the labour was of short duration, without any difficult complication. It is my opinion, that the danger to the child, where the breech or feet present, (provided the pelvis be well formed, and the labour not hurried by officious interference,) is not by any means so great as is generally imagined. Whether the position of the child, in such cases, has any share in causing so very large a proportional number to be expelled prematurely, or in producing the child's death, some time previous to labour, so as to account for the putrid condition in which it is so frequently found, we are not prepared to say; we merely state our conviction on the one point.

Where the feet present, the proportional number of instances of prolapsed funis is far beyond what is observed in other presentations; thus in the 127 cases noticed, there were *nine*, or *one* in every *fourteen*; whereas, the average in all the births will be but 1 in 171½; and, as the danger to the child is, thus, much increased, we have an additional reason for using diligence in preserving the membranes unruptured as long as possible.

The three following tables shew the age of each patient, also the length of time in labour, with the number of children each had given birth to.

Age of patients; thus: 1 was 18 years of age, and so on.

Age of Patients,	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
No. of Patients,	1	12	6	4	9	11	5	9	10	9	6	5	16	1	7	2	4	4

Age of Patients,	36	37	38	39
No. of Patients,	1	1	2	2

Length of time in labour; thus: 3 were $\frac{1}{4}$ of an hour, and so on; for the duration of labour in four instances, see observations on cases.

Hours in labour,	$\frac{1}{4}$	$\frac{1}{2}$	1	2	3	4	5	6	7	8	9	10	12	14	29
No. of Patients,	3	5	29	25	16	13	15	5	2	2	1	1	4	1	1

First or subsequent pregnancy; thus: 43 were 1st pregnancies, and so on.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	12	13
No. of Patients,	43	30	13	15	9	7	4	1	2	1	1	1

The following general table, from which there is reference to the cases by number, will be found very useful; the explanation given of the table on breech presentations will answer here:—

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
1	G	1	1	4	30	..	30	B	1	2	1	19	V	59	B	Dp	2	4	23	V
2	G	Dp	3	5	32	V	31	B	1	2	1	23	V	60	B	1	7	¼	27	..
3	B	1	1	..	29	V	32	G	1	1	3	27	..	61	B	Dp	2	8	26	..
4	G	1	3	1	28	..	33	G	Dp	1	1	20	V	62	G	Dp	1	¼	21	V
5	G	Dp	1	1	24	V	34	B	Dp	1	10	25	V	63	G	1	2	4	32	..
6	B	1	2	3	30	V	35	G	Dp	2	1	22	V	64	B	1	3	2	22	V
7	B	1	1	8	29	..	36	G	D	1	12	22	V	65	G	1	1	4	21	..
8	B	1	6	3	30	..	37	B	1	1	6	23	V	66	G	1	2	2	30	..
9	B	1	1	4	19	V	38	G	1	1	12	20	..	67	B	D	2	1	26	V
10	B	Dp	1	..	27	V	39	G	Dp	5	2	32	..	68	B	1	1	½	19	V
11	G	Dp	2	1	23	V	40	B	Dp	5	7	38	V	69	G	1	2	6	26	..
12	B	1	6	2	33	V	41	B	1	3	2	30	..	70	G	D	2	14	23	V
13	B	D	1	1	22	V	42	G	1	13	3	38	..	71	G	1	6	1	30	V
14	B	D	1	29	22	V	43	G	Dp	4	5	30	..	72	B	1	2	1	27	..
15	B	Dp	2	4	19	V	44	G	Dp	1	2	22	V	73	B	Dp	3	1	30	..
16	B	Dp	2	2	25	V	45	B	D	9	2	35	V	74	G	Dp	I	1	19	V
17	G	1	1	9	25	..	46	G	Dp	3	6	23	V	75	G	Dp	5	3	27	V
18	G	Dp	2	5	25	V	47	G	1	12	1	26	..	76	G	1	4	¼	24	..
19	B	1	8	1	30	..	48	G	Dp	5	5	26	V	77	B	D	1	5	28	..
20	G	Dp	4	5	28	V	49	G	1	1	2	19	..	78	B	D	2	2	25	V
21	B	D	5	2	32	V	50	B	1	6	..	34	V	79	G	Dp	4	2	28	V
22	G	1	4	3	34	..	51	B	1	1	4	19	..	80	B	1	3	6	26	..
23	B	1	1	3	20	..	52	G	D	2	4	30	..	81	G	Dp	1	2	20	V
24	B	Dp	1	5	29	V	53	G	1	1	1	24	..	82	B	1	2	1	19	V
25	B	D	2	12	27	V	54	B	Dp	10	7	35	V	83	B	1	6	2	29	..
26	G	1	7	½	30	..	55	G	1	3	1	30	V	84	B	Dp	2	1	25	V
27	B	Dp	I	5	23	..	56	B	1	4	3	22	..	85	B	Dp	2	5	19	V
28	G	Dp	1	4	28	..	57	G	1	1	½	21	V	86	G	1	2	½	23	..
29	G	D	2	2	37	V	58	G	Dp	3	5	28	V	87	B	1	3	3	26	..

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
88	G	D	7	1	34	V	102	B	1	2	2	31	..	115	G	Dp	1	1	19	V
89	G	1	1	6	18	..	103	G	D	5	2	36	V	116	B	1	1	1	29	..
90	G	Dp	5	2	32	..	104	B	Dp	2	3	30	V	117	B	1	1	4	19	V
91	G	D	2	3	25	..	105	B	1	1	2	27	..	118	G	1	1	5	23	..
92	G	1	1	2	22	V	106	B	1	7	5	39	..	119	G	Dp	6	3	30	V
93	G	D	4	3	32	V	107	G	1	3	1	25	V	120	B	1	2	3	23	..
94	B	1	4	3	27	..	108	G	1	4	1	26	V	121	B	1	4	5	25	..
95	G	1	1	5	35	..	109	G	1	1	1	24	..	122	G	1	9	4	39	..
96	B	1	5	3	23	..	110	G	Dp	4	1	26	V	123	G	Dp	2	5	30	V
97	G	D	3	2	19	V	111	G	D	5	1	27	..	124	B	1	2	4	20	..
98	B	1	4	1	35	..	112	B	Dp	1	2	22	V	125	B	D	4	12	32	..
99	B	1	4	2	26	..	113	B	D	1	1	20	..	126	B	1	3	½	34	..
100	G	Dp	6	..	30	V	114	G	D	4	4	33	..	127	B	1	1	2	21	..
101	G	Dp	1	2	24	V														

ON PRESENTATIONS OF THE SHOULDER OR ARM.

As the life of both mother and child is placed in great danger where the shoulder or arm presents, it is of the utmost importance we should have our minds prepared, as to the most eligible means of effecting delivery; that so we may be enabled to render such prompt assistance, as the nature of the case requires. In my opinion there are but two modes of delivery to be considered: the one, turning; the other perforating the thorax, and bringing down the breech with the crotchet. As for trusting to the "spontaneous evolution," described by Doctor Denman, it is a practice in every way undesirable; as, in the first place, this does not afford us *any hope of saving the child*, and the mother is thus exposed to considerable risk, from the powerful and continued uterine action necessary to expel it in this way; from which, *if the child's life is to be forfeited*, she might be completely protected by lessening the thorax; and, in the next place, the occurrence of spontaneous evolution is so little to be expected, that in a practical point of view, it may be considered as almost

fanciful. No instance of it occurred in the Hospital, during my Assistant or Mastership; nor did one take place during the residence of Doctor Clarke, *one excepted*, of which, the Doctor states, he was not certain, as it merely depended on the report of a midwife, which is, at best, but doubtful authority. In these different periods, there were *thirty-four thousand five hundred and seventy-six* women delivered.*

The propriety of turning the child, when it presents with the shoulder or arm, in all cases where it can be effected with tolerable safety to the mother, cannot be questioned. There are a great many different circumstances, however, to be attended to, which will influence us in our choice of the safest time for performing the operation; but, as a general rule, our chief security depends on proceeding to turn, as soon as it can be accomplished consistent with safety to the mouth of the womb. If this precaution be overlooked, the hand rudely forced into the uterus, and the child brought away, the worst consequences must ensue. On the contrary, the experienced practitioner will watch,

* I recollect Doctor Labatt, in his lectures when Master of the Hospital, to have stated that, "at the earnest request of his Assistants, he waited in some cases, (where the child was too low in the pelvis for turning,) for a number of hours, to try if spontaneous evolution would take place; but after having deferred delivery till they were all fully satisfied, he was obliged to perforate the thorax and bring down the breech.

with the utmost attention, for the earliest possible moment, he thinks, without doing violence, he can succeed in turning; before the extremity shall have been forced too low into the pelvis, or the uterus have time to become firmly contracted on the body of the child. It is a situation in which the greatest coolness and steadiness are required. When the os uteri is fully dilated, the membranes entire, or but lately ruptured, the uterine action but trifling, little difficulty will be experienced. It unfortunately sometimes happens, however, that the waters have been discharged at the very commencement of the labour, at a time when the os uteri was very slightly dilated, and the presentation not even to be discovered on an ordinary examination. When the patient has remained for some time in this state, the arm is protruded into the vagina, the mouth of the womb being so much opened as barely to admit its passage. This is a case of much embarrassment; experience having fully proved the mischievous consequences of forcibly passing the hand into the uterus, and for reasons before mentioned, delay is likewise hazardous; yet the risk to the patient, in the latter case, is as nothing, compared with the former practice. In such a situation, where the individual is strong and plethoric, twelve or fourteen ounces of blood should be taken from the arm, and a table spoonful of the following mixture given every half hour, which

I have found exceedingly useful, both in quieting uterine action, and inducing relaxation :—

℞ Aquæ Fontis, ℥ vi.
Antimon Tartarisat : gr. iv.
Aceti Opii, gtts. xxx.
m̃

Should the patient not be very robust, the bleeding may be omitted, and the mixture alone given as directed. Meantime she should be watched very closely, and the child turned, the moment it shall be considered practicable, without injury. I never knew of more than one instance, where the patient could not be delivered previous to death, owing to the rigid and unyielding state of the os uteri ; this occurred when I was a pupil in the Hospital ; the mouth of the womb was absolutely as firm as a piece of thick leather, and embraced the arm of the child as tightly as a ligature could be applied, without cutting the part.

Smellie met with some cases where he found it impracticable to produce any dilatation, and from having noticed some instances, where the os uteri was slightly torn, and recovery took place, he thought he would try and cut open the os uteri with a pair of scissors ; he did so, and with his accustomed candour states, that *not one of them recovered.*

We often meet with cases, where women have been, for some time, under the care of ignorant

practitioners, the os uteri fully dilated, the waters long since discharged, and the uterus strongly contracted on the body of the child, giving rise to considerable difficulty. There is little doubt many such have been frequently the consequence of the attendant pulling down the hand when it presented with the head, whereas, if the case had not been interfered with, both would have been expelled together by the natural efforts. Here the hand must, if it can be accomplished, be introduced with the greatest caution and gentleness, and without any hurry; half an hour or an hour, being at times required, to turn the child. We should not attempt the operation while strong pains are present, as this will render it much more dangerous; nor, if uterine action come on smartly, while the hand is in its cavity, should we persevere in our efforts to reach the feet; we must wait until the pain subsides, laying our hand flat on the body of the child. The mixture before mentioned, given in double quantity, with the addition of ten drops of the acetum opii, will be found most useful in allaying violent uterine action.

Previous to introducing the hand, we should carefully examine the position of the child; and thus endeavour to ascertain the situation of the feet, that we may reach them readily. With this object in view, the hand should generally be passed up, next the pubes, towards the abdomen

of the child, and in the direction of the umbilicus of the mother; as the feet are mostly to be found lying in the fore part of the uterus. Having got so far, the junior practitioner must be cautious not to mistake an arm for a leg, the hand, not unfrequently, suffering so much from pressure, as to render the sense of feeling very imperfect. It is quite sufficient to bring down one foot, and it is of great advantage to have an assistant to press on the uterus, with both hands, so as to render it as fixed as possible, during the operation; the extraction should be made slowly and gently.

Before proceeding to turn, in any case, the bladder, if distended, should be emptied; and the patient, lying on her left side, should have her hips placed near the edge of the bed. The arm must be withdrawn from the coat sleeve, so as to leave it free from pressure, and then well soaped or oiled. Where the bed is not much elevated, it is useful to rest on one knee, as in this position, we have more command of the patient. If there be much difficulty in completing the delivery, when we have the foot in the vagina, it is occasionally of advantage, to loop a thick strong riband on it, by which we can keep it fixed, and then, with the other hand, endeavour gently to elevate the shoulder. On the contrary, it is however a very bad symptom, to find all resistance suddenly cease; being an evidence of

rupture having taken place; to guard against the occurrence of which, hurry and violence should be avoided.

Such difficulties and dangers, occasionally experienced, shew the necessity of being made acquainted with the nature of the presentation, in every instance, immediately on the rupture of the membranes. When this cannot be satisfactorily ascertained, by an ordinary examination, and that there is much uterine action, it is advisable to pass the hand into the vagina, and thus obtain accurate information.

We shall now endeavour to point out those cases, where no prudent practitioner would, we think, attempt to turn; yet, such attempts we have witnessed, but with very fatal results. The cases we more particularly allude to, are, where the waters have been long discharged, the uterine action powerful, and the child's body forced low, and firmly impacted into the pelvis for several hours; in such, turning would be hazardous in the extreme; besides, under these circumstances, the child's life is destroyed by pressure; a fact which we have clearly ascertained by the stethoscope; by which we are enabled to detect the death of the fœtus, at a period, when otherwise, we might be induced to expose our patient to the utmost danger in the attempt to turn, where we have a comparatively safe means of delivery.

The singularly rare occurrence of a living child being born, where spontaneous evolution takes place, even in the most expeditious manner, affords additional testimony of the fatality to the child in such cases.

Doctor Clarke, in his report of the Dublin Lying-in Hospital, states, that "he had heard of several patients, who lost their lives, by practitioners of good repute insisting on turning the fœtus, although evidently putrid. Would not, he adds, a better chance be afforded to patients, so situated, by perforating the thorax or abdomen, so as to lessen their bulk, and by the aid of the crotchet, or blunt hook, bringing down the breech?" This from ample experience, is the practice we would unhesitatingly recommend; and that in all cases where its death can be satisfactorily ascertained. We have performed this operation repeatedly, without the slightest injury to the patient, except in one instance, where the pelvis measured but two and a half inches from pubes to sacrum; nor, do we think, where common caution is used, that there is, comparatively speaking, any risk to the patient. Delivery, in this way, is very troublesome; in most instances requiring an hour and a half, or two hours for its completion. A free opening must be made, with the ordinary perforator, into the thorax, so as to permit us completely to empty it of its

contents; we next open through the diaphragm, and remove the abdominal viscera, in order, as much as in our power, to diminish the bulk of the body; for this purpose, the crotchet and fingers are to be used; we then fasten the crotchet on the pelvis of the child, and giving gentle assistance with each pain, where the woman is well formed, the breech, by a little perseverance, will be got down and the delivery accomplished. Where we find much resistance, and there is no very urgent symptom rendering speedy delivery necessary, by withholding further interference for some hours, the body becomes softened and collapsed, and is then more easily removed; in some instances the child is expelled doubled by the action of the womb.

Several writers recommend, in difficult cases of this nature, the separation of the child's head; so as to bring the body away by the presenting arm, and afterwards deliver the head by the crotchet; this, we would condemn, unless we failed in our efforts by breaking down the thorax, which is very unlikely, if the operation be properly performed, and the pelvis not extremely under size. We once saw delivery effected as above described, and the greatest difficulty was experienced in the extraction of the head; it was necessary to introduce the hand to bring it into the vagina, and then it had to be lessened, before

it could be removed. Were hæmorrhage to have occurred under these circumstances, the delay which must take place, might prove fatal.

Forty presentations of the shoulder or arm were met with in the hospital, during my mastership. *Thirty-three* of the children were turned; of which 20 were *born alive.* In *six* delivery was effected by breaking down the thorax. In *one* the arm descended with the breech; the birth was premature, 6th month, and the child putrid.

Twenty of the 40 children were still-born; *six* of which were putrid. *Three* of the 40 were premature, viz. *one* at the 6th, and *two* at the 8th month. Twenty-three of the 40 children were males. In *three* of the 33 turned, the head had to be lessened before delivery could be accomplished.* In *three* of the 40 cases, the uterus ruptured; *one* was brought to Hospital in this state; in *one* the pelvis measured but 2½ inches from pubes to sacrum; and in the *third*, the injury occurred in the turning. See particulars hereafter. *Four* of the 40 cases

* Doctor Ramsbotham records nineteen cases of presentation of the shoulder or arm; *ten* were delivered by perforating the thorax, or separating the head from the body; *seven* by turning; in *one* spontaneous evolution took place; and in *one* the child was expelled doubled. *Two* of the mothers died; and *eighteen* of the children were *still-born.*

Most of these were cases previously badly treated; to which the Doctor had been called in consultation.

were brought to Hospital after the presentation had been discovered. *Seven* of the 40 were twin children.

Four of the 40 women died; *one* of inflammation of the brain; *one* of puerperal fever, (the edge of the placenta was near the mouth of the womb;) and *two* of ruptured uterus; in one of which the pelvis was much under size, the thorax was lessened; and in the other, the child had been turned. See particulars, No. 6, 11, 8, and 15.

Of the *twenty* still-born children, *six* had the thorax lessened; *three* had the head perforated after having been turned, the pelvis being under size; *three* were putrid; *two* had the arm down on admission; with *one* the waters were discharged on admission; with *one* the waters had been 40 hours discharged; and with *one* 7 hours; the child being also very large; with *one* there was much difficulty in getting away the head, the bones of which were much compressed; with *one* the placenta presented; and with *one* there was neither delay nor difficulty.

This short abstract is given, to shew, that, in the great majority of these cases, death had taken place previous to any attempt to deliver; and that in *none*, was the actual delivery the cause of death, where disproportion did not exist.

I shall now give a short history of the cases, commencing with those where the child was turned, and concluding with such as had the thorax perforated.

No. 1.—The elbow presented, with the shoulder low in the pelvis; this was discovered as soon as the waters were discharged, and the child was turned without difficulty.

No. 2.—Was admitted on the 23d of Sept. at 8 o'clock P.M., in labour of her 3d child. The waters were at this time discharged, and the presenting part could not be discovered by the pupil on duty. She had no pain, nor did uterine action return till 12 o'clock, when it came on pretty briskly, and the elbow was found in the vagina. We were now summoned, when the hand was protruding; the pains were trifling, and the body having made but little progress in the pelvis, the hand was passed, and the child turned. It was afterwards necessary to lessen the head, the bones of which were much compressed. She recovered well, and was dismissed on the 9th day.

No. 3.—Was admitted with the hand and arm in the vagina; the waters having been discharged three hours before. As the body had not descended into the pelvis, and the pains were not severe, the child was turned without difficulty. She left Hospital quite well on the 8th day.

No. 5.—Was the second child in a twin case. On the rupture of the membranes 20 minutes after the birth of the first, the arm presented, and the child was turned.

No. 6.—This was a severe affection of the brain,

with probable effusion into the ventricles. According to the account received from her mother, subsequent to her decease, she was, on Thursday, June 28, about mid-day, unexpectedly warned of the approach of labour, by a sudden and very profuse flow of waters. A midwife was sent for, who quieted the fears of her friends with an assurance, that there was nothing peculiar in the case. The patient remained that day, and the following, without any additional symptom of labour; not having suffered the least pain. At the expiration of this time, however, the midwife, without assigning any distinct reason, advised her removal to Hospital. She was admitted on the evening of the 29th, and continued quite free from pain that night. On the morning of the 30th, the head midwife discovered a hand and arm in the vagina. The child was then turned without much difficulty; the placenta followed soon, having separated spontaneously. The remainder of that day, she complained only of weakness; she had vomited three or four times. Next day, (Sunday, July 1st,) she expressed herself, in every way relieved; and on Monday, the improvement was more visible; however, early on Tuesday, she complained, first, of her head, and at our morning visit, seemed much agitated; her manner was flurried, her respiration quick, but still neither pulse or tongue differed much from their previous state, nor was there any increased heat of

surface; the symptoms seemed to wear the aspect more of a nervous than inflammatory attack. She complained most of her head, for which leeches were applied to the temples, a blister was afterwards placed on the back of her neck, and the head kept cool by evaporating lotions; the bowels were also well acted upon; the symptoms, notwithstanding, got rapidly worse, stupor and insensibility came on, and she died comatose, on the morning of the 6th of July, on the 4th day of the attack, and the 7th after delivery.

The uterus and intestines were quite healthy, but the friends would not suffer an examination of the brain.

No. 9.—Was admitted March 2d, at 7 P.M.; the waters had been discharged before admission. The labour pains were inconsiderable for some time after, and our attention was not directed to her till 11 o'clock; when on examination, the arm and shoulder were found presenting. The pains being still trifling, the shoulder high up, and the os uteri tolerably dilated, the child, which was small, was turned with little difficulty. About half an hour after, hæmorrhage set in, when the hand was introduced, and the placenta removed. The discharge continued, however, followed by considerable weakness, requiring the free use of cordials; after it had subsided an opiate was given which procured sleep. She did well.

No. 10.—As soon as the waters were discharged, the arm protruded; the child was immediately turned; it was small and putrid.

No. 11.—Had considerable hæmorrhage before admission; the arm and shoulder were found presenting, with an edge of the placenta near the mouth of the uterus; which being tolerably well dilated, the hand was passed and the feet brought down. The child made but a few inspirations. There had been a good deal of delay in the delivery, owing to its very large size.

She was delivered at 7 A.M. on the 15th, and went on favourably till 7 P.M. on the 16th; when she had a slight shivering, accompanied with pain in the abdomen.

She was ordered a draught of castor oil, and oil of turpentine; to be well stuped, and if not relieved when the medicine operated, to have two dozen leeches applied.

17th, 9 A.M.—Was somewhat relieved by the purging and stupes; the leeches were put on at 5 A.M.; slept little, abdomen extremely hard and sensible to pressure; pulse varying from 120 to 130; bowels well opened.

Three dozen leeches to the abdomen; warm bath afterwards; to have 4 grains of calomel, and as much ipecacuan powder, every 2d hour; diligent stuping.

10 P.M.—Abdomen much improved; pulse 130; tongue slimy; took 4 powders. Continue powders and stupes.

18th, 9 A.M.—Slept little; took five powders; pulse 138; great abdominal distress, can scarcely bear the least pressure; drinks freely.

Two dozen leeches to the abdomen. Continue powders and stupes.

10 P.M.—Seems rapidly sinking: pulse varying from 140 to 150; respiration laboured; abdominal distress most urgent; drinks freely; bowels relieved by injections.

She continued lingering till 6 A.M. on the 20th, when she died. For the last 36 hours she had been delirious, and seemed to suffer much.

On dissection, the abdominal cavity exhibited the appearances of vascularity, ordinarily witnessed in puerperal fever. There was no coagulable lymph to be discovered, except near the liver. The fluid effused resembled pus. The uterus was healthy, but the ovaries and fallopian tubes had suffered much in structure from inflammation.

It was her 7th child; and she stated all her former children had presented preternaturally. Puerperal fever was prevalent in the hospital at the time.

No. 12.—Was admitted to be delivered of her 4th child; on the rupture of the membranes, it was discovered that the arm presented. The child

was immediately turned. It was eventually necessary to lessen the head to complete the delivery. This woman had been *three* times previously delivered in this hospital, by the crotchet, in consequence of deformed pelvis. She recovered rapidly.

No. 13.—Was admitted to be delivered of her 2d child; when the membranes ruptured, the hand and arm descended into the vagina; the os uteri being fully dilated, the child was immediately turned.

No. 14.—This was the 2d child in a twin case; it presented with the arm, and was at once turned.

No. 15.—This woman was admitted May 30th, at 6 A.M. in a very weak and exhausted state; having been suffering from hæmorrhage for the 5 or 6 preceding hours, which still continued. The os uteri, at this time, was high up, and not more dilated than the size of a shilling; it was hot, thick, and unyielding, but the membranes were pressing firmly against it. They were punctured, and a considerable quantity of waters came away; which, although it controlled, did not altogether put a stop to the hæmorrhage, as a slight draining was, at intervals, observed. In three hours afterwards, it was found, that the labour had advanced considerably; the os uteri was now soft; relaxed, and nearly fully dilated; and the shoulder was found presenting. The

hand was passed with great difficulty, and the child turned; it was dead, and seemed to have been so for some time. During the delivery, a large quantity of clotted and fluid blood escaped from the uterus. The placenta came away immediately, and the uterus seemed to contract firmly and regularly; still a slight oozing of blood continued, which it was found impossible to stop, and under which she sank.

On inspecting the uterus after death, a laceration was discovered, at its anterior part, towards the left side, extending nearly two inches from the mouth towards its body. There was not any laceration of the peritoneal covering, but blood had insinuated itself, between this and the substance of the uterus. It was her 9th child.

No. 16.—This patient had the hand and arm protruded on admission; the waters had been discharged half an hour previously. There was little or no uterine action, and the child was instantly turned.

No. 18.—The arm was found presenting immediately on the rupture of the membranes; the child was turned without delay, as there was sufficient dilatation of the mouth of the womb.

No. 19.—The elbow presented on the discharge of the waters. The child was turned; it died in an hour and a half.

No. 20.—On examination an hour and a half

after admission, the hand and arm were found presenting; the parts being tolerably dilated, the child was turned.

No. 21.—On admission the hand and arm were found in the vagina; the child was turned, it was afterwards necessary to lessen the head.

No. 22.—The shoulder, on examination, was found at the brim of the pelvis; the waters had been 7 hours discharged, but there had been little or no uterine action. The os uteri being tolerably well dilated, and relaxed, the hand was passed, and the child turned. There was a good deal of trouble in getting away the head. The child was still-born.

No. 23.—This woman was admitted reported to have been 18 hours in labour; the membranes had been 12 hours ruptured. The arm was in the vagina; the child was turned without difficulty, there being no uterine action.

No. 24.—This was the second child in a twin case; it presented with the arm half an hour after the birth of the first, and was turned.

No. 25.—This patient, for two hours after admission had no labour pains, and when examined, the arm was found presenting; the funis was prolapsed, and pulsating strongly. The child was speedily turned, but there was considerable delay in delivering the head, owing to the badly dilated condition of the external parts. Though

the heart's action kept up for half an hour after delivery, respiration could not be established.

No. 26.—The arm and shoulder presented; the child was turned, not without difficulty, in consequence of the uterus being firmly contracted on the body.

No. 27.—The hand and arm presented immediately on the rupture of the membranes; the child was turned.

No. 29.—This was the 2d child in a twin case; it presented with the arm an hour after the birth of the first, and was turned.

No. 30.—On the rupture of the membranes, the hand presented; the child was instantly turned.

No. 32.—This was a premature birth at the 8th month; the arm presented; the child was turned.

No. 33.—When this woman was admitted, the hand and arm were found in the vagina; the waters had been 12 hours discharged. The uterus was firmly contracted, and the external parts badly dilated, affording much obstruction to the turning and subsequent delivery of the child; it was still-born; about the 8th month.

No. 34.—Shortly after admission the waters came away, and the hand presented. Turning was effected with ease, and the child was expelled by uterine action.

No. 35.—The left elbow and shoulder pre-

sented; the waters had drained off some time before, which rendered turning rather difficult.

No. 36.—The left arm and shoulder presented; the child was turned; there was some delay in delivering the head, the bones of which were much compressed.

For the particulars of three cases of arm presentation, viz. Nos. 38, 39, 40, where the children were turned, see article on Twins, Nos. 1, 8, and 81.

Such is a brief outline of the *thirty-three* cases of shoulder or arm presentation, where delivery was effected by *turning*. In their detail, I avoided the frequent repetition of the state of the os uteri and soft parts, as the circumstances, so fully stated in the preceding observations, invariably guided us, as to the propriety of proceeding with the operation.

The following is a report of the *six* cases where delivery was accomplished by breaking up the thorax:—

No. 4.—This patient was admitted in labour of her 9th child, between the 7th and 8th month of pregnancy. The waters had been several hours discharged; the funis was prolapsed and without pulsation; the presenting part could not be felt. She remained in this state for 20 hours, without pain, after which the uterus began to act, and on examination, the arm and shoulder were found low in the pelvis, and putrid. The arm, with slight

exertion, separated from the body; the breech was then brought down, but in the delivery of the head, it separated, owing to its extreme state of putrescence. The mouth of the womb, at this period of gestation, not being easily dilated, considerable difficulty was experienced in getting the head out of the uterus. It was at length broken up with the fingers, and some of the bones brought away, before it was finally extracted. The placenta came away before the head was delivered. She left Hospital on the 17th day.

No. 7.—Was admitted with the uterus ruptured, and the arm protruding. See particulars on Rupture of Uterus, No. 1. *Recovered.*

No. 8.—Pelvis deformed; $2\frac{1}{2}$ inches from pubes to sacrum. See Rupture of Uterus, No. 3.

No. 17.—Was sent from the county of Meath with the arm protruding from the vagina; in which state it had been for the last 14 hours; it was much swollen, the skin purple, and the cuticle separated in some places. The thorax and body were very low, and impacted firmly in the pelvis; the fœtal heart had ceased to pulsate. The thorax was immediately perforated, and its contents, as also those of the abdomen, removed; the breech was then carefully brought down, with the crotchet, aided by the fingers, and the delivery, without further trouble, concluded.

She had been attended by two practitioners

for a considerable time before she was sent to Hospital.

No. 31.—On admission, the hand was found in the vagina, with a large portion of the funis prolapsed; it was putrid. The thorax was lessened, and the breech brought down.

No. 37.—The elbow presented; the os uteri dilated to little more than the size of a shilling, and the waters discharged. The fœtal heart's pulsation could not be detected. In three hours after, the os uteri having become considerably dilated and relaxed, it was attempted to turn the child, (as it was supposed possible, its position might have prevented the heart's action being heard;) this, however, was found impracticable without using *unjustifiable force*, so rigid was the contraction of the uterus on the child's body. On introducing the hand, the funis was pulseless and flaccid. The thorax was now perforated, and delivery thus completed, which required two hours and a half of active and diligent exertion. She recovered without an unfavourable symptom.

No. 28.—The breech descended with the arm. The child was putrid, at the 6th month.

The above is a concise statement of the most important particulars of all the shoulder or arm presentations met with in the Hospital during a period of seven years. The reader will be thus enabled to form his own conclusions, both as to the

practice adopted in each case, and also the general result.

The following Tables shew the age of the patient, the length of time in labour, and whether it have been a first or subsequent pregnancy.

Table shewing age of patients ; thus : 2 were 20 years of age, and so on.

Age,	20	22	23	24	25	26	27	28	29	30	32	34	35	36	43
No. of Patients,	2	1	1	4	4	2	2	4	2	6	2	2	3	4	1

Table shewing the length of time in labour ; thus 1 was $\frac{1}{2}$ an hour and so on. For duration of labour in 15 of the 40 cases, see cases detailed. This may be done by reference from the general table.

Hours in Labour,	$\frac{1}{2}$	1	2	3	4	5	8	9	18	24	30	46
No. of Patients,	1	6	5	1	3	3	1	1	1	1	1	1

Table shewing if it be a first or subsequent pregnancy ; thus : 7 were first pregnancies, and so on.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9
No. of Women,	7	6	10	5	1	4	4	1	2

The general table will be found to afford matter for many interesting calculations. In the column indicating the life or death of the child, the figure 1 shews it to have been born alive, the letter D

still-born, and the letters Dp putrid. Where the number of hours in labour is not here stated, on referring to such case by number, all the particulars can be ascertained.

No. of Case.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Observations.
1	G	D	..	30	4	V	15	B	D	..	36	9	V	28	B	Dp	4	24	3	V
2	B	D	..	34	3	V	16	G	1	..	30	3	V	29	G	1	4	26	4	V
3	G	D	..	35	6	V	17	B	D	..	25	1	V	30	B	1	9	29	2	V
4	G	Dp	..	32	9	V	18	G	1	4	36	5	V	31	B	Dp	..	24	3	V
5	B	1	46	30	2	V	19	B	1	24	30	8	V	32	G	Dp	2	23	2	V
6	B	D	..	24	3	V	20	B	1	1	28	3	V	33	B	D	..	22	2	V
7	B	D	..	25	3	V	21	G	D	1	27	3	V	34	G	1	..	35	6	V
8	G	D	18	26	1	V	22	B	D	..	27	3	V	35	B	1	½	43	7	V
9	G	1	5	28	4	V	23	G	1	1	28	3	V	36	B	D	3	36	6	V
10	B	Dp	2	20	1	V	24	B	1	1	30	7	V	37	G	Dp	..	32	1	V
11	B	1	1	30	7	V	25	B	1	2	34	6	V	38	G	1	2	35	4	V
12	G	D	5	29	4	V	26	B	1	..	28	1	V	39	B	1	1	24	1	V
13	B	1	5	25	2	V	27	B	D	8	36	7	V	40	G	1	30	25	1	V
14	G	1	2	20	2	V														

ON HÆMORRHAGES.

UNAVOIDABLE HÆMORRHAGE.

In treating of this most important and interesting subject, I shall, for the present, confine myself to the consideration of those hæmorrhages occurring, previous to delivery, during the last three months of gestation. Here the admirable practical distinction made by Mr Rigby of Norwich,* into *unavoidable*

* Until Levret in 1756 described the placenta as being attached to the os uteri, the true cause of this hæmorrhage was unknown. Practitioners, previous to this, supposed, when they found the placenta at the mouth of the womb, that it had been separated either from the fundus or sides, and had fallen down by its own gravity. Smellie records some cases where the placenta was situated at the mouth of the womb.

Doctor Hunter, in his matchless engravings of different views of the gravid uterus, has one, in which the placenta was found at the os uteri.

Mr. Rigby was however the first English author, who fully established this most important practical distinction in the treatment of uterine hæmorrhages; although Levret had, many years before, published a somewhat similar statement.

and *accidental*, must never be lost sight of; as it is only by being enabled to refer the discharge to one or other of these sources, that we can decide on the proper method of treatment. Mr. Rigby describes those hæmorrhages as unavoidable, which are caused by a separation of the placenta when placed directly over, or with an edge *at the mouth of the womb;* such as are the consequence of a separation of the placenta from *any other part of the uterus*, he designates accidental. *Twenty-four* cases of hæmorrhage previous to the birth of the child, occurred in the Hospital during my mastership; *eleven* from the unavoidable, and *thirteen* from the accidental cause. The attachment of the placenta to the mouth of the womb is one of the most dangerous complications to be met with in the practice of midwifery; and although the mode of delivery to be adopted, in the great majority of such cases, is now well known, yet to decide upon the exact time when interference becomes admissable, upon which so constantly depends the patient's safety, requires much practical experience and mature judgment. This description of hæmorrhage is justly called unavoidable, as it is impossible for the mouth of the womb to become so much dilated as to permit the passage of the child, without producing more or less separation of the placenta, and consequent hæmorrhage. It is extremely

rare to meet with a total separation of the placenta.

Doctor Clarke informed me that he met with but one case of total separation, the patient was dying before he reached the house.

I had one very extraordinary case, (which is here recorded,) where the placenta was expelled a considerable time before the birth of the child, and previous to the patient's admission into Hospital.

I have seen the hæmorrhage as profuse, where there was merely a portion of its edge detached, as where the great bulk was separated; we cannot, therefore, from this, judge of the danger, neither can we estimate it from the quantity of blood discharged, as one patient will, with impunity, bear a loss of blood, that would prove fatal to another; besides there might be internal hæmorrhage to an alarming extent; it is only by carefully watching the effect produced on the system at large, that we can be safely directed. In some cases, which are the most pregnant with danger, the discharge comes on suddenly and with violence, and does not subside until the patient be delivered, or death take place; such, however, is not of common occurrence; more generally it comes on slowly, and will be observed to recur periodically, even for weeks, previous to its becoming necessary to effect delivery.

Whenever hæmorrhage is met with to any extent, in the last three months of pregnancy, it is impossible to be too watchful of our patient; as we know not the moment it may become so profuse as greatly to endanger life; we should therefore, in all such cases, put the friends on their guard in order that no time may be lost in giving notice to the medical attendant, should any increase of the discharge take place.* In such cases, when *danger is threatened*, we should never neglect, in the first instance, making a vaginal examination, to ascertain if there be any portion of the placenta attached to the os uteri, as this being the case or otherwise must in a great measure direct our future proceedings. Where the loss is considerable, and the os uteri so situated as not to be reached by an ordinary examination with the finger, the hand should be carefully introduced into the vagina, and thus we can scarcely fail to discover the nature of the case. It is also of advantage to observe if the discharge of blood be increased with each labour pain which is almost invariably the case, where the placenta presents; whereas if it be not so situated, the hæmorrhage will, at such times, be diminished.

* Blood lost near the full period of pregnancy, produces much more debility than in the earlier months. It is very rare to meet with hæmorrhage proving fatal before the sixth month of gestation, when properly treated, though often profuse.

We very seldom meet with unavoidable hæmorrhage before the sixth month of pregnancy; it is not until the cervix uteri begins to distend freely, and the changes that take place previous to the approach of labour, commence, any suspicious symptoms are observed; consequently it will be in the last three months of utero-gestation, that hæmorrhage of this nature will be found to occur. The nearer the patient approaches the full time, without the loss becoming so alarming as to render delivery imperative, the less danger is to be apprehended; as the mouth of the womb and soft parts will much more readily admit of the introduction of the hand, having naturally undergone a gradual process of relaxation, and dilatation; the risk, in a great measure, depending on the state of these parts previous to proceeding with the delivery. I know of no circumstance *so much to be dreaded* as the forcible introduction of the hand where the parts are in a rigid or unyielding state; for although turning the child is the established and most desirable practice, yet the success of this operation will mainly depend on the judgment of the practitioner in selecting the most proper and favourable time. Cases will happen where he is obliged either to suffer his patient to sink from loss of blood, or proceed to deliver when the parts are in an undilated and rigid state, in order to afford her the only chance

of life; but dire necessity should alone compel him to hazard the consequences of such violence.* We are well aware the os uteri will yield at a much earlier period, after a severe loss of blood, than under other circumstances; we are equally well aware of the great injury the patient sustains, by delaying delivery beyond the earliest moment that the mouth of the womb will, by gentle efforts, permit the introduction of the hand; it is against *premature measures* we wish to guard the young practitioner; as every individual of experience will acknowledge the great embarrassment he not unfrequently has laboured under, in deciding on the time, beyond which, to defer affording assistance were timorously to risk his patient's safety, and previous to which, delivery would be either impracticable, or, if effected by violent means, truly dangerous; for even a slight injury to the mouth of the womb will prove more fatal, than an increased loss of blood, so long as the strength can possibly bear it. Wherever delay is necessary in order to permit the os uteri to become relaxed, the greatest attention should be paid to absolute rest and quietness. The patient should not be permitted to talk, but rather encouraged to sleep, observing strict coolness, and

* See cases Nos. 139, 140, 141, 142, 143, 144, 145, 149, recorded by Dr. Ramsbotham, all of which proved fatal. Vol. 2d, p. 197.

having her strength supported by *cold* chicken broth or beef tea. As to whether the hand should be passed through the placenta, or at its edge, we must be guided by circumstances; always introducing it slowly and gently wherever we find the resistance or opposition least. If it have been well soaped previously, it will seldom cause acute pain, the parts being relaxed and lubricated by the discharge. It will much facilitate the operation to have the hips placed as near the edge of the bed as may be, the nursetender at the same time elevating, as much as she can, the right knee. When we have so far succeeded with the delivery as to have got the feet into the vagina, the remainder should be conducted slowly, in order to permit the mouth of the womb to yield gradually to the passage of the child's body and head; and also, to encourage a regular and perfect contraction of the uterus; which in such cases is of the last importance to the welfare of the patient. Too much care cannot be observed to prevent loss of blood after delivery; even a slight subsequent discharge is much to be dreaded. In another place we shall treat fully of the means to be adopted for its prevention.

It occasionally happens that a large quantity of blood collects in the uterus, previous to delivery, which, if not removed, keeps this organ distended, and thus creates a tendency to hæmorrhage; should

this be the case, the cautious introduction of the hand immediately after the birth of the child, will be found the best means of counteracting it.

Of *eleven* cases of unavoidable hæmorrhage met with in the Hospital, *eight* of the children presented naturally; *four* of which were turned; *one* was delivered by the natural efforts; *one* with the forceps; and in the other *two* the head was lessened. Of the remaining three, *two* presented with the feet, and *one* with the breech. *Six* of the children were born alive. Of the 5 still-born, *two* were *putrid*. *Two* of the women, where the children were turned, died; all the rest recovered. It will be seen that delivery was effected by a variety of means.*

The following is a report of the four cases where turning was resorted to.

No. 4.—M. C., aged 23, was admitted in labour of her 7th child at the full time. It was remarked that she looked pale and weakly; shortly after she came in, she had a labour pain, which was accompanied by an immense dash of blood. On

* Doctor Clarke met with *four* placenta presentations during his Mastership; *one* was a case of first pregnancy; *one* occurred in the 6th, and *one* in the 8th month; *another* had a defective pelvis, the head of the fœtus was perforated. *One* of the four patients died, viz. the woman in her first pregnancy. In the *three* first mentioned cases, the labour was forced. See Transactions of the Association of the College of Physicians in Dublin, Vol. I.

examination, a portion of placenta was found at the mouth of the womb, which, being in such a state as to admit of delivery, the hand was passed and the child turned with little difficulty, without any more loss of blood. It was many hours before she rallied; she was freely supplied with wine and other cordials, chicken broth, &c. &c. She was given, at different times, three draughts, (each containing 30 drops of tincture of opium,) in order to procure rest. The child (a male) was still-born.

This woman had been in the Hospital some weeks before, having at that time lost a considerable quantity of blood. The hæmorrhage then ceased, and she returned home, where she remained free from it for some time. She had a considerable loss of blood, however, for the three days preceding her last admission. She was discharged well on the 17th day.

No. 34.—W. S. was admitted, at her full time, Nov. 12th. She had been shedding occasionally for 5 days before, which reduced her to a state of great debility. There was no hæmorrhage on her admission, but on examination, the placenta was found at the mouth of the womb, which was not more dilated than the size of half-a-crown, with its edge thick but not very rigid. As the discharge had ceased, and her strength was much exhausted, she was ordered to be kept perfectly

cool and quiet, to have some cold chicken broth. About an hour and a half after, suddenly, the most profuse hæmorrhage set in, so much so, that in two or three minutes, the blood was running in every direction over the edge of the bed; this was consequent on some slight uterine action. There being no chance of life without speedy delivery, we determined to make the attempt, though the parts were badly prepared; accordingly, the hand was very slowly and cautiously introduced, and the feet brought down with little exertion; the uterus acted strongly, and felt well contracted after delivery. The placenta came away with the child. Great debility succeeded the operation, with a slight discharge of blood at intervals; and on examining an hour after, a laceration of the neck of the uterus, anteriorly and to the right side was discovered, commencing at its junction with the vagina and extending upwards. She died shortly afterwards. It was her 4th child—a girl (living).

Dissection verified the result of the vaginal examination.

No. 77.—A. B. arrived at her full time. Thirty hours after admission, had a copious discharge of blood; there had been little or no uterine action. The vagina was found full of clotted blood, the os uteri high up and little dilated, but at the same time relaxed and thin. The hand was passed up

carefully, and a large portion of placenta was found at the mouth of the womb; the os uteri yielded readily, and the feet of a living child were brought down without difficulty. The placenta was permitted to remain for an hour in the vagina, when it was expelled; for half an hour after she remained quiet and easy, when profuse hæmorrhage came on, which continued for nearly an hour and a half, inducing a state of extreme exhaustion.

The hand was twice introduced to excite uterine action; cold applications and cordials actively employed, and the uterus at the same time kept firmly compressed by the hand. On the subsidence of the hæmorrhage, it required more than 100 drops of tincture of opium, in divided doses, to procure rest. She left Hospital well on the 16th day.

No. 89.—S. T. was sent to Hospital in consequence of hæmorrhage at the full period of gestation; the discharge was checked shortly after admission by the ordinary means, and for two days there was not any return, nor was there any uterine action. At the close of the 2d day, another flow of blood came on, unattended by pain; the os uteri was too high to be reached by the finger; and as the patient was becoming weak, the hand was passed into the vagina, when the mouth of the womb was found dilated to the size of a half-crown, and rigid, with the placenta attached firmly over it. As it was impossible then

to deliver without injury, slight cordials were given, which revived the patient; the discharge ceased; an opiate was administered, followed by six hours sleep. The hæmorrhage again returned to a more alarming degree, and still without uterine action; the os uteri being now sufficiently dilated, the hand was passed through the placenta, and a living child extracted by the feet. The placenta which was adherent was brought away immediately after. The uterus contracted well, still a draining continued for some time, which was stopped by the introduction of cold cloths into the vagina. Though stimulants were freely given she died in half an hour.

On dissection the intestines were found quite blanched; there was a slight roughness of the os uteri at one spot; it did not seem, however, injured by the delivery.

Such were the cases of unavoidable hæmorrhage where delivery was accomplished by turning, *two* of which proved fatal; one from laceration of the uterus, and the other from the effects of the hæmorrhage both before and after the birth of the child. In both, it was necessary to interfere under unfavourable circumstances.

The following is a report of the *four* remaining cases where the presentation was natural.

No. 72.—T. P. admitted at her full time. Had several attacks of hæmorrhage previously; however

by observing strict coolness and quietness it did not return to any alarming extent, though she had occasional discharges of blood, which for two hours before delivery increased, yet not to such a degree as to require interference. The edge of the placenta was distinctly to be felt at the mouth of the womb.

Her child was expelled alive.

No. 17.—B. G. was admitted in labour of her 2d child; she had several profuse discharges of blood before admission. The os uteri was dilated to the size of a crown, very relaxed, the head presenting with the face to the pubes, and the edge of the placenta distinctly to be felt. The discharge having ceased, we resolved to wait the effects produced by the pains; it returned however at intervals for the next two hours and a half, particularly during a pain. The head had now descended low, the ear could be felt, and the os uteri and soft parts were well dilated. The forceps were applied, and the child brought away without much difficulty. It was about the 8th month, and the child was small. Both mother and child left Hospital well on the 15th day.

No. 50.—T. O. at her full time; was admitted reported to have had frequent discharges of blood for 8 days previous, always increased when the uterus acted; she had no loss or pain for 10 hours after admission; when the pains set in hæmorrhage

came on. The edge of the placenta was found at the mouth of the womb, which was not more dilated than to the size of a crown and rigid; it was thought however the hand might be passed with caution, through it, but on making the attempt, it failed. As she was much reduced, and the hæmorrhage increased with the pains, the head was lessened, and the child brought away with the crotchet. The operation was attended with much difficulty, owing to the head being so high up, and the os uteri so little dilated. The portion of placenta at the mouth of the womb appeared to be in a morbid state, it was hard, whitish, and possessed but little vascularity; it was her sixth child.

No. 119.—T. E. come to her full time. The edge of the placenta was situated near the mouth of the womb; the patient had suffered much from hæmorrhage before admission. The child being dead, as ascertained by the stethoscope, the head was lessened, and delivery thus accomplished.

I shall now relate two cases where the feet presented; which are perhaps as singular as any hitherto recorded. One of these is eminently calculated to shew the marvellous escapes, occasionally witnessed, when the gross ignorance of the attendant blinds him as to the danger of his patient.

No. 92.—G. J. at her full time; was admitted in a state of extreme debility, her pulse so weak

and frequent as not to be counted. The foot was found in the vagina, so putrid, that the skin peeled off on the slightest touch. The discharge was fœtid. Stimulants and cordials were freely given, and the child brought away without difficulty. The uterus remaining enlarged and relaxed, the hand was passed to remove the placenta; when there was *none* to be discovered; nor was there any hæmorrhage. The membranes had ruptured and the waters been discharged, a fortnight previous to admission, from which time, until the evening before she was brought to Hospital, she had more or less hæmorrhage. It was now ascertained that the placenta had been expelled the evening before her admission, and separated by the midwife in attendance. She had been twice visited by a medical practitioner, who *bled her* and gave *purgatives*. She left Hospital well on the 13th day.

No. 33.—E. D., aged 38, was admitted to be delivered of her 5th child. About ten days previous she had a considerable discharge of blood from the uterus; which entirely disappeared, and did not return until a short time before admission, when it was but trifling; there was no pain; and no examination was made for 7 hours after, when the placenta, on introducing the finger, was found almost entirely separated, and in the vagina; above which, the foot could be felt; it was brought down without further loss.

When the placenta was examined, one half of it was found much altered in structure; containing large and whitish masses, resembling fat, or lymph highly organised. The child was putrid, about the 7th month; the circulation between it and the placenta must have been destroyed for many days.

In the following case the breech presented:—

No. 83.—M. P. come to her full time; was several hours in labour before admission. It was stated that she had had a copious loss of blood; from the time she came in the uterine action was trifling, and the hæmorrhage, though frequent, not such as to excite uneasiness. The midwife in attendance thought she felt the membranes partly protruded into the vagina. When we were called to see her, we found the edge of the placenta at the mouth of the womb, and the membranes protruding. On rupturing the membranes, the breech presented; the finger was passed into the groin, and it was slowly brought down to the perinæum, and was shortly after expelled by uterine action. The child was born alive.

I have thus given an accurate statement of the eleven cases of unavoidable hæmorrhage met with out of 16,414 deliveries.

By referring to the table on hæmorrhages, further information as to the age of the patients, the length of time each was in labour, with many other interesting particulars may be ascertained.

ON ACCIDENTAL HÆMORRHAGE.

I shall now make some observations on accidental hæmorrhages, or such as are caused by a separation of the placenta from any part of the uterus, except its mouth. Here, when the patient is properly treated, the discharge often subsides without manual interference; whereas, in the unavoidable hæmorrhage, this practice would generally prove fatal. Hence we see the imperative necessity for making ourselves acquainted, as early as possible, with the nature of the hæmorrhage, should it be to any alarming extent. It is extremely rare that life is much endangered by *one* attack of flooding; it is only from a repetition, that serious consequences are to be apprehended.

In all cases where a woman, during gestation, is attacked with flooding, no matter how trifling in quantity, she should immediately be confined to the recumbent posture, and kept perfectly quiet and cool; she should have a free circulation of air admitted into her chamber; her drinks should be cold, and cloths soaked in cold water, and vinegar applied to the external parts. Where there is no appearance of labour, one grain of

the watery extract of opium will often be found serviceable in procuring sleep, which is of so much advantage, both in order to check the discharge, and lessen the excitement which its presence generally produces. It is seldom advisable to bleed, in hæmorrhages occurring during the three last months of gestation; as it is not followed by the same good effects as in the earlier months; besides, the great danger of the loss becoming profuse, almost forbids the removal of blood by other means. A gentle aperient, as the Infusion of Roses with Epsom Salts proportioned to the necessity of the case, strongly acidulated with sulphuric acid, should be given where the bowels are constipated.

Such are the means ordinarily resorted to, and generally with success, where steadily persevered in. Should they fail in arresting the hæmorrhage, it will be found, that rupturing the membranes, as recommended by most writers, will rarely disappoint our expectations. I have almost invariably found it a safe and effectual expedient.

Doctor Burns, speaking of the treatment of hæmorrhages, where the *membranes* are found at the mouth of the uterus says, "The hand previously lubricated, is to be slowly, and gently, introduced completely into the vagina. The finger is to be introduced into the os uteri, and cautiously moved so as to dilate it; or, if it have

already dilated a little more, two fingers may be inserted, and very slow and gentle attempts made, at short intervals, to distend it." He further adds, "If the os uteri be soft and pliable, and have already by slight pains, been in part distended, a quarter of an hour, perhaps only a few minutes will often be sufficient for this purpose; but if it have scarcely been affected before, by pains, and be pretty firm, though not unyielding, then half an hour may be required. The os uteri being sufficiently dilated, the membranes are to be ruptured, the hand introduced, the child slowly turned." See page 324.

Such are Doctor Burns' directions, calculated, in my opinion, to lead the young practitioner into error; and, as far as I am capable of judging from extensive experience, only justifiable in the *most extreme cases of danger*, and never, until rupturing the membranes has been found to fail in stopping the hæmorrhage. Where the female has been reduced by loss of blood, to the lowest possible state, consistent with safety, before we are called to visit her, *such measures* indeed may be justifiable; but such instances will be found to be exceedingly rare.

I know of no operation, more truly dangerous both to mother and child, than the artificial dilatation of the os uteri and turning the child; and confident I am, that the practitioner who adopts such

a line of practice, *except from strict necessity*, will often have abundant cause to regret his proceedings.

Doctor Burns adds in a note to p. 330. "In those cases where the placenta presents, few practitioners would think of trusting to the evacuation of the liquor amnii; they would deliver. If then delivery be considered as safe and proper in one species of flooding, it cannot be dangerous in the other; and whenever interference in the way of operation is necessary, the security afforded by the introduction of the hand will much more than compensate for any additional pain. But even in this respect the two operations are little different, if properly performed."

What comparison, I would ask, can hold between placenta presentation, and the great majority of cases of accidental hæmorrhage?

It is here the great difference between the treatment of unavoidable and accidental hæmorrhage consists; in the former, we are almost always obliged to force delivery; while in the latter, rupturing the membranes, so as to bring on uterine action, is in most cases sufficient.* There is no

* Dr. Merriman states, that in 30 cases in his own practice, which from the profuse hæmorrhage were very alarming, rupturing the membranes, in every instance, caused the discharge either to cease entirely, or to be so much diminished as to ensure safety. See Synopsis, p. 118.

See also Mr Rigby's 51 cases of this kind of flooding, in

point I have felt so anxious to impress with effect upon the pupil's mind as this. The operation is very simple, and may often be performed by the finger; however, where the os uteri is high up, or the membranes are in a relaxed state, it may be necessary to introduce some *blunt* pointed instrument, as a probe, to make the opening; this will be more easily effected by having the membranes made tense by pressure over the uterine tumour. In some *few* cases where the patient has had *profuse* flooding previous to the practitioner's visit, rupturing the membranes will not be found to induce sufficient uterine action to expel the child with as much expedition as is desirable, in order to check the hæmorrhage at once; here should the head be high up in the pelvis, the hand, if practicable, must be introduced, and the feet brought down. Should the head be within reach of the forceps, and the ear to be felt by the finger, this instrument may be used with the best effect. Where the death of the child is accurately ascertained by the stethoscope, the head should be lessened rather than expose the mother to the danger of turning. Where the hæmorrhage is so extremely profuse as described, the child is almost invariably still-

many of which this method was tried and always with complete success.—*Essay on Uterine Hæmorrhage.*

born. When the natural action of the uterus is thus paralyzed by exhaustion, the patient's safety much depends upon the womb being emptied slowly, and the attention paid by the attendant to promote its perfect contraction, as also its being kept permanently in that state; which is to be accomplished by the careful application of the binder, in the manner described under the head of hæmorrhages occurring after delivery.

Where the practitioner has been in attendance from the commencement of the attack, no consideration should induce him to suffer his patient to become so much reduced by loss of blood, previous to his effecting the delivery; as the operation when resorted to in proper time is comparatively of no danger. We should always deliver where practicable, no matter to what extent the exhaustion has proceeded; as without so doing, there is no chance of life. I have witnessed recoveries truly miraculous, under such circumstances.*

* I was called to a patient in James's Street, at two o'clock, A.M., February 26, 1823, who had been shedding for eight days; she was in such a state of extreme debility that her pulse was scarcely perceptible at any time, and occasionally vanished entirely; her countenance was anxious and distressed. On examination I found the placenta presenting; the os uteri dilated the size of a crown, and very lax. It was about the 8th month of her pregnancy; the hæmorrage was still going on slowly; all the clothes about her were completely soaked with blood. Fearing she would sink under the operation, I required the presence of another practitioner; and we agreed

Where the hæmorrhage has subsided when we first see the patient, if the exhaustion be extreme, we should not on any account introduce the hand until we endeavour to recruit her strength by stimulants, as wine, burned brandy, &c.; as soon as she shall have rallied somewhat, we proceed to deliver; and though the mouth of the womb yields much more readily, and admits of the passage of the child with more facility, at an earlier stage of the labour, where there has been much loss, as before noticed; still, delivery with the female in so feeble a state, is truly precarious.

From what has been stated with regard to Unavoidable and Accidental Hæmorrhage, we may conclude, that where the placenta is fixed *over or near the os uteri*, nothing but delivery will put a stop to the loss of blood; whereas, if the placenta *be not so situated*, the discharge not profuse, and

upon *instant delivery* as the only means of affording her even a chance of life. From her excessive debility, we thought it almost impossible she could live, even without the fatigue of an operation.

After giving her the strongest stimulants as freely as she could be induced to swallow, I introduced my hand with little difficulty, and brought down the feet. I waited some time, after the child was completely turned, and then brought it slowly away. The placenta followed in a few minutes. By the diligent use of stimulants, the pulse gradually improved, and in the course of some weeks she was quite restored. The child was still-born. About 18 months after she had a premature birth at the 7th month.

the patient's strength not much reduced, we should use every effort to arrest it, by the means commonly recommended, and wait for nature's assistance in the expulsion of the child. If, however, the natural efforts be not likely to effect this in a reasonable time, and the strength be gradually failing, it will be necessary to rupture the membranes, and should this not succeed in checking the hæmorrhage, we must deliver by art, carefully bearing in mind the directions laid down for the successful accomplishment of our object.

I would strongly recommend the medical attendant here, (as indeed in all cases of danger), never to attempt the operation without proposing a consultation, where practicable, and the case is such as to admit of this delay without increase of risk. This will afford the friends an opportunity of satisfying themselves, that what is to be done is necessary for the safety of the patient.

Thirteen cases of accidental hæmorrhage occurred in the Hospital during my residence as Master. In *four* of which the membranes were successfully ruptured; *three* were delivered by the natural efforts; *three* by the crotchet; *two* of the children were turned, and in *one* the feet presented. *One* only of the children was born alive; *four* were *putrid*. *Two* of the 13 women died; one where the child was turned, and one where the head was lessened.

I shall give a brief report of these cases sufficient to shew their most important features.*

In the 4 following the membranes were ruptured.

No. 97.—A. B. having arrived at her full time, had considerable hæmorrhage for *eleven* days previous to admission, by which she was so much exhausted, as to require stimulants freely. On examination, the os uteri was found relaxed, the

* Mr. Rigby states that unavoidable and accidental hæmorrhages require nearly opposite modes of treatment; that, in the first, *manual extraction* of the fœtus by the feet, or forced delivery, is absolutely necessary to save the life of the mother; and that in the second species, such practice is never required; that the first is an occurrence of great danger, he having lost *nine* out of 34 cases; and that the second is of little danger, he not having lost any of 51 cases which he records, nor did he think it necessary, in a single instance, to force delivery.

Such was his opinion when he first published on this subject; in later editions he admits assistance may be necessary in accidental hæmorrhages, although he adds, "I have never met with a case that under such circumstances required it." p. 70, third edition.

Ten cases of accidental hæmorrhage occurred in the Dublin Lying-in Hospital, during Doctor Clarke's residence. *Four* had delivery forced, of whom one died. *One* had a defective pelvis, the head was perforated, the mother died. *One* had a cross presentation, the fœtus was turned, the mother died. *Two* had the membranes ruptured at an early stage of the labour, both recovered. *Two* were left entirely to the efforts of nature, one died. Hence it is evident, Doctor Clarke observes, that of the *ten* cases, *four* proved fatal under very different modes of treatment; which result is entirely at variance with Mr. Rigby's experience. See Dublin Medical Transactions, Vol. 1. p. 380.

Doctor Ramsbotham records sixteen cases of accidental hæmorrhage, *seven* of which proved fatal. Vol. 2d, p. 143.

membranes whole; they were immediately ruptured; the hæmorrhage then subsided, and a putrid child was expelled three hours afterwards.

No. 58.—C. D. at her full time; had considerable hæmorrhage before admission. The os uteri and soft parts were tolerably well dilated and relaxed; the membranes were immediately ruptured, and in *five minutes* the child was expelled. It was her 3d; still-born. The edge of the placenta was to be felt approaching the mouth of the womb.

No. 48.—E. F. had flooding for some hours; the membranes were ruptured; the discharge ceased, and in 12 hours she was delivered of a still-born child.

No. 10.—G. H. at her full time. The membranes were ruptured in consequence of severe hæmorrhage; it then ceased, and the child was expelled alive in seven hours.

The three following cases were left to the efforts of nature.

No. 1.—J. K. at her full time; had smart hæmorrhage in the early stage of labour, which subsided under ordinary treatment. It was her first child, and was still-born after a labour of 70 hours; the head suffered considerable pressure in its passage through the pelvis.

No. 12.—L. M. at her full time. The hæmorrhage was slight; it was her 11th child; the breech presented, the child was putrid. She was seized with mild fever after delivery.

No. 22.—N. O. at her full time. The hæmorrhage was slight; the child was still-born after a labour of six hours.

In the three succeeding cases the delivery was effected by the crotchet.

No. 81.—D. C. arrived at her full time. Three hours after the commencement of labour, hæmorrhage came on; but, for some time, not so considerable as to alarm the pupils in attendance. When called to visit her, we found she had lost a large quantity of blood, followed by great exhaustion. On examination, the perinæum was found most unusually distended, caused by an infiltration of blood into its cellular substance, particularly about the entrance of the vagina. The tumor formed here was so large, it seemed quite impossible for the head to pass, without bursting the soft parts; on a profuse discharge of blood taking place it was diminished in size, but soon regained its original volume. All the ordinary means for arresting the hæmorrhage were diligently employed; the membranes were ruptured, but the debility becoming alarming, the head was lessened and delivery completed by the crotchet. The most liberal use of stimulants was required to prevent her sinking afterwards, also steady perseverance in cold applications to check the hæmorrhage.

No. 73.—R. S. was admitted at her full time labouring under severe hæmorrhage, which she

said commenced on her way to Hospital. The uterine action was very trifling, and the os uteri not more dilated than the size of half-a-crown. Perfect quietness was enjoined, with cold applications. The hæmorrhage continued, and one hour after admission, it was deemed advisable to rupture the membranes; this measure succeeded to a certain extent, still the blood continued to collect in the womb, and to be occasionally discharged. In four hours after, great debility came on, requiring immediate delivery. The labour had made but little progress since her admission. The placenta was gently removed shortly after the extraction of the child, and there was a large quantity of firmly clotted blood expelled at the same time. She remained extremely feeble for several hours, requiring stimulants and cordials. She was given 100 drops of tincture of opium, in divided doses, before the restlessness, which so frequently succeeds severe hæmorrhage, could be subdued.

No. 99.—T. U. was admitted in the sixth month of her pregnancy, suffering from profuse hæmorrhage, for which the membranes had been ruptured, and cold applications used, with little advantage. The os uteri was very rigid, and not more dilated than the size of half a crown. The pulse was quick and feeble, extremities cold, and she was much exhausted. The head was lessened, and the brain cautiously removed; but owing to

the very unyielding state of the os uteri, it required upwards of two hours gentle exertions to get the child away. The hæmorrhage still continuing, the hand was passed into the vagina, to assist with the fingers in the removal of the placenta; during its expulsion, there was a large quantity of coagulated blood discharged from the uterus. It now felt pretty well contracted; however the hæmorrhage continued, and the patient eventually sunk in spite of all efforts that could be made.

The only morbid appearance was a number of small bodies resembling hydatids along the margin of the os uteri.

In the two following cases the child was turned:—

No. 11.—B. A. at her full time; had considerable hæmorrhage both before and after admission; the presenting part could not be distinguished, it was so high. The pulse was feeble, and there was much general debility.

The os uteri being very lax and tolerably well dilated, the hand was passed, and the foot brought down. The funis had been prolapsed for two days before admission; the child (her 9th,) was quite putrid.

No. 105.—D. C. at her full time; was brought to Hospital with profuse hæmorrhage, the blood literally flowing away from her. We immediately saw her, and finding the pulse almost imperceptible, the os uteri being partially dilated and in a relaxed state, the hand was passed and the child delivered

by the feet. The hand was introduced immediately after, for the removal of the placenta, the uterus acted well, and expelled both. From the moment of her admission, cordials and stimulants were freely given; which, after delivery, were occasionally combined with opiates; notwithstanding which, as also the sedulous application of cold, pressure, &c. &c., a slight discharge of blood continued, and she died in two hours.

On dissection, the intestines were found completely blanched; the uterus was contracted to its ordinary size. On making a section of it, a rent was discovered in its mouth, which was evidently the cause of the continued draining. This injury no doubt occurred in the delivery of the child, although it was effected with great care, with no difficulty, and very little exertion.

In the following case the feet presented:—

No. 36.—M. W., aged 35, was admitted, at her full time, in labour of her 9th child; she had been shedding for four days previous, being attended by a midwife. Both feet and one hand were found presenting; the os uteri and soft parts were well dilated; the hæmorrhage continuing, and the patient becoming feeble, the feet were brought down. Great difficulty was experienced in getting the head away, owing to the face being turned towards the pubes, and one arm twisted round the back of the head. It was eventually necessary to use the perforator.

ON HÆMORRHAGE BETWEEN THE BIRTH OF THE CHILD, AND EXPULSION OF THE AFTER-BIRTH.

Hæmorrhages, occurring between the birth of the child and the expulsion of the after-birth, come next under our notice; and in commenting on these, the necessity of the judicious treatment of the patient during the entire progress, both of labour and delivery, cannot be too strongly insisted on; inattention to this point being too often the source of those unhappy consequences, which occasionally supervene on an otherwise favourable accouchement. There are few situations where the intelligent practitioner can be more readily distinguished, than in the treatment adopted during the progress of labour, and delivery of the child.

As every circumstance which produces excitement of the circulation and consequent fatigue, predisposes, in no small degree, to the occurrence of hæmorrhage, all stimulants, as wine, or any description of strong drink, must be carefully avoided; or, what is almost equally injurious, keeping the patient in a confined and heated atmosphere, or encouraging her to force down strongly, and make premature exertions, the effect

of which is greatly to overheat and exhaust her. The room should be kept perfectly cool by the free admission of air; the covering should be light, the bowels briskly acted upon; her strength should be supported by cooling and mild drinks, and her mind kept as composed as possible. These and such like means will be found best calculated to provide against hæmorrhage, and also promote very much a favourable recovery after parturition.

The world is much indebted to Sydenham, for the adoption of the cooling mode of treatment in fever, but it is to the establishment of Lying-in Hospitals, this improvement in the practice of midwifery, is due. The above measures are such as we would recommend to be pursued from the approach of labour. When the child is near being expelled, the medical attendant has then a most important duty to perform; one, which, although simple and easily accomplished, and at the same time warmly urged by several of our best authors, is, I regret to think, too frequently neglected. "The excellent precepts," Doctor Joseph Clarke observes, "clearly laid down by Mr. White of Manchester, and still later by Doctor Osborne of London, on the management of ordinary natural labours, contribute greatly to the safety of the mother and child." Both these writers strongly enforce the necessity of allowing the uterus gradually to empty itself during delivery, first,

by expelling the head of the fœtus, and afterwards the shoulders and body by subsequent pains, with little or no aid. Doctor Osborne even advises the expulsion of the body to be *retarded*, in order to secure a more perfect contraction of the uterus; this, however, is seldom if ever desirable, unless, as Doctor Clarke observes, where the uterus shows a tendency to *imperfect action* in expelling the child.

Doctor Clarke has pointed out to us a most valuable addition to the practice stated, in order to insure, as far as practicable, the complete and perfect contraction of the uterus, viz. by *pursuing, with a hand on the abdomen, the fundus uteri in its contraction, until the fœtus be entirely expelled, and afterwards continuing for some time this pressure, to keep it, if possible, in a contracted state.* To me, this is a duty, which experience has proved paramount to most others; and one, the strict observance of which can never be too frequently urged on the attention of medical practitioners. Doctor Clarke states with truth, that, "labours thus conducted will be less likely "to be followed by retention of the placenta, "uterine hæmorrhage, or after-pains. In short, "the *safety*, and *speedy recovery*, of a puerperal "woman, is most intimately connected with the "*gradual* and *perfect contraction* of the uterus."

When the delivery is so far accomplished, the

next step requiring our anxious attention, is the careful application of the binder; as without this, all our previous efforts must in a great measure prove useless, or insufficient to ensure a state of *permanent* uterine contraction. The method we pursue is as follows: as soon as the head and shoulders are expelled, the left hand is instantly placed on the abdomen, immediately above the fundus uteri; thus following down, by a steady pressure, this organ as it contracts, so as to bring it as low into the pelvis as practicable, without using violence. We keep up this pressure *most diligently* from five to ten minutes after the feet are expelled, and when the womb feels firm and well contracted, we make the nurse-tender supply our place, until the child is separated and the binder put on. If, however, the uterus should not feel firmly contracted after the separation of the child, we continue the pressure with the hand for some time longer until we have as far as possible effected our object; we then apply the binder. The binder we use is simple, always to be had, and possesses every desirable advantage; it consists merely of a strong *double* piece of flannel, about one yard and a quarter long, and fully half a yard wide. This, for the first 12 hours after delivery, answers every purpose; and is more easily applied so as to make the necessary degree of pressure, than most others. In putting on the

binder care should be taken, in all cases, to place it sufficiently low, so as to embrace the upper part of the pelvis, otherwise it is liable to shift its position. When there is a tendency to hæmorrhage, or where the uterus remains relaxed or distended, it is of great utility to have three or four napkins rolled up as firmly as possible and placed beneath the binder as a compress, as thus we can increase the pressure to any extent necessary. The proper place for these pads is immediately above *the fundus* of the uterus, so as to have the force directed *downwards* upon this part of the womb; thus confining it, as it were, in the cavity of the pelvis, and preventing its again becoming distended. Where the compress is applied just above the pubes, it is productive of injury rather than benefit; pressing upon the uterus *anteriorly* and thus interfering more or less with its favourable contraction, having from its situation, no effect whatever in restraining future relaxation, which it is our chief object to accomplish.

If, notwithstanding the careful employment of the different means suggested, hæmorrhage should come on, we must direct steady pressure to be made over the binder, and make an examination to ascertain if the placenta be in the vagina or to be discovered at the mouth of the womb. In doing so we should hold the funis in one hand while we pass the fore-finger of the other along it, till

we reach if practicable its insertion. When the placenta can thus be felt, and, in consequence of the patient's safety being endangered by the hæmorrhage, it becomes necessary to remove it, we will find very gentle efforts with the fingers, at the same time making pressure over the fundus uteri, seldom fail in procuring its expulsion. Should we not thus succeed, or should it not be so favourably situated, the hand must be cautiously introduced for its removal. In all such cases our object should be, to stimulate the uterus into action so as to expel the placenta and hand, and not to drag it away forcibly as inexperienced practitioners are frequently guilty of doing. The only effectual mode of arresting this form of hæmorrhage being, to cause a perfect contraction of the uterus; which is best promoted by stimulating this organ into action, and suffering both hand and placenta to be expelled as much as possible by its own efforts; never on any account withdrawing the hand *hastily* or attempting to empty the uterus *suddenly*.

There is no difference between the management of the placenta, when retained in ordinary cases, and where hæmorrhage occurs; except that in the latter instance, its removal must be sooner attempted, the patient being in greater danger; the effect of the loss on the system will be our guide as to the proper time for interference. Where there is no hæmorrhage, the placenta may be

suffered to remain for two hours in the uterus without interference.*

There is one point, with regard to which our practice should not on any account vary; which is, never to leave our patient for at least one hour after the placenta has come away, and she has been free from any unnatural discharge of blood; and even not so soon, if she be not composed and the *circulation quiet.*

Some females are subject to violent flooding with every child, no matter how sedulously guarded against; a similar predisposition is at times observed with regard to retention of the placenta. I have known some remarkable examples of this, so much so, that in two instances I forewarned the husbands of the probable result.†

* See Observations on Retention of the Placenta.

† Doctor Clarke was consulted in a very interesting case of this kind. It occurred to a patient who was delivered of her first child after a severe labour; the placenta was so firmly adherent, the practitioner in attendance could not remove it. Doctor Clarke was then called, and with much difficulty succeeded. She recovered, and becoming again pregnant, he was requested to attend her, as her friends had no confidence in the physician first employed. This labour was easy and of short duration, but the placenta was retained as before, and there was the same difficulty in removing it. When she had perfectly recovered, Doctor Clarke strenuously advised her husband to keep separate beds for some years, (she being about 40,) as he doubted whether recovery would ensue so favourably should she become a third time pregnant. The husband thanked him kindly, and they parted. She

We are occasionally sent for, where, after the birth of the child profuse hæmorrhage sets in, and the person in attendance has unsuccessfully used various means to get the placenta away. On our arrival we find the patient in a state of extreme exhaustion, perhaps no pulse perceptible, and at this time the discharge *has stopped;* here we should, as before mentioned, first proceed to recruit her strength by stimulants, &c., and then cautiously remove the after-birth. In some of such cases, when the hand is passed into the uterus, it is found very much relaxed, and it is often necessary to keep the hand for a considerable time in its cavity, before sufficient action is excited to enable us to remove the placenta with safety; the consequence of its hasty extraction, in all probability, would be, an increase or renewal of the flooding, and thus an immense augmentation of the danger.

Sixty-four cases of hæmorrhage, between the birth of the child and expulsion of the afterbirth, occurred in the Hospital during my residence; in

again became pregnant, and on the recommendation of some friends, a neighbouring midwife was sent for, as they thought the retention arose from hurrying her labour. In eight days after she had been confined, the husband came to Doctor Clarke in the greatest hurry and despair, requesting him to visit his wife, which he did in all haste; but on his arrival at the house, she was dead.

The apothecary informed him that the after-birth had not been got away.

six of the 64 the hæmorrhage continued after the removal of the placenta. In 45 the hæmorrhage was *slight*, at least not alarming; and in the remaining 19 it was severe. In 17 of the 64 assistance became necessary in the course of the first fifteen minutes after the birth of the child; in 3 in 20, in 6 in 30, and in 7 in 45 minutes; in 12 in 1 hour, in 7 in 1½ hour, and in 8 in 2 hours. In 4 cases the time is not noted. In 13 of the 64 cases, the placenta, on the introduction of the hand, was found firmly adherent; in 8 cases the hour-glass or irregular contraction was present, and in 43 cases its removal was easily effected. *Five* of the 64 were premature labours, viz. *one* at the 5th month, *three* at the 7th, and *one* at the 8th month.

Seven of the 64 women died; *two* only, viz. Douglass and Courtney, from the *effects of the hæmorrhage;* of the other five, *two* died of puerperal fever; *one* of extensive disease of the vagina, with laceration; *one* of inflammation of the uterus; and *one* chiefly of disease of the lungs.

The following is a statement of the seven fatal cases:—

No. 3.—Anne Douglass was admitted into Hospital, March 19th, in labour of her 13th child. She was not delivered for 20 hours, during the greater part of which time her pains were very severe; her child was born alive. Fifteen or

twenty minutes after, suddenly, a dash of blood took place from the uterus, not however to any unusual extent; the afterbirth had not yet been thrown off. We were sent for, and in less than five minutes reached the ward; she was very much debilitated; her pulse only to be felt at intervals, her countenance ghastly, her body and extremities quite cold, accompanied with a state of great restlessness and anxiety. After having administered some stimulants, the hand was passed into the uterus, which was found considerably distended and filled with clotted blood; part of the placenta was adherent to the fundus; it was easily separated; the uterus acted well, expelling both hand and placenta into the vagina, from which they were slowly withdrawn. The patient from this time lost *no blood;* the uterus remained firmly contracted; the pulse continued weak and fluttering, often imperceptible, particularly after vomiting; which is not usually the case with patients reduced by hæmorrhage after delivery; as this occurrence seems rather to rouse the patient and improve the pulse. She gradually became more exhausted, her respiration difficult, the power of swallowing almost lost, and frequently so restless, as to be with difficulty kept more than a minute or two in the same position; which in all cases of uterine hæmorrhage, is one of the very worst symptoms.

From the time of the removal of the afterbirth,

which was at 1 o'clock P.M., till 11 P.M. She was watched by myself and Assistants, Drs. Nicholson and Darley, with the closest attention, and was liberally supplied with cordials; having in the course of those ten hours taken at intervals not less than two thirds of a bottle of spirit, burned, and mixed with a little water and sugar, besides more than a pint of port wine. All possible means were used to restore heat to the body and extremities, as warm flannels, jars filled with boiling water, hot bricks, hot stupes, &c., but in vain; at length finding our efforts to produce any rally ineffectual, we determined on trying the effect of transfusion.

Having heated Read's apparatus, by injecting through it water at the temperature of 98°, it was filled with blood which was made to flow through the pipe previous to its being inserted into the patient's vein, in order, as much as possible, to exclude all air from the instrument. The blood flowed copiously from a healthy young woman, whom we selected for the operation, and was easily thrown into the median vein of the patient's right arm. It did not seem to have any more marked effect than that of causing the woman to mutter indistinctly; the circulation was not improved, though we injected about ten ounces of blood. She expired in a few minutes after the operation.

This woman's death seemed to have been principally owing to her state of constitution previous to the coming on of labour; being in a very debilitated condition, both from the number of children, viz. 13, she had given birth to, as also her continued exposure to hardship; as the quantity of blood lost would not have materially affected any young person, but in her, the *sudden* loss gave the constitution a shock from which it had no power to rally.

We rather think the transfusion hastened her death, though we all dreaded a fatal termination before it was resorted to.

No. 55.—Mary A. Courtney, aged 19, was delivered of her 1st child (living) December 3d, after a labour of 7 hours. In half an hour after hæmorrhage came on, which continuing, and the uterus not contracting satisfactorily, the hand was introduced, when the placenta was found morbidly adherent, and requiring much exertion for its removal. When this was accomplished, the uterus contracted pretty well, the hæmorrhage ceased, and her strength improved; an opiate was then given. In 30 minutes a draining of blood was observed, attended with sinking, jactitation, &c., and she died in half an hour, in spite of every possible exertion.

On examining the body, the uterus was found relaxed and exsanguineous, but in other respects

healthy; there was nothing else observed worthy of notice.

In these two cases death was the consequence of the hæmorrhage chiefly; in the five following it will be seen, that there were other circumstances to account for the unfavourable termination.

No. 38.—R. K. was delivered of her 5th child, (living), January 26, at 8 P.M., after 10 hours' labour. Two hours after hæmorrhage set in, when the hand was introduced; the uterus was contracted in an elongated form, so much so, that the fundus mounted considerably above the umbilicus; the placenta was firmly adherent, and required at least half an hour's cautious exertion for its separation; it was at length expelled quite whole, and the uterus became well contracted. Symptoms of puerperal fever were observed the following day, which, notwithstanding most active treatment, proved fatal, February 2d, at 9 A.M.

In the course of this woman's illness, she took 190 grains of calomel; 40 of ipecacuan powder; and 7½ of opium. She had six dozen leeches applied to the abdomen; had 3 warm baths, besides frequent stuping. The entire surface of the abdomen was blistered, and the inside of her legs and thighs diligently rubbed with mercurial ointment for 5 days previous to death. Her mouth was *slightly* affected by the mercury.

No. 40.—M. D. was delivered of her 1st child,

(living), January 30, at 8 A.M., after six hours' labour. Three quarters of an hour after it was necessary to remove the placenta, in consequence of hæmorrhage. The uterus was contracted in an elongated form, yet the afterbirth separated easily, after which it became well contracted. She remained quite well until 2 A.M. the following day, when she was suddenly seized with severe pain in the abdomen, and tendency to shivering; the abdomen was tolerably soft, but pressure over the uterine region caused much distress; her pulse was much hurried, and she was very anxious.

Three dozen leeches were immediately applied; she was then put into a warm bath, and ordered calomel and hippo, of each, 4 grains every 2d hour. At 9 o'clock P.M. her pulse was 150, and the disease continued increasing, till death took place at 4 o'clock P.M. on the fourth day after delivery.

She took 92 grains of calomel with as much hippo, without the mouth being in the least affected or sickness produced. She was delirious for some time before death. Her friends would not allow the body to be examined.

Such is a brief account of the two women who died of puerperal fever. I do not know of any proceeding so much to be dreaded as the introduction of the hand into the uterus when this disease is epidemic. We had several severe attacks where we were compelled so to interfere, in

consequence of profuse flooding or retention of the placenta; yet we were from experience so fully aware of the danger so long as puerperal fever prevailed in the Hospital, it was with the greatest possible reluctance that we had recourse in any case to this expedient.*

No. 70.—S. C. was delivered, October 20th, of twins, her first pregnancy, both natural presentations. The existence of the two children was accurately ascertained by the stethoscope, 96 hours before delivery, by the great difference in the frequency of the heart's action; being in one 186, and 132 in the other. The mother's pulse was 68 in the minute. The os uteri at this time was dilated

* Of these two women one was delivered on the 26th, and the other on the 30th of January. The following case occurred on the 29th of the same month:—

No. 39.—E. B. was delivered, January 29th, of her 1st child, after a labour of 30 hours; it was then discovered that there was a *second;* when the membranes were ruptured the hand was found presenting, the child was turned and brought away without difficulty. In half an hour it was necessary again to pass up the hand on account of hæmorrhage. One of the placentæ came away immediately on its introduction, the other required some slight assistance to separate it; the uterus then contracted well. She was attacked with puerperal fever the following day in a *very severe form,* for which the most active treatment was adopted. It did not yield until the fifth day from the date of the seizure. She was not able to leave Hospital till the 15th day. She took 123 grains of calomel and 6 grains of opium. She had six dozen leeches over the abdomen, and got 4 warm baths. Her mouth was not affected until the 4th day, when an amendment became evident.

to the size of a crown-piece, and the uterine action very trifling. In this state she remained for 72 hours with little alteration; the uterus then began to act more powerfully, and the head gradually descended until it came to press on the perinæum, when the pains again subsided, and it remained stationary. It was then determined to try the effect of the ergot of rye; half a drachm of the powder infused in boiling water for some time was given. In 10 minutes after the pains returned, and continuing to increase for a short time, the head came so low as to protrude the scalp during each pain. In 50 minutes after the first dose 15 grains more were given, the uterine action having become feeble, and in 50 minutes from this time the child was expelled, though the pains were not strong.

The mother's pulse when she got the first dose of the ergot, was 108; at the time the second was given, 102, and in a quarter of an hour after it had fallen to 98. This sedative effect I have almost invariably observed the ergot produce, even where it did not seem to act in any other way upon the patient.

In 15 minutes after the birth of the first child, the head of the second had descended into the pelvis, and the uterine action being feeble, it was delivered by the forceps. One hour and a half after, it was necessary to introduce the hand, in

consequence of hæmorrhage; the two placentæ were found united, and strongly adherent to the uterus, requiring much careful manipulation for their removal. Violent inflammation of the uterus ensued, which ended fatally on the 6th day from delivery. She had seven dozen and a half leeches applied over the uterine region; had five warm baths, and was repeatedly stuped. She took 162 grains of calomel, 92 of hippo, and 8 of opium.

The inflammation was quite confined to the uterus until the day before her death. There was no pain on pressure except over this organ, which here was most acute. Her mouth was but little affected with mercury.

On dissection, a considerable quantity of yellowish fluid was found in the abdomen; there was very little vascularity of the intestines, and no adhesions or deposition of lymph. Posteriorly, near the fundus of the uterus, there was a large dark coloured patch, puckered on its surface; beneath which, the muscular substance was much softened, and when cut into, was not one fourth of an inch in thickness, although the remainder of the uterus was more than three times that. It was here the placentæ had been adherent.

No. 79.—S. B. was 40 hours in labour; it was her 4th child—all still-born. The head not having made any progress for the last 12 hours, and the fœtal heart having ceased to act, the delivery was

effected with the crotchet; the face was turned towards the pubes. She had been force-delivered in this Hospital 2 years before, when the face presented; see observations on still-born children, No. 441; pelvis very defective. The placenta, in the present instance, had to be removed by the hand, in consequence of hæmorrhage; it was firmly adherent to the fundus of the uterus.

She died on the 9th day, and on examination, extensive ulceration of the vagina was found, forming a communication with the rectum. At one point the vagina presented the appearance as if a laceration had taken place.

No. 86.—C. D. This was a twin case and first pregnancy; one child was still-born. Both children presented naturally, and were expelled without difficulty. The labour lasted 24 hours. The placenta of the first child was thrown off naturally, but that of the second was retained; and in one hour and a half the hand was introduced for its removal in consequence of hæmorrhage. It was found firmly adherent, requiring perseverance and caution for its separation; after which the uterus contracted well. She never made any attempt at recovery, but lingered until the 18th day.

On dissection the abdominal and pelvic viscera were found healthy; the lungs were extensively diseased.

From a perusal of these seven cases, it will at

once be seen, that in *two* instances only, was hæmorrhage the cause of death; and in neither was the loss of blood to such an extent, as to destroy life in an otherwise *healthy individual.**

In *thirteen* cases of hæmorrhage the placenta was found firmly adherent. This is an exceedingly dangerous combination; requiring, on the part of the practitioner, *much caution and gentleness*, so as to accomplish its separation and removal with the least possible injury to the patient. All hurry and violence under such circumstances, must be avoided; always bearing in mind the necessity for promoting uterine action before the hand is withdrawn; otherwise the after consequences will prove fully as dangerous as the most profuse flooding.

Four of the thirteen are amongst the seven women who died, viz. No. 38, 55, 70, and 86. The 1st died of puerperal fever; the 2d from the effects of hæmorrhage; the 3d of inflammation of the uterus, consequent on the removal of the afterbirth; and the 4th chiefly of disease of the lungs. The following is a statement of the nine remaining:—

No. 68.—The hand was introduced 20 minutes after the birth of the child, in consequence of hæmorrhage; the placenta was found adhering to the fundus of the uterus, and required considerable

* For another case of hæmorrhage which proved fatal under similar circumstances, see Observations on Twins, No. 27.

exertion for its removal. This woman had slight hæmorrhage previous to the expulsion of the child, which was born alive.

No. 78.—The funis prolapsed in this case, causing the death of the child. Shortly after it was expelled, hæmorrhage came on, so as to render the introduction of the hand necessary; when the placenta was found adherent to the fundus, and cautiously separated.

No. 80.—One hour and a quarter after delivery, hæmorrhage set in, producing great exhaustion; the hand was passed, and the placenta being found firmly adherent to the fundus, was, with some difficulty, separated. This woman continued very feeble afterwards, requiring stimulants freely with opium.

No. 91.—This patient was seized with violent hæmorrhage 45 minutes after the birth of the child, the pulse becoming almost imperceptible; the hand was immediately introduced, and the placenta, which was adherent to the fundus uteri, separated and removed, when the discharge ceased, and she gradually recovered.

No. 94.—The placenta being retained for two hours, during which time there was occasionally slight hæmorrhage, the hand was passed; being firmly adherent to the posterior wall of the uterus, it was separated. The uterus acted well, expelling both placenta and hand; the hæmorrhage returned

shortly after, but was checked by cold applications.

No. 100.—This was a twin case and first pregnancy; the labour was completed in 12 hours. The first child presented naturally, the second with the breech, with an interval of 10 minutes between the births. Shortly after the expulsion of the second, which was still-born, it became necessary from hæmorrhage to introduce the hand. The placentæ were found united, and adhering so firmly to the uterus, that notwithstanding the most steady and cautious exertions, a small portion was left unseparated, from an unwillingness to use violence. An opiate was then given, after which she slept and remained free from discharge for 4 hours; at the expiration of which time, considerable internal hæmorrhage came on, producing such an effect on the system as to render the pulse, for some time, imperceptible. The hand was three times passed into the uterus, to excite its action, before the hæmorrhage was stopped; after which she gradually rallied by the free use of stimulants with opium. She left Hospital well on the 18th day.

No. 101.—One hour and a half after the birth of the child hæmorrhage ensued, requiring the introduction of the hand; when an irregular contraction of the uterus was discovered, with the placenta adherent. The contraction was cautiously overcome, and the placenta separated and removed.

No. 103.—The hand was passed in this case, one hour after the birth of the child, to check a hæmorrhage which had induced considerable debility. The uterus was found much relaxed, with one half of the placenta firmly adherent to its cervix; the discharge ceased immediately on its removal, and the uterus contracted well.

No. 111.—In one hour after the birth of the child very considerable hæmorrhage came on, which weakened the patient very much; a cordial was given, on which she rallied, and the hand was then introduced, when the placenta was found extensively adherent, requiring much care in its separation. She remained in a very weak and precarious state for some time, but left Hospital well on the 13th day.

The preceding is a short statement of all the cases where the placenta was firmly adherent, in which the hæmorrhage was severe. In several other instances the placenta was similarly circumstanced, but the loss was trifling; these are noticed in the Observations on Retention of the Placenta.

In *eight* cases, hæmorrhage occurred in combination with the hourglass or irregular contraction of the uterus; they are as follows:—

No. 32.—This was a twin case; the first child presented naturally, the second with the arm, and was turned. The placentæ were retained by hourglass contraction, accompanied by profuse

hæmorrhage, rendering the introduction of the hand necessary.

No. 41.—Was delivered on the 11th February, after two hours' labour; she was attacked with profuse hæmorrhage, with great debility, three quarters of an hour after. The hand was passed, and the hourglass contraction discovered, which was overcome by continued gentle exertions, and the placenta slowly removed. There was no subsequent hæmorrhage; she left hospital well on the 23d.

No. 44.—Fifteen minutes after the birth of the child, profuse hæmorrhage came on; when, on passing the hand, the irregular contraction of the uterus was detected, which was gently overcome, and the placenta removed; after which the hæmorrhage ceased.

No. 57.—This patient had slight hæmorrhage 2 hours after the birth of the child; the hand was passed, when hourglass contraction was discovered, which was gently overcome, and the placenta removed.

No. 59.—Three quarters of an hour after the birth of the child, the hand was passed in consequence of hæmorrhage, with hourglass contraction, which was treated accordingly.

No. 69.—Two hours after the birth of the child, the hand was passed in consequence of hæmorrhage with hourglass contraction; it was with difficulty

overcome. This woman became maniacal on the 8th day, and continued in this state for nearly three weeks, being at times very violent; she left Hospital well on the 29th day from her confinement.

No. 74.—There was considerable hæmorrhage in this case after the birth of the child, with hourglass contraction, which was treated as already described, and the discharge ceased.

No. 110.—This woman was sixty hours in labour; shortly after the birth of the child there was considerable hæmorrhage, with hourglass contraction, which was treated accordingly. The child died 30 hours after birth.

Such are the particulars of the eight instances where hæmorrhage occurred in combination with hourglass contraction of the uterus, previous to the expulsion of the afterbirth. All the patients recovered. When we consider the great number of women delivered, it will be evident that this complication is but seldom met with. What we consider are the most likely means of prevention, will be found under Observations on Retention of the Placenta.

In the *six* following cases, the hæmorrhage *continued* subsequent to the removal of the secundines; the best means of avoiding which will be, to suffer the hand and placenta, when separated, to be, as much as possible, forced into the vagina

by the action of the uterus, assisted by firm pressure over its fundus, followed up by the careful application of the binder and compress.

No. 26.—See observations on presentations of the arm or shoulder, No. 9.

No. 62.—This was a case of premature labour at the 7th month. The child was living. In three quarters of an hour after its birth, the introduction of the hand became necessary, owing to hæmorrhage, which had been going on at intervals since delivery, the uterus being relaxed. The placenta was found in the vagina; a large quantity of clotted blood was then discharged, when the hæmorrhage in a great measure ceased. The patient, however, was much reduced, requiring the free exhibition of stimulants, and in 15 minutes after, the hand was again passed into the vagina, and the fingers introduced within the uterus, so as to excite its action, the hæmorrhage having again become considerable. This had the effect of completely checking it. A draught, with 40 drops of tincture of opium was then given, and repeated in half an hour, in consequence of her continuing restless. This had the desired effect.

No. 65.—This woman was 26 hours in labour of her 1st child; violent hæmorrhage set in an hour after delivery, which reduced her extremely. The placenta had not been expelled, but firm pressure over the uterus caused it to be thrown off. A

slight draining continued, the uterus remaining flaccid; the hand was passed, when some clots were expelled, yet this measure had not the effect of inducing a perfect contraction, or altogether checking the hæmorrhage. It was again introduced, and kept for some time in the uterus, but with no better effect; stimulants were then freely given, and a stream of cold pump water allowed to fall, from a *height*, upon the abdomen over the uterine region, with decided benefit; the uterus contracting firmly and the discharge ceasing. A full opiate was then given, followed by sleep. She left Hospital well on the 10th day.

No. 90.—This woman had considerable hæmorrhage both before and after the expulsion of the placenta, which was counteracted by pressure and cold; stimulants also were given.

No. 104.—The placenta was not thrown off in this case, for three hours, during which time there was considerable hæmorrhage; it was not necessary, however, to introduce the hand. In an hour after the expulsion of the afterbirth, the patient was found sinking from internal hæmorrhage, which was counteracted by pressure and cold applications.

No. 118.—This woman had very severe hæmorrhage; the placenta came away ten minutes after the child was expelled, and there was with it a sudden gush of blood. It was found very difficult to cause the uterus to contract *permanently;* the

hand was *three* times introduced unsuccessfully; at length by firmly grasping the fundus through the abdominal parietes, at the same time urging it into the cavity of the pelvis, assisted by a stream of cold water falling from a height, over the uterine region, we succeeded. The pulse, which had been for some time imperceptible, was restored by the use of stimulants. Eighty drops of tincture of opium were given before rest was procured.

Of the 64 cases of hæmorrhage occurring between the birth of the child and the expulsion of the afterbirth, I have recorded *thirteen* where the placenta was firmly adherent; *eight* where irregular contraction of the uterus existed; *four* under different circumstances, viz. Nos. 3, 39, 40, and 79; and *six* where the hæmorrhage continued subsequent to the expulsion of the secundines. In the *thirty-three* remaining cases, little difficulty was experienced; but in *ten* the hæmorrhage was serious; these I shall first notice, and then glance at the remaining *twenty-three*, in which the loss was but trifling.

No. 27.—The hand was passed, with success, one hour after the birth of the child, owing to alarming hæmorrhage.

No. 43.—This woman was 65 hours in labour, and was reported to have been two days ill before she was brought to Hospital. In three quarters of an hour after the birth of the child, owing to

profuse hæmorrhage, the hand was introduced, which had the desired effect.

No. 52.—Alarming hæmorrhage came on shortly after the birth of the child, which required the introduction of the hand and removal of the placenta; the uterus contracted well, and the hæmorrhage soon ceased; the patient, however, continued for some time in a very weak state. She left Hospital well on the 11th day.

No. 66.—This was a case of premature labour at the 7th month; the child was putrid; the labour lasted two hours. In two hours after, hæmorrhage came on, and though pressure was diligently employed, the placenta was still retained. Stimulants were freely given in consequence of her extreme faintness; and, after the failure of other measures, the loss still continuing, the hand was introduced into the vagina, but from the obstinate degree of contraction of the os uteri, it was found impossible to pass it further; though our efforts were steadily persevered in for nearly an hour. At length we succeeded in getting in two fingers, and after considerable delay, the placenta was, by their means, removed. The hæmorrhage immediately ceased, and the uterus contracted well; the placenta was very small. She left hospital well on the 9th day.

No. 76.—In half an hour after the birth of the child, the hand was passed, with success, in con-

sequence of severe hæmorrhage, the placenta not having been thrown off.

No. 96.—In twenty minutes after the birth of the child, the hand was passed, with success, on account of severe hæmorrhage, the placenta not having been expelled.

No. 121.—In this case when the placenta was partially expelled, very violent hæmorrhage came on; the hand was introduced, and a portion of placenta which had not been separated, with some coagula, removed. For a length of time the pulse could not be felt, and it was with much difficulty, by the aid of wine, brandy, and other stimulants, that it was restored. She had, at different times, *one hundred and fifty* drops of tincture of opium, which at length, after *four hours*, procured sleep. She left Hospital well on the 12th day.

No. 122.—This woman was delivered in the street, prematurely at the 8th month, of a living child. She had severe hæmorrhage after her admission, the placenta not having been expelled; the hand was passed, when it was thrown off, and the loss ceased.

No. 124.—This woman was delivered at 7 P.M., July 20th, of her 1st child, after a natural labour of 12 hours; 45 minutes after, the Assistant was sent for, in consequence of the pupil on duty perceiving the pulse becoming weak, the placenta not having been expelled. On his arrival, the

pulse was almost imperceptible; on making strong pressure over the fundus uteri, large clots with fluid blood were discharged; the hand was passed into the uterus, and a very small but perfect placenta detached from the fundus, to which it was slightly adherent. On examining its structure, some portions of the cotyledons had a semi-cartilaginous appearance. Previous to the introduction of the hand, half a tea cup full of wine was given, which was repeated with 30 drops of tincture of opium as soon as the afterbirth was removed, and the binder tightened; the pulse, after this, began to improve; she shortly after discharged the contents of her stomach and fell asleep. In half an hour, she awoke; the pulse again became imperceptible; on making pressure over the uterus, a few clots were expelled, and this organ was readily compressed into the cavity of the pelvis, and maintained there. Wine, brandy, &c., were freely given, to which 50 drops of tincture of opium were added at intervals, in divided doses, and cold was applied externally. This treatment was steadily persevered in for an hour and a half, when she again fell asleep, and was left in charge of one of the pupils, with directions to give instant notice if she became restless, or the pulse weak.

21st, 7 A.M.—She had slept several hours, but was extremely restless, occasionally wandering; and was now very weak and nearly pulseless.

Stimulants, with 30 drops of tincture of opium were now given, followed by an hour's sleep, the pulse becoming more distinct. She was ordered to have a table spoonful of the following mixture every hour :

℞ Mist. Camphoræ, ℥ vi.
Carb. Ammoniæ, ℈ i.
Spirit. Ammon : Arom : ʒ ii.
Tinct. Opii, gtts. xxx.

℥

Her stomach continues very irritable, rejecting every kind of fluid, with a constant desire for drink. She was allowed beef tea, at pleasure, from the time of her delivery, in small portions at a time; also cold pump water. 12 o'clock.—Pulse extremely feeble, stomach rejects every kind of fluid, which the nurse, contrary to orders, gave her in much too large quantities; craving desire for drink still continues.

Cold beef tea and pump water to be continued in quantities of not more than a table spoonful at a time; to have the saline effervescing draught occasionally, also a small piece of ice to dissolve in her mouth at intervals. A blister to be applied over the region of the stomach.

Eight o'clock P.M.—Pulse much more distinct, but still very feeble; countenance improved; constant desire to talk, without any inclination to sleep, though general restlessness is less; stomach has rejected little if any.

She was now removed with great care from the couch where she was delivered, to her bed, and she was to have two of the following pills immediately, to be repeated in three hours if the first dose did not procure sleep :—

℞ Pulveris Opii, gr. ii.
Extracti Hyoscyami, gr. vi.
M

In Pil. iv.

To continue the mixture before directed, also the beef tea and cold water; to have some oranges. Jars filled with hot water (which have been used since her delivery) to be kept applied to her feet.

22d, 9 A.M.—Slept well; took but two pills; pulse 98, tolerably distinct; stomach quiet; abdomen soft and free from pain; feels easy.

Beef tea, &c., to be continued.

9 P.M.—Pulse 104; face flushed, with considerable excitement; abdomen natural; stomach quiet.

Omit the beef tea; to have 4 grains of extract of hyoscyamus at bed-time.

23d, 9 A.M.—Pulse 96; general excitement much less; skin cool; slept well; feels easy. She continued after this to recover gradually, and left Hospital well on the 19th day.

No. 131.—Severe hæmorrhage came on in an hour after the birth of the child, rendering the introduction of the hand necessary.

In the *twenty-three* remaining cases, the dis-

charge was not alarming, nor was there any difficulty experienced either in their treatment, or the removal of the placenta. In some of them, active pressure was sufficient to cause its expulsion, but in the greater number the hand was introduced. This, I conceive to be a much safer mode of proceeding, than pulling by the funis, or even by a portion of the placenta itself. The hand, when slowly and cautiously introduced, is not attended with more uneasiness to the patient, than dragging by the funis; and by the former practice, uterine contraction is so effectually promoted as almost always to stop the hæmorrhage; whereas the latter has decidedly the contrary tendency; added to which, there is the danger of inverting the uterus, as is stated more particularly when speaking of Retention of the Placenta. It is, however, carefully to be recollected, that it is not until ordinary efforts fail that we can be justified in having recourse to such a measure.

For further particulars with regard to these cases, see General Table; their numbers are—No. 5, 14, 15, 18, 23, 29, 42, 45, 46, 49, 51, 54, 61, 67, 82, 84, 85, 87, 88, 95, 123, 125, 127.

ON HÆMORRHAGE SUBSEQUENT TO THE EXPULSION OF THE PLACENTA.

HAVING given, as accurately as in my power, the particulars of all those hæmorrhages met with in the Hospital previous to the birth of the child, and likewise, between its birth, and the expulsion of the secundines, I shall conclude this subject with some remarks on those which occurred subsequent to the placenta being thrown off, following them up by a short narrative of the cases. The prevention of hæmorrhage, at this period, depends much upon the manner in which the patient has been treated in the progress of the labour, on which subject, I have already dwelt so earnestly, that there is little to add. We do, however, occasionally, meet with flooding after the removal of the placenta, notwithstanding every precaution has been taken to guard against it; yet I am satisfied, when the labour has been judiciously conducted, the patient has not had any previous loss, and there is no local injury, it is very uncommon to meet with hæmorrhage at this period proving fatal. In Hospitals of great extent, rare accidents must occur, yet even here, the instances

are few, and there can be no doubt that the proportional number of hæmorrhages, both previous and subsequent to the expulsion of the placenta, is much greater in public institutions than in the private practice of any experienced physician; the cause of this will be found stated in the concluding remarks.

Some females have little or no discharge after delivery of the placenta; in others, it takes place to a considerable extent, but not so as properly to be called a hæmorrhage; such as, where the patient does not lose more than 10 or 12 ounces in the first hour. The most frequent causes of increased loss at this time, are, want of contractility in the uterus, pulling at the funis, the imperfect application of the binder, and the non-observance of *strict quietness*.

When hæmorrhage does come on under these circumstances, we should increase the pressure over the uterus, either by the hand, or the reapplication of the binder with compress, should this not have been done in the first instance. If the discharge be *severe*, the binder must be opened, and the uterus compressed by the hand as much as possible into the cavity of the pelvis; at the same time cold should be extensively applied; then, when the womb becomes firm and well contracted, the bandage is to be secured as before directed. If, however, this organ be *much relaxed* and *distended*,

these means will, at times, be found insufficient; in such cases, the *cautious* introduction of the hand is decidedly the best mode of proceeding, and almost always successful; by it the uterus is roused into action, so as to expel its contents, and by thus contracting, all danger is obviated. We feel convinced patients are occasionally lost, and still more frequently *reduced extremely*, by hæmorrhage of this nature; where if the hand had been gently passed, as described, much risk and suffering might have been prevented. This state not unfrequently exists without the practitioner being aware of it, the result either of ignorance or want of attention, where the hæmorrhage is what is denominated *internal*, there being no external loss to attract the notice of either attendant or patient. This is highly culpable; as the condition of the uterus, the state of the pulse, or even the appearance of the female herself should at once excite his alarm. In some *very obstinate* cases, we have found it necessary to introduce the hand so often as 3 or 4 different times, before the discharge was completely checked; the first, or at most, the second effort *rarely* fails to effect this desirable object. The free admission of air, with the extensive use of cloths soaked in iced, or the coldest pump water, will be found useful; and in some, where the uterus, in spite of every effort, remains relaxed, we have experienced marked benefit, from

pouring cold water from *a height*, over the uterine region. Port wine and water, as cold as posssible, injected into the rectum, has been of service. Some writers recommend this to be injected into the uterus; of such practice I cannot speak from experience, never having adopted it, but I should rather think it not advantageous. I have introduced ice, and occasionally snow, into the vagina, in severe hæmorrhage, yet I consider the cold produced by the free application of pump water, of fully as much advantage.

As soon as the hæmorrhage has *subsided*, great benefit will be derived from the exhibition of an opiate so as to procure rest, but it is seldom desirable until the discharge has ceased. We have given the tincture of opium to the extent of one hundred and fifty or two hundred drops, in divided doses, in extreme cases where there was *great restlessness*, with the most signal benefit. In such, unless we succeed in producing a state of *rest*, but little permanent improvement can be expected; the most certain means of effecting which, is by the administration of a full opiate. I have never witnessed any unpleasant consequences from giving 30 or 40 drops of the tincture, every 20 or 30 minutes, according to the urgency of the case, even where exhibited to the extent before mentioned; it is seldom, however, requisite to give more than 70 or 80 drops, unless where the inquietude and

exhaustion are extreme. This use of opiates is applicable to all severe hæmorrhages after delivery. I have not unfrequently succeeded in allaying extreme restlessness by the injection of 30 or 35 drops of the acetum opii into the rectum, in about four ounces of cold wine and water, where opium freely given by the mouth had failed.

When called to a patient who has been attended by another practitioner, where the flooding and debility are considerable, if the uterine tumour be not discernible above the pubes, we should pass the finger into the vagina, so as to satisfy ourselves that the womb is not wholly or partially inverted ; as if this should be the case, the return of the uterus to its place, would be the only means of affording relief.

As to the extent to which stimulants are to be administered, this must depend upon the degree of exhaustion ; where this is *extreme*, they must be given as freely as the patient can be induced to swallow ; on the contrary, if her strength be not so much affected, they should be exhibited in but small quantities lest we too much excite the circulation. Port wine, Madeira, and Sherry, are good stimulants, but in very severe cases, Brandy burned, with an equal quantity of warm water added, is preferable. It is also desirable when the hæmorrhage has subsided, and there is much debility, to endeavour, by the use of heated flannels, and jars

filled with hot water, applied to the feet, to keep up the circulation in the lower extremities. The most *absolute quietness* should now be observed, and every encouragement given to sleep, the attendant *carefully watching* the character of the respiration, state of the pulse and uterus, whenever an opportunity offers; also, that there be no oozing of blood more than natural from the vagina. Light nourishment and drink should be given frequently, in small quantities, with a spoon, or in such a way as not to suffer the patient to move. Chicken broth, or beef tea cold, answers better than most other kinds of food, and may be given freely, but not much at a time. When, by these means, the strength is pretty well restored, and there is evidence of any reaction in the circulation, the broth should be omitted until such subsides. Severe and acute pain in the temples very frequently succeeds profuse hæmorrhage, in a shorter or longer time after delivery, in relieving which, we have almost constantly found the application of 8 or 10 leeches to the affected part, successful. The effervescing saline mixture is also useful, to which, when the bowels require it, may be added some Rochelle salt. Pain and distress in different joints, particularly the knees, will occasionally be met with, which, for the most part, disappear under the use of friction, warmth, and rest.

Forty-three cases of hæmorrhage, subsequent to

the expulsion of the placenta, occurred in the hospital; *twenty* of which took place in the course of the first 15 *minutes; two* in 20 minutes; *one* in 30, and *two* in 45 minutes; *five* in 1 hour; *two* in 1½ hour; *three* in 2; *two* in 3; *one* in 4; *one* in 6; and *one* in 12 hours; *one* occurred on the 4th *day; one* on the 5th; and *one* on the 10th day. In *twenty-two* of the 43 cases, the hæmorrhage was severe; in *twenty-one* slight. In *eight* of the 43, the hæmorrhage was *internal;* in *five* both internal and external; and in *three*, a portion of placenta remained adherent to the uterus. *Two* of the 43 women were delivered before admission into hospital. In *thirty-one* of the 43 cases, the introduction of the hand was necessary to check the hæmorrhage.

Four of these women died; *one* of rupture of the uterus; *one* of sloughing of the vagina; and *two* from the effects of the hæmorrhage; in the early treatment of the latter two, due attention was not paid by those in immediate attendance.

They are as follows:—

No 75.—See Observations on Rupture of the Uterus, No. 22.

No. 126.—This woman was 59 hours in labour; it was her 1st child; the pains were for a considerable time very trifling, with long intervals; however for the last 24 hours the uterus acted with tolerable regularity; the pains being at times strong, causing the head to press with much force

against the ischia, where it remained stationary for the greater part of that time. Her pulse was very much increased in frequency varying between 120 and 130, the external parts were œdematous. As the fœtal heart had ceased to act, (having been distinctly audible in the right iliac region 6 hours before), the head was lessened and the crotchet applied. The placenta was expelled in 45 minutes, immediately after which, in consequence of hæmorrhage, the hand was introduced, and so it was arrested.

Violent inflammation and sloughing set in resisting all treatment, and she died on the 9th day. For 4 days previous she had severe diarrhœa, a succession of motions coming on suddenly with extreme pain; she had also severe hiccough.

On examination after death, the vagina was found in a state of slough, the sides opposite the spines of the ischia were broken through with the slightest force, and were completely gangrenous; a circular opening, the size of a shilling, was found forming a communication between this cavity and the rectum, the mucous surface of which, as also that of the colon was softened, and had, in the vicinity of the opening, a gangrenous appearance. There was no symptom of inflammation in the peritoneum or uterus.

No. 30.—C. K., aged 30, was delivered of her 8th child (living) at 7 A.M. Sept. 17. Shortly

after a considerable discharge of blood took place, but not so as to alarm the pupils on duty; in about 30 minutes the placenta was thrown off; the loss still continued at intervals, and one of the gentlemen in attendance stated, he thought, when we were called, she must have lost 2 pints of blood. She was at this time in a very low state; the countenance pale and sunken; the extremities deadly cold, and the pulse so feeble, as at times not to be distinguished. There was now scarcely any hæmorrhage, and the uterus was firm and well contracted. Strong hot negus, and brandy and water were given freely; heat was applied to the legs and feet; and relaxation of the uterus (to which it showed no tendency) was prevented by the tightening of the binder. After half an hour's perseverance in these measures, the patient had rallied remarkably; the pulse had resumed a strength quite encouraging, and she turned on her side, (a position she begged to be allowed to take,) and fell asleep. A few minutes before 9 o'clock she became restless and uneasy; there was a slight draining of blood from the external parts, and in a few minutes more the pulse was perceptible only at intervals; she now became extremely restless and very much exhausted, her extremities were quite cold. The uterus was firm and well contracted, and the hæmorrhage had ceased. On passing the hand into the vagina the os uteri was found much

dilated, and on introducing the fingers into the uterus, a small portion of placenta was found adhering to its fundus, part of which was cautiously separated, and brought away, but another part adhered so firmly it could not be separated without using more force than was thought justifiable. The uterus became now still more contracted, and not the slightest discharge followed. She, however, remained restless and much exhausted, at times pulseless, though using stimulants freely. Forty drops of tincture of opium were given, which was followed by half an hour's dozing, during which her pulse improved, and she seemed regaining strength. Restlessness again came on, and 60 drops of tincture of opium were given, but without any good effect. At length having used stimulants and cordials of every kind, and whatever other remedial means we could think of, for nearly three hours, to no purpose, we determined to try transfusion ; accordingly between 8 and 10 ounces of blood were slowly and carefully injected into the median vein ; but all was fruitless ; she died a few minutes after the operation.

On dissection, the right auricle was found greatly distended, with blood in a fluid state, so much so, that previous to opening it, it felt as if it contained air, but none whatever was observed in it. The other cavities of this organ were quite empty, the injected blood seeming to have passed no further

than the right auricle. On opening the uterus the portion of placenta before mentioned was found adhering most firmly to its fundus, nor could it be removed unless forcibly torn away. The uterus with the part of placenta adherent was preserved. The great bulk of this mass that was thrown off in the first instance was unusually soft, which might account for its ready separation from the part left behind. There were three of the pupils present, all of whom declared that the placenta was expelled by uterine action, and that no force was used. The substance of the uterus and all the intestines were quite blanched.

This woman had suffered a great loss of blood previous to our seeing her; had the hand been passed shortly after the placenta came away, and as much as possible of what remained behind, been separated and removed, this case most likely would not have terminated unfavourably.

No. 120.—It was evident from the report given of this case, that too much force had been used by the person in attendance in the removal of the placenta, which was followed by a violent gush of blood, the pulse becoming imperceptible. The hæmorrhage was speedily checked and stimulants freely given; after which she took 60 drops of tincture of opium before quietness was restored. She continued tolerably composed for about an hour, when she again became *extremely restless* and

watchful; her pulse sunk rapidly, and she expired in eight hours from the time of the attack. She had no hæmorrhage whatever from the time it was first stopped as above stated. She took in divided doses 150 drops of tincture of opium, but with little effect, subsequent to the second occurrence of restlessness.

On examination after death a portion of placenta was found adherent to the uterus near the os tincæ. This organ was firmly contracted. There were some bloody points observed on its peritoneal covering, which in other places did not seem quite perfect. All the other viscera, except the right lung, which was smaller than usual, were healthy.

I shall now briefly record the eight cases of *internal* hæmorrhage :—

No. 19.—This patient had considerable internal hæmorrhage shortly after the expulsion of the placenta, inducing syncope; the hand was passed into the uterus, which was found distended with coagula, they were expelled by uterine action thus excited, and all unpleasant symptoms were removed.

No. 47.—This woman had profuse internal hæmorrhage 4 hours after delivery, which was counteracted by the introduction of the hand.

No. 56.—This woman was but 15 minutes in labour. She had severe internal hæmorrhage one hour and a half after delivery, counteracted by the introduction of the hand.

No. 60.—The hand was introduced in this case 12 hours after delivery, in consequence of internal hæmorrhage, which was thus checked.

No. 93.—Two hours after delivery, this woman was found sinking from internal hæmorrhage, which was arrested by pressure and cold applications. Stimulants were necessary.

No. 98.—This woman had considerable internal hæmorrhage, one hour after delivery, which was checked by the introduction of the hand.

No. 117.—This woman was found sinking from internal hæmorrhage, one hour after delivery, which was checked by pressure. Stimulants were used freely, and she had 40 drops of tincture of opium.

No. 128.—Severe internal hæmorrhage came on two hours after delivery, checked by the introduction of the hand. She got 40 drops of tincture of opium, before rest was produced.

In the five following cases the hæmorrhage was both internal and external:—

No. 24.—This woman had considerable hæmorrhage, internally and externally, two hours after delivery; the hand was passed into the mouth of the womb, which was followed by uterine action, and the hæmorrhage ceased.

No. 37.—C. H., about an hour after delivery, had alarming hæmorrhage, internally and externally. The pulse was scarcely to be felt, and the uterus was much enlarged. The hand was

passed, which caused the expulsion of a quantity of coagula; firm pressure was then made over the uterus, and the discharge ceased. Stimulants were freely given.

No. 102.—A slight discharge of blood continued for six hours after delivery, the uterus being relaxed and distended. At the end of this time the woman became feeble, when the hand was introduced, and a quantity of coagula expelled. In some hours afterwards the hæmorrhage having returned, the hand was again passed, after which, it entirely ceased. She was much reduced, and had stimulants freely; opiates were also given with good effect.

No. 112.—About three hours after delivery, slight hæmorrhage was observed, accompanied with pain, weakness, quick feeble pulse, wandering of the mind, tossing in the bed, with some hysterical symptoms; the hand was passed into the uterus, which was greatly distended with large masses of coagula; on removing which, regular uterine action came on, and she recovered well.

No. 116.—Twenty minutes after delivery there was profuse hæmorrhage; the uterus was distended, but expelled its contents on pressure being applied; the hæmorrhage, however, still continuing, the hand was passed, after which it entirely ceased.

Such are the particulars of the different cases where hæmorrhage, to an *alarming extent* took

place into the interior of the uterus. Of the 43 cases before mentioned, 26 remain to be noticed; of these, *fifteen* are deserving of attention, the hæmorrhage being serious; a few cursory remarks will suffice for the remaining *eleven.*

No. 6.—This woman had frequent discharges of blood from the uterus, for the first *ten* days after delivery, until at length the hæmorrhage becoming profuse, and her strength much reduced, the hand was passed into the vagina, and the fingers introduced into the uterus; by which means, some coagula were removed, and the discharge ceased.

No. 25.—This woman had severe hæmorrhage, with great debility, an hour and a half after delivery, which was arrested by pressure and cold applications.

No. 28.—S. B. was admitted August 18th; she was delivered in Bride-street, on her way to the Hospital. Two hours after, considerable hæmorrhage came on, which weakened her very much. The uterus was relaxed, and after having given some stimulants, the hand was passed, and clots removed, from which time it contracted firmly, and the loss ceased.

No. 31.—There was considerable hæmorrhage an hour after delivery, with great debility. The hand was passed, uterine action followed, and the discharge ceased.

No. 53.—Ten minutes after delivery severe

hæmorrhage came on, requiring the introduction of the hand for its suppression. She continued weak for some time, but left Hospital well on the 13th day.

No. 63.—The labour in this case lasted two hours; the placenta was expelled in ten minutes. In 15 minutes severe hæmorrhage came on, which was checked by the introduction of the hand. There was considerable exhaustion, which, notwithstanding the free use of stimulants and cordials, continued for several hours. The stomach was very irritable, which seemed to induce faintishness.

No. 64.—This woman was 24 hours in labour, and was then delivered with the crotchet, her child being dead, as indicated by the stethoscope; it was her first pregnancy. The placenta was thrown off 15 minutes after the delivery of the child, and five minutes after this, profuse hæmorrhage set in, requiring the introduction of the hand, and the use of stimulants.

No. 71.—There was profuse hæmorrhage 45 minutes after the delivery, which was checked by pressure and cold applications.

No. 106.—This woman had considerable hæmorrhage on the 4th day, which had continued, more or less, for three hours before we were called. The uterus was distended, but contracted under firm pressure, and the discharge subsided. In less

than an hour it returned, when the hand was passed, some clots removed, and cold applied, which arrested the discharge; an opiate was then given. In seven hours she had a third attack, when the hand was again introduced, on which the uterus contracted; firm pressure was made over this organ, another opiate was given, when she fell asleep, and had no return.

No. 107.—There was considerable hæmorrhage an hour after delivery, for which it was necessary to introduce the hand twice, to ensure permanent uterine contraction. She was so debilitated that her pulse was for some time imperceptible. Sixty drops of tincture of opium were given in divided doses. Stimulants and cordials were also freely used, when her strength gradually returned.

No. 109.—The hand was twice passed into the uterus, owing to hæmorrhage. Stimulants were also necessary. She had sixty drops of tincture of opium before rest ensued.

No. 114.—This woman had severe hæmorrhage 45 minutes after delivery. The hand was passed three times before it ceased. Stimulants were also freely used, and she had 80 drops of tincture of opium.

No. 115.—There was considerable hæmorrhage 20 minutes after delivery, rendering the introduction of the hand necessary, which was found to be

the only means of inducing permanent contraction.

No. 129.—This woman was 60 hours in labour; immediately after delivery severe hæmorrhage ensued, which was checked by the introduction of the hand; after which she got 40 drops of tincture of opium.

No. 130.—In this case the labour lasted 50 hours; the fœtal heart having ceased to pulsate, and the head having made no progress for several hours, the mother's pulse being 120, the head was lessened and delivery effected by the crotchet. The placenta was thrown off in half an hour, followed immediately by considerable hæmorrhage. Increased pressure was made and cold applied; but in 5 minutes it returned to a serious extent, when the hand was passed, and the uterus, being emptied of its contents, contracted well, and the discharge ceased. She got then 35 drops of tincture of opium to procure rest.

In the *eleven* cases not yet noticed the hæmorrhage was in no instance severe; it was only found necessary in three to introduce the hand, viz. Nos. 9, 108, and 113. In *one* of the eleven the woman was delivered before admission, and in another a portion of placenta was expelled from the uterus the day after delivery; but in neither was there need of more than the ordinary means to arrest the

discharge. For further particulars as to these cases see General Table, Nos. 2, 7, 8, 13, 16, 20, 21, 35.

I have now, as briefly as possible, given a detailed account of all the hæmorrhages met with in the Hospital during my residence as Master; at the same time stating the treatment pursued in each, as minutely as could be done, without extending the cases so as to weary the reader.

The total number is great, amounting to *one hundred and thirty-one;* but it is to be recollected that in this are included all kinds of hæmorrhages, viz. those where the discharge was *not alarming*, as also those accompanied with *great danger*. This I considered absolutely necessary, my object being, to give a faithful report of all such occurrences, so as to enable the reader to arrive at a fair conclusion on this subject. It has been before stated that hæmorrhage, subsequent to the birth of the child, is more frequently met with in public institutions than in the private practice of experienced individuals; the cause of this is, no doubt, owing to inexperience on the part of the pupils; this, however, never can be avoided, as the business of the Hospital could not be conducted without such help; the consequences, however, of this inexperience are, in a great measure, obviated, by the *instant* assistance afforded by the arrangement adopted in this Institution, which insures the resi-

dence of the medical officers, one of whom is constantly on the spot. Indeed when we reflect how invaluable are the services of medical men thus effectually educated, in all parts of the country, we must consider evils of this kind more than counterbalanced.

The loss of *four* patients, from the effects of hæmorrhage subsequent to the birth of the child, out of 16,414 deliveries, must, under any circumstances be deemed moderate; and by referring to the cases, viz. Nos. 3, 55, 30, 20, it will be seen, that in each of the four there were *other* causes tending to induce a fatal termination.

Seven of the 131 cases occurred in women delivered of *twins*, and in all of these, the hæmorrhage took place between the birth of the children, and expulsion of the afterbirth. See Nos. 32, 39, 70, 82, 86, 10, 123.

Of the 131, *twenty-four* occurred between the 6th month and the birth of the child, *sixty-four* between the birth of the child, and delivery of the placenta, and *forty-three* subsequent to its expulsion; *eighty-one* of the total number of children were *males*, and one hundred of the children were born *alive*.

The following tables show the length of time each woman was in labour; also the age of each, and whether it was a 1st or subsequent pregnancy.

Length of time in labour; thus 1 woman was ¼ of an hour; 1, ½ an hour, and so on. See cases for particulars as to the time 13 were in labour.

Hours in labour,	¼	½	1	2	3	4	5	6	7	8	10	11	12	14	15	16	20	24
No. of Women,	1	1	13	19	11	10	8	9	6	4	3	1	7	1	1	1	2	5

Hours in labour,	26	30	31	36	40	48	50	59	60	65	70
No. of Women,	1	1	1	1	2	3	1	1	2	1	1

Age of women; thus, 1 woman was 18, and so on. See cases for the age of one.

Age of Women,	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
No. of Women,	1	3	8	5	8	6	6	5	8	7	12	4	17	2	3	4	4	12

Age of Women,	36	38	39	40	50
No. of Women,	6	2	3	3	1

Number of Pregnancy; thus, 45 women were delivered of their 1st children. See cases for one.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	11	12	13
No. of Women,	45	16	11	13	12	7	7	4	6	3	2	1	3

EXPLANATION OF GENERAL TABLE.

In the three first columns, the figure 1 points out the period at which the hæmorrhage occurred.

In the two columns indicating the sex, and life

or death of the child, B represents boy; G girl; 1 alive; D dead; Dp putrid. The three succeeding columns shew the length of time the patient was in labour, the age of the patient, and the number of children.

The 9th and 10th columns shew the hæmorrhage to have been unavoidable or accidental.

In the last column, V signifies vide, and refers to the case by number.

No. of Case.	Between the sixth month and birth of child.	Between birth of child and placenta.	After the delivery of the placenta.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Accidental Hæmorrhage.	Unavoidable Hæmorrhage.	Observations.
1	1	..	..	G	Dp	70	22	1	1	..	V
2	..	..	1	B	D	1	30	5	..	..	V
3	..	1	..	B	1	20	..	13	..	..	V
4	1	..	..	B	D	..	23	7	..	1	V
5	..	1	..	B	1	3	28	4	..	..	V
6	..	..	1	B	1	1	23	2	..	..	V
7	..	..	1	B	1	5	23	1	..	..	V
8	..	..	1	B	1	4	27	2	..	..	V
9	..	..	1	B	1	5	26	4	..	..	V
10	1	..	..	B	1	7	25	3	1	..	V
11	1	..	..	B	Dp	..	35	9	1	..	V
12	1	..	..	B	Dp	5	34	11	1	..	V
13	..	..	1	G	1	2	33	8	..	..	V
14	..	1	..	G	1	3	20	1	..	..	V
15	..	1	..	G	1	6	30	4	..	..	V
16	..	..	1	B	1	1	40	10	..	..	V

No. of Case.	Between the sixth month and birth of child.	Between birth of child and placenta.	After the delivery of the placenta.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Accidental Hæmorrhage.	Unavoidable Hæmorrhage.	Observations.
17	1	..	..	B	1	..	33	2	..	1	V
18	..	1	..	B	1	3	19	1	..	..	V
19	..	..	1	B	1	4	23	1	..	..	V
20	..	1	..	G	1	1	27	4	..	..	V
21	..	..	1	B	1	7	36	11	..	..	V
22	1	..	..	B	D	6	30	6	1	..	V
23	..	1	..	G	1	4	26	4	..	..	V
24	..	..	1	B	1	1	25	3	..	..	V
25	..	..	1	B	1	8	32	7	..	..	V
26	..	1	..	G	1	5	28	4	..	..	V
27	..	1	..	G	1	2	39	7	..	..	V
28	..	..	1	G	1	..	20	1	..	..	V
29	..	1	..	B	D p	3	22	5	..	..	V
30	..	..	1	B	1	..	30	8	..	..	V
31	..	..	1	B	1	6	29	8	..	..	V
32	..	1	..	G G	2	2	20	2	..	..	V
33	1	..	..	B	D p	7	38	5	..	1	V
34	1	..	..	G	1	6	40	4	..	1	V
35	..	..	1	B	1	2	33	9	..	..	V
36	1	..	..	B	D	2	35	9	1	..	V
37	..	..	1	G	1	4	28	5	..	..	V
38	..	1	..	B	1	10	27	5	..	..	V
39	..	1	..	B G	2	30	25	1	..	..	V
40	..	1	..	B	1	6	26	1	..	..	V
41	..	1	..	B	1	2	35	9	..	..	V
42	..	1	..	B	D p	7	35	10	..	..	V
43	..	1	..	G	1	65	35	1	..	..	V
44	..	1	..	B	1	4	35	7	..	..	V
45	..	1	..	G	1	8	22	1	..	..	V

No. of Case.	Between the sixth month and birth of child.	Between birth of child and placenta.	After the delivery of the placenta.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Accidental Hæmorrhage.	Unavoidable Hæmorrhage.	Observations.
46	..	1	..	G	1	½	21	1	..	..	V
47	..	..	1	G	1	4	22	2	..	..	V
48	1	..	..	G	D	12	30	7	1	..	V
49	..	1	..	G	1	6	28	1	..	..	V
50	1	..	..	G	D	1	30	6	..	1	V
51	..	1	..	G	1	3	23	1	..	..	V
52	..	1	..	G	1	7	24	1	..	..	V
53	..	..	1	B	1	6	26	3	..	..	V
54	..	1	..	B	1	31	31	1	..	..	V
55	..	1	..	G	1	7	19	1	..	..	V
56	..	..	1	B	1	¼	30	6	..	..	V
57	..	1	..	G	1	12	26	1	..	..	V
58	1	..	..	G	D	..	31	3	1	..	V
59	..	1	..	B	1	2	23	2	..	..	V
60	..	..	1	B	1	2	27	1	..	..	V
61	..	1	..	B	D p	40	35	1	..	..	V
62	..	1	..	B	1	5	28	2	..	..	V
63	..	..	1	B	1	2	30	2	..	..	V
64	..	..	1	B	D p	24	34	I	..	..	V
65	..	1	..	G	1	26	19	1	..	..	V
66	..	1	..	B	D p	2	20	1	..	..	V
67	..	1	..	B	1	10	29	1	..	..	V
68	..	1	..	G	1	12	29	5	..	..	V
69	..	1	..	B	1	1	25	2	..	..	V
70	..	1	..	B G	Dp D	..	30	1	..	..	V
71	..	..	1	B	1	1	24	3	..	..	V
72	1	..	..	B	1	16	28	5	..	1	V
73	1	..	..	B	D	5	35	6	1	..	V
74	..	1	..	B	1	4	39	13	..	..	V

No. of Case.	Between the sixth month and birth of child.	Between birth of child and placenta.	After the delivery of the placenta.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Accidental Hæmorrhage.	Unavoidable Hæmorrhage.	Observations.
75	..	..	1	B	1	48	32	5	..	..	V
76	..	1	..	G	1	2	35	5	..	..	V
77	1	..	..	B	1	..	32	9	..	1	V
78	..	1	..	B	D	3	40	5	..	..	V
79	..	1	..	G	D	40	27	4	..	..	V
80	..	1	..	G	1	5	39	12	..	..	V
81	1	..	..	B	D	6	28	1	1	..	V
82	..	1	..	B B	2	2	30	5	..	..	V
83	1	..	..	G	1	12	28	2	..	1	V
84	..	1	..	B	D	48	34	2	..	..	V
85	..	1	..	G	1	3	36	13	..	..	V
86	..	1	..	B G	1 D	24	26	1	..	..	V
87	..	1	..	G	D	36	20	1	..	..	V
88	..	1	..	B	D	24	30	4	..	..	V
89	1	..	..	G	1	8	36	3	..	1	V
90	..	1	..	G	1	1	33	9	..	..	V
91	..	1	..	G	1	2	35	6	..	..	V
92	1	..	..	G	D p	..	30	6	..	1	V
93	..	..	1	G	1	2	27	4	..	..	V
94	..	1	..	B	1	3	30	3	..	..	V
95	..	1	..	G	1	24	28	1	..	..	V
96	..	1	..	B	1	15	30	3	..	..	V
97	1	..	..	B	D p	3	21	1	1	..	V
98	..	..	1	G	1	2	38	6	..	..	V
99	1	..	..	B	D	..	36	..	1	..	V
100	..	1	..	B B	1 D	12	27	1	..	..	V
101	..	1	..	G	D	12	29	3	..	..	V
102	..	..	1	G	1	4	24	2	..	..	V
103	..	1	..	G	1	8	21	1	..	..	V

No. of Case.	Between the sixth month and birth of child.	Between birth of child and placenta.	After the delivery of the placenta.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Accidental Hæmorrhage.	Unavoidable Hæmorrhage.	Observations.
104	..	1	..	G	I	24	25	2	..	..	V
105	1	..	..	B	D	..	36	8	1	..	V
106	..	..	1	B	1	3	22	1	..	..	V
107	..	..	1	B	1	2	50	5	..	..	V
108	..	..	1	B	1	..	35	4	..	..	V
109	..	..	1	B	1	1	36	10	..	..	V
110	..	1	..	G	1	60	24	1	..	..	V
111	..	1	..	G	1	4	26	3	..	..	V
112	..	..	1	G	1	10	21	1	..	..	V
113	..	..	1	B	1	1	30	3	..	..	V
114	..	..	1	G	1	1	20	1	..	..	V
115	..	..	1	B	1	2	24	4	..	..	V
116	..	..	1	B	1	6	22	1	..	..	V
117	..	..	1	G	1	2	35	7	..	..	V
118	..	..	1	G	1	20	26	2	..	..	V
119	1	..	..	G	D	1	34	7	..	1	V
120	..	..	1	B	1	11	30	1	..	..	V
121	..	1	..	B	1	3	28	2	..	..	V
122	..	1	..	B	1	..	21	1	..	:	V
123	..	1	..	B B	1 D	14	22	1	.	..	V
124	..	1	..	G	1	12	20	1	..	..	V
125	..	1	..	B	D	48	24	1	..	..	V
126	..	..	1	B	D	59	28	1	..	..	V
127	..	1	..	B	1	4	28	4	..	..	V
128	..	..	1	B	1	2	30	2	..	..	V
129	..	..	1	G	D	60	20	1	..	..	V
130	..	..	1	G	D	50	22	1	..	..	V
131	..	1	..	B	1	5	18	1	..	..	V

ON RETENTION OF THE PLACENTA.

The true time to guard against this untoward occurrence, is during the delivery of the child, and when applying the binder. So much has been already urged, when treating of hæmorrhage, and also of the management of natural labours, as to what we consider the most desirable means of prevention, that our observations here may be brief. Much difference of opinion formerly existed as to the propriety of removing the afterbirth speedily or otherwise; however I believe it is now generally the established practice, having waited for about two hours, and employed all those gentle means ordinarily recommended for its removal, but without effect, to give assistance. To avoid as far as practicable, *this necessity*, the greatest attention should be paid to promote the contraction of the uterus, by leaving the expulsion of the child to its unaided efforts, thus allowing it to empty itself slowly and gradually; at the same time with gentle pressure following down its contraction, until the child having been wholly excluded, the uterine tumour be found to occupy principally the cavity of the pelvis, and to admit of the binder being applied with advantage. In my opinion firm

pressure with the hand, where this organ continues *distended* and *relaxed*, is much more effectual in reducing its size than any other method; therefore we delay the application of the binder until this is as far as possible accomplished; at least until it feels firm and tolerably compressed into the pelvis.

When, notwithstanding all our care, we are compelled to introduce the hand for the placenta, our chief object should be to excite uterine action, and so effect its expulsion, and not to drag it away by rude efforts; as, by so doing, severe hæmorrhage is very likely to ensue, or the uterus itself sustain injury, often followed by serious inflammation. The most frequent cause of retained placenta is inaction of the uterus, and the mere introduction of the hand into its cavity will be found sufficient in almost all such cases; at most, slightly stimulating it, by the motion of the hand, will seldom fail to succeed. Where the irregular or spasmodic contraction exists, much more time as well as exertion is necessary; in the first place, to effect the complete introduction of the hand, and in the next to separate the placenta; which in the great majority of these cases, is found to adhere with considerable firmness. We have never, however, met with an instance, where gentle efforts steadily persevered in, were not sufficient to overcome the spasm. When introducing the hand under these circumstances, we will derive much benefit from pressing over the

fundus uteri with the left hand, or having an assistant to do so, in order to keep the uterus as fixed as possible; at the same time passing the fingers up along the funis, so as to guide us at once to the placenta, being most careful not to stretch the cord, which excites a spasmodic action, particularly of the mouth of the womb, so as to render the introduction of the hand much more painful and difficult.

Where the afterbirth is retained by morbid adhesion, it is recommended by most writers to remove as much as can be effected by gentle means, leaving the remainder to be thrown off in the discharges; in this we concur; but in separating the different portions, *extreme caution* must be used to avoid injuring the uterus, otherwise the most fatal inflammation will often be the result. The danger under such circumstances is hæmorrhage, either immediate or remote, to a profuse extent; likewise abdominal inflammation or fever; each of which is carefully to be guarded against. Much attention should be paid to the state of the abdomen after delivery, and on the occurrence of the least tenderness, leeches should be freely applied, followed by the warm bath, in which the patient should be permitted to remain for an hour, should her strength bear it; small doses of calomel and hippo will be useful, given every 3d or 4th hour; and when the vaginal discharges are offensive, benefit

will be derived from tepid injections of infusion of chamomile, with an eighth part of camphorated spirits every 6 or 8 hours. Where the patient *suffers much* in the removal of the afterbirth, I would recommend the use of the calomel and hippo to be commenced immediately after delivery, so as to be beforehand with any inflammatory attack, a grain and half of each every 4th hour, will be found sufficient, watching its effects on the system.

In the delivery of the placenta in all cases, whether the hand be introduced or not, we should be careful to bring away the membranes as perfect as possible, for should any portion of them remain, it is apt to excite after-pains, and induce fœtid discharges; and when observed coming away in the lochia, generally subjects us to the charge of neglect or hurry.

Sixty-six cases of retention of the placenta requiring the introduction of the hand, occurred during my residence as master. *Thirty-seven* from want of proper uterine action; *nineteen* from spasmodic or irregular action, and *ten* where the placenta was adherent. *Thirty-five* of the children were males, and *thirty-five* females; there having been 4 twin cases. *Fourteen* of the *seventy* were still-born; *nine* of which were putrid. In *twenty-four* of the 66, there was slight hæmorrhage; and in *four* the delivery had been forced. In *one* case the hand was introduced half an hour after the birth

of the child; in *three* cases in one hour; in *one* in 45 minutes; in *one* in 1½ hour; in *fifty* in 2 hours; in *two* in 3 hours; in *one* in 5 hours; in *seven* the time is not noted. In *four* instances the funis had been separated. *Two* of the 66 were premature births at the 7th month.

Six of the 66 women died; *four* of puerperal fever, which was then prevalent in the hospital; *one* of inflammation of the uterus; and *one* (a feeble woman), sunk on the eighth day after delivery. In each of the *six*, the placenta was retained by the irregular action of the uterus, viz. :—

No. 25.—Was delivered of her second child, June 21st, 7 P.M., after a labour of 3 hours; she had slight hæmorrhage for some time afterwards, which made it desirable to introduce the hand, when an hourglass contraction of the uterus was discovered; the placenta was found in the lower chamber, the membranes being held tight in the upper; they were, however, liberated without difficulty.

She was attacked at 3 P.M. on the 22d, with slight pain of the abdomen, when she was ordered a draught of castor oil and turpentine, (as the bowels had not been freely acted on, though she had taken some active purgatives); to be well stuped, and have an injection.

8 P.M.—Pulse hurried; bowels have not yet acted freely; abdomen tolerably soft, not *very*

sensible to pressure, though the pain has rather increased.

Four dozen leeches to be applied, followed by a warm bath; an injection with turpentine to be thrown up; and to have calomel and hippo, of each 4 grains every second hour.

23d, 9 A.M.—Pulse 130 small; tongue moist, whitish; abdomen rather full, with considerable tenderness on pressure, particularly over the uterus; complains of inability to turn in the bed; felt easy after the bath, but the pain shortly returned; slept little; drank copiously; took 5 powders, the last induced vomiting; bowels 6 times relieved.

Leeches and warm bath to be repeated; to be stuped every 2d hour; omit powders; to have 5 grains of calomel and ¼ grain of opium in a pill every 2d hour.

9 P.M.—Pulse 136; abdomen somewhat softer, but still very sensible to pressure; experienced much relief from the bath; slept occasionally; drank freely; took 6 pills and a castor-oil draught with turpentine; bowels twice opened; breathing hurried; says she feels easier.

Continue pills; repeat the leeches and bath.

24th, 9 A.M.—Pulse 130; tongue dry, covered with white fur; abdomen full, but much less painful on pressure; took eight pills; bowels 3 times opened; vomited frequently this morning; drank

7 quarts of whey; felt relieved by the bath; slept frequently.

Pills to be continued; to be put into a warm bath; to have a turpentine injection.

9 P.M.—Pulse 130, scarcely perceptible; tongue covered with brown fur; abdomen quite distended and hard, without pain on pressure; breathing extremely laboured; strength rapidly sinking; bowels repeatedly opened; frequent vomiting; drank two gallons; took six pills.

To have one grain of solid opium with her pill every 2d hour, as before, until the stomach be quieted; frequent stupes to the abdomen.

25th, 10 A.M.—She sunk gradually and died at 9 A.M.

On dissection, there was a considerable quantity of purulent fluid found in the cavity of the abdomen, also a small quantity in the left cavity of the thorax. The inner surface of the uterus had an unhealthy appearance, and was covered with a grumous fœtid discharge; there were several inflammatory spots on the mucous surface of the stomach.

No. 26.—The placenta was retained by irregular contraction of the uterus, rendering the introduction of the hand necessary. She was delivered on the 12th, and was seized on the 13th with shivering, pain in the abdomen, and other symptoms of puerperal fever, which proved fatal on the 17th.

On examination of the body there was a con-

siderable quantity of seropurulent fluid found in the abdominal cavity, and some purulent matter in the broad ligaments of the uterus; there was also some fluid in both thoracic cavities.

No. 30.—Was admitted to be delivered of her 1st child, Nov. 24th. She was reported to have been several days in labour, having been attended by other practitioners. The head was pressing firmly on the perinæum, and seemed as if it would readily be expelled by any tolerable uterine action; her pulse was 130; tongue foul; countenance anxious; great restlessness; the abdomen was free from pain, and the catheter passed with ease into the bladder. The uterine action was very feeble; however, the head being nearly expelled, by gentle assistance with the finger during the pain, the delivery was readily concluded. In three hours after it was necessary to pass up the hand, when there was found hourglass contraction, which was gradually overcome, and the placenta brought away.

In 12 hours after delivery she was attacked with puerperal fever, which proved fatal on the 4th day.

On dissection about four ounces of reddish serum were found in the cavity of the abdomen; the uterus was large and unusually vascular; at one spot, anteriorly, towards its fundus, it exhibited a black and gangrenous appearance, which being cut into contained a dark sanious and somewhat

purulent fluid, with very disagreeable odour, with which the vessels of the uterus were all charged; the left cavity of the chest contained about 4 ounces, the right 2, of a reddish fluid mixed with flakes of lymph. The pericardium contained at least eight ounces of a clear limpid fluid.

She took during her illness eighty-one grains of calomel, with thirty-eight of hippo; had three dozen leeches applied, with frequent stupes and a warm bath, and a blister to the chest.

No. 41.—The feet presented with prolapsed funis in which there was no pulsation; the placenta was retained by spasmodic action requiring manual interference.

Severe peritoneal inflammation set in on the 3d day, and proved fatal on the 6th.

No. 50.—In an hour and a half after the birth of the child a slight loss took place, which was checked by binding tightly; it returned in 15 minutes, when the hand was passed up and hour-glass contraction detected, requiring much caution and perseverance to overcome it. Shortly after delivery she complained of severe pain in the uterine region, much increased by pressure. Symptoms of inflammation of the uterus became rapidly urgent, and she died on the 5th day. She was repeatedly leeched, had many warm baths, and her mouth was affected by mercury previous to death.

On dissection the different viscera were found

healthy, with the exception of the uterus, which showed marked evidences of inflammation both internally and externally; that part to which the placenta had been attached was in a state of slough. She had suffered much mental distress previous to admission, in consequence of the death of her husband.

No. 17.—Was sixty hours in lingering labour of her 1st child; she was a feeble delicate woman, 37 years of age; the placenta was removed by the hand, in consequence of spasmodic action of the uterus. She never made any attempt at recovery, and died on the eighth day.

Such is the history of the six cases where death took place after the removal of the placenta. In *four* the fatal termination was evidently the consequence of the epidemic then prevailing in the Hospital. This, in connexion with the three cases detailed in the article on Hæmorrhage, viz. Nos. 38, 39, 40, all occurring nearly at the same time, and under similar circumstances, proves beyond dispute the *extreme danger* of manual interference where such a tendency to peritoneal inflammation exists. I have no hesitation in stating that almost all of the cases which terminated unfavourably at this particular period, would under ordinary circumstances, have recovered without any serious consequences; indeed I am fully borne out in this by the result of other similar cases where the same

means were had recourse to with impunity. I am not aware, however, of any way of avoiding the *necessity* for the introduction of the hand, further than by paying the most rigid attention to all those measures so frequently alluded to, in order to promote the *gradual and perfect contraction* of the uterus. I have not the least doubt that in Hospital we are compelled to interfere much more frequently than in private practice, owing to want of attention to these truly important circumstances.*

Of the remaining thirteen cases where the placenta was retained by spasmodic action of the uterus, all recovered without any unpleasant symptom. In *eight* fully two hours had elapsed from the birth of the child before the hand was introduced; in *one* 1½ hour; in *two* 1 hour; and in *two* the precise time was not recorded. In *one* of the 13 the delivery had been forced. In two of the 13 the funis had been separated, viz.—

No. 37.—This woman had the placenta retained by hourglass contraction. In two hours the hand was introduced, and it was with considerable exertion overcome; there had been some hæmorrhage.

* Doctor Ramsbotham gives eleven cases which proved fatal, where the placenta was retained; most of these were accompanied with hæmorrhage. These were cases to which Dr. Ramsbotham was called in consultation, and in my opinion, most of the patients fell a sacrifice to delay previous to his seeing them. Vol. 1st.

The funis had been separated by the midwife who had attended her.

No. 49.—The funis, which was putrid, separated from the placenta. On the introduction of the hand, two hours after the birth of the child, hour-glass contraction was discovered.

In *four* of the *thirteen* there was slight hæmorrhage, but no occurrence worthy of detail.

I shall now allude to those *thirty-seven* cases where the placenta was retained by inaction of the uterus; of these *twelve* were attended with slight hæmorrhage; *three* of the 37 were twin cases; in *three* the delivery had been forced; in *one* the breech presented, and in *two* the funis had been separated. In *thirty-two* of the 37 *two hours* had elapsed previous to the introduction of the hand; in *one* 1 hour; in *one* 45 minutes; in *one* half an hour; and in *two* the time is not noted.

All the women recovered favourably. Seven only of the 37 present any circumstance of interest, viz.:

No. 5.—The hand was passed for the removal of the placenta two hours after the birth of the child, the funis had been separated. Thirty hours after delivery, she experienced acute abdominal uneasiness, with considerable fever, requiring general and local bleeding, fomentations, &c. &c.

No. 7.—The placenta was removed by the hand an hour and a half after delivery, the patient having fallen into a state of stupor.

No. 24.—In an hour and a half after the birth of the child, smart hæmorrhage came on, followed by considerable debility. She was recovered by cordials, and the hand was passed to promote the expulsion of the placenta, which was found partially adherent to the uterus. It was cautiously separated and removed, and the patient did well.

No. 28.—Was admitted in labour of her first child; the os uteri was but little dilated, and the head very high up in the pelvis; the uterine action continued to harass her without making the least advance, the mouth of the womb, however, became tolerably well dilated. At the expiration of 48 hours, a grain of opium was given, to try and procure some rest, but having had no effect, in an hour and a half 40 drops of the tincture were given in a castor-oil draught, which afforded her some respite. Uterine action afterwards returned, and, though the os uteri became nearly obliterated, still the head remained stationary. The pulse having now become extremely rapid (150), and her strength giving way, the head was lessened and delivery effected by the crotchet. In half an hour after, slight hæmorrhage appearing, the hand was introduced, and the placenta removed. She did well.

No. 34.—Had been in labour two days before admission; she was delivered with the crotchet, in consequence of extreme debility setting in. The

side of the head presented, the ear being the first point reached by the finger. After the delivery of the child, there was a slight discharge of blood, the uterus remaining large and badly contracted; the hand was passed up, and the placenta found adherent, requiring some assistance to separate it. When expelled it was observed to contain a considerable quantity of gritty or calcareous deposit over the greater portion of its uterine surface. Her strength now improved, yet the pulse continued feeble, and she could not get any rest from sickness of stomach and vomiting.

She was given two grains of powdered opium, with ten of calomel, which was followed by three hours' sleep. Her bowels had not been opened for a *fortnight* previous to admission, and it was not until she had taken repeated doses of medicine that free evacuations could be procured. She left hospital well on the 13th day.

No. 46.—After 48 hours' labour, during which the pains produced great irritation and excitement, the pulse became quick and feeble, and the head having made no progress for 36 hours, it was deemed advisable to lessen it; considerable difficulty was experienced in the delivery, owing to its size, and complete state of ossification. This woman had been twice force-delivered with former children. The hand was passed in 45 minutes, as the uterus remained relaxed, and there was some

draining; this induced uterine action, which expelled the placenta, and she did well.

No. 66.—Two hours after the birth of the child, during which time every effort was used to promote the expulsion of the placenta, but without effect, the hand was passed, on which the uterus acted well, and it was thrown off. This woman had suffered great distress for 72 hours after admission, from constant pain in the back, which produced no effect on the os uteri. She was treated with tartar emetic during the day, with an opiate at night, after which time, the os uteri began to dilate, and in 18 hours she was delivered of a healthy child, after a labour of 90 hours. It was her first pregnancy.

I shall now proceed to state the particulars of the *ten* cases in which the retention of the placenta was consequent on its firm adhesion to the uterus. In *seven* of these, *two* hours had elapsed previous to the introduction of the hand; in *one* (who was delivered before admission into Hospital) 5 hours; in *two* the exact time is not stated. In *four* of the 10 there was more or less hæmorrhage. *Two* of the births were premature, at the 7th month. *Two* of the children were putrid. *One* was a twin case. All the women recovered favourably.

No. 20.—There being some hæmorrhage, the hand was passed an hour and a half after the birth of the child; the placenta, which was found adherent, was cautiously separated and removed.

No. 42.—This woman was brought to hospital 5 hours after the birth of her child; on her way she had profuse hæmorrhage. The placenta being retained, the hand was introduced, when it was found firmly adherent; it was cautiously separated and removed. She continued for some time restless, when she got a full opiate, followed by sleep.

No. 57.—Had considerable hæmorrhage 45 minutes after the birth of the child, which was checked by pressure, cold, &c. In an hour and a half after this, the hand was passed, and the placenta separated from the fundus uteri, to which it was adherent, and brought away.

No. 58.—This was a premature labour at the 7th month; the breech presented. In two hours the hand was introduced for the afterbirth, which was firmly adherent.

No. 59.—This woman was delivered of a very putrid child; the discharges both during and after labour were most offensive. The placenta being adherent was separated. Her recovery was slow and interrupted; there was slight paralysis of one of the lower extremities for some time, and she was afterwards attacked with mania.

No. 60.—The placenta was retained for more than two hours; on introducing the hand, it was found firmly adherent throughout its entire surface,

it was with difficulty separated all but a small portion, which could not be removed without inflicting injury on the uterus. She recovered well, and left hospital on the 10th day.

No. 61.—The hand was passed 2½ hours after the birth of the child, and the placenta, which was adherent, separated and removed.

No. 62.—This woman had an epileptic fit at the time of delivery; the placenta being retained two hours, and some hæmorrhage coming on, the hand was passed, when it was found adherent; part of it was easily detached, but the greater portion required some exertion for its separation. She was then tightly bound, and got 40 drops of tincture of opium, followed by sleep. She left hospital well on the 18th day.

No. 63.—There was considerable internal hæmorrhage previous to the expulsion of the placenta. The hand was at length introduced, when it was found adherent to the fundus uteri and cautiously separated. Her pulse remaining feeble, stimulants were freely given. She had 40 drops of tincture of opium, followed by sleep.

No. 64.—This was a twin case; the first child presented naturally, the second with the breech, with an interval of ten minutes. It was a premature labour at the 7th month. The 1st child

was born alive, the second putrid. The uterus shortly after becoming distended, on making pressure some clots were expelled, but the pulse becoming weak the hand was passed; the removal of the placenta of the first child was easily effected, but that of the second being putrid and adherent, caused great difficulty. Stimulants and cordials were afterwards required, and a draught containing 35 drops of tincture of opium procured sleep.

This is a brief record of all the interesting circumstances met with in the sixty-six cases of retention of the placenta, which occurred in the Hospital, and the treatment adopted in each.

The following tables show the length of time the patients were in labour; also their respective ages, and whether it was a first or subsequent pregnancy.

Table shewing length of time in labour; thus 2 were 1 hour; 8, 2 hours, and so on; for the time 4 of the patients were in labour, see cases :—

Hours in labour,	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	21	24
No. of Women,	2	8	10	7	5	2	5	3	1	1	1	3	2	1	1	1	2

Hours in Labour,	28	48	60	70	90
No. of Patients,	1	3	1	1	1

Table showing the age, thus 1 woman was 18; 4 were 19, and so on.

Age of Patients,	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	35	37
No. of Women,	1	4	5	2	6	1	6	5	4	4	7	1	7	2	2	3	1

Age of Patients,	38	39	40
No. of Women,	1	2	2

Table showing the number of pregnancy, thus 38 were 1st pregnancies, and so on.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	11
No. of Women,	38	10	6	2	3	2	1	2	1	1

The concluding table, from which there is reference to the cases detailed, affords the means of making many interesting calculations, and likewise of forming some practical conclusions. In the column marking the *cause* of retention, the letter I signifies *Inaction;* the letters H.G. *Hourglass;* and the letters A.D. *Adhesion.* In the column marking whether the child was born living or dead, the figure 1 indicates its being alive, the letter D. dead, the letters Dp. putrid. In the column headed force-delivered, the occurrence of the figure 1 signifies that the delivery was forced.

No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Cause of Retention.	Force Delivered.	Observations.	No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Cause of Retention.	Force Delivered.	Observations.
1	48	30	7	B	Dp	I	..	V	29	10	25	1	G	1	Hg	..	V
2	5	30	1	B	1	I	..	V	30	..	31	1	B	Dp	Hg	..	V
3	7	24	1	G	1	I	..	V	31	24	18	1	G	1	Hg	..	V
4	8	21	1	B	..	I	..	V	32	1	20	1	B	1	I	..	V
5	7	22	1	G	1	I	..	V	33	28	28	1	G	1	I	..	V
6	4	40	3	BB	2	I	..	V	34	21	32	5	G	D	I	1	V
7	8	19	1	B	1	I	..	V	35	3	20	1	B	1	I	..	V
8	3	19	1	B	1	I	..	V	36	3	25	3	G	1	I	..	V
9	5	20	1	G	1	I	..	V	37	7	28	1	G	1	Hg	..	V
10	12	19	1	B	1	I	..	V	38	..	26	1	B	Dp	Hg	..	V
11	4	26	4	G	1	I	..	V	39	5	22	1	G	1	I	..	V
12	5	24	1	G	1	I	..	V	40	1	24	2	G	Dp	I	..	V
13	4	27	2	B	1	Hg	..	V	41	14	23	2	G	D	Hg	..	V
14	2	25	3	G	1	I	..	V	42	..	30	2	B	1	Ad	..	V
15	3	40	2	B	1	Hg	..	V	43	2	30	4	G	1	I	..	V
16	3	24	1	B	1	I	..	V	44	2	29	2	G	1	Hg	..	V
17	60	37	1	B	1	Hg	..	V	45	13	22	1	G	1	I	..	V
18	48	27	1	BG	2	I	..	V	46	48	35	9	G	D	I	1	V
19	..	26	1	G	1	I	..	V	47	2	22	1	G	1	I	..	V
20	2	26	1	G	1	Ad	..	V	48	4	35	3	G	1	I	..	V
21	9	27	1	G	1	Hg	..	V	49	6	32	1	B	Dp	Hg	..	V
22	2	28	2	B	1	I	..	V	50	12	24	1	G	1	Hg	..	V
23	11	30	1	G	D	Hg	1	V	51	2	39	11	B	1	I	..	V
24	3	28	3	B	1	I	..	V	52	4	28	1	B	1	I	..	V
25	3	25	2	B	1	Hg	..	V	53	2	35	5	B	1	I	..	V
26	12	38	8	B	I	Hg	..	V	54	7	28	2	GG	2	I	..	V
27	7	21	1	B	Dp	Hg	..	V	55	6	20	1	B	1	Hg	..	V
28	70	20	1	B	D	I	1	V	56	4	39	5	G	1	I	..	V

No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Cause of Retention.	Force Delivered.	Observations.	No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Cause of Retention.	Force Delivered.	Observations.
57	4	27	6	G	1	Ad	..	V	62	5	24	2	G	1	Ad	..	V
58	3	28	6	G	Dp	Ad	..	V	63	15	30	1	B	1	Ad	..	V
59	24	25	1	G	Dp	Ad	..	V	64	3	31	3	BB	Dp	Ad	..	V
60	3	30	8	B	1	Ad	..	V	65	8	22	1	G	1	Hg	..	V
61	13	22	1	B	1	Ad	..	V	66	90	19	1	B	1	I	..	V

ON CONVULSIONS.

THERE are few circumstances more calculated to alarm the practitioner, or excite terror in the friends of the patient, than the occurrence of convulsions during the progress of labour; and the result both with regard to the mother and child proves the danger serious. This attack occasionally sets in without the medical attendant being aware of its approach, in consequence of there being no *decided* premonitory symptoms; however, an experienced observer will not unfrequently notice many circumstances preceding the seizure, sufficient to arouse his apprehension. It is, therefore, of vast importance that we should retain in mind every particular in the least degree calculated to put us on our guard, as by the timely use of active means, the occurrence of the fits may be at times altogether prevented, or they may be at least much mitigated in violence.

Puerperal convulsions occur almost invariably in *strong plethoric young women, with their first children;* more especially in such as are of a coarse make, with short thick necks.* In such, the

* Doctor Ramsbotham, Vol. II. p. 254, states, "Women with *large families are equally or perhaps more liable* to be assailed."

medical attendant should be tenfold apprehensive particularly if he observe his patient very restless, suffering much irritation and distress during each labour pain, with a flushed face, and complaining of acute pain in the head, or giddiness accompanied by indistinctness of vision, with a tendency to talk incoherently; should these symptoms be present in a woman such as above described, puerperal convulsions are much to be dreaded. There was but one case of convulsions during my residence in the Hospital, where the child presented preternaturally; there was not one case with a preternatural presentation during Doctor Clarke's residence, and Doctor Labatt has stated the same fact, in his lectures while Master of the Hospital. In these three different periods, there were 48,379 women delivered; so that from this we may infer, where the presentation is preternatural, there is little cause to dread the attack.

This fact might be brought forward to support the opinion, that puerperal convulsions were caused

I am much surprised to find so experienced a practitioner make this statement. Of 19 cases recorded by Doctor Joseph Clarke, 16 were *first* children. Of 36 by Doctor Merriman, 28 were *first* children. Of 30 by myself, 29 were *first* children. Thus of the *eighty-five* cases, *seventy-three* were first pregnancies.

In 26 cases recorded by Doctor Ramsbotham himself, he omitted to mention, in *five* instances, whether or not they were first pregnancies; and in the remaining 21 cases, there were only 2 instances where they were not first pregnancies; except where the children were born prematurely at the 6th or 7th month.

by the irritation produced in the dilatation of the mouth of the womb. This, however, is not the case, as we not unfrequently find patients attacked when the os uteri is completely dilated, and all the soft parts relaxed. I conceive we are quite ignorant as yet of what the cause may be; nor could I ever find, on dissection, any appearance to enable me to even hazard an opinion on the subject.

Doctor Denman observes, "That he thought, for many years, that convulsions only occurred where the head presented, but experience," he adds, "has proved they sometimes occur in preternatural presentations."

Thirty cases of convulsions occurred in the Hospital during my Mastership; *twenty-nine* were in women with their *first* children; and the other single case was a second pregnancy, but in a woman who had suffered a similar attack with her first child. *Fourteen* of the 32 children (two of the women having had twins) were born alive *Twenty* of the children were males. In *eighteen* of the 30, the convulsions subsided after delivery; in *ten*, the fits occurred both before and after; and in *two*, the attack did not come on till after delivery. In *fifteen* of the 30, the patients were delivered by the natural efforts; in *six*, delivery was effected by the forceps; in *eight*, by the perforator and crotchet; and in *one*, the feet presented. *Two* of the children were born putrid.

Five of the women died, viz.—

No. 5.—M. H. aged 22. This woman's labour proceeded favourably for 22 hours, when she was suddenly seized with a severe convulsive fit. A vein in each arm was opened and thirty ounces of blood taken away, after which she recovered her sensibility, and was able to reply to questions. On examination per vaginam, the head was found tolerably low, and the os uteri pretty well dilated, with a thin fold of it covering the head towards the pubes. A second fit soon followed, and a third two hours after the bleeding, when it was deemed necessary to lessen the child's head. This being effected, and the brain evacuated, it was left in this state for three hours, in order to permit the bones to collapse, so as to facilitate the delivery; during which time she had three fits. The fœtus was then brought away slowly and cautiously with the crotchet, without much difficulty. A second child was now discovered presenting with the head low in the pelvis. The forceps was applied, but owing to the thinness of the bones of the cranium there was such a general yielding under this instrument, that it slipped, and it was eventually found necessary to deliver with the perforator and crotchet. The placenta was shortly after removed by the hand passed into the uterus, upon which this organ contracted well. She was then given a bolus containing eight grains of calomel, as many of jalap,

and one of opium. In the course of the first five hours after, she had seven fits; from which time she remained in a comatose state, her breathing laboured, deglutition difficult; the bowels were most obstinately torpid, though the most active measures were adopted for their evacuation.

In this state she lived for 34 hours, without having experienced the least relief from the different means employed.

On dissection, five hours after death, the uterus was found remarkably well contracted, healthy, and natural. The brain was, for so recent a one, very soft, without any unusual vascularity; there was a slight effusion of transparent serum into the ventricles, yet whether to an amount that should be called morbid, would be perhaps difficult to decide. The intestines were quite healthy.

No. 8.—B. R. aged 25; was admitted on the 24th, 9 A.M., in labour. Uterine action became brisk shortly after, and the head advanced rapidly. At 4 P.M. she had a convulsive fit, which lasted but a short time; the head at this time was pressing on the perinæum, and the pains strong. The uterus continued acting well, the head advancing slowly, and at 10 P.M. was pressing strongly on the perinæum, but was so firmly fixed in the pelvis as to preclude the possibility of passing the finger between it and any part of the wall of this cavity. 12 P.M.—She had another fit, after which her

strength sunk rapidly, and the abdomen became very sensible to pressure. The head had not advanced for the last 4 hours; it was now lessened and brought down by the crotchet. This woman had been in labour two days before admission.

She died at 7 A.M. on the 28th.

On dissection, the muscular substance of the uterus and vagina was found ruptured to a considerable extent, posteriorly; the peritoneal covering remaining uninjured, with an extensive infiltration of blood beneath it. The whole of the internal surface of the vagina and soft parts was diseased and ulcerated, evidently the consequence of syphilis; which state, no doubt predisposed to the rupture.

No other morbid appearance was observed.

No. 19.—J. P., aged 28, was admitted October 25th, 6 P.M. She had been several hours in labour, but the waters were not discharged for an hour after she came in. The pains continued active during the night, but the head made little progress, being situated so high in the pelvis, as scarcely to be reached by the finger.

26th, 9 A.M.—Pains continue brisk; pulse perfectly quiet; abdomen free from distress; bowels well emptied.

3 P.M.—Was seized with a severe convulsive fit, which lasted 15 minutes. She was now bled to twenty ounces, her hair cut close, and cold applied

to the head. After the bleeding she became quite composed, and remained free from any urgent symptom until 6 P.M., when, suddenly, she became weak and restless; her pulse so rapid and feeble as scarcely to be numbered, and her abdomen very sensible to pressure. Immediate delivery having become necessary, the perforator was used, upon the introduction of which into the head, fully three half pints of water gushed out; the bones then collapsed, and the delivery was easily completed. This was ths largest hydrocephalic head, with the exception of one, I ever met with. The placenta was expelled into the vagina after the delivery of the child, and the hand was then cautiously introduced to ascertain if any laceration had taken place; the sudden debility and distress having excited a suspicion of its occurrence. The passage of the hand caused much excitement, and lest a return of the convulsions might be the consequence, it was withdrawn, without having made a satisfactory examination. Great debility with restlessness, still continuing, cordials were given with 30 drops of tincture of opium; after which she became quiet, but breathed with great difficulty. In 15 minutes her stomach rejected the draught, when wine whey was given, which it retained.

27th, 9 A.M.—Pulse 132, very feeble; uterus large and hard; most acute pain over the whole

abdominal surface, but particularly the uterine region; bowels not freed since delivery; slept well; drinks freely; stomach quiet; moves in the bed with much difficulty. Her symptoms continued to increase in severity till the 30th, 8 A.M., when she died. She had seven dozen and a half leeches applied to the abdomen; two warm baths with continued stuping. She was given 40 grains of calomel with the same quantity of hippo. She complained of her mouth being sore, though the gums were but little affected.

On dissection, seven hours after death, the intestines were found distended with air, but healthy in appearance; the uterus was also distended, resting above the pubes; and, at the right side, adhering to the ilium, as was also a portion of the ascending colon, evidently the consequence of recent inflammation. On separating these, a large rent was discovered in the posterior and lateral wall of the vagina, at the right side, which communicated with an abscess in the psoas muscle of this side, which muscle was, through its whole extent, in a state approaching gangrene. A small quantity of brownish fluid of thick consistence, was found in the abdominal cavity. On inspecting the head, a quantity of effused fluid and blood was observed under the pia mater, particularly towards the posterior lobes of the brain; corresponding to the situation where great pain had been complained

of during life. The brain was firm and healthy, but the lateral ventricles contained a considerable quantity of colourless fluid.

No. 21.—A. B. after having been nearly 48 hours in labour, was suddenly attacked with convulsions, for which she was bled to the extent of 20 ounces, with relief; yet the fits returned twice afterwards with violence. The pains, from the commencement, had been tardy and inefficient; for the last twenty hours the head had made but little progress, still it advanced slightly, and was pressing on the perinæum. It was so firmly impacted in the pelvis, and the pressure on the urethra was so great, as to render the introduction of the smallest sized catheter into the bladder, impracticable, which was at the same time distended with urine. Her pulse was feeble and hurried, 136, and her strength much exhausted. The head was immediately lessened, and the child brought away by the crotchet. The placenta was expelled immediately afterwards, when she fell into a sound sleep, out of which, in about three quarters of an hour, she awoke in a severe convulsive paroxysm. She was now given 40 drops of tincture of opium, which induced sleep, and she had no return of the attack.

Abdominal inflammation set in next day, which, notwithstanding most decided treatment, proved fatal on the 3d day. Her friends would not suffer the body to be examined.

No. 25.—A. C. was admitted March 16th, reported to have been three days in labour; the os uteri was not more dilated than the size of a shilling, and the pains were feeble. She slept occasionally, and continued in this state until 12 A.M. on the 18th, when she had a fit of convulsions which lasted about 5 minutes. She had, previous to this seizure, been put under the influence of Tartar emetic, in consequence of having had convulsions in this Hospital sixteen months before, with her first child. See case No. 20. Ten ounces of blood were immediately taken from her arm with relief. In an hour after she had a slight return; her head was now shaved and cold applied. The uterine action, from the time of her admission until 12 hours previous to delivery, continued feeble, and the labour made no progress whatever. At length, when the uterus began to act, the mouth of the womb gradually yielded, but as the head came nearly to press on the perinæum its further progress was prevented by a firm and unyielding band in the vagina. As this seemed the chief obstacle to the passage of the child, its edge was slightly cut with a blunt-pointed bistoury towards the left side of the vagina. Some hours after, the head was found to have advanced considerably, the band still opposing it; however, as the fœtal heart's action had now ceased, having been, for the last few hours, becoming gradually fainter, the head was

lessened, and left in this state for three quarters of an hour, to permit the parts to dilate slowly; it was then removed without difficulty. The placenta was expelled into the vagina shortly after the birth of the child, but was not removed for an hour and a half. Her pulse previous to delivery was 120, and she seemed very feeble.

19th, 9 A.M.—Pulse 120, very feeble; slept occasionally; had taken one of the Hospital purgative powders, containing 4 grains of calomel and 6 of jalap, which twice affected her bowels; abdomen full but soft; uterus much enlarged, most acutely painful when even slightly pressed on.

To be put into a warm bath; to have three grains of calomel with the sixth of a grain of opium in a pill every 3 hours. Two dozen leeches to be applied at 1 P.M. if not relieved by the bath.

9 P.M.—Pulse 126, extremely feeble; breathing hurried; countenance expressive of much distress, resembling that of a person labouring under laceration of the vagina or uterus. The vagina had been examined with the finger after delivery, but no injury was detected. Abdomen still full; pain on pressure not nigh so acute as at last visit; bowels twice opened; took 3 pills and a draught of castor oil at 4 P.M., as the bowels had not at that time acted; stomach frequently rejects her drink. The leeches were put on by mistake previous to the bath this morning.

Pills to be continued; frequent stupes to the abdomen; to have beef tea and wine whey.

20th, 9 A.M.—She died at 8 this morning. On dissection, a laceration of the vagina was found at its junction with the uterus, opposite the promontory of the sacrum, which did not project unusually, nor was the pelvis much under size. The opening was not larger than to admit the two forefingers. There was extensive effusion into the abdominal cavity, with considerable deposition of lymph, and numerous adhesions. The peritoneum was every where extremely vascular and greatly thickened.

Such is a correct and brief detail of the *five* cases that proved fatal out of the 30; *three* of which were complicated, with laceration of the vagina; *one* with twins; and *one* with peritoneal inflammation. It is thus evident that the fatal result in these cases, with the exception of the twin birth, was not immediately connected with the convulsions; and the danger, in all twin deliveries, *no matter what the attack may be*, is, in every instance, greatly increased.

With respect to the liability to abdominal inflammation after delivery, Doctor Denman, in his excellent work, p. 430, states, "In almost every case "of convulsions he saw in the early part of his "practice, there was evidently after delivery, a "greater or less degree of abdominal inflammation, "but by the present practice of liberal bleeding, "this has probably been prevented."

I have frequently, even where blood has been taken freely, found a strong tendency to peritoneal inflammation in such cases, and would urge the necessity of guarding against its approach, by the use of Tartar Emetic in minute doses after delivery; stuping and leeching freely, when there is the least evidence of its presence, and following this up with two grains of calomel and as much hippo, given every 3d hour, until the symptoms disappear.

In *twenty-five* of the 30, the patients recovered favourably; in some, the fits were extremely violent, in others, of short duration; a concise account of each may not be uninteresting. Where convulsions occur at an early stage of labour, or perhaps before there is a symptom of labour, the case is rendered very embarrassing; particularly when the fits are violent and frequent, and the patient remains insensible during the interval; as, when the practitioner wishes to effect delivery, he finds it difficult, or impossible to do so, with safety to his patient. In such cases, I have almost invariably adopted a plan of treatment, with the most marked benefit, of which, as it is not recommended by any writer on the subject that I am aware of, nor indeed did I ever know of it being pursued by any individual in practice previous to my using it in the Hospital, I shall give a short statement, following it up by a few explanatory cases. In

every severe instance of convulsions, after having carried into effect the ordinary mode of treatment, as *bleeding freely*, *acting briskly* on the bowels with calomel and jalap, and at the same time adopting the means usually had recourse to for protecting the patient from injury during the paroxysm, I endeavoured to bring her under the influence of tartar emetic, so as to nauseate effectually without vomiting. With this view a table-spoonful of the following mixture was given every half hour :—

℞ Aquæ Pulegii, ℥ viii.
Tartari Emetici, gr. viii.
Træ : Opii, gtts. xxx.
Syrupi Simpl : ʒ ii.
℥

In some cases, the quantity of Tartar emetic used was only four grains to an eight ounce mixture, and in others the quantity of opium was somewhat increased. Pounded Ice, or cold water applied to the head, as heretofore recommended, I consider useful; however, where the convulsions continue violent, and the patient's strength permits, a repetition of the bleeding must be had recourse to. To avoid this injurious necessity, which is of much importance to the patient's recovery and future health, and to produce general relaxation, so as to facilitate the dilatation of the mouth of the womb and soft parts, and at the same time lessen the frequency and violence of the fits, I consider

the Tartar emetic of eminent service.* On this principle the following cases were treated:—

No. 22.—M. D., five hours after the commencement of labour, was attacked with convulsions; she was instantly bled to 35 ounces, with considerable relief. She was ordered a mixture containing one grain of tartar emetic, and three drops of tincture of opium to the ounce, a table spoonful to be taken every half hour; her hair to be cut close, and a cold lotion to be applied to the head; the bowels had been previously well acted on. The head of the child was high in the pelvis, and the os uteri little dilated. After the bleeding, &c. &c., the convulsions subsided; the labour pains became stronger, and she was delivered in three hours. The fits returned three times after the birth of the child, once during the expulsion of the placenta,

* Doctor Hamilton remarks, "Accident led me some years "ago to employ camphor, and since that time, every patient, "to whom it was possible to give it, has recovered. I con- "sider it therefore the most valuable internal remedy which "can be prescribed in such cases." The most efficacious and palatable form, he adds, in which this medicine can be prescribed, is, by suspending it in boiling water through the medium of alcohol, sugar, and magnesia. Ten grains to be given every 3 or 4 hours, and its use to be persevered in for several days, gradually lessening the number of doses.

Of camphor I can say nothing in such cases, never having used it, but, so respectably recommended, I thought it necessary to allude to it. I should fear, however, too much has been said in its favour.

and twice afterwards. She took 50 drops of tincture of opium, in divided doses, from the first seizure after delivery, until the convulsions ceased.

No. 26.—M. E. was admitted April 23d, shortly after which, she was attacked with convulsions, which subsided after she had been fully bled, and brought under the influence of tartar emetic and opium. She left hospital on the 26th, free from distress, but undelivered, not having any symptom of present labour. On the 28th, she returned, and was delivered May 2d, by the natural efforts, after a labour of 62 hours. Both mother and child left hospital well on the 9th day.

No. 28.—E. F. was admitted at 10 A.M., having had three or four fits of convulsions previously. On examination the os uteri was found little if at all dilated. She was bled from both arms, to between 40 and 50 ounces; the bowels were well acted on by purgatives and enemata, and she was put on the use of the tartar emetic mixture. Towards evening the os uteri became relaxed, and was dilated to the size of a shilling, when, the convulsions having returned during the day, the head was cautiously lessened, and left in that state for an hour before the crotchet was applied, by means of which, delivery was effected after considerable delay, owing to the almost total want of uterine action. She had *ten* fits from the time of her admission till her delivery. Her recovery, though

slow, was progressive, and without any untoward symptom.

No. 30.—A. B. was brought to hospital in labour, having had several fits of convulsions for some days previously; on admission, she was quite insensible, and was scarcely placed in bed, when a severe fit came on. She was bled immediately to 20 ounces, and given two table-spoonfuls of the following mixture:—

℞. Aquæ Fontis, ℥ viii.
Tart. Emet. gr. xii.
Tinc. Opii. gtts. xl.
℥

The fits returned in quick succession; the bleeding was twice repeated, first to 12, then to 8 ounces; ten grains of calomel were given, cold kept diligently applied to the head, and the tartar emetic mixture continued. There was no dilatation of the os uteri, whatever, yet it was thin, soft, and the head low in the pelvis. Uterine action soon commenced; in an hour it was dilated to the size of a shilling, and at 11½ o'clock to more than that of a half crown; during which time she had several fits, some very severe, particularly after a vaginal examination. She took eight ounces of the tartar emetic mixture up to this time, and had two fœtid injections.

26th, 1½ A.M.—Pulse has now become very feeble; has had altogether, since her admission,

seventeen fits. The head had now descended so as to press on the perinæum, and as the soft parts were well dilated, and the ear within reach of the finger, the forceps were applied, and she was delivered without difficulty. The fœtal heart's action, which had been heard distinctly on her admission, became inaudible previous to our visit at 11½ o'clock. When this child was removed, it was found there was a second. The membranes were above the brim of the pelvis, and either a hand or foot was felt through them. When ruptured the head was found to present with the hand, the face towards the pubes. As the child was dead, and the mother *very feeble*, the head was lessened and the crotchet applied, during which, she had another severe fit. The bones of the head, in both children, were much separated, and quite loose.

In the intervals of the fits, from the commencement, she was incessantly tossing about, and seemed insensible to every thing; there was also great difficulty in keeping her quiet during delivery; however after the birth of the first child she was evidently relieved. When the placenta came away she was ordered 30 drops of tincture of opium, and to continue the cold application to the head. We left her at 3½ in a kind of snoring sleep, with directions to be called if she should have any severe return of the fits, or if her pulse should become feeble.

7¼ A.M.—Has had seven fits since last visit, but none very severe; continues in the same stupidly dozing state, with the pulse much fuller.

Two table-spoonfuls of the tartar emetic mixture were now given.

9 A.M.—Symptoms unimproved; a vein was now re-opened, and 12 ounces of blood removed, with the *most marked relief*. Her head was shaved and pounded ice applied; she was given 5 grains of calomel, and 10 of jalap, and an injection with turpentine was ordered to be thrown up in four hours. A large blister was put on the nape of her neck.

9 P.M.—Since the bleeding, a visible improvement has taken place; her breathing is less laboured, and during the early part of the day, she remained in a quiet sleep, without any return of the convulsions; she is able to swallow with facility, and, consciousness returning, she answers questions and complains of her head and stomach; bowels have acted freely.

Continue the cold applications to the head; to have plenty of mild drink.

27th, 9 A. M.—Pulse 108; tongue clean, but injured in several places by the teeth, not however severely, owing to the precautions taken; bowels not opened since last visit; passed a considerable quantity of urine resembling water coloured with oatmeal; abdomen soft and free from pain; uterus

large but soft; is now quite sensible; has no local distress, but complains of general soreness.

℞. Aquæ Fontis, ℥ viii.
Carb. Sodæ, ʒ iv.
Tart. Sodæ et Potassæ, ℥ i.
M

Two table-spoonfuls, with one of lemon juice, every half hour, till the bowels act. The abdomen to be frequently stuped; the head to be kept uncovered, and frequently sponged with cold water; to have mild drink.

28th, 9 A. M.—Pulse 132; tongue moist; abdomen soft, and free from pain; uterus considerably lessened; bowels acted well; passes urine freely; slept none; head very hot and painful; talks at times incoherently; drinks freely.

12 leeches to the temples; ice to the head; to have a dessert spoonful of the tartar emetic mixture every half hour; sinapisms to the feet; mild drink at pleasure.

9 P. M.—Pulse 130; bowels acted once: abdomen natural; mind rather more disturbed; sinapisms produced no effect, though they remained on for 5 hours.

To have a dessert-spoonful of the following mixture every half hour:

℞. Aquæ Pulegii, ℥ viii.
Tart. Emet. gr. iv.
Tinc. Hyoscyam. ʒ i.
M

Sinapisms to be renewed to the feet, and cold to the head.

29th, 9 A. M.—Pulse 120; slept some; mind more composed; has taken four ounces of the mixture; uterus rather full; abdomen soft; bowels acted once; drinks freely.

Continue the mixture and cold applications; the abdomen to be frequently stuped; the room to be darkened, and kept quite quiet.

30th, 9 A. M.—Pulse 120; tongue clean; abdomen natural; slept well; complains of pain in her head, which continues hot; mind more composed; answers more correctly; bowels free; the tartar emetic mixture with hyoscyamus was repeated yesterday, of which she has taken four ounces.

Continue mixture; ice to the head; strict quietness.

31st.—Pulse 120; mind tranquil; answers correctly; bowels free.

Omit tartar emetic mixture; continue cold applications.

August 1st.—Pulse frequent; in other respects improved.

To have some flummery; continue cold applications.

14th.—She continued to improve, and was discharged this day quite well.

The four cases here stated are sufficient examples of the treatment by tartar emetic; which, from

experience, I can confidently recommend to the profession, in *all cases* where the practitioner either finds delay necessary previous to effecting delivery, or where he is disposed to trust to the efforts of nature. In the treatment of a patient labouring under convulsions, the main object being to gain time, and meanwhile guard the female against a frequent return of the fits, or what is even of more importance, their violence, I would strongly caution junior practitioners to avoid hasty measures for the delivery of the child, which, perhaps, alarm for the mother's safety, might induce them to have recourse to. When the case is such as to admit, with propriety, the application of the forceps, *no delay* should be made; but in the great majority, this instrument is inapplicable.* *Fifteen* of the 30 cases I have stated, (as before mentioned,) were delivered by the natural efforts, and all recovered; as did also the *six* delivered with the forceps. Of the *eight* delivered with the crotchet, five died.

The following is an account of the three women delivered with the crotchet, who recovered.

No. 2.—M. S. was admitted in labour at 4 P.M. having had, as reported, 10 or 12 severe convulsive fits, the first occurring at 9 A.M.; since which time she has been quite insensible. The os uteri, on

* Of the *one hundred* and *eleven* cases already alluded to, as having occurred to Doctors Joseph Clarke, Merriman, Ramsbotham, and myself, the forceps was only used in *eighteen*.

examination, was found not more dilated than to admit the point of the fore finger. She was now bled to 35 or 40 ounces, having, previous to admission, lost eight ounces. Fifteen grains of calomel, with as much jalap, were given in a small quantity of fluid, with difficulty, some of which did not reach the stomach. A strong purgative injection was also administered. Although she had two severe attacks immediately after she was admitted, from the time she was bled she had no return, but remained in a state of complete stupor. Having waited four hours, we found the os uteri dilated, sufficiently, barely to allow of the attempt to perforate the head, being scarcely the size of a crown piece. The brain was then, as much as possible, evacuated; and the head left to collapse for an hour and a half, when it was gently brought down with the crotchet, the parts being in a more relaxed state. It was a male child, and the face was turned towards the pubes.

She was discharged well on the 10th day.

No. 10.—M. A. R. aged 18; admitted Dec. 19, at 5 A.M.; shortly after admission, she was attacked with convulsions. From the report received, it would appear, that she had had strong symptoms of their approach for 3 hours previous, which her attendant thought of no consequence. The waters had been discharged at 1 A.M. The convulsions were strong, but not of long duration; returning,

however, very frequently. Having taken away 30 ounces of blood, we determined to wait the effects produced by uterine action, as the patient's strength was not much reduced. After four hours' careful watching, it was found the head had not made any progress, and the fits were coming on in quick succession, having had *ten* since our first visit. The head was now lessened, being so high and firmly fixed in the pelvis, as to put the use of the forceps out of the question, and we had nothing to expect from the natural efforts. There was considerable difficulty in completing the delivery, most of the bones of the head having come away, before the body could be got down. The placenta was expelled in 40 minutes, during which time she had several fits, and some after its expulsion. When removed to her bed from the couch, she got a bolus containing ten grains of calomel, and fifteen of jalap, with one grain of powdered opium. (This case occurred shortly after my appointment as master, and previous to my experience of the benefit derived from the use of tartar emetic; which, I have little doubt, would have lessened the frequency of the fits.) From this time she slept the greater part of the day. At 5 P.M., as the bolus had not acted, a purgative draught was given. In three hours after, the bowels being still unmoved, an ounce of castor oil, and as much tincture of jalap were given, and injections

ordered to be thrown up frequently, until the bowels were well opened.

20th, 9 A.M.—Pulse 120; tongue moist; medicine operated well; slept quietly; drinks freely; abdomen tolerably soft; complains of pain on pressure over the uterine region.

Three dozen leeches to painful region; a warm bath, in which she is to remain as long as is agreeable; to take calomel and hippo, of each 4 grains every fourth hour; frequent stupes.

9 P.M.—Pulse 116; leeches bled well; abdomen much softer; pain much relieved, still felt on pressure; bowels frequently opened; took 2 powders; drinks freely, and answers questions distinctly.

To have her powders every 3d hour; stupes to be continued, and should the pain be not much relieved in 2 hours, to have the leeches repeated.

21st, 9 A.M.—Pulse 116; leeches were applied; rested well and feels easy; countenance much improved; bowels once opened; abdomen much more natural and free from pain; drinks freely; took 3 powders.

To have a castor oil draught with tincture of jalap; to have a warm bath, and when the bowels have acted, to continue her powders.

22d, 9 A.M.—Pulse 108; tongue moist and clean; abdomen rather full, but free from pain; medicine operated freely; did not get any of the

powders; complains of slight soreness of her mouth.

To have effervescing mixture with Rochelle Salt.

23d, 9 A.M.—Some pain in head; slept little; bowels not acting; pulse quick; one dozen leeches to the temples. The oil and tincture of jalap to be repeated. 10 P.M. complains of want of sleep and debility.

To have 30 drops of tincture of opium immediately; the oil to be repeated in the morning.

24th, 10 A.M.—Pulse 120; tongue moist and clean; abdomen full but soft; bowels not yet opened; complains of tightness of her head and debility.

To have an injection thrown up immediately; the plain effervescing draught; some stewed apples.

25th.—Pulse 108; slept well; mouth affected by mercury.

She continued gradually to improve, and left Hospital quite well January 7th.

For the third case of delivery by the crotchet that terminated favourably, see E. F. No. 28, where Tartar emetic treatment was employed conjointly with bleeding.

From a perusal of the eight crotchet cases it will be seen, that *necessity* alone induced us to resort to delivery, and the patient's life under such circumstances is unavoidably exposed to extreme danger.

It requires considerable practical experience on the part of the physician, to select the proper time to interfere, where there are so many circumstances to be taken into consideration. Next to the mother's life, there is the life of the child to be attended to; and here the stethoscope is of incalculable benefit, enabling us to detect the continuance of its life or *its death*, at an early period after the latter event has taken place; yet even the most satisfactory evidence of the child's death will not warrant the practitioner's hurrying delivery, there being other points of paramount importance to be attended to, viz. the state of the os uteri and soft parts; as the convulsions could hardly fail, in every instance, to be greatly aggravated, by forcing the child through these parts when undilated and unyielding. The after-consequences of a delivery thus effected would prove far more dangerous to the patient than a repetition of the fits, so long as she had strength to bear them, even with tolerable safety.* It is of vast importance to effect the

* Doctor Burns, in his very useful work, states, in certain cases, "We must introduce the hand and slowly dilate the mouth of the womb, if that can be done easily, &c. &c. and deliver the child."—See p. 486.

I would caution the practitioner against artificial dilatation of the mouth of the womb in such cases; indeed there are few instances under any circumstances, (some hæmorrhages excepted,) where I should recommend this practice; but in convulsions I consider it particularly injurious.

delivery of a patient, when suffering under severe convulsions, as speedily as possible; but I should hope a perusal of the cases given will prove, that to combine safety with this truly desirable object, there is need of much patience and caution.

In the great majority of cases when delivery is accomplished, the convulsions either cease altogether, or terminate gradually; each return becoming less severe. Of the *ten* cases in which the fits continued after delivery, *two* only proved of serious importance; one was the twin case; the patient died; in the other, abdominal inflammation set in after delivery; this patient also died. I would seldom recommend the detraction of blood in the treatment of convulsions continuing subsequent to delivery, if the patient have been previously freely bled; these attacks, unless extremely severe, almost invariably yield to the free use of opium and tartar emetic. Should this not have the desired effect, then, if the strength permit it, a bleeding to the extent of ten ounces or so may be had recourse to. Where there has not been previous depletion the lancet will be ofttimes necessary, but in many cases the opium and tartar emetic treatment alone will be found sufficient. M. D.'s case, No. 22, already given, treated by bleeding and tartar emetic, and in which convulsions returned after delivery, shews the utility of an opiate under such circumstances.

In the following instances the patients had not lost any blood previous to delivery :—

No. 4.—B. O. was 29 hours in labour, the feet presenting. A few minutes before the expulsion of the child she had a slight convulsive attack; the placenta came away soon after, during which she had a second fit much more violent than the first.

She was bled to 25 ounces, when she became quiet and much disposed to sleep. A powder with one grain and a half of opium and eight of calomel was given. She slept well during the night, her bowels were well acted on the next morning, and she left Hospital quite well on the eighth day.

No. 17.—R. S. This woman had a smart convulsive fit during the expulsion of the child's head; and the fit having a tendency to return in about 20 minutes after, she was bled to twenty ounces, and had a draught containing 25 drops of tincture of opium, after which she had no relapse.

No. 23.—J. L. Immediately on the protrusion of the head convulsions came on. The child was soon expelled, as also the placenta. The fits still continued, and it was not until she was bled freely, purged, and then put under the influence of opium, cold also being applied to the head, that the convulsions subsided.*

* Many of our best writers on Midwifery, have actually condemned the use of opium in convulsions; stating it to be most injurious, some even destructive. Ample experience, however, has convinced me, that it is not only harmless, but *highly bene-*

We have stated the importance of effecting delivery as speedily as is consistent with the mother's safety and that of her child, where convulsions are severe; and also that where the forceps are applicable, no delay should be permitted; indeed there are few situations in which this instrument can be used with such decided advantage, yet the favourable result under such circumstances, is by no means entirely owing to its use, as the labour being *so far advanced* as to admit of this mode of delivery, very greatly lessens the danger.

ficial, in those cases where the fits *continue after delivery*; and I should hope the cases adduced will prove satisfactorily, that it is also useful under many other circumstances, where proper steps had been previously taken. Its combination with Tartar Emetic, and occasionally with calomel, is most advantageous. Doctor Hamilton of Edinburgh, Professor of Midwifery, states, "I can solemnly declare that no patient to whose assistance I have been called, who had taken a dose of opium previous to my arrival, has recovered; and I have known that medicine given in almost every variety of dose."—See Annals of Medicine, Vol. V. p. 340.

Professor Burns states opium "to be highly dangerous." "It seldom suspends the fits till it converts the disease into fatal apoplexy."—p. 487.

At page 489 he says, "I have seldom if ever used it myself, and in the ordinary puerperal convulsions, should expect nothing but mischief from it."

Doctor Hamilton also states, he never employed opium under such circumstances, as his father Doctor A. Hamilton prevented him.

Doctor Ramsbotham says, "The exhibition of opium in these alarming cases, is justly exploded."—See Vol. II., p. 271.

In the following cases the forceps was used, with most satisfactory results :—

No. 1.—A. R. had three severe convulsive paroxysms, for which she was largely bled; the head being low in the pelvis, the soft parts well dilated, and the ear within reach of the finger, she was delivered with the forceps. Both mother and child did well.

No. 6.—C. D., in 17 hours from the commencement of labour, was attacked with convulsions; the head being low, and the parts well dilated, she was delivered with the forceps. Both mother and child did well, and left Hospital on the 8th day.

No. 13.—E. F. was 16 hours in labour when she was seized with convulsions; the case being a favourable one she was delivered with the forceps. Both mother and child did well.

No. 14.—G. H. was 36 hours in labour when convulsions set in; she was largely bled; the fits however continued; the head being low, and the case otherwise favourable, she was delivered with the forceps. Both mother and child were dismissed well on the 10th day.

No. 27.—J. J. In this case the labour was proceeding very favourably, the soft parts were well dilated, and the head resting on the perinæum, when she was suddenly seized with convulsions. Thirty ounces of blood were immediately removed, which, on being suffered to stand for some time,

shewed a decided inflammatory character. She was speedily delivered with the forceps, and both did well.

No. 30.—See this case already noticed when alluding to the tartar emetic treatment.

The above cases show clearly what great benefit results from delivery; however there were only *six* out of the 30 that admitted of the use of the forceps; and these, with the exception of No. 20, comparatively of no danger whatever, when *compared* with those in which delivery with the crotchet became necessary.

There were but two instances where convulsions occurred subsequent to delivery, the patient having had no previous attack. In neither was instrumental aid necessary.

No. 29.—A. H., in five hours after delivery, her labour having neither been tedious or unfavourable, was attacked with convulsions; three fits succeeded each other with a very short interval, the last being particularly severe. She was bled to 30 ounces, and put under the influence of tartar emetic and opium, (the mixture containing four grains of tartar emetic to eight ounces of water, with 40 drops of tincture of opium,) after which she had no return. She was given two table-spoonfuls at first, and one every half hour after, until she seemed affected by it, when it was continued at intervals of two hours, till all symptoms disappeared. We were afterwards informed that this woman had been subject to fits.

No. 18.—C. K. had a slight attack of convulsions five hours after delivery; the fit soon subsided but recurred in 4 hours, when she was bled to 10 ounces, and had a draught containing 30 drops of tincture of opium, which was repeated in half an hour, after which she had no return. She was only 15 minutes in labour; her child was still-born.

In the succeeding cases some of which are instructive, the patients were all delivered by the natural efforts; in some, the convulsions occurred before delivery, in others after, and in some both before and after.

Doctor Denman, treating of convulsions, says, "these may come on in the beginning, or in the "course of a labour, or, which is more rare, though "not less dreadful, soon after the birth of the "child." p. 432.

Doctor Ramsbotham states, "that convulsions, "after delivery, are more untractable and prove "more frequently fatal, than where they occur "previous to, or during labour." He continues, "I have remarked that when they come on under "either of the latter circumstances, and continue "after delivery, whether it may have been effected "naturally, or hastened by art, they generally "prove destructive to the patient."

I find myself compelled to dissent from both these highly respectable authorities; as I can have no hesitation in stating the patient to be in infinitely

less danger from convulsions occurring after delivery, than previous to it; and as to those cases generally proving fatal, where the fits continued after delivery, the instances detailed clearly shew the contrary.

No. 16.—E. P., at our morning visit, Nov. 17th, 9 A.M., complained of pain of a violent character in her temples, which had set in six hours previously; she was very restless and fretful; the os uteri was not in the least dilated. As there was sufficient reason to apprehend convulsions, she was immediately bled to 18 ounces, and given a bolus containing 8 grains of calomel and 10 of jalap; her hair was cut close, cold applied to her head, and she was ordered to be put on the use of the tartar emetic mixture. Notwithstanding these precautions, she had a fit at 2 P.M., when she was again bled to 20 ounces, and 4 grains of calomel, with eight of jalap administered, as the first had no effect; strong injections were ordered to be thrown up frequently till the bowels yielded. She continued in a heavy stupid state, without any symptom of labour, until the morning of the 19th, at one o'clock, when the child was expelled almost without a pain. She had taken 14 grains of tartar emetic in solution, in the 36 hours preceding delivery. The child was putrid.

No. 20.—E. Q. was seized with convulsions at 7 A.M., Dec. 10, when she was bled to 20 ounces;

her hair was cut close, and cold applied to the head; the bowels had been previously well acted on; the fit did not last longer than five minutes, but was severe. The os uteri was at this time fully dilated, the pains vigorous and the head advancing. In two hours she had a second fit similar to the first, the head, however, continued making progress. In three hours she had a third, not so severe; the head was now pressing on the perinæum. She was bled to 12 ounces with evident relief; the head continued advancing, and she was delivered in five hours from the last attack. The child was still-born, though the fœtal heart's action had been distinctly audible one hour before delivery, from which time it gradually declined, and the case was not such as to admit of the application of the forceps. The labour lasted 17 hours.

There was considerable tendency to peritoneal inflammation 30 hours after delivery, which yielded to the free application of leeches, warm bath, and small doses of calomel and hippo.

No. 7.—A. S. had a slight attack of convulsions about one hour before the birth of the child, and a second between the expulsion of its head and body. A third fit came on soon after the placenta was thrown off; an opiate was then given, from which time she had no return, and recovered well. She was 21 hours in labour, her child was putrid.

No. 9.—S. T. had a convulsive fit, not very

severe, before the expulsion of the child. She was bled to 20 ounces, and had no return.

No. 11.—M. T., eight hours previous to delivery was seized with convulsions which were not very violent. The os uteri and soft parts were well dilated, the pains strong, and the head making considerable progress. Twenty ounces of blood were taken away, the bowels had been previously well freed. Four hours after the first a second fit came on, much more violent; the head at this time, was pressing strongly on the perinæum, and was soon expelled. She was dismissed well on the 14th day.

No. 12.—N. T. had two attacks of convulsions, not severe, one shortly before the birth of the child, the other immediately after. The treatment was not noted.

No. 15.—A. D. was seized with convulsions as the child's head was passing through the os externum; the remainder of the delivery proceeded favourably. She had some sound sleep for six hours, when the fits returned to the amount of six, two of which were very severe. They yielded to bleeding followed by an opiate.

No. 24.—R. S. was eight hours in labour; half an hour before delivery had a severe convulsive fit, which lasted nearly twenty minutes. The child was still-born. The treatment was not noted.

No. 3.—M. O. had two fits of convulsions before

the birth of the child; she was delivered previous to admission.

The following tables shew the number of hours each woman was in labour, and also the age of the patients:—

Length of time in labour; thus: 1 was ¼ of an hour; 3 were 5 hours, and so on. For length of time six women were in labour, see cases.

Hours in labour,	¼	5	6	8	10	13	15	16	17	21	22	24	29	36	48	62
No. of Women,	1	3	2	2	1	1	1	2	2	1	1	1	1	2	2	1

Age of patients; thus: 2 women were 17 years of age; 2 were 18, and so on.

Age,	17	18	19	20	21	22	23	24	25	26	28	38
No. of Women,	2	2	2	4	2	3	1	4	2	3	4	1

I have now given a correct statement of the 30 cases of convulsions, with the mode of treatment adopted in each; which, I should hope may prove of service to the junior practitioner, when placed in such a truly trying situation. The experienced physician will, I have no doubt, value an extensive record of this nature, when he sits down to write out for the benefit of the profession and the public, the result of what his practice has enabled him to collect on the subject.

See likewise five interesting cases recorded by

Doctor Merriman in the appendix to his Synopsis, No. xxviii.

It is much to be regretted Doctor Merriman did not give a detailed account of the 36 cases alluded to. *Eight* of the 36 women died, and *twenty-five* of the children were still-born. *Two* of the women had twins. In *seven* of the 36, delivery was effected by the forceps; in *eight* the perforator was used; in *three* the children were turned; in *thirteen* the children were born without extraordinary assistance. In the *two* twin cases, the convulsions occurred between the birth of the first and second child; the labours terminated without artificial assistance. In *three* cases the convulsions came on after delivery; in 28 instances it was a first labour. See also 26 cases detailed by Doctor Ramsbotham in his Practical Observations, Vol. II. *Ten* of the 26 died. *Eighteen* of the children were still-born, besides *three* of which we have no statement. *Fifteen* of the 26 were delivered by the natural efforts; *two* by the forceps; *five* by the crotchet; and *three* by turning. These *three* died; which, as far as I have seen, is the result in *five* out of every *seven* women delivered in convulsions by turning. This operation, under these circumstances, experience has proved to be most ineligible.

There are few cases requiring more prompt and decided practice than puerperal convulsions; and the extent of the experience of most individuals is

not sufficient to enable them to draw satisfactory conclusions from what they have themselves seen; therefore every contribution is beneficial. Our average is not more than one case of convulsions in every *five hundred and forty-seven* deliveries.

Writers have given many cautions, as to how the patient should be treated in a subsequent pregnancy, in order to avoid a recurrence of the attack; little however is necessary more than what all pregnant women should attend to, as a severe paroxysm of genuine puerperal convulsions is seldom met with, in any individual, who has *before* laboured under such a seizure.

Some difference of opinion exists, as to whether the blood should be taken locally or generally, in these cases; as far as I am capable of judging, it is of little consequence, provided it be taken freely and in a full stream. I always prefer the arm when the blood flows copiously, but if not, the temporal artery. Leeches I look upon as useless, until you have bled generally as far as the strength will permit. As to blistering the head, I prefer the ice cap, or other cooling applications, and placing a large blister on the back of the neck. These latter means will be usually found *much more successful after* than before delivery, in cases where the fits continue. I consider them likewise highly beneficial where the patient remains in a comatose state subsequent to delivery; but here, if the breathing

be loud and laboured, 10 or 12 ounces of blood should be taken from the arm, if the pulse will bear it; and if this fail to afford relief, leeches must be applied to the temples, and sinapisms to the feet or inside of the legs. It is necessary that the patient, when in this state of torpor, should be diligently supplied with some mild drink, by the attendant placing a spoon between her teeth, and giving it frequently in half-spoonfuls, or according as she finds the patient can swallow. The action of the bowels must be briskly kept up, and due attention paid to the state of the bladder, there being not unfrequently inability to discharge its contents.

Should the patient become maniacal, as is occasionally the result when the fits have been severe, and have continued for any length of time after delivery, all local distress, as pain in the head, or any symptom that would indicate abdominal complication, should be diligently looked after, and treated accordingly; as by so doing, keeping her fully under the influence of tartar emetic, at the same time acting well on the bowels, and excluding light from her room, as also all other external irritants, the best results may be expected. It is a great satisfaction to the friends of the patient, in such a situation, to be assured, that there is little liability to a return of this derangement of mind, as is the case in most other forms of mania.

The following table will be found to afford

materials for making many interesting calculations, and to bring to view several important facts. The two first columns shew the occurrence of the convulsions before or after delivery, or both; the figure 1 denoting their having set in according as the column in which it is found, is headed. In the column indicating the life or death of the child, the figure 1 signifies its having been born alive; the letter D dead, and the letters Dp putrid.

No. of Case.	Before Delivery.	After Delivery.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Observations.	No. of Case.	Before Delivery.	After Delivery.	Sex of Child.	Alive or Dead.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Observations.
1	1	..	B	1	16	28	1	V	16	1	..	G	Dp	48	19	1	V
2	1	..	B	D	..	20	1	V	17	1	..	B	D	5	38	1	V
3	1	..	B	1	..	23	1	V	18	..	1	B	D	¼	20	1	V
4	1	1	B	D	29	22	1	V	19	1	..	G	D	..	28	1	V
5	1	1	BG	D	22	22	1	V	20	1	..	B	D	17	25	1	V
6	1	..	B	1	17	28	1	V	21	1	1	G	D	48	17	1	V
7	1	1	G	Dp	21	20	1	V	22	1	1	G	1	8	19	1	V
8	1	..	B	D	36	25	1	V	23	1	1	B	1	5	26	1	V
9	1	..	G	1	6	17	1	V	24	1	..	B	D	8	21	1	V
10	1	1	B	D	..	18	1	V	25	1	..	G	D	..	26	2	V
11	1	..	G	1	24	22	1	V	26	1	..	B	1	62	18	1	V
12	1	1	G	1	10	24	1	V	27	1	..	G	1	6	24	1	V
13	1	..	B	1	16	24	1	V	28	1	..	B	D	..	26	1	V
14	1	..	B	1	36	24	1	V	29	..	1	B	1	13	21	1	V
15	1	1	G	1	15	28	1	V	30	1	1	BB	D	5	20	1	V

ON RUPTURE OF THE UTERUS OR VAGINA.

Of all the accidents to which women are liable during the process of parturition, rupture of the uterus or vagina is perhaps the most deplorable.

In former times it was considered so hopeless an occurrence, that patients thus afflicted were abandoned to their fate, in many instances without any attempt being made to deliver them; it being supposed that there was a better chance of recovery, by leaving the child in the abdominal cavity, than bringing it away through the ruptured parts. Since, however, the very useful publication of Doctor Douglas of London, in the year 1784, on this subject, the treatment has been much improved, and the practice, I believe at present is, invariably to effect the delivery as soon as possible after the laceration has taken place.

It must be allowed, notwithstanding, that under the best possible treatment, but little success is to be expected; yet we are not without hope, as we have of late years on record, upon most unquestionable authority, several cases, not merely of complete recovery, but what is more extraordinary, some of these patients subsequently gave birth to children with *impunity*.

To enumerate the different cases of recovery would occupy too much space, and be also a waste of time, as they may be seen by referring to the periodical journals. Two instances of favourable termination took place in the Hospital during my mastership.—See Nos. 1 and 14, p. 248. One of these women has since given birth to *two* living children, with the first of which labour was brought on prematurely at the 7th month, and with the second she was permitted to go her full time.*

A much greater proportional number of cases of rupture are met with in hospital than in private practice. This is principally owing to such patients being sent to public institutions, after the occurrence of the injury, which is too often the consequence of the treatment adopted by ignorant and self-sufficient practitioners. The poor, too, from accidents and other circumstances, are considered to be more liable to this injury.

With respect to the causes giving rise to rupture of the uterus, all those which render labours tedious or difficult, will be found more or less frequently tending to its production—viz. narrowness or deformity of the pelvis—disproportion

* There are two very interesting cases published by Doctor M'Keever of Dublin, late Assistant in the Lying-in Hospital; in one of which nearly *four* feet of intestine came away, yet the patient recovered.

between the child's head and the pelvis—and, occasionally disease of the soft parts.

The operation of turning is not unfrequently a cause of laceration of the vagina or mouth of the uterus, *particularly* where it is performed previous to the soft parts being sufficiently dilated to admit the easy passage of the hand, or where great haste is employed. The same consequences may ensue from rash or violent attempts to remove a retained placenta. I have also known the mouth of the womb to be torn, by the imprudent use of the forceps, when not sufficiently dilated.

There is one fact which clearly shews disproportion to be a frequent cause, namely, its being oftener met with in the expulsion of male children; thus of 34 cases which I am about to state, *twenty-three* of the children were males; and of 20, mentioned by Doctor M'Keever, *fifteen* were males. This is satisfactorily accounted for, by the greater size of the male head, as proved by accurate measurements made by Doctor Joseph Clarke, which may be seen in his second letter to Doctor Price. Of sixty male and sixty female children, born at the full time, Doctor Clarke found that the average circumference in the males was 14 inches, and in the females $13\frac{5}{8}$ inches; the arch from ear to ear, over the crown, was $7\frac{1}{4}$ inches in the males, and only $7\frac{1}{5}$ inches in the females. Of the 120 examined there were only six, where the circum-

ference of the head exceeded 14½ inches, all of which were males. This difference may appear trifling, but in a practical point of view it is of vast importance, especially where any diminution in the size of the pelvis exists.

The symptoms which indicate rupture of the vagina or uterus are, in general, strongly marked. If a patient having had severe labour for some time, should suddenly call out that she felt something give way within her, followed by acute crampish pain in the region of the stomach, vomiting, great debility, and anxiety of countenance, with cessation of the labour pains, and urgent distress on pressure over the uterus, with perhaps a slight discharge of blood from the vagina; with these symptoms, the practitioner will scarcely be at a loss to conjecture what has occurred; but where, added to these, the presenting part recedes, and the extremities of the child can be felt by the hand through the abdominal parietes, the patient's countenance at the same time ghastly, and the body covered with cold sweat, the accident must be obvious to the least observing. I have, however, seen a few cases where the symptoms were very obscure: in such, the injury was trifling in point of extent, but equally fatal. In these, the cause for the most part is, a small projecting point of bone in the pelvis, or a jutting inwards of the last lumbar vertebra. The uterine action in the latter, continues not unfrequently

pretty vigorous, or at least assists considerably in the delivery of the child; which is very likely to deceive the medical attendant. In other cases, it would seem as if the very pain which caused the child's expulsion, produced the laceration.

The part, that most usually gives way, is at the junction of the cervix uteri with the vagina, either anteriorly or posteriorly; and, according to my experience, equally frequent in both situations. Of 34 cases that occurred in the Hospital, in 13 the injury was at the posterior part; in 12 anteriorly; in 2 laterally; in 1 the mouth of the womb was torn; and in 6 the particular seat of the laceration was not described. In 9 of the 34, the peritoneal coat of the uterus was uninjured, although the muscular substance of the cervix was extensively ruptured. One singular case occurred in the Hospital, precisely similar to that recorded by Doctor John Clarke, in the Transactions for the Improvement of Medical and Surgical Knowledge, vol. 3, where the patient died with all the symptoms of ruptured uterus. On examination, however, no rupture could be discovered; but on throwing forward the fundus uteri, numerous lacerations were observed in the peritoneal covering of its posterior surface; the injury being confined to this membrane.* I have never seen an instance where the *fundus*

* See also Doctor Ramsbotham's Case, No. 86.

was ruptured, nor did Doctor Clarke during his residence in the Hospital, meet with such an occurrence.

We mentioned that when the accident has taken place, speedy delivery is very desirable. The manner in which this is to be best accomplished, must depend upon the circumstances of the case. When the head presents and does not recede, it is rarely that lessening it, and delivering with the crotchet will not be found the most eligible mode of proceeding; in doing which we should have an assistant to keep the uterus as fixed as possible; at the same time using very gentle force with the perforator, and making the opening as much to one side as practicable, so as to fix the opposite side of the head against the pelvis. Should these precautions not be attended to, the child in our attempt to deliver is likely to recede, and escape into the abdominal cavity, and thus magnify the danger considerably. Efforts have been frequently made to deliver with the forceps, in such cases; but this instrument is seldom applicable, as the introduction of the blades generally forces the head out of our reach; besides but little would be thus gained, for the child dies* shortly after the rupture takes place;

* Doctor Burns, in recommending the forceps in these cases, states, "the child sometimes lives for hours" after the accident. This is contrary to my experience; nor has he given any case, where a living child was delivered with the forceps, after a laceration of the uterus had taken place.

the dimensions too of the pelvis are in such cases for the most part defective ; all which circumstances would seem strongly opposed to this mode of delivery. In three of the 34 cases above alluded to, attempts were carefully made to deliver with the forceps, but without success. When the child has escaped out of the uterus, it is now the general practice, and undoubtedly the best, cautiously to introduce the hand through the lacerated parts into the cavity of the abdomen, and bring down the feet without delay. As soon as the child is removed, the placenta should be taken away, with as much clotted and fluid blood as can be easily got at: care should be taken to return any of the intestines that might have fallen through the lacerated parts into the vagina, otherwise strangulation would most likely be the consequence ; the edges of the rupture should then be placed as nearly in contact as possible.

In cases where the laceration has occurred previous to the os uteri being dilated, it is thought the best chance of recovery would be, to open the parietes of the abdomen, cut into the uterus, and so extract the child. This is exceedingly rare : I never witnessed an instance of it, nor did Doctor Clarke during his seven years' mastership. The mouth of the womb is almost invariably so much dilated by labour pains, as to allow the attendant to introduce his hand without difficulty. Such a

state of parts might exist, where the uterus had been burst by a violent external injury, but is rarely met with as the mere effect of uterine action.

Of the 34 cases, 4 were delivered by the natural efforts; 19 by the crotchet; in 7 the children were brought away by the feet; in 2 the delivery was effected by lessening the thorax, and bringing down the breech; and in 2 the mode of delivery has not been stated. *Two* of the 34 children were born alive; *three* of those still-born were putrid; in *three* cases the uterus was ruptured before admission; in *three* the child presented with the arm; *four* of the women died immediately after delivery; *one* in 2 hours; *three* in 4; *one* in 10; *two* in 14; *one* in 17; *one* in 24; *one* in 25; and *one* in 30 hours. *Four* died on the 2nd day; *one* on the 3d; *four* on the 4th; *one* on the 5th; *two* on the 8th; *one* on the 9th; *one* on the 11th; *one* on the 14th; and *one* on the 24th day after delivery. The period of one death is not stated. *Two recovered.* Three of the 34 cases, were complicated with convulsions.—See Nos. 8, 19, and 25, on that subject. In four, psoas abscess formed previous to death.

I shall now give a short statement of each case, sufficient, however, to exhibit their most important features, first noticing those two instances of recovery.

No. 1.—Was admitted into Hospital with the hand and arm protruded from the vagina, as far as the elbow. The funis was prolapsed and without pulsation. It was stated that she had been attended by a midwife and two surgeons, and that the former, having mistaken the hand for the foot, had pulled it down. On admission she was in a very debilitated state; her countenance ghastly, and extremely anxious; pulse quick and feeble. It was evident she had suffered some serious injury, and from the symptoms, rupture of the uterus or vagina was too apparent. She had got sixty drops of tincture of opium previous to admission.

On examination, per vaginam, the shoulder and body were found forced so low and so firmly fixed in the pelvis, as to forbid any attempt at turning; nor was there any necessity for doing so, as the child was dead.

The thorax was then perforated and broken up, the breech brought down by the crotchet, and the delivery completed without the least difficulty.

On passing the hand into the vagina, after the placenta had been taken away, an extensive laceration was discovered posteriorly, at its junction with the cervix uteri. The parts were placed as nearly as possible in their natural position, care having been taken to return any protruded intestine, so as

to prevent its being included in the lacerated part, and remove the clotted blood.

It was evening when she was admitted, and after the delivery was completed and her bed made comfortable, she was given a powder containing ten grains of calomel, and the same quantity of jalap, which remained on her stomach, and operated freely.

The following morning she was reported to have rested but little; her pulse was 130, and there was much tenderness of the abdomen.

Three dozen leeches were ordered to be applied to the abdomen, and a warm bath afterwards; also stuping every third hour, with flannels wrung out of water, as hot as could be endured.

By these means much relief was afforded, but as considerable tenderness remained, the leeches and bath were repeated; from these measures, with diligent stuping every third hour, the distress, in a great degree subsided, before the end of the fourth day. Her pulse gradually returned to its natural state; she became daily stronger, and left the hospital perfectly well on the twenty-third day after delivery, and returned at the end of three months in good health. There was no other treatment adopted in this case but what is above mentioned, except that the strictest attention was paid to the regulation of her bowels; for which purpose, the medicines used were castor oil, black bottle, or the

common saline mixture, with Rochelle Salt in the proportion of one ounce to eight of the alkaline solution, given with lemon juice. Her diet was carefully regulated; nothing stimulant or difficult of digestion was allowed. Fruit, both raw and stewed, whey, gruel, tea, flummery, and subsequently broths were her chief food.

Her bowels were, from the commencement, easily affected by a small quantity of medicine.

No. 14.—Anne Woodward was admitted October 27th, 1828, at 6 o'clock P.M. It was reported that her labour had commenced seven hours previously. The uterus, on her admission, was acting briskly, and the head so far advanced, that those who were in attendance, were in momentary expectation of its expulsion; suddenly, however, the uterine action completely ceased, followed by considerable debility, great distress of countenance, vomiting and other symptoms strongly indicating rupture of the uterus.

The head was low down, pressing on the neck of the bladder, so much so, that the catheter could not be introduced. As immediate delivery was necessary, it was lessened, and the child brought away by the crotchet; the uterus assisting strongly in expelling both it and the placenta; however on passing up the hand afterwards, a most extensive laceration was found, anteriorly, at the union of the cervix uteri with the vagina, through which the

intestines had fallen. After carefully returning them, the ruptured edges were brought together, and the patient was enjoined to remain perfectly quiet on the couch where she had been delivered for two hours, after which time she was cautiously carried to bed, and a powder containing eight grains of calomel and fifteen of jalap, with half a grain of powdered opium, administered.

October 29th, 9 A.M.—Rested badly; bowels have not been opened; pulse 114, feeble; abdomen distended, and very tender on pressure.

To have one ounce of castor oil, and one of tincture of jalap immediately; to be repeated in three hours if necessary. Three dozen leeches to the abdomen, and afterwards the warm bath, in which she is to remain as long as she finds it agreeable; the abdomen to be fomented every second hour with flannels as hot as can be endured.

9 o'clock P.M.—Purgative draught was repeated; bowels have been well emptied; abdomen softer; less painful on pressure; pulse 120; tongue foul.

The stuping to be diligently continued.

October 30, 9 A.M.—Had some rest; pulse 114; tongue foul; abdomen full; uterus enlarged; very tender on pressure; bowels open.

Three dozen leeches over region of uterus, afterwards a warm bath; stupes every second hour; the saline mixture with Rochelle Salt.

9 o'clock P.M.—Felt relieved by the leeches and

bath; pulse 120; bowels open; abdomen softer, much less painful on pressure.

Fomentations and saline draught to be continued.

31st, 9 A.M.—Rested tolerably; drank freely; pulse 114; bowels open; uterus still continues enlarged, hard, and tender on pressure.

Three dozen leeches and warm bath to be repeated; stupes every second hour; to have three drachms of castor oil in an ounce of pennyroyal water.

November 1st, 9 A.M.—Rested well; drank freely; pulse 114; abdomen soft and free from pain; uterus still hard and enlarged; bowels open.

Fomentations to abdomen to be continued; to have the saline aperient mixture.

Nov. 2d, 9 A.M.—Rested well. Pulse 114; tongue moister and cleaner; drinks freely and feels easy except when she moves in the bed; abdomen nearly free from pain; bowels open.

Stupes to be occasionally applied.

3d, 9 A.M.—Pulse 114; in every respect improved.

She gradually continued to amend, and was dismissed quite well on the 30th of November, one month and two days from the date of her delivery. Her pulse, which was feeble from the first, continued regularly to beat 114 in the morning, and 120 in the evening, for the first twelve days, after which it fell to 98, and became gradually stronger and more natural.

On the 15th and 16th days after delivery, there was a very considerable discharge from the vagina, of unhealthy pus, to the amount perhaps of a pint on the first day, and somewhat less on the second. It had probably collected about the lacerated part; it did not, however, interfere with her recovery, during which her strength was supported by nutritious diet.

After the first 12 days she was freely supplied with chicken broth, chicken, stewed apples, grapes occasionally, and a little wine. She also had the cold infusion of bark in the form of an effervescing draught; this was the only medicine administered, after the first four days, with the exception of a few drachms of castor oil occasionally, or the saline aperient mixture.

The bowels in both these cases were easily acted on, after having been, in the *first instance*, well emptied. This contributed much to their favourable termination. For the most part, where this injury has occurred, the bowels yield with difficulty to the effects of medicine; and in many cases it will be found quite impossible to evacuate them, even with the largest doses of the most drastic purgatives, until death is close at hand, when they begin to act violently. It is a matter of the utmost importance to have them early opened, and afterwards to keep up their action by mild purgatives, at the same time using all the means in our power to counteract inflammation.

In both cases it may be observed that the same plan of treatment was pursued; and it cannot be too strongly recommended to the notice of professional men, that early and active means of counteracting the sudden and dangerous inflammation that sets in, in all cases of this kind, is a matter of the utmost importance.

In the above instances, when the tenderness of the abdomen was subdued, the dangerous symptoms gradually subsided, and it is singular, that in both it was nearly removed about the end of the fourth, or in the course of the fifth day after delivery.*

These two cases were published by me, in 1830, in the Transactions of the Association of the King and Queen's College of Physicians in Ireland, since which time, Woodward has been twice delivered of

* A third case of recovery from laceration of the vagina under very similar treatment, occurred in a poor woman out of the hospital, about the same time. The laceration was so extensive that my hand passed into the cavity of the abdomen, without the least interruption. This woman lived till the 26th day after delivery, and had to all appearance recovered from the injury, when, suddenly, she was attacked with hæmorrhage, and died in fifteen minutes. She had been walking about for the four or five days previous, had a good appetite, and was in tolerable health. She was sometimes affected with chilliness in the evening.

As there was no possibility of obtaining a post mortem examination, it may be doubted whether this should be considered a decided case of recovery; although previous to her death, she was pronounced out of danger by her medical attendant.

living children; with the first of which, labour was induced prematurely. The following is a statement of the particulars of both labours.

Anne Woodward was admitted March 3d, 1832, being in the 7th month of her pregnancy, for the purpose of having labour brought on prematurely, in consequence of a laceration of the uterus and vagina, which she had sustained in her last confinement, Oct. 1828.

The membranes were ruptured on the 4th of March, at 10 o'clock A.M., when not more than a tea-spoonful of fluid escaped. It was found necessary partially to introduce the hand into the vagina, in order to reach the os uteri, and having done so, it required some gentle efforts with the point of the finger to dilate it so much as to admit a small sized director to be passed. The liquor amnii began to come away freely at 12 o'clock A.M., and having continued to escape for a short time, ceased.

5th, 9 o'clock A.M.—Slept well; has not had pain or distress of any kind. The bowels were freely opened by purgatives previous to rupturing the membranes, and frequently since by stimulating injections. Fœtal heart very distinct; most clearly heard near the umbilicus on the right side; about 130 in the minute; mother's pulse natural; it was, from this pronounced that the child would most likely present with the breech.

6th, 9 A.M.—Remains quite free from pain, and

feels well in other respects; no discharge of waters whatever; uterus diminished in size, and more solid to the feel. The director was again passed into the uterus, but no fluid followed its introduction.

7th, 9 A.M.—Slept well; feels easy; uterus still more firm; had some discharge of waters in the course of yesterday, but not in any quantity. Fœtal heart distinct, but not so strong; bowels opened by injections.

8 o'clock P.M.—Slight uterine action set in at noon, and has continued, slowly since; the os uteri is dilated to the size of a shilling; its edges thin and relaxed. The pains are tolerably constant, but gentle, and seemingly not productive of much distress. Heart's action fully as strong as it has been for the last 48 hours.

11 o'clock P.M.—Was delivered at a quarter-past 10, without much suffering. The child when expelled was feeble; however, being placed in a warm bath, and slight stimulants applied to the thorax, it rallied, and drank suck freely from a spoon. The breech presented; there was no difficulty in the delivery; the placenta was thrown off in 20 minutes.

8th, 9 A.M.—Rested well; feels comfortable; bowels free.

The child was quiet, and drank suck freely from the spoon, but could not be induced on repeated trials to take the breast; bowels not opened since birth. A small tea-spoonful of castor oil, with an

equal quantity of brown sugar and boiling water, to be well mixed, and a third part of this to be given every 2d hour till it operates.

9 o'clock P.M.—The mother continues well; the child seems feeble and drinks unwillingly.

9th, 9 o'clock A.M.—The mother improving; the child died at 8 A.M., being 34 hours after birth. The sudden change in this infant was very unaccountable; I have seldom seen a child, born at the same period, more likely to live; it had also the great advantage of being fed with suck alone from its birth. The bowels acted but once, and that sparingly after the medicine.

The mother recovered rapidly, and was dismissed on the 9th day.

This woman has been since admitted into Hospital, being at the full period of gestation. I am indebted for the following particulars of her delivery to the kindness of my late assistant, Doctor Wm. Adams, as it took place a short time subsequent to my retirement from the Hospital.

Anne Woodward admitted Nov. 16, 1833, to be delivered of her 8th child; a slight discharge of waters had already taken place.

17th, 9 o'clock A.M.—Slept some during the night; had occasional pain in the back and loins; waters continue to come away slowly.

Ordered a purgative draught.

2 o'clock P.M.—Bowels acted well; os uteri

dilated to the size of a crown; external parts relaxed; uterine action more frequent and stronger; fœtal heart's action more rapid.

5 o'clock P.M.—About half an hour since, uterine action became very strong, and the head, which had been pressing on the perinæum, was now protruded. As there was some delay in the expulsion of the shoulders, slight assistance was given, which brought on such violent uterine action, as to expel the remainder of the body in one pain, followed by a considerable gush of blood. The uterus felt large, but contracted on steady pressure being kept up, and the placenta was thrown off in 15 minutes.

She recovered favourably; both mother and child left the Hospital well on the 14th day. This was her 8th child (a male). She has another (a female) living. She had almost no uterine action with the present labour, until one hour before delivery, but during that hour it was severe.

I think it probable the result would not have been so very favourable, had she not been prematurely delivered of the previous child; which, being so much smaller, caused the distension of the parts that had been lacerated, to be gradual, and also afforded nature a longer period to more completely recover the effects of the original injury.

I shall now take notice of the cases which terminated fatally, commencing with those that made the nearest approach to recovery.

No. 19.—Was admitted into Hospital on the morning of the 10th of August, to be delivered of her first child. Her labour commenced at 12 A.M.; the pains were brisk but not violent, and the waters were discharged in 12 hours after.

The head remained for some time high up, but gradually descended, and came to press so strongly on the urethra as to render the introduction of the catheter necessary. We were called in haste to see her the following morning, (about 19 hours from the commencement of labour,) in consequence of great weakness supervening. At this time her pulse could scarcely be felt; her countenance was pale and ghastly; her extremities quite cold; there was constant vomiting of a yellow fluid; it seemed as if a few minutes would terminate her existence. From these symptoms, together with a complete cessation of the labour pains, there was no doubt as to rupture having taken place.

On examination per vaginam, the head was found very low; it had been gradually making progress up to the occurrence of the injury; the pressure on the urethra was so considerable, that there was some difficulty experienced in passing the smallest sized flexible catheter; the space between the head and pelvis was at every point very trifling. The head was immediately lessened, nevertheless it required much exertion to get it down with the crotchet; almost every bone of the cranium came

away separately, and, even afterwards, some force was necessary for the extraction of the shoulders. After the operation, the hand was passed into the vagina, where the placenta was found; there was, at the same time, a most extensive laceration discovered, posteriorly, at the junction of the cervix uteri with the vagina, through which the hand passed readily into the abdominal cavity. The hand was cautiously withdrawn, after pushing up the prolapsed intestines, and removing the coagulated blood.

The patient was frequently pulseless, though constantly supplied with the strongest cordials; the stomach was irritable, frequently rejecting its contents. In 45 minutes after delivery, she got a draught containing 40 drops of tincture of opium, with a view to quiet the stomach, and procure some rest, as she was extremely uneasy, continually tossing in the bed. Her pulse, at this time, was little more than perceptible; her countenance most distressed and ghastly. Cordials were administered through the day, and the pulse gradually improved. At bed-time she was ordered 5 grains of calomel and a quarter of a grain of opium; the cordials to be given occasionally; her stomach was now much less irritable, still there was some vomiting.

12th, 9 A.M.—Had several hours' quiet sleep; pulse 114, feeble, yet astonishingly improved; stomach settled; drank freely; abdomen very much

distended, and so tender, particularly at the lower part, she can scarcely bear the finger to touch it; bowels have not been opened since delivery, her state of exhaustion was such, that it was not thought advisable to give any thing more active than the calomel; they had been well freed previously.

Two dozen leeches to be applied to the abdomen, to be well stuped, and, two hours after the leeching, to be put into a warm bath, should her strength be considered equal to it. To have a draught, containing one ounce of castor oil, and four drachms of tincture of jalap immediately, and an injection administered every 2 hours till the bowels act.

9 o'clock P.M.—Slept occasionally; pulse 130, very indistinct; abdomen much distended, but soft, and somewhat less painful on pressure; bowels 4 times moved; drank 3 pints, which the stomach retained.

The abdomen to be frequently stuped; to have chicken broth and grapes.

13th, 9 A.M.—Slept tolerably; drank 3 pints; no vomiting; had a warm bath, from which she felt much relief; got some porter during the night; pulse 120, much more distinct; tongue moist; abdomen less full; exceedingly painful on pressure, yet somewhat less distressing than yesterday; bowels frequently opened.

Two dozen leeches over the uterine region,

followed by repeated stuping; to have flummery and grapes.

8 o'clock P.M.—Pulse about 130, very indistinct; abdomen as at last visit; bowels well opened by an injection; sleeps frequently; took some chicken broth, and drinks freely.

To be well stuped, and have drink at pleasure.

14th, 9 A.M.—Rested tolerably; drank freely; got half a pint of porter; pulse 126, somewhat more distinct; abdomen rather less full; uterine region most acutely painful on pressure; bowels twice opened by an injection.

Eighteen leeches over uterine region, followed by frequent stuping; chicken broth to be given in small quantities; to have some fruit.

9 o'clock P.M.—Pulse 126, feeble; pain on pressure over uterus more acute, yet the tenderness has *not* become *general* over the abdomen; bowels five times opened; stomach quiet; drinks freely.

To have a warm bath; a pill containing equal parts of blue pill and Dover's powder, to be given every 2nd hour while the purging continues.

15th, 9 A.M.—Purging ceased after the second pill; felt easier after the bath; pulse 126; tolerably distinct; abdomen not so full; less painful on pressure; distress confined to the uterine region; has occasionally slight hiccough.

Leeches to be repeated; frequent stuping;

should the bowels not act before the middle of the day, to have an injection.

16th, 9 A.M.—Pulse 132; tongue dry and loaded; abdomen more full; pain so distressing as to prevent her sleeping; bowels constantly acting; drinks largely; no vomiting.

Repeat the leeches and warm bath; the pills to be given as before, until the purging shall have been checked.

17th, 9 A.M.—Felt considerable relief from the bath; purging became less after the 4th pill; bowels acted seven times; slept pretty well; pulse 126, more natural; can now endure slight pressure without much distress; uterus diminished in size; abdomen less full; is able to move in bed; drinks freely, particularly of new milk.

To be put into a warm bath, and suffered to remain in it as long as agreeable; the pills to be continued till the bowels are restrained; to have rice, boiled perfectly soft in milk, also stewed apples.

18th, 9 A.M.—Rested well; took two pills; bowels regular; pulse 124, much more natural; tongue moist and clean; distension of abdomen nearly gone; uterus, though much lessened, still continues large; no distress from pressure on any part of abdomen; drinks freely; stomach sometimes, when overloaded, rejects its contents.

To be placed in a warm bath, for which she

expresses a wish; to have stewed apples and grapes for food.

19th, 9 A.M.—Took two pills yesterday evening, in consequence of the bowels acting rather freely, which succeeded in restraining them; pulse 126; abdomen much reduced in size; uterus also gradually diminishing; pressure on any part, unless made with force, unattended by pain; drinks and sleeps well.

Diet to be continued.

20th, 9 A.M.—Took two pills at bed-time, as before, with benefit; pulse 120; abdomen much improved; pain on pressure nearly gone; sleeps well.

To have chicken broth and roasted apples.

21st, 9 A.M.—Slept well; pulse 120; tongue moist and clean; abdomen soft; uterus still enlarged, but less sensible to pressure; drinks freely; expresses a wish for solid food.

To have beef tea and flummery.

23d.—Pulse 120; tongue natural; bowels regular; feels no uneasiness; uterus still large.

To have a warm bath, for which she is anxious; boiled chicken; roasted apples.

23d, 9 A.M.—Took two pills yesterday, on account of tenesmus; slept well; pulse 114; her urine, which she has been unable perfectly to retain since her delivery, now flows, as secreted, without control, causing much heat and distress in the

vagina; abdomen more natural to the feel; complains of nothing except pain in her hip from lying.

To have chicken and flummery.

24th.—Pulse 120, very feeble; in other respects as yesterday.

To have chicken, chicken broth, and porter.

25th.—As yesterday.

Continue diet.

26th.—Pulse 120; continues as last reported. On her left hip there is a small prominence observable, with the skin discoloured, as if matter was forming.

To have two grains of sulphate of quinine in the form of pill every 4th hour; chicken, &c. to be continued.

30th.—Pulse 126; still very feeble; tongue pretty clean; abdomen soft and perfectly free from pain; uterus much diminished in size; has taken since last report twenty-one grains of sulphate of quinine; her strength has been diligently supported by nutritious diet. The abscess, before alluded to, was, this morning opened, and exit given to a large quantity of matter.

To have six ounces of port wine; diet and sulphate of quinine as before.

31st.—Pulse 126, more distinct; tongue natural; rests well; takes her food with relish; last evening the entire lining membrane of the vagina came away in a putrid state; took six quinine pills; about 12

ounces of port wine, besides chicken, chicken broth, &c.

Continue all.

September 1st.—Pulse 126; tongue moist; abdomen rather full; bowels twice opened; slept little; took seven pills, 8 ounces of wine and some veal broth; abscess discharging freely.

Continue every thing; to have a mild injection.

2d.—Pulse 120; discharge from abscess unhealthy; has taken 4 pills (of blue pill and Dover's powder) owing to the loose state of the bowels; took ten quinine pills; ten ounces of wine, &c. &c.

Continue.

3d.—Pulse 120, very feeble; tongue slightly furred; abdomen natural; bowels twice opened; slept well; abscess looks more healthy; its edges were yesterday touched with caustic; took seven pills; 12 ounces of wine, &c.

Continue.

4th.—Her strength rapidly failed, notwithstanding the free use of cordials, and she died at 8 A.M.

On dissection, it was found that adhesion had taken place throughout almost the entire extent of the laceration, with a copious deposit of lymph. Two small openings still remained, communicating with extensive psoas abscess on each side. Had it not been for the formation of these abscesses, a complete union of the lacerated parts would, in all

probability, have taken place, and the patient's life been saved.

Was the matter, discharged on the 15th and 16th days, in Woodward's case, (who recovered,) formed in the lumbar region?

This interesting case has been thus recorded, at full length, as it may be considered a fair specimen of as near an approach to recovery as possible, short of that desirable termination. The unfavourable result may be justly attributed to the unfortunate complication as shewn by the post mortem examination. The treatment pursued in this case will, in my opinion, be found to offer the most rational prospect of success.

No. 25.—This patient died on the 14th day from delivery. On examination, there were found extensive adhesions of the intestines, especially those in contact with the uterus. Both ovaries had suffered much from inflammation, particularly the right, which was surrounded with purulent matter, in which the psoas muscle was engaged.

The laceration was situated at the posterior part of the vagina, at its junction with the uterus. All the pelvic viscera seemed to have undergone a great change of structure; there was an opening, formed by sloughing, the size of a half-crown piece, between the vagina and rectum.

No. 31.—Was admitted April 23d, at 7 o'clock A.M., in labour of her 3d child. The uterine action,

for an hour after was trifling; it then, however, became stronger, and the labour seemed to proceed favourably, without any unusual violence, until half-past 4 P.M. when suddenly, the pains ceased; the pulse became rapid and feeble; the countenance was expressive of the greatest distress; the abdomen was so tender as to be impatient of the slightest touch, and there was frequent vomiting.

It was evident that the uterus or vagina had given way, and though 10 *minutes* did not elapse from the period of this occurrence till our visiting her, the fœtal heart had ceased to pulsate.

The head was low in the pelvis, pressing strongly against the pubes, towards which the face was turned; it was firmly ossified, and so large, as completely to occupy the pelvis. Delivery was immediately effected by the crotchet; on passing the hand for the removal of the placenta, a most extensive laceration of the vagina, anteriorly, was discovered. The lacerated parts were placed in as close apposition as possible, strict quietness enjoined, and two pills, containing six grains of calomel and one of opium, administered. In consequence of her extreme debility during, and subsequent to delivery, she had been given wine and burned spirits freely.

9 o'clock P.M.—Has slept some; pulse 120, very feeble; countenance very anxious.

Ordered two pills, each containing two grains of

calomel, and half a grain of opium, to be taken in the course of the night, should the stomach be irritable.

24th, 9 A.M.—Did not require the pills; slept frequently; pulse 98, tolerably distinct and soft; abdomen full, cannot bear the slightest pressure on any part; bowels not opened since delivery, but well freed previously.

Three and a half dozen leeches to be applied over the uterine region; the abdomen to be afterwards repeatedly stuped; to take six drachms of castor oil, with three of tincture of jalap immediately, and shortly after the effervescing mixture, with Rochelle Salt, which is to be given every half hour till the bowels act.

2 o'clock P.M.—Leeches bled well; pulse 120, feeble; bowels not yet opened.

A large injection immediately.

4 o'clock P.M.—Pulse 126, feeble; most urgent pain all over the abdomen, cannot bear even the finger to be placed on it; bowels not yet moved.

Two dozen leeches to the lower part of the abdomen; to be carefully put into a warm bath afterwards, in which she is to remain as long as agreeable; large injections to be frequently thrown up.

9 P. M.—Remained in the bath half an hour with great comfort; pulse 130; very feeble; bowels

have not yet yielded; abdomen distended, and very painful.

A flexible tube was now passed up the rectum to the extent of 20 inches, and between two and three quarts of tepid water injected, which, almost instantly, returned unaltered.

Ten grains of calomel, in the form of a bolus, to be given immediately; injections to be occasionally repeated; constant stupes to the abdomen.

25th, 9 A.M.—Bowels acted freely at 2 A.M. since which she has had several watery motions; slept at intervals; drank one quart of whey; pulse 120; very feeble; tongue tolerably clean; abdomen greatly distended; pain on pressure less; breathing hurried; moans occasionally.

Twenty-four leeches over uterine region; abdomen to be frequently stuped; injections to be given at intervals; to have a bolus with five grains of calomel.

2 P.M.—Pulse 124; very feeble; tongue coated with yellow fur; vomited twice; abdomen as before; bowels 3 times opened; dejections watery.

To have two grains of calomel with half a grain of opium, should the vomiting return.

9 P.M.—Took the pill, since which her stomach has been quiet; drank 3 pints of whey; countenance improved; voice stronger; breathing easy; pulse 120; tongue improved; abdomen much less distended; feels little pain when gently pressed on.

The leeches to be repeated, should there be any

return of abdominal distress; stupes to be continued; to repeat her pill at 12 o'clock.

26th, 9 A.M.—Pulse 120; much more feeble; abdomen full; bears pressure with more impunity; bowels 3 times relieved; stools improved; slept a little; drank 4 quarts of whey; vomited 4 times; is free from pain when perfectly quiet.

The pill to be repeated; to have one spoonful of wine in a cup of cold water, for which she is anxious; also an orange and roasted apples.

6 P.M.—Vomited 4 times; pulse 120; somewhat stronger; thirst urgent; abdomen very painful, and much distended; bowels 4 times opened.

Twenty four leeches to the abdomen; a warm bath; repeat the pill.

11 P.M.—Remained twenty minutes in the bath; pulse 132; very feeble; moans continually; stomach very irritable; abdomen not quite so painful.

Repeat the pill; continue stupes; to have an injection.

27th, 9 A.M.—Took 3 pills in the night; vomited 4 times; drank 4 quarts of whey; had also two table spoonfuls of wine with water, and a cup of chicken broth; slept little; pulse extremely feeble, 126; abdomen continues distended; injection had no effect; bowels have not acted since 6 P.M. yesterday; gums unaffected.

The pills to be continued; frequent stupes to the

abdomen; to have chicken broth, also the effervescing draught with carbonate of ammonia.

9 P.M.—Pulse 133; still feeble; countenance improved; appears more comfortable; took two pills; vomited 4 times; bowels 3 times opened; dejections watery; abdomen more natural, and less painful on pressure.

Continue pills and ammonia mixture; also stupes.

28th, 9 A.M.—Pulse 120, regular; abdomen much less distended, soft; no uneasiness from pressure; took 2 pills; the bowels were frequently affected, for which, at 7 A.M. she was given one grain of opium with advantage; no vomiting; took one pint of chicken broth since yesterday morning; also 5 scruples of carbonate of ammonia in effervescence.

Ordered rice milk for food, also chicken broth; continue stupes and mixture.

9 P. M.—Pulse 126, feeble; tongue moist; abdomen improved, free from pain; bowels within the last 4 hours have acted repeatedly; stools greenish and watery; drinks freely; had two tea-cupfuls of chicken broth; liked the rice milk, and partook freely of it.

To have one grain of opium immediately, to be followed in an hour by a starch injection, with fifteen drops of acetum opii; continue chicken broth and rice.

29th, 9 A. M.—Pulse 120; tongue furred;

abdomen diminished in tension and size, not painful; bowels eight times freed in the night; drank one gallon of whey; slept at intervals; took two tea-cupfuls of chicken broth; the injection was retained for two hours; had a second at 7 A.M. which was returned in 10 minutes.

The injection to be repeated; to have a suppository of 3 grains of opium if necessary; continue stupes; omit the effervescing mixture as she dislikes it.

9 P. M.—Pulse 114; tongue moist; abdomen more full and tense; bowels six times opened till 2 o'clock, when the suppository was repeated, and a grain of opium given by the mouth; since which they have been quiet; she was given wine negus, owing to the debility induced by the purging; feels quite free from pain; has taken largely of chicken broth and rice milk.

Opium to be repeated should the state of the bowels require it; ammonia mixture to be resumed; also to have two table spoonfuls of the following mixture with one of lemon juice frequently in the day.

℞ Infusi Cinchonæ Frigid. ℥ xii.
Carb. Sodæ, ʒ iv.
Syrupi Zingib. ʒ iii.
℔

Diet to be continued.

30th, 9 A. M.—Pulse 114, improved; tongue cleaning; abdomen free from pain, less distended; had one stool this morning, much more natural; slept well; drinks freely; stomach quiet.

Opiates as before, if necessary; continue mixture, stupes, diet, &c.

9 P.M.—Pulse 120, very feeble; bowels have acted 4 times; abdomen rather full, but soft; does not complain of pain on pressure; had a suppository at 12 o'clock, also one grain of opium by the mouth; bowels have been quiet for the last two hours.

Diet and medicines as before.

May 1st, 9 A.M.—Pulse 126, very feeble; tongue moist; abdomen full, soft, and free from pain; bowels once opened; slept frequently; feels easy; drinks freely; stomach quiet.

Continue as before. Opiates if necessary.

4½ P.M.—Purging has returned; pulse 120, very weak; complains much of debility; abdomen soft; discharges have a gangrenous fœtor.

To have the opiate injection immediately, followed by the suppository; if necessary, to get one grain of opium by the mouth.

℞ Misturæ Camphoræ ℥vi.
Spiritus Ammon. Arom. ℥ i.
Tinc. Opii gtts. xxx.

℔

Two table spoonfuls occasionally; also a small spoonful of wine frequently.

9 P.M.—Pulse so feeble as not to be counted; bowels once moved; abdomen soft.

Ordered a pint of wine whey, two table spoonfuls to be given every half hour; the ammonia and bark mixtures to be continued. Diet as before.

℞ Carb. Ammoniæ, ℈ i.
Pulv. Opii. gr iss.
M

Fiant Pil. vi.; one to be given every 2d hour.

2d, 9 A.M.—Pulse almost imperceptible; abdomen perfectly soft and free from pain; bowels once opened; slept little; drank half a pint of strong wine whey, and a small quantity of brandy punch, also some chicken broth.

Wine whey, &c. &c. to be continued.

9 P.M.—Pulse somewhat more distinct, but still so feeble as not to be counted. Abdomen as before; bowels once freed.

Ordered stimulants freely; broth, jelly, &c.

3d, 9 A.M.—Pulse almost imperceptible; tongue moist; abdomen as before; bowels have not acted since last report; took five ounces of brandy with water; also, half a pint of wine whey; is labouring under frequent singultus with spasms of the extremities since half past 7 A. M.; surface of body quite jaundiced; stomach quiet; slept none.

Stimulants to be continued, and to have one of the following pills every 2d hour.

℞ Pulveris opii, gr. iss.
Confect. Aromat.
Moschi áá ʒss.
m

In pil xii.

9 P.M.—Pulse very feeble; tongue dry; abdomen soft; singultus continues, with a considerable degree of subsultus tendinum; took 3 pills and very little of the brandy and water; bowels quiet.

Stimulants as before.

4th, 9 A.M.—Pulse 96, tolerably distinct; tongue parched; abdomen as before; bowels quiet; took 5 pills, also some brandy and wine; hiccough and subsultus rather less; wishes for cold water.

Continue.

2 P.M.—Pulse almost imperceptible; general subsultus; countenance much sharpened, but not expressive of anxiety.

4 P.M.—She expired.

Post mortem examination.—On opening the abdomen, the peritoneum was found generally adherent; the omentum and parts in the neighbourhood of the uterus, were of a dirty green colour. A large quantity of clots, mixed with some fluid blood, was found, surrounding the sigmoid flexure of the colon, as also the rectum, ovary, and inferior part of the uterus. Anteriorly,

the bladder and uterus were firmly united by adhesions; the internal surface of the bladder was of a similar green colour; its mucous membrane much thickened. On opening up the vagina and uterus posteriorly, their interior surface did not present much marks of inflammation: in the cervix uteri, anteriorly, a fissure was found extending 2½ or 3 inches transversely; the rent was filled up with lymph in the process of organization. There was no distinct appearance of gangrene at any point; the intestines were sound; and the green colour seemed to be owing to the effused blood being absorbed. There was not any pus found; the reparatory process seemed to have gone on most favourably, and had the constitution been able to maintain itself against the effects of the injury for some short time longer, it is more than probable this woman would have recovered.

No. 33.—Was admitted June 6th, and delivered on the 11th. The os uteri, on her admission was dilated to the size of a shilling and relaxed; in which state it remained until within six hours of delivery, when half a drachm of the powdered ergot of rye was given, infused in two ounces of hot water. From the commencement the uterine action was very feeble; occasionally she complained of acute pain, accompanied by a feeling of forcing down. The ergot did not appear to produce any increase of uterine action, yet the mouth of the

womb became, in the course of six hours after its exhibition, tolerably dilated and relaxed. As the pulse was very quick and feeble, the child dead, and the os uteri in a state to admit of delivery, the head was perforated, and a putrid child, about the 5th month of gestation brought away almost without any assistance; it was nothing more than a soft mass, being so completely broken down by putrefaction.

Symptoms of abdominal inflammation set in from the period of delivery, and continued unabated, till death took place on the 9th day.

On dissection, the intestines were found in a state of great vascularity, with the omentum firmly adherent to their surface; there was a quantity of sero-purulent fluid effused into the abdominal cavity. There was a laceration of the uterus in its neck, anteriorly, confined to the muscular substance; the peritoneal covering remaining whole, with a considerable effusion of blood underneath.

This is the only case of rupture of the uterus I ever met with, at this early stage of pregnancy; nor was there any circumstance connected with her delivery, or previous history, as far as we could discover, to account for it.

No. 34.—Was admitted August 31st, at 10 P.M. to be delivered of her 11th child; seven of her former had been premature births. She had slight pain on admission, but there was no uterine action

of any consequence until 7 A.M. next day; at 9 A.M. the os uteri was not dilated to more than the size of a half crown. The labour went on favourably, without the least violence, or any unpleasant symptom until shortly after 4 P.M. when suddenly she complained of most acute and lancinating pain in the left iliac region, at which time the uterus ceased to act; the pulse began to sink rapidly; the abdomen became extremely sensible of the slightest pressure, there was frequent vomiting, the countenance at the same time indicative of great distress. From these symptoms, there could be but little doubt of a rupture having occurred, and yet the uterine action had not, at any time, been severe; on the contrary, the membranes protruded for a considerable time, through the external parts, before the action of the uterus was sufficient to rupture them; which took place about an hour and a half before the occurrence of the injury. When called to see her immediately after, the head was found pressing on the perinæum, and the ear could be reached by the finger, with tolerable ease. The forceps were cautiously applied, but no force we could use was sufficient to move the head in the least degree; the perforator was then resorted to, and even after the evacuation of the brain, considerable exertion was necessary to effect the delivery; the uterus acted slightly, when the head was clearing the external parts. The hand was now passed up, when a most

extensive laceration was discovered anteriorly, at the union of the uterus and vagina. The placenta had been separated and was found in the abdominal cavity among the intestines; it was carefully removed together with a large quantity of blood, both fluid and clotted, care being at the same time taken to prevent the descent of the bowels. It was necessary during delivery, on account of extreme debility, to give wine and brandy freely. She now got a bolus, containing six grains of calomel, with one of powdered opium, which was soon rejected.

Ordered two table spoonfuls of the following mixture with one of lemon juice frequently while the stomach continues irritable.

℞ Aquæ Fontis ℥ viii.
Carb. Sodæ ʒ iii.
Aceti. Opii gtts. xxxv.
M

8 o'clock P.M.—Stomach more settled; pulse very feeble; cannot bear even the finger to be placed on the abdomen.

To have four grains of calomel with one of opium in a pill; the effervescing mixture to be continued till the stomach becomes quiet; chicken broth in small quantities.

September 2nd, 9 A.M.—Pulse 96, very easily compressed; tongue moist; abdomen distended, but not hard; exceedingly painful; bowels have not acted since delivery, but were largely freed

before; slept several hours; took beef tea and whey freely, without sickness of stomach.

Three dozen leeches over uterine region, followed by frequent stuping; the calomel pill with half a grain of opium to be repeated.

2 P.M.—Pulse 96, rather improved; the leeches (by mistake) have not been yet applied; has had two injections, both of which she retained, without any evacuation.

Leeches to be immediately put on.

10 P.M.—Pulse 114; has had several injections, bowels have not yet acted; leeches bled well; stomach quiet.

To have two grains of calomel, with a quarter of a grain of opium every 3d hour; small portions of chicken broth frequently; whey at pleasure.

3d, 9 A.M.—Pulse 120, rather more distinct; abdomen distended; exceedingly painful on the least pressure; bowels have not acted; took 5 pills; slept none; did not take more than five or six spoonfuls of broth; drank one quart of whey; stomach slightly irritable.

The pills to be continued with one grain of calomel in each; two dozen leeches to the abdomen; repeated stuping; chicken broth.

9 P. M.—Pulse 126, very feeble; abdomen extremely tense and painful; bowels have acted several times, but not satisfactorily; stools fluid,

containing but little fæculent matter; stomach rejects every kind of drink; has taken 5 pills.

Two table spoonfuls of the following mixture with one of lemon juice, to be taken frequently till the stomach becomes settled.

℞ Aquæ Fontis ℥ viii
Carb. Ammoniæ ʒ iss.
Træ. Opii. gtts. xl.
℥

To have drink in small quantities; should the irritability of the stomach continue, to be given one grain of opium; constant stupes to the abdomen; continue pills.

4th, 9 A.M.—Pulse 102, much more distinct; countenance improved; bowels three times moved; stools fæculent; abdomen less tense, less impatient of pressure; took 5 pills, also the opium pill which last rendered the stomach tolerably quiet; drank whey freely; slept some hours; mouth slightly affected.

Eighteen leeches over the uterine region; flannels wrung out of hot water to be kept constantly over the abdomen; pills to be given every 4th hour; to have mild drink at pleasure, and small portions of chicken broth.

9 P.M.—Pulse 114, rather less distinct; abdomen much as at last visit; leeches bled well; bowels acted fully; drinks freely; stomach irritable, but retains almost all her drink; took 3 pills.

Continue medicine; to have some lightly prepared arrow-root.

5th, 9 A.M.—Pulse 120, tolerably distinct; abdomen as yesterday; pressure still causes acute pain, particularly near umbilicus; bowels acted well; stools more natural; slept occasionally; stomach quite composed till 6 A.M. since which there has been frequent vomiting of an intense green coloured fluid; drank two quarts of whey; mouth slightly affected by mercury; took 3 pills.

Eighteen leeches to be applied to abdomen, and afterwards a warm bath, in which she is to remain as long as her strength will permit; omit pills; continue arrow root.

℞ Aquæ Menth. pip. ʒvi.
Pulv. Ovor. Test. ʒiss.
Liquor. Opii Sedativ. gtts. xx.
℥

One table spoonful to be given every half hour till the stomach becomes quiet.

9 P.M.—Pulse 120, more feeble; abdomen somewhat less painful; bowels act frequently; evacuations scanty with tenesmus; frequent vomiting; leeches bled well; liked the bath much, remained in it half an hour; got one grain of opium shortly after she was taken out to quiet the stomach, but without effect; has taken four ounces of her mixture.

To have a starch injection, with 25 drops of acetum opii immediately; a blister to be placed over the region of the stomach; the mixture to be continued; cold water (for which she wishes) in small quantities for drink.

6th, 9 A.M.—Pulse 114, more distinct; abdomen full; can now suffer the hand to be cautiously applied to its surface; bowels free; discharge fæculent; had several hours' quiet sleep after the injection; stomach was easy from 12 last night, till 7 this morning; had one grain of opium at bed-time; drank a pint of thinly prepared arrow-root, and the same quantity of whey.

To be placed in a warm bath as long as her strength will permit; to have half a grain of opium immediately, which is to be repeated in an hour, should the stomach not be composed; the mixture to be continued; diet as before.

9 P.M.—Pulse 126, extremely feeble; was pretty easy until 2 P.M., since which severe vomiting and purging have set in, followed by considerable debility; abdominal distress much increased; fluid vomited of a bright green colour; is very restless; countenance expressive of suffering; liked the bath, from which she felt relief.

To have half a grain of opium every hour, until the stomach become settled; the effervescing mixture to be taken occasionally; a table-

spoonful of the following mixture to be taken frequently :—

℞ Mist. Camphoræ ℥vi.
Aceti Opii, gtts. xxv.
Spir. Ammon. Arom. ʒi.
M

A starch injection, as last evening, to be given, should the bowels continue troublesome.

10 P.M.—Is sinking rapidly ; stomach quiet since she took the pill.

To have wine whey ad libitum.

7th, 9 A.M.—Pulse 126, very feeble, although much improved since last visit. Skin clammy and cold, particularly extremities; rested tolerably well; was not disturbed by either stomach or bowels, till 5 this morning, since which there has been a considerable discharge of fæculent matter ; vomited once ; abdomen less distended, bears pressure better ; drank a quart of wine whey, also one of plain whey ; had some arrow root ; took four half grain pills of opium.

Wine whey and beef tea at pleasure ; opiates to be repeated, if necessary.

2 P.M.—Strength rapidly failing ; stomach rejects all kinds of fluid ; has had a considerable discharge of *blood* from the vagina.

Wine whey and brandy punch, in small portions, frequently.

11 P.M.—Pulse scarcely perceptible; continue stimulants.

8th, 9 A.M.—Pulse as at last report; breathing laboured; extremities cold; seems in most acute pain.

To have one grain of opium; continue stimulants.

9 P.M.—Seems almost lifeless; slight discharge of blood from vagina.

9th.—Died at 10 o'clock last night.

On opening the abdomen, a large quantity of loosely coagulated blood occupied the entire space below the umbilicus. The intestines generally were slightly adherent; when they were turned off from the uterus, the exterior surface of this organ did not present any inflammatory appearance; anteriorly between it and the pubes, there was a quantity of clotted blood, which, being removed exposed to view a rent, extending transversely, in which some lymph was lying, which had been detached in the examination. The interior of the uterus was free from lymph, except near the rupture, from which, some, of a greenish hue, extended for one or two lines. There was very little trace of inflammation in the vagina, and the manner of union was much obscured by the clotted blood, that surrounded the lacerated parts. The mucous surface had no appearance of inflammation; although the *immediate* cause of death was the hæmorrhage

above mentioned, yet, after the most minute examination, no ruptured vessel could be detected.

No. 13.—Was delivered of her *first* child on the 26th of July, after a labour of *four* hours. The abdomen remained distended and hard from the time of delivery, notwithstanding the use of active purgatives; there was no pain on pressure, however, until the close of the fifth day, when considerable tenderness was observed, which continued increasing rapidly till the 3d day after, when she expired.

On dissection, a very extensive opening was found in the muscular substance of the uterus, rather above its junction with the vagina, anteriorly. Numerous sinuses, containing most unhealthy matter, were observed between its muscular substance and peritoneal envelope, about its cervix, both anteriorly and posteriorly; likewise in the soft parts in the pelvic cavity; there was also *extensive* ulceration of the vagina.

The laceration here was evidently the consequence of disease, chiefly syphylitic, existing about the cervix uteri and vagina previous to labour.

No. 22.—On the 5th day after delivery, without any apparent cause, was seized with violent hæmorrhage. When we saw her, which was immediately after, no pulse could be felt; and, though most prompt and active measures were employed, she died in less than an hour. She had been delivered

by the natural efforts of a living child; after a labour, not very severe, of 48 hours; nor from that time was there distress of any kind perceptible.

On dissection, the abdominal viscera appeared healthy, as did the uterus at first sight; but on raising it out of the pelvis, about the size of a shilling of its muscular substance, corresponding to the projection of the sacrum, was found to have given way, the peritoneal covering remaining uninjured.

There were two spots in the vagina approaching to a state of slough.

No. 30.—Was delivered, by the natural efforts, of a still-born child, after a labour of *one* hour; the placenta was thrown off in 20 minutes; at this time there was some hæmorrhage. In an hour and a half after, we were called to see her, when she was so much exhausted, that the pulse could not be distinguished. The uterus, which was much distended, on firm pressure being made, acted well, and expelled a large quantity of coagulated blood. She was then tightly bandaged, cold was applied to the vulva, and an opiate given; the hæmorrhage, however, still continuing to a *slight* extent, and the uterus again becoming enlarged, the hand was introduced, after which the discharge subsided. There was extreme exhaustion; no pulse, though stimulants were diligently administered; she was also very restless, and took 120 drops of tincture

of opium, in divided doses, before quietness ensued. In 14 hours after delivery, (during which time, cordials and chicken broth were repeatedly given,) the pulse was first perceived; the abdomen now became greatly distended and painful on pressure; the breathing difficult, with continued vomiting; she continued pretty much in this state, becoming gradually worse till the 4th day, when she died.

On dissection, the stomach and intestines were found much distended with air; there were a few patches of vascularity on the surface of the small intestines. On raising up the uterus out of the pelvis, a laceration was discovered at its junction with the vagina. Though this was suspected before death, yet, there was no circumstance connected with her labour, which could lead us to anticipate it.

She had been subject to hæmorrhage at each previous confinement. The parietes of the abdomen were not thicker than strong paper; the muscular substance of the uterus, also, was much thinner than usual.

For three other cases where death took place on the fourth day from delivery, where the uterus or vagina had suffered rupture, see Observations on Convulsions, Nos. 8, 19, and 25. In one of these (19) psoas abscess formed previous to death; and in another (8) the peritoneal covering was uninjured.

No. 2.—Was admitted in labour, Sept. 23d, at

8 P.M.; the pains continued brisk, and the head had advanced rapidly, so as to press on the perinæum. The pains were very strong during the night, but the pulse was good, and there was no symptom of danger, when the pupil, (an intelligent young man,) who sat up with her, left her at 6 A.M. We were called at 8 A.M., the pains having ceased nearly two hours before. She was now in a very debilitated state; her pulse scarcely perceptible, with other symptoms indicating rupture. As instant delivery was necessary, the head was lessened, and the child brought away with the crotchet. The hand was then introduced, and an extensive laceration detected, towards the pubes, at the junction of the cervix uteri and vagina. The placenta came away before the shoulders were expelled. She died on the morning of the 3d day.

No. 8.—Was admitted with the uterus ruptured. She died on the 2d day.

No. 9.—Was admitted Feb. 3d. Her labour did not commence till 11 o'clock the following morning; the uterine action continued for *six hours*, when it suddenly ceased. She was seized with crampish pain in the region of the stomach, with extreme tenderness on pressure, succeeded by vomiting, and debility. We were not informed of this patient's state for three hours after.

The head was found resting on the perinæum; there was decided narrowness of the inferior outlet

of the pelvis, which rendered lessening the head necessary; even after which, there was considerable difficulty experienced in getting the head and shoulders away. On passing the hand for the placenta, a laceration, of considerable extent, was discovered, between the neck of the uterus and vagina, anteriorly and to the left side. The uterine action, previous to the cessation of labour, had not been unusually violent.

This was her second child, (a male,) her first (a girl) having been born alive, and the labour not particularly difficult.

The most prompt measures were adopted, but without the least relief; death took place on the 2d day.

No. 16.—Was delivered at 2 P.M., Dec. 23d. Her labour had commenced at 2 A.M.; the uterus acting moderately, the mouth of the womb and soft parts became dilated, and the waters were discharged at 10 o'clock; from this, the pains became feeble, the head making but little progress. In four hours, extreme debility and exhaustion set in, so much so, that the pulse became intermitting, at times indistinct; there was frequent vomiting of a yellowish fluid, with excessive tenderness of the abdomen, through the parietes of which, the extremities of the child could be distinctly felt.

The pelvis was evidently narrowed at its outlet; the head low down; it was consequently lessened,

and the child brought away. The placenta followed immediately; after which, an extensive laceration was discovered at the junction of the cervix uteri with the vagina towards the pubes, running up into the neck of the uterus.

This was her 2d child; she had been force-delivered of her first in this Hospital seven years before.

The next morning her pulse was 94, soft, and she had slept several hours in the night, without complaining of any very urgent distress. The strictest care was taken to guard against inflammation, but unsuccessfully; it set in with violence, and she died on the 2d day.

Ten dozen leeches were applied, at intervals, with the frequent use of the warm bath and stupes, &c.

Dissection verified the statement as given above.

No. 18.—Was admitted September 13th, reported in labour from the previous day. Her pains continued trifling; the head was high in the pelvis, and made but little progress; the soft parts were well dilated; pulse between 120 and 130; tongue foul. She continued in this state for some hours; the uterine action still trifling; the pulse gradually becoming more hurried, her strength rapidly failing; the countenance becoming ghastly, and the entire body quite cold. As the head was out of the reach of the forceps, it was lessened, and the

delivery speedily completed. The placenta was thrown off in 10 minutes, previous to which, there were one or two gushes of blood from the uterus; the hæmorrhage, though not very considerable in point of quantity, reduced her very much, for which cordials were freely given. She remained restless for some time; her stomach rejecting drink; there was no discharge of blood after the expulsion of the afterbirth.

One hour after delivery, she was ordered thirty drops of tincture of opium, and a little wine occasionally, should she complain of weakness.

September 14, 9 A.M.—Pulse 130, feeble; slept none; complains much of weakness and pain in her side; abdomen full and tense; neither bowels or bladder have acted since delivery; complains of soreness in the epigastric region, but does not suffer pain from pressure on any part of the abdomen; has still occasional vomiting of a dark brown fluid. The catheter was passed, and half a pint of urine taken away.

To have one ounce of castor oil, with three drachms of tincture of jalap; injections to be administered frequently; repeated stuping to the abdomen; chicken broth.

8 P.M.—Took four ounces of the effervescing aperient mixture; bowels 4 times relieved; pulse 132; tongue natural; stomach still irritable; fluid vomited, as before; had a pint of chicken

broth and some beef tea; feels more easy; slept none.

Continue the effervescing mixture, with the addition of 40 drops of tincture of opium to 8 ounces; to have 5 grains of calomel with a quarter grain of opium; a small blister to be placed over the epigastrium; stupes to be continued; chicken broth frequently in small quantities.

15th, 9 A.M.—Pulse almost imperceptible; skin clammy and cold; abdomen full, but not tense or painful; frequent vomiting; bowels twice opened; slept but little; had some chicken broth and tea; says she feels easy; is still able to move herself in bed.

There was good ground, from her state, for suspecting the existence of a rupture, but in consequence of the strong uterine action during the delivery of the child, no minute examination of the vagina was then made.

To have some porter, which she wishes for; continue chicken broth and mixture.

9 P.M.—Expired at 3 P.M.

On dissection, a laceration of the vagina was found, posteriorly near its union with the cervix uteri; it was not, of size, more than sufficient to admit the points of the two fore-fingers; was quite circular, and situated opposite a sharp projection of the sacrum. There was extensive inflammation within the abdomen, with considerable effusion.

There was also noticed a quantity of lymph, which seemed to have been deposited a length of time before death; several adhesions, not of recent formation, were found amongst the intestines. From these appearances there could be but little doubt that the injury had occurred previous to admission into Hospital. The small size of the opening, as also its situation, will account both for the symptoms on admission being obscure, as also for the strong uterine action, which was observed in the delivery of the child and placenta.

It is remarkable, that notwithstanding the severe abdominal inflammation that existed in this case, not even the slightest pain could be discovered, by the most minute examination. The only complaint she made, was of weakness, and the pain in her side before-mentioned, with soreness of the epigastrium; neither of which seemed to produce much distress.

Of the remaining 16 cases, the patients died within thirty hours after delivery; eleven of them died within 14 hours.

No. 11.—Was delivered of her sixth child, June 9th, after a labour of eight hours; the breech presented. Immediately after its birth, there was a considerable gush of blood from the uterus, followed shortly by the placenta. The hæmorrhage continued, increasing to an alarming degree, with great exhaustion. The abdomen was very large, and the uterus could with difficulty be felt. On

introducing the hand, a laceration was found at the junction of the cervix uteri and vagina.

It was singular in this case, that the child was expelled forcibly, by uterine action; nor was there any difficulty in the delivery of the head; the placenta too was thrown off without assistance.

She had no symptom of rupture, except extreme exhaustion; nor was her labour severe, with the present, or any former child. She was a fat flabby woman, and died in 30 hours from delivery.

On dissection, the inner coats of the vagina and os uteri were found ruptured to a considerable extent, posteriorly. There was a small rent in the peritoneal covering of the uterus, which did not correspond to the laceration. The abdominal viscera were in a state of inflammation.

No. 26.—Was admitted to be delivered of her 3d child; the labour pains were feeble, and ceased, suddenly, in about *four hours* from the commencement of uterine action; the presenting part at the same time receded; the pulse became almost imperceptible, and the countenance ghastly.

The hand was introduced, and the feet brought down; but the pelvis was so much under size, it was found necessary to lessen the head.

She expired in 25 hours; and on dissection, the uterus was found almost separated from the vagina.

She had been force-delivered in this Hospital with both her former children.

No. 4.—This patient had been under the care of a midwife for several hours, who, finding some peculiarity in the case, sent her to Hospital.

On examination, a firm unyielding band was found a little above the os externum, closing up nearly the entire vagina, so that the finger could barely pass through the opening, completely impeding the descent of the head. As the pains were very strong, it was determined to wait a little, thinking the band might give way; however, at the expiration of four hours, not the slightest progress had been made. Mr. Colles, consulting surgeon to the Hospital, was present, and it was considered advisable to divide the band, which he did, cutting it carefully with a bistoury, in the direction of the rectum, as far back as could be done with prudence. The uterine action continuing very powerful, it was expected now that the head would be forced down. In four hours after, however, it was evident from the symptoms that the vagina or uterus had given way, an event which was drexded from the commencement.

She was now delivered, as speedily as possible, by lessening the head; when an extensive opening was discovered between the vagina and rectum, which seemed to have been part of an old cicatrix, that was ruptured.

This woman had been delivered of her first child, in the country, by instruments, from which the soft parts had sustained much injury, the perinæum also had been completely lacerated.

Vomiting now became very distressing, with great debility; nor could any medicine be got to act on the bowels. She died in 24 hours, with all the symptoms of ruptured uterus, which was confirmed by dissection.

No. 21.—Was 36 hours in labour with her second child, (her first born alive.) The pains were at no time severe, nor did the head descend so low into the pelvis as to cause the face to turn into the hollow of the sacrum. Her pulse was quick; she seemed anxious and restless; her strength began to fail, so much so, that her pulse faltered; her countenance became ghastly; extremities cold and livid, with vomiting. One hour previously she had no alarming symptom.

She was immediately delivered with the crotchet. The hand was then passed to ascertain the extent of the laceration, (as there could hardly be a doubt of its having occurred;) but none could be satisfactorily detected. She never rallied. She died in 17 hours.

On dissection, a laceration was found in extent about two inches, anteriorly and to the left side, running from the junction of the uterus and vagina, upwards in a longitudinal direction, and confined to the muscular substance of the uterus, the peritoneum remaining uninjured. There was a considerable effusion of blood between this and the muscular substance, near the lacerated part. There was also a quantity of bloody fluid in the cavity of

the abdomen. The intestines were exceedingly vascular. The most extraordinary occurrence in this case was the *respiration* and *crying* of the *child in utero;* both of which were heard, as distinctly as possible, four hours before delivery, the latter at a distance of some yards from the couch on which the patient was lying. These facts were witnessed by myself and assistants, besides several of the pupils, both by stethoscopic examination, and otherwise. The head was, at this time, high in the pelvis; the soft parts partially dilated, and the waters but a short time discharged.

The cry was so distinct, that I imagined the child was placed merely under the bed-clothes. When called to witness this truly singular phenomenon, I little credited the truth of what I was told, and confess, had I not been present, I should have remained sceptical.

How forcibly should this fact prove the uncertainty of some of the tests most confided in, as indicative of the murder of new-born infants! It also affords the medical witness in such cases, a salutary caution, in addition to those so ably advanced by the learned Doctor William Hunter on this subject.

No. 28.—The labour pains in this case were feeble, yet the child continued to advance. The heart's action was audible with the aid of the stethoscope; the mother's pulse natural, and no

unpleasant symptom. Suddenly, however, the most alarming debility came on, the pulse being scarcely perceptible, accompanied with vomiting, and much pain on pressure over the uterine region. Immediate delivery was necessary, and the perforator was used. She was a feeble, delicate woman, was 36 hours in labour previous to the setting in of the above symptoms, and had been force-delivered in this Hospital eleven months ago.

She died in 14 hours.

On dissection, an opening was found at the junction of the uterus with the vagina, (exactly opposite a projection of the last lumbar vertebra,) not larger than to admit the passage of one finger. The muscular substance of the uterus, anteriorly, had also given way to a considerable extent, the peritoneum being whole.

The pelvis scarcely measured 3½ inches, from pubes to sacrum.

No. 32.—This patient was sent many miles from the country to Hospital, in severe labour, on the evening of the 27th of May. On admission, her countenance was expressive of great anxiety; her pulse 120; the fœtal heart acting with rapidity; the head low and fixed in the pelvis. Delivery was effected the next morning at 9 o'clock, by lessening the head, as the child's heart had ceased to beat, and the patient had become extremely feeble, having vomited several times a dark brown fluid.

A rupture was suspected from the symptoms present.

After delivery, her strength continued rapidly to fail; the abdomen became distended and tympanitic, and she died in 14 hours.

On dissection, there was evidence of extensive peritoneal inflammation; the uterus was thrown very much to the right side, and at the left, its muscular substance was found to have given way, close to the vagina. The peritoneum was not injured, but was raised up and distended with blood underneath, resembling a bladder.

No. 7.—Was admitted in labour of her 11th child; she had three times given birth to *twins*. The labour went on briskly for five hours, when the pains suddenly ceased, followed by great prostration, and other symptoms of rupture.

The head was low, the parts well dilated, and the pelvis roomy. On attempting to apply the forceps, the head receded. The hand was then passed, and the feet brought down with little difficulty: however it required some exertion to get the head away, owing to its large size.

She died in 10 hours.

No. 3.—Was admitted September 2nd, 9 P.M. in labour of her first child. The person in attendance, on making an examination, found an extremity low down in the vagina, which was thought to be the knee. She remained till 3 o'clock the next

morning, quite free from pain, when the uterus began to act briskly, and on repeating the examination, the elbow was discovered presenting. The body was now so closely wedged in the pelvis that it was impossible to turn with safety; the thorax was accordingly perforated, and the breech brought down with immense difficulty, owing to the extreme deformity of the pelvis. It required most laborious exertion for two hours and a half to complete the delivery, which was only accomplished by taking the child in pieces.

She died in four hours.

On dissection there was observed a considerable laceration between the cervix uteri and vagina, to the right side.

The pelvis (which was preserved,) measured only 2½ inches from pubes to sacrum: this was by much the most defective pelvis I ever met with in the Hospital.

No. 6.—Was brought in almost lifeless, to be delivered of her 10th child; her pulse was quite imperceptible; the uterus, or rather the vagina had been ruptured for 12 hours, and both child and placenta had escaped into the abdominal cavity. The child was brought away by the feet, the placenta also was removed. She died in 4 hours.

No. 23.—The waters, in this case, were discharged 55 hours before delivery, but from the rupture of the membranes until five hours before she was

delivered, there was not the least uterine action; the head was so high in the pelvis that the presentation could be scarcely distinguished, and even when labour pains did come on, they were feeble, and suddenly ceased, after about *five* hours continuance. It was now evident that the uterus or vagina had ruptured: no pulse could be felt, and there was extreme abdominal tenderness. The head was low down, but the pelvis being considerably under size, delivery was effected by the crotchet. The hand was then passed, and a laceration posteriorly, in the usual situation, discovered. The projection of the sacrum was so great, the hand would scarcely pass through the pelvis. She died in 4 hours.

This was her 3d child; she had been delivered of her two first children with instruments, in this Hospital.—See particulars, No. 67, on Feet Presentation.

No. 29.—This patient died in 2 hours after delivery.—See Observations on Hæmorrhages, No. 105.

No. 10.—Was admitted on the evening of the 16th of February, in labour of her fifth child. The uterine action was tardy, the head made little progress, and the waters were discharged early the following morning. The pains continued at intervals during the day, but in the course of the succeeding night became more forcible. She slept

occasionally during their absence. Suddenly, at 5 A.M. on the 18th, all uterine action ceased, immediately followed by great debility and vomiting. An effort was now made to deliver her with the forceps, which being found impracticable, the crotchet was substituted. After the placenta came away, an extensive laceration was found, towards the pubes, at the junction of the uterus and vagina, the peritoneal covering was safe. She expired almost before the delivery was completed.

This woman had complained of severe, crampish pain in her right thigh, for a considerable time before delivery.

No. 15.—See Observations on Hæmorrhages, No. 34, where the placenta presented, and the patient died shortly after delivery.

No. 17.—See Observations on Presentations of the shoulder and arm, No. 15, the patient died shortly after delivery.

No. 24.—Was 40 hours in labour, the pains at no time being strong, the head advancing slowly; when, of a sudden, uterine action ceased; *extreme* debility set in, with vomiting, &c.

The head was immediately lessened, and the child delivered with the crotchet. She died almost instantly.

On dissection, a laceration of the muscular substance, without engaging the peritoneal covering, was discovered in the usual situation. The cervix

uteri was, to all appearance, not thicker than strong brown paper.

Such is a correct outline of the 34 cases of rupture of the uterus or vagina met with in the Hospital, out of 16,414 deliveries; being about *one* in *four hundred and eighty-two*. It may appear to some even worse than useless, to record so many cases of this nature; but I have no doubt, the intelligent practitioner will collect from this registry, many facts worthy of recollection, and may possibly be aided in his efforts to protect his patient from this truly disastrous occurrence, or encouraged to exert his utmost endeavours for her recovery when so afflicted, how hopeless soever her state may seem.

I was for a long time of opinion that women, in labour of a *first* child, were rarely liable to this accident, and for several years instructed my pupils to this effect; experience, however, has convinced me that this is an error, though generally advanced by writers on this subject. By referring to the general table, it will be seen that *seven* of the 34 were first pregnancies; and that in several of these, the labour was not by any means severe, but rather the contrary.

I am fully satisfied that the patients in *greatest* danger of rupture, are those who have previously suffered from difficult and protracted labours; my object merely is, to shew that first pregnancies do

not enjoy that almost complete immunity from this injury, which most writers would lead us to imagine.

In nine of the 34 cases, viz.—Nos. 10, 12, 13, 17, 21, 22, 24, 32, 33, the peritoneal covering of the uterus did not give way; the injury being confined to the muscular substance; yet death ensued equally speedily: shewing that the free admission of air into the abdominal cavity, is not necessarily followed by any increase of danger.

It will be seen from these cases also, that psoas abscess is a likely and dangerous accompaniment to rupture of the uterus; and I have no doubt, is in some instances the principal cause of the fatal termination, where the patient's life is prolonged for any considerable length of time after the accident. Little I fear can be done to prevent its formation. Would placing the patient in a position, so as to elevate the shoulders and body, and thus facilitate the escape of any foul discharge, that otherwise might lodge about the lacerated parts, be beneficial? This, I have no doubt, might be effected with perfect safety to the patient, by attention to the formation of her bed, and perhaps if the collection of matter about the ruptured parts were prevented, or had a ready exit, its extension to the lumbar region might be counteracted.

The following table shews the length of time each patient of the 34 was in labour. For the

duration of labour in 10 instances see cases detailed. Thus 2 were 1 hour; 2, 4 hours; and so on.

Hours in labour,	1	4	5	6	7	8	9	10	12	19	24	30	36	40	44	48
No. of Women,	2	2	1	2	1	1	3	2	1	1	1	1	3	1	1	1

The following table shews the age of each patient, thus 1 woman was 16 years of age, and so on.

Age of Patients,	16	21	24	25	26	27	28	29	30	32	33	34	35	36	37	40
No. of Patients,	1	1	1	3	2	1	3	1	7	2	1	1	3	5	1	1

The following table shews the number of children each woman had, thus 7 were 1st pregnancies, and so on.

No. of Pregnancy,	1	2	3	4	5	6	8	9	10	11
No. of Women,	7	6	6	2	2	5	1	1	2	2

From the succeeding table having a reference to each case by number, many useful and interesting calculations may be made.

No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Observations.	No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Observations.	No. of Case.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Sex of Child.	Alive or Dead.	Observations.
1	..	25	3	B	D	V	13	4	16	1	G	D	V	24	40	37	6	B	D	V
2	10	35	3	B	D	V	14	7	30	6	G	D	V	25	..	36	1	G	Dp	V
3	30	26	1	G	D	V	15	6	40	4	G	1	V	26	4	33	3	B	D	V
4	9	28	2	G	D	V	16	12	28	2	B	D	V	27	..	26	2	G	D	V
5	1	35	3	B	D	V	17	..	36	9	B	D	V	28	36	30	2	B	D	V
6	..	35	10	B	D	V	18	44	30	6	B	D	V	29	..	26	8	B	D	V
7	5	30	11	B	D	V	19	19	25	1	B	D	V	30	1	29	6	B	Dp	V
8	..	32	4	G	D	V	20	..	28	1	G	D	V	31	9	21	3	B	D	V
9	6	30	2	B	D	V	21	36	24	2	B	D	V	32	..	30	1	B	D	V
10	24	30	5	G	D	V	22	48	32	5	B	1	V	33	..	36	10	B	Dp	V
11	8	34	6	B	D	V	23	10	27	3	..	D	V	34	9	36	11	B	D	V
12	36	25	1	B	D	V														

ON TWIN BIRTHS.

The necessity for the medical practitioner directing his attention, with much care, to the treatment of such labours as are complicated with a plurality of children, is strongly indicated by their frequent occurrence, as also by the *greater mortality* to the mother, under such circumstances. It is singular that in Ireland, the proportional number of women giving birth to twins, is nearly a third greater than in any other country from which I have been able to obtain authentic records. Thus in France, the proportion is *one* in every 95 births; in Germany, *one* in 80; in England, one in 92; in Scotland, *one* in 95; but in Ireland, the proportion is *one* in every 62. Of 129,172 women delivered in the Lying-in Hospital of Dublin, 2062 gave birth to twins. *Twenty-nine* of the 129,172 produced three at each birth, which is in the proportion of *one* in 4450; *one* only gave birth to *four*.*

When a woman carries *more* than two children, they are usually expelled prematurely, and seldom

* See Philosophical Transactions for 1787, where a case is recorded by Doctor Garthshore, of five children at a birth. This is the greatest number I am acquainted with, recorded upon good authority, by any modern writer.

live for any considerable length of time. I am acquainted, however, with two instances, where *three* were carried to the full period of gestation, and reared healthy children.*

Many signs have been given by different writers, whereby to distinguish if there be more than one child in the uterus, previous to labour, such as the great size and uneven feel of the abdomen, the mother being sensible of a peculiar motion within the uterus, the labour being slow, besides several others equally fallacious. We have in the Hospital in many instances, detected with accuracy the existence of twins, long previous to the setting in of labour, by the use of the stethoscope, from the remarkable difference in the action of the two hearts, as in cases Nos. 129 and 187. When the action of both hearts is nearly synchronous, or the mother's pulse very frequent, it is difficult to decide with certainty. This, however, is not a point of much practical importance, as the most accurate information we could arrive at on this subject, would not lead us to vary

* Doctor Denman states, "with more than two children women seldom go to the full period of gestation, and even with two, there is a great likelihood of a premature birth, especially in a first pregnancy."

This statement, as far as regards a first pregnancy, does not agree with our experience; thus of 240 twin births, 72 were *first* pregnancies; 27 of the 240 were premature births; of which, *six* only were *first* pregnancies.

the mode of delivery; and as soon as one child has been expelled, any individual of even moderate experience, by placing the hand on the abdomen, must be made aware of the presence of a second child; besides, on examination per vaginam, the membranes may be generally reached by the finger, and often the presenting part. We may distinguish the uterine tumour, containing merely the placenta, from that where there is a second child, by the former being below, the latter above, the umbilicus.

In the treatment of twin cases, some recommend the second child to be delivered immediately after the first; others direct us to leave it to be expelled by the natural efforts. Both I consider to be in error, and believe it is at present the practice, with those who have had most experience, to adopt a middle course. As soon as the first child is born, a binder should be applied so as to make gentle pressure on the abdomen; we should not leave the house until the second child is delivered. If we find, after the lapse of half an hour, that the membranes of the second child still remain unbroken, they may be punctured with advantage, with the view of exciting uterine action; as the soft parts having been so well dilated by the passage of the first, no bad result can ensue. This expedient, in some instances, will be found not to succeed; and in such cases where we do not observe any progress made in the course of two hours after rupturing the membranes, the best mode of pro-

ceeding will be to pass the hand cautiously into the uterus, and bring down the feet. There will be but little difficulty experienced in this operation, the parts being in so relaxed a state. Where the head had made any considerable *descent* into the pelvis, the forceps will be the best means of affording assistance. It is *very rarely*, however, that we are called upon to effect delivery by either of the latter methods; yet experience has shewn, that the second child is very likely to be still-born, if left longer than two or three hours *unassisted*. In the great majority of cases it is expelled in less than half an hour after the birth of the first; thus of 240 cases I am about to notice, in 180 the second child was expelled within that time. The junior attendant may be cautioned not to interfere with the placenta of the child first born, until after the expulsion of the second, as they are generally united; or even were this not the case, hæmorrhage would most probably be the result. I have seen several instances where the placenta of the first child came away, without interference, before the birth of the second, and yet there was no hæmorrhage of consequence. In Nos. 12 and 131 this occurred.* In twin cases, where it becomes necessary to remove the placentæ, we should be careful not to withdraw our hand from the uterus

* The following similar examples occurred to me in private:—C. S. was delivered of twins, June 21st, 1823. The placenta of the first child was expelled immediately. The feet of the

until both be separated, at the same time waiting for uterine action, so as to induce as perfect a contraction of this organ as practicable; a point of most vital importance.

When we reflect, as has been computed, that the ordinary proportion of deaths in women giving birth to twins, is *one* in *twenty;* whereas, with single children, a death does not occur in nearly *five* times that number, we cannot but see the necessity for the most scrupulous attention on our part.* It is no matter what the nature of the attack may be, whether hæmorrhage, convulsions, fever, &c., it will be found much more dangerous in women giving birth to a plurality of children, than others.

Two hundred and forty women were delivered of twins during my residence. Of the 480 children 422 were born living. 245 of the 480 were males;†

second were then found in the vagina, and brought down. There was not the slightest hæmorrhage. The first was born alive, the second putrid. M. C. was delivered of twins May 6th, 1823. The placenta of the first child was expelled before the birth of the second, without hæmorrhage. Both children were born alive at the full period.

* Doctor Burns states, the chance of recovery in women giving birth to twins, is supposed to be *four* times less than in those who have single children.

† Doctor Burns observes, "It is worthy of remark, that the number of male twins in the Westminster Hospital, was only 16, whilst that of females was 30." This, we have shewn, is not the case on an extensive scale, as the number of *males* is *greater*, though not so much so as in single births.

309 presented naturally; 73 with the breech; 60 with the feet; and 7 with the arm or shoulder. In a few instances the nature of the presentation was not noted. Where this is not marked in the general table, see observations on the cases. *Fifty-four* of the 480 children were premature. Of the 27 premature deliveries, *one* took place at the 5th month; *three* at the 6th; *eleven* at the 7th; and *twelve* at the 8th month. The following are the Nos. of the premature births in the general table:—Nos. 4, 10, 17, 20, 34, 44, 55, 65, 73, 79, 102, 114, 118, 131, 134, 152, 156, 159, 170, 172, 182, 204, 213, 214, 226, 238, 240. *Fifty-eight* of the 480 children were still-born, of which 12 were *putrid.*

I shall give a very short statement of such cases, where the children were still-born, as possessed any peculiarity; which will serve to shew, that, in very few instances, was death caused by the delivery.

No. 20.—The first child lived one hour; the second was still-born. This was a premature birth at the 6th month.

No. 55.—Born prematurely at the 7th month. Both putrid.

No. 65.—Both still-born; this was a premature birth at the 5th month.

No. 102.—Born prematurely between the 6th and 7th month; the first alive, the second putrid.

No. 131.—Born prematurely between the 5th and 6th month; both still-born, the second putrid. The placenta of the first came away before the birth of the second.

No. 182.—Born prematurely at the 8th month; the first alive, the second still-born. There was only an interval of five minutes between the births.

No. 238.—Born prematurely at the 7th month; the first presented with the breech and was still-born; the second with the feet, born alive, with an interval of 4½ hours.

No. 240.—Born prematurely at the 7th month; the first presented naturally; the second with the breech, with an interval of ten minutes; the first was born alive, the second putrid. Shortly after the expulsion of the second child the uterus became distended; on making pressure, some large clots were expelled; the pulse becoming very weak, the hand was introduced to promote the separation of the placentæ. There was no difficulty with that of the first child, but the afterbirth of the second being morbid and adherent, afforded much trouble. Cordials and stimulants were necessary, and a draught was given with 35 drops of tincture of opium, followed by sleep.

No. 32.—Was admitted Dec. 23d. Her labour did not commence till the morning of the 26th, the pains were feeble, and she was not delivered till 2 A.M. on the 28th, the breech presenting; it was then discovered that there was another child pre-

senting with the head. She had little or no uterine action from this till 9 A.M. We then determined to try the effect of the *Secale Cornutum*, and at 10 o'clock a scruple of the powder infused in an ounce of water was given. In a few minutes the pains began to increase, and continued to return at intervals. In 25 minutes the draught was repeated, when the pains became so strong as to cause the head to press on the perinæum. The child was expelled in 40 minutes from the time the first dose was given, still-born, with marks of putrefaction in several places. The pulse, when the first dose was administered, was 72 and full; shortly after the second dose of the ergot, it fell to 58, at which it continued until she was delivered. At 10 P.M. the same day, it had not risen to more than 60, and the following morning at 9 A.M. it was 84.

This sedative effect of the ergot, though little remarked by the different writers on this subject, I have been particularly struck with in almost every instance where I have exhibited it.

No. 50.—Both children *putrid;* the labour lasted 3 hours with an interval of 15 minutes.

No. 99.—First child *putrid*, second living; labour lasted 3 hours.

No. 104.—First child *putrid*, second living; labour $\frac{1}{4}$ of an hour.

No. 154.—First child alive, second *putrid;* with an interval of 10 minutes.

In Nos. 70, 73, 85, 125, 166, 189, 197, 215,

221, 225, the children were still-born, owing to the prolapse of the umbilical cord. In the three succeeding instances the children were blighted.

No. 11.—The first born was of ordinary size, presented naturally, and was living. The second seemed to have died in utero about the 4th month, and presented with the breech; with a few minutes' interval.

No. 21.—Was admitted after the expulsion of a blighted fœtus, seemingly about the 4th month. On the second day from admission she was delivered of a living child, apparently about the 7th month, which died in 24 hours.

No. 128.—When the placenta was expelled, a second fœtus came away with it, seemingly about the 3d month; it had a blighted appearance. The first did well.

The causes of death in the following cases were various.

No. 36.—The mother was seized with convulsions. Both children were still-born. See observations on convulsions No. 5.

No. 233.—The mother was seized with convulsions. Both children were still-born. See observations on convulsions No. 4.

No. 91.—The first child presented with the feet; shortly after its birth the membranes of the second were ruptured. The uterine action was trifling;

however, after some time the head descended into the pelvis with the face to the pubes. In 4 hours from the birth of the first child, a considerable quantity of blood came away in a clotted state. After waiting for another hour, the patient's strength began to fail, the hæmorrhage continuing at intervals. Immediate delivery was now decided on, and as the ear could be reached by the finger, the forceps was applied; but on using as much force as was deemed consistent with safety, the child could not in the slightest degree be moved. The head was then lessened; still owing to its size, and position, delivery was completed with difficulty. It was a first pregnancy, and the labour lasted 28 hours.

No. 174.—This woman was 48 hours in labour; in half an hour after the birth of the first, the membranes of the second child were ruptured; soon after which, the head descended into the pelvis, where it remained for eight hours without making further progress, although the pains were constant. The case did not admit the application of the forceps. The child being now dead, as ascertained by the aid of the stethoscope, the head was lessened, and delivery effected by the crotchet.

No. 183.—The first child presented with the feet; there was great difficulty in extricating the head, the pelvis being under size. The second

presented naturally, with an interval of three hours. Both were still-born.

No. 82.—The first presented with the face to the pubes; the second naturally, with an interval of half an hour; both still-born. It was a first pregnancy; labour lasted 6 hours.

No. 140.—The first child presented with the breech; the second with the face to the pubes. Uterine action for 14 hours after the birth of the first child was very feeble; it then became so strong as to cause the head to press on the perinæum, when it again subsided; and the head was brought down with a blade of the forceps. The second child was still-born, as indicated by the stethoscope previous to delivery.

No. 31.—The labour lasted 46 hours. The first child presented naturally and was still-born. The arm of the second presented on the rupture of the membranes; it was turned and born alive with an interval of 20 minutes.

No. 38.—The labour lasted 30 hours. The first child was born alive, the second still-born, with an interval of five hours; both natural presentations.

No. 127.—The labour lasted 18 hours. The first child presented naturally, and was still-born; the second with the breech, and was born alive.

No. 184.—The labour lasted 8 hours; both children presented naturally, with an interval of five hours. The membranes of the second were

ruptured 4½ hours after the birth of the first, it was still-born. In three hours after delivery, she had a fit of convulsions, when she was put on the use of tartar emetic and opium, and had no return.

This case was by mistake not inserted under the head of convulsions.

No. 187.—The labour lasted 27 hours; both children presented naturally with an interval of half an hour: the first was still-born. In this case the existence of twins was ascertained *several hours* before delivery by the stethoscope. One of the fœtal hearts beat 150, the other 120, the mother's pulse was 114.

No. 29.—The labour lasted 24 hours; the first child presented naturally, and was born alive: the second with the breech and was still-born, with an interval of 20 minutes.

No. 117.—The first child presented with the breech, and was still-born: the second with the feet, and was born living; the labour lasted nine hours.

No. 171.—The first child presented naturally, and was born alive; the second with the breech, and was still-born: the labour lasted nine hours.

No. 196.—The first presented naturally, born alive: the second with the breech, still-born, with an interval of 10 minutes: the labour lasted 12 hours. See Observations on Hæmorrhages, No. 100.

No. 162.—See Observations on Hæmorrhages, No. 86.

No 151.—This woman was delivered in the street.

In Nos. 28, 35, 49, 95, and 198, no cause could be discovered to account for the children being still-born: the labours were easy, and in every respect natural.

I have thus given as concise a statement of the fifty-eight still-born children as practicable: which will, I trust, not be considered uninteresting: and from which I think it may clearly be inferred that the cause of such children being still-born, was in the *great majority* of instances owing to circumstances over which the medical attendant could have had no control.

Of the *fifty-four* children expelled prematurely, *eleven* were still-born. In *twelve* of the 480 the funis prolapsed, viz. Nos. 70, 73, 85, 100, 125, 166, 189, 197, 215, 218, 221, 225. The number of these still-born may be seen above. *Eight* of the 480 were *turned*, of which the following is a short record.

No. 1.—The first child presented with the breech, the second with the elbow, the child was turned. There was an interval of one hour.

No. 8.—The first presented with the feet, the second with the hand, and was turned.

No. 31.—See the particulars of this case already given, page 319.

No. 73.—It was this woman's 14th pregnancy. On admission the foot was found in the vagina, with the funis prolapsed, and without pulsation. She was at once delivered, having been a considerable time in labour before she was brought to Hospital. A second child was then discovered, the membranes of which were ruptured and the feet brought down, as there was no uterine action. She had not arrived at more than the 7th month. The child died in 11 hours.

No. 74.—See Observations on Hæmorrhages, No. 32.

No. 81.—See Observations on Hæmorrhages, No. 39.

No. 126.—The first presented naturally: the second with the arm, with an interval of half an hour, and was turned.

No. 168.—The first presented naturally; the second with the shoulder, and was turned, with one hour's interval.

Two of the 480 children were delivered with the forceps, and *two* with the crotchet.

No. 58.—Both presented naturally; in seven hours after the birth of the first child, the second was delivered with the forceps, uterine action having subsided.

No. 140.—The first child presented with the breech; the second with the face to the pubes. Uterine action for 14 hours after the birth of the

first child was feeble, it then became strong, causing the head to descend and press on the perinæum, when it again subsided, and delivery was accomplished with the forceps. The child was still-born, as previously indicated by the stethoscope.

For the particulars of the *two* crotchet cases, see Nos. 91 and 174, page 317.

Three of the 240 patients delivered of twins, were attacked with *convulsions*. *Eight* of the 240 were delivered in the street, on their way to the Hospital, of either one or both children. *Two* of the 240 had *previously* given birth to twins. Many similar instances may have occurred without their having been noticed in our observations, as little attention was paid to this circumstance. In *two* cases the children were *unusually large*. In *five* of the 480 children, either the *face* presented or was turned to the *pubes*.

I shall notice these cases in the order here stated, and afterwards give a brief detail of such as proved fatal.

No. 36.—See Observations on Convulsions, No. 5.

No. 184.—See page 319.

No. 233.—See Observations on Convulsions, No. 30.

No. 6.—Was delivered in the street.

No. 21.—See page 317. Was delivered of

her first child in the street; of her second in the Hospital on the second day after admission.

No. 64.—Was delivered of her first child in the street; of her second on the Hospital stairs; both natural presentations, with an interval of 10 minutes.

No. 68.—Was delivered in the street.

No. 79.—It was this woman's sixth pregnancy; she was delivered of her first child on the road, about a mile from the Hospital, which distance she afterwards walked, and was there delivered of her second child; it presented with the feet. They were born prematurely, between the 7th and 8th month. The first lived 30 hours; the second died shortly after delivery. The placentæ were removed in consequence of slight hourglass contraction.

No. 84.—Was delivered on the Hospital stairs.

No. 116.—The first child was delivered in the street; the second in the Hospital, in half an hour after.

No. 151.—Was delivered in the street.

These eight cases are interesting examples of the hazards to which females are occasionally exposed with impunity, during delivery.

No. 60.—Both natural presentations, males; had previously given birth to twin boys.

No. 106.—This woman had given birth to twins two years before.

No. 45.—Both natural presentations; the first,

a girl, weighed *seven pounds and a half*; the second, a boy, weighed *eight* pounds. There were five minutes' interval.

No. 235.—Both natural presentations; the first, a boy, weighed *seven pounds and a half*; the second, a girl, *eight* pounds; with 20 minutes' interval.

These were the largest children met with; each being fully equal in size to most children in single births.

No. 82.—The first presented with the face to the pubes, and was still-born. See page 319.

No. 91.—Still-born; second child presented with face to pubes. See page 317.

No. 136.—The first child presented with face to pubes; the second naturally.

No. 138.—The second child presented with face to pubes; the first naturally.

No. 140.—See page 319.

I have thus detailed all the peculiarities noticed in 240 twin births; which will in some measure, I trust, serve to shew the general result in such cases. Such other circumstances as have been deemed worthy of record, but not already stated, will be found in the General Table.

It now remains to report the consequences to the mothers. Of these seven died; in five of whom it was their first pregnancy.

No. 36.—See Observations on Convulsions, No. 5.

No. 54.—Was delivered at 2 o'clock A.M., (her first pregnancy,) May 27th, after a labour of 40 hours. On examination the uterus was found to contain a second child. The membranes shortly ruptured and the head presented. For 5½ hours afterwards she remained without any uterine action, during which time two stimulating injections were administered, the binder occasionally gently tightened, pressure made on the abdomen with the hand, and a mild cordial given. At the expiration of this time, the child having made no progress, it was thought advisable to try the effects of the *ergot of rye*, when half a drachm, infused for 10 minutes in two ounces of boiling water, was given; her pulse was now 98 and full; tongue white; *no uterine action whatever;* about a pint of urine was removed with the catheter. In 25 minutes uterine action commenced, and in 20 minutes more the child was expelled. The uterus seemed to act with great force; she complained much of the pain, said it was principally in the lower part of the abdomen, and unlike the pain she had experienced with the first child. Her pulse was now 102. In two hours after, the placentæ being retained, the hand was introduced, and they were with some difficulty removed, owing to the hourglass contraction.

4 o'clock P.M.—Pulse 142, yet she does not complain of any distress, either local or general.

9 P.M.—Pulse 160; abdomen hard and distended; no pain on pressure.

Ordered calomel and hippo, of each 4 grains every 3d hour; frequent stupes.

28th, 9 A.M.—Pulse 180 indistinct; had a turpentine enema in the night, which caused the bowels to act several times; abdomen softer; no pain on pressure.

To have a warm bath; powders and stupes to be continued.

9 P.M.—Pulse 160 indistinct; has been weak and faintish since last visit; breathing laboured; tongue white and moist; abdomen still much distended; bowels repeatedly opened; mind incoherent.

To have some wine whey occasionally.

She expired at 9 A.M. on the 29th. On examining the body a very small quantity of amber-coloured fluid was found in the abdominal cavity; and all the cellular tissue in the pelvis was infiltrated with a brownish fluid. There was no other morbid appearance.

No. 56.—Was delivered of twins June 22d, after a labour of six hours. Both presented naturally and were born alive, with an interval of half an hour.

She was apparently recovering, though slowly, until the 14th day, when she was suddenly seized with a feeling of sinking and exhaustion, and died in a few hours.

On examination, the morbid appearances of peri-

carditis were discovered, though she had no symptom whatever to lead us to suspect its existence, and was perfectly free from any local distress.

No. 129.—Died of inflammation of the uterus. See Observations on Hæmorrhages, No. 70.

No. 162.—Died of disease of lungs and effects of hæmorrhage. See Observations on Hæmorrhages, No. 86.

No. 25.—Was admitted September 5th, in a weak and delicate state; had suffered much distress of mind in consequence of the death of her husband, a short time before. She was delivered of twins on the 7th, after six hours' labour. Both presented naturally, and there was no difficulty experienced.

She died on the third day, apparently from extreme debility.

On dissection, nothing could be found to account for death. There were some ulcers in the vagina.

No. 27.—Was delivered of twins. Both presented naturally, with an interval of 20 minutes. It was her 10th pregnancy. After the expulsion of the second child, profuse hæmorrhage set in, producing so much debility, that for more than two hours her pulse could only be felt at intervals; her countenance was ghastly, and she had all the appearance of a woman dying from hæmorrhage.

On the first occurrence of the discharge the hand was introduced with a view to excite uterine action, and the expulsion of the placentæ; this had

the desired effect, but the blood was poured out so suddenly and violently, that considerable exhaustion ensued. The most powerful stimulants were diligently given for three hours. An opiate was then administered which had the effect of producing some refreshing sleep. She seemed to rally for a day or two, and complained only of pain in her head; daily shiverings then came on, at first slight, but soon increased in violence and frequency. These continued for upwards of a week, in one of which she suddenly expired, being the 12th day from delivery.

No post mortem examination would be permitted.

This case should have been recorded under the head of Hæmorrhages, but was overlooked; however, there is a reference to it from that subject.

Such are the particulars of the *seven* fatal cases, out of 240 twin births; which is nearly in the proportion of 1 in every 34. These include all the deaths, whether the fatal termination seemed to be connected with the existence of twins or not. In at least *three* of them, viz. Nos. 162, 25, and 27, I have little doubt the result would have been equally unfavourable, had the patients given birth to but one child.

The four succeeding tables shew the *interval* between the birth of the 1st and 2d child; the *duration* of the labour; the *age* of the patient; and if a *first* or *subsequent* pregnancy.

Interval between the births; thus in 37 there was 5 minutes' interval, and so on. For the interval in 28 instances, see Observations on cases. In a few it was not noted.

MINUTES.

Interval,	5	10	15	20	30	45
No. of Women,	37	27	45	23	30	5

HOURS.

Interval,	1	2	3	4	5	6	7	8	10
No. of Women,	16	8	3	6	4	3	1	1	2

Length of time in labour—thus 6 were $\frac{1}{4}$ of an hour, and so on: for length of time in 9 cases, see Observations.

Hours in labour,	$\frac{1}{4}$	$\frac{1}{2}$	1	2	3	4	5	6	7	8	9	10	12	14	15	16	18	22
No. of Women,	6	3	34	39	33	24	13	24	4	11	5	3	7	1	2	1	1	1

Hours in labour,	24	27	28	30	36	38	40	46	48
No. of Women,	6	1	2	3	2	1	1	1	2

Age of patients—thus 1 woman was 16, and so on.

Age of Women,	16	18	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
No. of Women,	1	2	7	4	15	14	13	10	13	16	28	9	42	5	9	6	9	7

Age of Women,	36	37	38	39	40	42	44	45
No. of Women,	13	2	5	1	5	2	1	1

First or subsequent pregnancy—thus 72 were 1st pregnancies, and so on.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No. of Women,	72	35	37	20	22	15	15	6	6	7	1	1	1	1	1

The following general table affords the means of making many interesting calculations. In the column indicating alive or dead, the letter D shews the child was still-born; Dp putrid: these letters are placed according as it was the first or second child that was still-born; thus in No. 11, it was the 2nd child; in No. 21 the 1st. In the column indicating the interval between the births, M denotes it was so many minutes, H hours.

No. of Case.	Sex of Children.	Alive or Dead,	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
1	B G	2	Breech	Elbow	1 H	4	2	35	V
2	B G	2	Nat.	Nat.	½ H	1	12	24	..
3	B G	2	Hip	Feet	1 H	3	2	26	..
4	B G	2	Breech	Breech	15 M	15	1	36	..
5	G G	2	Breech	Feet	½ H	4	4	30	..
6	G G	2	..	..	..	5	..	28	V
7	G G	2	Nat.	Nat.	..	3	1	24	..
8	G B	2	Feet	Hand	..	1	1	24	V
9	B G	2	Nat.	Feet	½ H	4	4	30	..
10	G G	2	Nat.	Breech	5 M	3	3	30	V

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the birth.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
11	B B	1 D	Nat.	Breech	..	2	3	22	V
12	B G	2	Feet	Nat.	5 M	1	3	24	V
13	B G	2	Knee	Nat.	½ H	13	1½	36	..
14	B G	2	Nat.	Nat.	5 M	4	4	30	..
15	B G	2	Nat.	Nat.	5 M	2	2	22	..
16	B B	2	Nat.	Feet	15 M	3	4	40	V
17	B B	2	Nat.	Nat.	10 M	1	4	27	V
18	B B	2	Nat.	Nat.	5 M	9	½	36	..
19	G G	2	Hand & Foot	Feet	..	1	24	20	..
20	B B	1 D	Breech	Feet	5 M	1	2	25	V
21	B G	D 1	..	Nat.	..	2	..	27	V
22	B G	2	Breech	Foot	..	4	4	25	..
23	B G	2	Breech	Breech	½ H	6	4	36	..
24	B B	2	Nat.	Nat.	15 M	4	6	26	..
25	G G	2	Nat.	Nat.	..	3	6	24	V
26	B G	2	Foot	Nat.	10 M	1	6	24	..
27	B B	2	Nat.	Nat.	20 M	10	4	42	V
28	B B	1 D	Nat.	Nat.	1 H	7	3	40	V
29	B B	1 D	Nat.	Breech	20 M	1	24	28	..
30	B G	2	Feet	Breech	15 M	7	1	27	..
31	B G	D 1	Nat.	Arm	20 M	1	46	30	V
32	B G	1 D p	Breech	Nat.	10 H	1	48	27	V
33	G B	2	Breech	Breech	5 H	1	3	31	..
34	G G	2	Feet	Feet	15 M	7	3	32	V
35	B B	1 D	Breech	Nat.	1 H	10	5	38	V
36	B G	D D	Nat.	Nat.	..	1	22	22	V
37	G G	2	Breech	Breech	10 M	6	3	35	..
38	B B	1 D	Nat.	Nat.	5 H	2	30	28	V
39	B B	2	Nat.	Nat.	15 M	4	2	30	..

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
40	B G	2	Nat.	Feet	15 M	2	6	28	..
41	B G	2	Nat.	Nat.	10 M	1	2	27	..
42	G B	2	Breech	Nat.	6 M	11	2	38	..
43	B B	2	Nat.	Nat.	10 M	8	2	38	..
44	B B	2	Nat.	Breech	5 M	5	3	29	..
45	B G	2	Nat.	Nat.	5 M	6	3	32	V
46	B G	2	Breech	Nat.	5 M	6	5	37	..
47	G G	2	Breech	Breech	20 M	2	1	28	..
48	G G	2	Nat.	Nat.	15 M	7	5	36	..
49	B B	1 D	Nat.	Nat.	10 M	1	12	24	V
50	G G	Dp Dp	Nat.	Feet	15 M	3	3	22	..
51	G G	2	Nat.	Nat.	15 M	1	7	30	..
52	B G	2	Nat.	Feet	½ H	8	6	35	..
53	B B	2	Feet	Nat.	15 M	5	5	33	..
54	G G	2	Nat.	Nat.	6½ H	1	40	37	V
55	B G	Dp Dp	Nat.	Feet	15 M	5	6	23	V
56	B B	2	Nat.	Nat.	½ H	1	6	30	V
57	B G	2	Nat.	Nat.	10 M	2	5	24	..
58	G B	2	Nat.	Nat.	7 H	1	10	25	V
59	B G	2	Nat.	Nat.	15 M	1	6	26	V
60	B B	2	Nat.	Nat.	5 M	7	1	36	V
61	B G	2	Nat.	Nat.	15 M	2	2	31	.
62	B B	2	Hip	Nat.	5 M	2	8	30	..
63	G B	2	Nat.	Nat.	¾ H	3	6	24	..
64	B G	2	Nat.	Nat.	10 M	3	..	25	V
65	B B	D D	Breech	Feet	..	3	1	30	V
66	B G	2	Nat.	Feet	5 M	1	3	28	..
67	G G	2	Nat.	Feet	15 M	8	3	36	..
68	B G	2	..	..	..	7	..	35	V

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
69	G G	2	Feet	Feet	15 M	3	5	30	..
70	B B	D 1	Nat.	Nat.	½ H	9	6	42	V
71	B B	2	Nat.	Feet	5 M	1	16	28	..
72	G G	2	Nat.	Feet	15 M	5	1	26	..
73	B G	D 1	Feet	Nat.	..	14	..	30	V
74	G G	2	Nat.	Arm	10 M	2	2	20	V
75	B G	2	Nat.	Nat.	2 H	1	8	23	..
76	B B	2	Nat.	Feet	½ H	3	6	28	..
77	B B	2	Breech	Feet	20 M	7	4	32	..
78	G B	2	Nat.	Nat.	20 M	2	3	36	..
79	B B	2	Nat.	Feet	..	6	..	35	V
80	B G	2	Nat.	Breech	½ H	1	24	20	..
81	B G	2	Nat.	Hand	½ H	1	30	25	V
82	G G	D D	Face.	Nat.	½ H	1	6	40	V
83	B G	2	Nat.	Feet	5 M	1	2	23	..
84	B G	2	Nat.	Nat.	5 M	3	..	23	V
85	B B	1 D	Nat.	Nat.	2 H	1	15	28	V
86	B B	2	Feet	Feet	1 H	3	3	26	..
87	G G	2	Nat.	Nat.	15 M	6	2	25	..
88	B B	2	Nat.	Nat.	15 M	5	2	29	..
89	B B	2	Nat.	Nat.	½ H	5	4	38	..
90	B G	2	Feet	Nat.	2 H	1	5	30	..
91	B G	1 D	Feet	Nat.	5 H	1	28	21	V
92	G G	2	Nat.	Feet	5 M	1	5	30	..
93	B B	2	Nat.	Face	15 M	2	1	23	..
94	G G	2	Nat.	Nat.	1 H	3	1	33	..
95	G B	1 D	Nat.	Nat.	¾ H	1	4	25	V
96	G G	2	Nat.	Nat.	5 M	2	¼	26	..
97	B B	2	Nat.	Nat.	4 H	3	36	30	..

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
98	G G	2	Nat.	Breech	5 M	5	¼	30	..
99	G G	D p 1	..	..	..	6	3	30	..
100	B B	2	Nat.	Feet	¾ H	7	4	31	V
101	B G	2	Nat.	Nat.	20 M	2	3	28	..
102	G B	1 D p	Nat.	Feet	15 M	2	2	24	V
103	G G	2	Nat.	Nat.	3 H	3	3	34	..
104	B G	D p 1	Feet	Feet	10 M	10	¼	26	V
105	B B	2	Nat.	Nat.	10 M	4	2	32	..
106	G G	2	Nat.	Breech	10 M	10	1	36	V
107	B G	2	..	..	..	1	6	22	..
108	B G	2	Nat.	Nat.	5 M	1	4	23	..
109	B G	2	Nat.	Nat.	15 M	3	2	28	..
110	B B	2	Nat.	Breech	4 H	1	8	16	..
111	G G	2	Nat.	Nat.	½ H	4	8	30	..
112	B G	2	Nat.	Feet	5 M	5	1	32	..
113	B G	2	Nat.	Nat.	10 M	1	38	18	..
114	B B	2	Feet	Nat.	15 M	3	½	23	V
115	G G	2	..	..	..	2	1	30	..
116	B G	2	Nat.	Nat.	½ H	3	..	30	V
117	G G	D 1	Breech	Feet	10 M	2	9	27	V
118	B B	2	Nat.	Nat.	5 M	2	2	36	V
119	B G	2	Breech	Nat.	½ H	7	2	34	..
120	B G	2	Nat.	Nat.	15 M	1	30	36	..
121	G G	2	Nat.	Breech	5 M	3	1	27	..
122	B G	2	Feet	Nat.	¾ H	9	6	40	..
123	B G	2	Nat.	Nat.	1 H	3	2	29	..
124	G G	2	Breech & Feet	Nat.	5 M	1	8	23	..
125	B B	1 D	Nat.	Nat.	6 H	6	24	33	V
126	G B	2	Nat.	Arm	½ H	6	1	30	V

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
127	B B	D 1	Nat.	Breech	15 M	1	18	27	..
128	G ..	1	Nat.	..	..	6	2	39	V
129	B G	D p D	Nat.	Nat.	15 M	1	24	30	V
130	B B	2	Nat.	Nat.	½ H	6	1	45	..
131	G G	D D p	Nat.	Nat.	10 M		6	28	V
132	B B	2	Nat.	Nat.	¾ H	3	4	30	..
133	G G	2	Breech	Nat.	20 M	1	6	21	..
134	G G	2	Feet	Nat.	15 M	3	2	25	V
135	B B	2	Nat.	Feet	1 H	4	3	30	..
136	G G	2	Nat.	Nat.	½ H	5	3	30	V
137	B B	2	Nat.	Nat.	½ H	7	2	30	..
138	B B	2	Nat.	Nat.	2 H	5	4	33	V
139	G G	2	Nat.	Nat.	2 H	1	8	22	..
140	G G	1 D	Breech	Nat.	20 H	1	28	29	V
141	B B	2	..	..	..	2	2	28	..
142	B G	2	Nat.	Nat.	20 M	2	1	26	..
143	B B	2	Nat.	Nat.	4 H	3	5	27	..
144	G G	2	Nat.	Breech	5 M	1	2	22	..
145	G G	2	Nat.	Breech	5 M	10	1	36	..
146	G G	2	Nat.	Feet	10 M	12	½	38	..
147	G G	2	Breech	Nat.	10 M	5	2	30	..
148	B G	2	Nat.	Nat.	5 M	9	12	34	..
149	G G	2	Nat.	Nat.	½ H	2	6	22	..
150	B G	2	Feet	Nat.	20 M	1	2	29	..
151	B G	D 1	..	..	..	6	..	44	V
152	B G	2	Nat.	Nat.	15 M	3	1	22	V
153	B B	2	Breech	Nat.	15 M	1	2	26	..
154	G B	1 D p	Breech	Nat.	10 M	4	4	28	..
155	B G	2	Nat.	Nat.	15 M	4	1	33	..

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
156	B B	2	Nat.	Breech	..	1	5	30	V
157	B B	2	Nat.	Nat.	½ H	5	2	30	..
158	B B	2	Nat.	Nat.	20 M	4	6	28	..
159	G G	2	Nat.	Nat.	15 M	1	2	22	V
160	G G	2	Nat.	Feet	20 M	3	1	32	..
161	B B	2	Nat.	Breech	20 M	8	1	30	..
162	B G	1 D	Nat.	Nat.	..	1	24	26	V
163	B B	2	Nat.	Nat.	20 M	3	6	28	..
164	G G	2	Nat.	Nat.	5 M	2	¼	24	..
165	B B	2	Nat.	Nat.	15 M	1	1	20	..
166	G G	D 1	Feet	Nat.	20 M	1	12	27	V
167	B B	2	Nat.	Nat.	20 M	3	8	22	..
168	B G	2	Nat.	Should.	1 H	3	4	26	V
169	G B	2	Breech	Nat.	6 H	5	6	28	..
170	G G	2	Breech	Feet	15 M	1	2	23	V
171	B B	1 D	Nat.	Breech	1 H	2	9	32	..
172	B B	2	..	..	..	8	8	28	V
173	B B	2	Nat.	Nat.	5 M	5	¼	34	..
174	B B	1 D	Nat.	Nat.	8 H	1	48	23	V
175	B G	2	Nat.	Feet	½ H	5	2	29	..
176	G G	2	Nat.	Breech	2 H	2	7	28	..
177	G G	2	..	..	..	2	3	25	..
178	B B	2	Nat.	Nat.	1 H	2	2	30	..
179	B G	2	Nat.	Breech	½ H	3	3	30	..
180	G G	2	..	..	..	1	3	23	..
181	B G	2	Feet	Nat.	1 H	1	4	24	..
182	B B	1 D	Nat.	Nat.	5 M	8	1	30	V
183	G B	D D	Feet	Nat.	3H	1	3	25	V
184	B G	1 D	Nat.	Nat.	5 H	1	8	23	V

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
185	B G	2	Nat.	Nat.	20 M	4	2	30	..
186	B G	2	Nat.	Breech	8 M	1	15	28	..
187	G B	D 1	Nat.	Nat.	½ H	1	27	23	V
188	B G	2	Breech	Nat.	20 M	3	1	28	..
189	B B	1 D	Breech	Nat.	3 H	7	4	34	V
190	G G	2	Nat.	Nat.	5 M	2	1	30	..
191	G G	2	Nat.	Nat.	5 M	10	4	32	..
192	B G	2	..	..	..	2	3	28	..
193	B G	2	Nat.	Knee	½ H	3	6	32	..
194	B B	2	Nat.	Nat.	5 M	5	1	26	..
195	B G	2	Breech	Nat.	15 M	6	3	27	..
196	B B	1 D	Nat.	Breech	10 M	1	12	27	V
197	G B	D 1	Feet	Feet	15 M	1	6	21	V
198	B G	D 1	Nat.	Nat.	½ H	1	6	26	V
199	G G	2	Nat.	Nat.	15 M	7	4	36	..
200	B G	2	Nat.	Nat.	15 M	5	1	30	..
201	G G	2	Nat.	Nat.	10 M	4	1	34	..
202	B G	2	Nat.	Nat.	5 M	2	3	29	..
203	B G	2	Nat.	Nat.	10 M	5	4	30	..
204	G G	2	Breech	Nat.	15 M	3	3	21	V
205	B G	2	Breech	Nat.	15 M	1	9	22	..
206	B B	2	Nat.	Nat.	1 H	1	8	27	..
207	B G	2	Breech	Breech	½ H	5	6	33	..
208	B G	2	Breech	Nat.	15 M	9	2	34	..
209	B B	2	..	..	..	2	10	22	..
210	G G	2	Nat.	Nat.	15 M	1	4	20	..
211	B G	2	Nat.	Nat.	1 H	3	12	28	..
212	G G	2	Feet	Nat.	½ H	1	7	24	..
213	B G	2	Nat.	Breech	4 H	1	9	23	V

No. of Case.	Sex of Children.	Alive or Dead.	Presentation.	Presentation.	Interval between the births.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
214	G B	2	Nat.	Nat.	5 H	2	7	30	V
215	G B	1 D	Nat.	Nat.	4 H	2	12	28	V
216	B B	2	Breech	Nat.	15 M	7	10	35	..
217	B G	2	..	..	..	9	1	40	..
218	G G	2	Nat.	Breech	10 H	4	2	28	V
219	G G	2	Nat.	Nat.	1 H	2	5	29	..
220	G G	2	Nat.	Breech	1 H	10	3	34	..
221	G G	1 D	Nat.	Nat.	..	1	36	20	V
222	B B	2	Breech	Breech	10 M	1	5	27	..
223	B G	2	Nat.	Nat.	20 M	5	2	30	..
224	B G	2	Nat.	Feet	15 M	7	1	30	..
225	B B	1 D	Breech	Nat.	15 M	4	3	29	V
226	G G	2	Nat.	Breech	2 H	3	3	30	V
227	B G	2	Nat.	Nat.	5 M	6	2	28	..
228	G G	2	Breech	Nat.	½ H	1	3	18	..
229	G G	2	Nat.	Nat.	20 M	7	9	34	..
230	G G	2	Nat.	Nat.	5 M	6	2	33	..
231	B G	2	Nat.	Nat.	10 M	4	¼	22	..
232	G G	2	Feet	Nat.	20 M	1	1	27	..
233	B B	D D	Nat.	Nat.	20 M	1	5	20	V
234	B B	2	Nat.	Breech	5 M	4	1	28	..
235	B G	2	Nat.	Nat.	20 M	2	3	30	V
236	B B	2	Nat.	Feet	2 H	1	14	22	V
237	G G	2	Nat.	Breech	15 M	2	2	27	..
238	B B	D 1	Breech	Feet	4¼ H	5	8	28	V
239	B B	2	Nat.	Nat.	10 M	3	4	31	..
240	B B	1 D p	Nat.	Breech	10 M	3	3	31	V

ON TRIPLETS.

Four cases of triplets occurred in the Hospital.

A. B. aged 29. Her second pregnancy; was some days in hospital, having occasionally slight pains which produced little effect on the os uteri until 24 hours previous to delivery. The abdomen was exceedingly large and hard, and on examination with the stethoscope, two fœtal hearts were distinctly audible. In 24 hours after, the head having descended so low as to enable us to reach the ear, and the pains being ineffectual, delivery was accomplished with the forceps. After this there was some hæmorrhage, which was checked by rupturing the membranes of a second child. On making an examination a short time after, another collection of water was discovered in the vagina, which was discharged. In five hours after the birth of the first child, the head of the second having descended so low as to render the forceps admissible, they were applied and the child delivered, but not without some difficulty and caution, owing to the bones of the head being soft and yielding. On passing the finger into the vagina, the hand of a third child, as had been anticipated from the size of the uterus, was found presenting; it was instantly

turned, and the placentæ, all of which were united, afterwards removed.

The two first were male; they were all born alive.

C. D. aged 30. Her third pregnancy; was delivered of three children; the labour lasted 11 hours. There was an interval of one hour between the birth of the first and second child, and about 20 minutes between the second and third. The membranes of the two last were ruptured. They were all born alive. The two first born were boys. She was delivered March 1st. The children died, the 1st on the 27th, the 2nd on the 28th of March, and the third on the 2nd of April.

E. F. aged 27. Her third pregnancy; was delivered of three children; six hours in labour. There was an interval of one hour between the birth of the first and second, and a ¼ of an hour between the second and third. The two first presented naturally, and the third with the breech. The 1st was a male, the 2nd and 3rd females; they were born Nov. 23rd, and the boy and one of the girls died on the 30th.

G. H. aged 33. Second pregnancy; was delivered of three children; four hours in labour. They were male, premature at the 7th month. The 1st and 2nd presented naturally with an interval of half an hour, the third with the breech, with an interval of 15 minutes. The 1st lived half an hour; the 2nd two hours, and the 3rd five hours.

ON PROLAPSUS OF THE UMBILICAL CORD.

THERE are few casualties in the progress of labour, productive of greater danger to the child, than the descent of the funis before the presenting part. Unfortunately, the different means of assistance with which we are at present acquainted, have been all found more or less unsuccessful. We must not however despair, as it is only by diligently experimenting that we can hope to discover any successful method of protecting the cord from pressure when so situated, and thus shielding the infant in innumerable instances, from certain destruction. Every practitioner is aware, that where any part of the child comes to press on the funis so as to stop its circulation, death is as surely the consequence, as if, after its birth, we were to prevent its respiration. At present not more than *one* in *four*, which is nearly the ordinary result in our hospital, survive delivery. I am fully aware, that in the French hospitals, the mortality is much less, as far as the child is concerned; but I have no doubt, the means used for its safety not unfrequently prove fatal, or at least highly injurious to the mother.

It is much to be regretted that Madame Boivin did not see, either in this or any other instance, the

necessity of stating the mortality amongst the women. As far as this is concerned she leaves us in total ignorance; and, consequently, without the means of forming a correct estimate of any line of practice recommended.

Baudelocque states, that out of 17,308 women delivered in the Lying-in Hospital at Paris, 700 died; which is nearly in the proportion of *one* in every 24. This is a very excessive mortality. It does not, however, differ much from the average mortality of that institution at the present day, as far as I can collect from the published reports.*

In some years the mortality in that establishment falls little short of that occurring in most pestilential diseases. As an example, in 1829 the mortality was *one* in every 12 or 13 women delivered; the number of deaths being 255 in 3074 deliveries. Thus in *one* year a greater number of deaths, by nearly *a half* occurred, than were met with during my *seven years'* residence in the Dublin Lying-in Hospital, where 16,414 women were delivered. Baudelocque reports 700 deaths in 17,308 deliveries; whereas in 16,414 we had 164.

When we reflect upon the value of the mother's life, and that every injury she sustains in the delivery

* Administration des Hospitaux, Hospices civils et secours de la ville de Paris.

Compte Moral et Administratif et Reglement definitif du Buget des Recettes et depenses de l'exercise.

of the child under such circumstances, is the result of actual interference on our part, both our best feelings and judgment forbid us, either to adopt or recommend a practice fraught with such hazard to the patient. We have often suffered much uneasiness when called to such cases, where the funis was as yet pulsating strongly, to think of the great danger to which the child is necessarily exposed, and how very little indeed we can do to save it. Many methods of relief have been recommended, such as turning, delivering with the forceps; pushing up the funis through the os uteri with the hand, and endeavouring to suspend it on some limb of the child; collecting the prolapsed cord in a bag, and then pushing it up beyond the head, pushing up the funis with instruments of various kinds; endeavouring to keep it secured above the head, by means of a piece of sponge introduced; these, and many other similar expedients, have been resorted to.

Turning the child, or delivery with the forceps, are the means employed in almost every instance, in the French hospitals; and likewise recommended by many writers on midwifery. As to turning, the risk to the mother is in the majority of cases so great, as to forbid its employment; nor do I think the practitioner justified by the circumstances, in so greatly hazarding his patient's life. The foreceps I consider highly desirable, when the

child is so situated that the head can be reached with safety; but as the funis generally descends at the *commencement* of labour, it is very seldom that this instrument is applicable till fœtal life is extinct. We should not fail, however, to apply them when practicable, should any delay occur in the delivery likely to endanger the life of the child; or if we find the pulsation in the cord becoming gradually slower and more feeble, taking care not to include the funis between the blade and head.

The practice we have found of most benefit in the hospital, was, keeping up the cord with great diligence with the fingers, assisted often by a piece of sponge. It is quite impossible, however, in the great majority of cases, to succeed in this way, in protecting the funis from pressure; as it is no sooner returned than we find it forced down in another direction. We tried, in a few instances, to return the funis completely into the uterus; by passing a piece of soft twine through a long gum elastic male catheter, so as to retain the funis exactly at its extremity; and, when thus fixed, a strong copper wire was introduced into the catheter, in order to render it sufficiently firm to carry up the cord; when elevated as far as practicable, by these means, the wire was *withdrawn*, and the catheter retained in its position during the subsequent expulsion of the child. With this contrivance there was not a sufficient number of trials,

as it was but a short time previous to my retiring from the Hospital that this expedient was had recourse to. Doctor Evory Kennedy, the present master, will, I am sure, lose no opportunity of testing its utility.

In hospital practice, the mortality must always be proportionably much greater, than in private, owing to patients being frequently admitted with the funis already prolapsed and pulseless; thus of the 73 children still-born under such circumstances, during my residence, there were 22, of which, 15 had the cord prolapsed and without pulsation on admission, and in the remaining 7, this complication was not detected for some time after its having taken place, when all pulsation had ceased; this is not much short of *a third* of the entire; whereas in private practice, the medical attendant will seldom fail to detect its descent in the early stage of labour, and by diligence may certainly, in some instances, succeed in preventing compression.

The total number of cases of prolapsus of the umbilical cord, met with in the Hospital during my mastership, was *ninety seven;* of these, *twenty four* children were born alive; none of the mothers sustained any injury in the delivery.*

Twelve of the 97 occurred in twin cases; and

* *Sixty six* cases of umbilical cord prolapsed before the presenting part, during Doctor Clarke's mastership. Seventeen of the children were born alive.

in *seven* of the 12, it was the cord of the second child. *Nine* occurred where the feet presented, (not including two met with in twin children,) which was in the proportion of *one* in every *fourteen* of such presentations. *Two* only, where the breech presented, which was in the proportion of *one* in every 121 of such presentations; this approaches nearly the proportional average in all deliveries, which is *one* in 171½; *four* occurred where the shoulder or arm presented; this is in the proportion of *one* in *nine* of such presentations. *Seven* occurred where the hand came down with the head. *Seven* of the 97 children were born *putrid; three* of the 97 were premature births, viz. *two* at the 7th and *one* at the 8th month.

I shall now give a brief statement of such cases as exhibited the least peculiarity, and first respecting twin children.

No. 24.—The funis descended in the birth of the second child.

No. 30.—The funis was very much prolapsed in the birth of the second child: the feet presented: there was an interval of 45 minutes.

No. 41.—After the birth of the first child, the uterus remained inert for two hours: when the membranes were ruptured uterine action returned, and the head in a short time came to press on the perinæum, where it remained without making the slightest progress: the funis was prolapsed and

without pulsation. The head was afterwards lessened, and the child brought away with the crotchet. There was a considerable quantity of coagulated blood subsequently expelled from the uterus, which much weakened the patient. This woman had three children at a birth some years before.

No. 65.—This was an unusually large child, and the second born, with three hours interval.

No. 71.—Both children presented with the feet, with fifteen minutes' interval: the funis of the first was prolapsed for two hours before its birth.

No. 83.—The hand came down with the head of the second child: there was an interval of four hours, during which time the funis was prolapsed.

No. 87.—See Observations on Twins, No. 218.

No. 89.—Uterine action was for a considerable time very feeble: it was not until about three hours previous to delivery that it became at all powerful. Both children presented with the head: with the second the funis was prolapsed, but was returned, and the feet were found descending with the thorax. The sternum was very much depressed by the pressure of the legs.

No. 91.—The first child presented with the breech: the second with the head and hand, with the funis prolapsed; with an interval of fifteen minutes.

No. 94.—The breech presented: it was the first born.

For two cases see Observations on Twins, Nos. 70 and 73.

Such is an abstract of the 12 twin cases with prolapsed funis: of which 3 were born alive.

I shall now notice those where the feet presented.

No. 6.—Was a premature birth at the 7th month: a large portion of the funis on the discharge of the waters protruded externally: the os uteri was at this time little dilated, and the feet very high in the pelvis.

No. 9.—The funis had descended, and was without pulsation, previous to admission.

No. 16.—This child was putrid.

No. 17.—See Observations on Presentations of the feet, No. 36.

No. 34.—See Observations on Retention of the Placenta, No. 41.

No. 35.—The funis descended with the feet.

No. 58.—The funis descended with the feet.

No. 61.—On admission, the funis was in the vagina, and without pulsation.

No. 80.—The mouth of the womb was well dilated when the funis descended, and delivery was effected without difficulty.

Such is a brief sketch of the nine cases in which the funis descended, the feet presenting, in single births. For two twin births under similar circumstances I refer to Nos. 30 and 71 above. Of the *eleven* children *five* were born alive. For the

particulars of the two breech presentations, where the funis was prolapsed, see observations on that subject, Nos. 17 and 225. For *four* cases of shoulder or arm presentation, similarly complicated, see observations on that subject, Nos. 4, 7, 25, and 31.

In the *seven* cases of prolapsed funis, where the hand came down with the head, *one* only was born alive. Their numbers are as follows: Nos. 5, 26, 52, 70, 82, 83, 91. In No. 70, the head was lessened some time after pulsation in the cord had ceased; it required considerable exertion to complete the delivery; the face was turned to the pubes. Nos. 83 and 91 were twin children, see particulars above. There was no peculiarity in any of the remaining four, nor was labour severe or tedious in any of the seven.

Doctor Denman, treating of descent of the funis, says, "When the child is dead, all the efforts of art "must be useless to it, and may be injurious to the "mother; we must, therefore, be satisfied with "permitting the labour to proceed as if the funis "had not descended."* Professor Burns, and several other writers express opinions very similar. From such, I most respectfully differ, as I cannot see any advantage whatever, in permitting the

* See Denman's Midwifery, page 450. See also Burns' principles of Midwifery, page 400.

patient to endure the pain and distress of labour for hour after hour, which must be accompanied with some risk, when, by lessening the head, we can, without the least injury, terminate the labour. In the following instances, the utility of this practice is apparent:—

No. 3.—In this case the pains were lingering and inefficient, and pulsation had ceased for some time; the head was lessened; she had been 36 hours in labour.

No. 25.—Was brought to Hospital from the county Meath, reported to have been in labour three days; the head was high and firmly fixed in the pelvis, the cord prolapsed and without pulsation; the head was lessened immediately, and delivery accomplished with the crotchet.

No. 28.—Was brought to Hospital, eleven miles from the country, reported to have been several days in labour; the head was low in the pelvis, which was defective in size; the funis prolapsed and pulsating feebly; in a short time it ceased altogether, and as the labour was making no progress, the perforator was used, and delivery thus effected. This was her second child; she had been several days in labour with her first, which was also still-born.

No. 29.—In this case, when the waters were discharged, a large quantity of the funis passed into the vagina, which soon ceased to pulsate. The os

uteri could at this time be barely reached, without a possibility of ascertaining the presenting part. After some time the uterus began to act, and continued to do so with such violence as to give rise to fears of rupture. The head was consequently lessened, and the crotchet had recourse to.

No. 40.—Pulsation having ceased for a considerable time the patient was delivered by the crotchet.

No. 46.—The funis descended before the os uteri was dilated more than the size of a shilling, and soon ceased to pulsate. The pains continued quick but feeble, and at the end of 36 hours the os uteri was not dilated to more than the size of a half-crown; the head was now lessened and left some hours to collapse, when it was cautiously brought away by the crotchet.

No. 57.—This patient was admitted reported to have been 24 hours in labour; the funis prolapsed and without pulsation. The child was delivered by the crotchet; it was putrid.

No. 60.—The funis being prolapsed and without pulsation on admission, she was shortly after delivered by the crotchet.

No. 68.—The funis descended at a very early stage of the labour, and the pulsation ceased in some hours; she was a delicate woman, and delivery was effected by the crotchet.

No. 73.—The funis descended very early in the labour; in eleven hours all pulsation ceased. She

was afterwards delivered by the crotchet; the external parts were very rigid and unyielding.

No. 75.—The funis having been for several hours without pulsation, the child was delivered by the crotchet.

No. 96.—The funis descended some hours before delivery, every effort to keep it up failed; the head had entered the brim of the pelvis; pulsation ceased in about 20 minutes; in five hours after, the head had descended into its cavity, where, although the uterine action was strong, it remained fixed; she was then delivered with some difficulty by the crotchet. She had been delivered of her first child in a similar manner.

I have thus given an outline of *twelve* cases, in which, I conceive, the patient was most materially benefitted by assisting the delivery; and certainly without inflicting any injury on the child.

The succeeding cases will serve to shew the utility of different methods employed to protect the funis from pressure. The same means, however, were, in many other instances used without success.

No. 4.—The prolapsed funis was returned, and kept up with the hand in the vagina, until the head got into the hollow of the sacrum; the labour lasted five hours.

No. 84.—The funis descended at the commencement of labour, but was returned and kept above

the head, by the introduction of a piece of sponge, and thus protected from pressure.

No. 88.—The funis descended when the os uteri was dilated to the size of a crown piece; it was returned and kept up by a piece of sponge; the labour was only of two hours' duration.

No. 90.—Several inches of the funis protruded through the external parts; the head at this time was about entering the inferior strait of the pelvis; two fingers were passed up behind the pubes, one on either side of the funis; the head was then pressed towards the sacrum, and the cord enclosed in a linen bag pushed up between the head and pubes. The child was expelled shortly afterwards: it was a considerable time before respiration could be established.

No. 95.—There was much difficulty in keeping the funis up in this case, having descended at two several points; a large sponge, however, had the effect. Respiration was established with difficulty; the child survived only 24 hours.

The above are the only cases in which the means used to guard the cord from compression, had the desired effect.

No. 33.—The parts were so badly dilated when the funis descended, as to prevent the possibility of interference, until pressure had stopped the circulation.

No. 84.—When the head became sufficiently low,

the forceps was used, but without benefit, as pulsation had just ceased. The child could not be recovered.

No. 97.—When the funis descended the pulsations were 138 in the minute, corresponding to the fœtal heart; the mother's pulse was 78.

In the following cases, the children were either born putrid, or the cord was prolapsed and without pulsation on admission; Nos. 7, 15, 20, 27, 32, 36, 45, 66, 77, 92, 93.

No. 31.—The funis prolapsed as soon as the os uteri began to dilate, and pulsation ceased in a very few minutes.

No. 38.—Pulsation ceased shortly after the funis descended.

In such cases as have no reference from the general table, nothing particular occurred.

The three following tables show the length of time each woman was in labour; her age, and whether it was a first or subsequent pregnancy.

Length of time in labour, thus 1 was ½ an hour, and so on; for the duration of labour in five cases, see Observations.

Hours in labour,	½	1	2	3	4	5	6	8	9	10	11	12	14	15	20	24	36
No. of Women,	1	12	17	14	9	5	9	3	1	6	2	3	1	2	1	4	2

Age of patients, thus 1 was 18 years of age, and so on.

Age of Women,	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	36
No. of Women,	1	1	4	4	8	6	4	8	6	5	8	5	13	2	4	4	4	2

Age of Women,	37	38	39	40	42
No. of Women,	3	2	2	1	1

First or subsequent pregnancy, thus 27 were 1st pregnancies.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10
No. of Women,	27	22	11	7	6	11	2	6	4	1

The following general table will be found to furnish materials for making many calculations both interesting and useful. Where there is reference to the cases, the letter V is placed opposite such No. in the column headed Observations.

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
1	G	D	2	2	28	..	6	B	1	2	3	30	V	11	G	D	6	2	37	..
2	B	D	1	3	22	..	7	G	Dp	2	1	22	V	12	B	D	1	24	20	..
3	G	D	3	36	27	V	8	G	Dp	9	..	32	V	13	B	D	4	5	29	..
4	G	1	3	5	25	V	9	B	D	1	1	22	V	14	B	D	3	4	29	V
5	B	1	3	8	23	V	10	B	1	6	5	27	..	15	B	D	1	2	28	V

No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.	No. of Case.	Sex of Child.	Alive or Dead.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Observations.
16	B	Dp	1	10	25	V	44	B	D	4	2	27	..	71	G	D	1	6	21	V
17	G	D	1	12	22	V	45	G	D	5	3	30	V	72	B	Dp	3	..	24	V
18	G	D	10	3	37	..	46	B	D	1	36	28	V	73	B	D	5	11	30	V
19	B	1	9	6	42	..	47	B	1	5	1	32	..	74	G	D	1	3	30	..
20	B	D	2	3	30	V	48	B	D	2	6	30	..	75	B	D	9	15	37	V
21	B	1	4	2	29	..	49	G	1	1	2	22	..	76	G	D	5	6	36	..
22	G	D	1	3	30	..	50	G	1	3	3	26	..	77	G	Dp	4	2	25	V
23	B	D	2	4	22	V	51	B	D	1	2	23	..	78	G	D	1	24	21	..
24	B	D	2	15	28	V	52	B	D	6	1	30	V	79	G	1	6	2	39	..
25	B	D	1	..	26	V	53	B	1	6	2	34	V	80	G	1	4	1	26	V
26	B	D	3	1	29	V	54	G	D	1	10	20	..	81	G	D	2	6	28	..
27	B	D	2	4	27	V	55	B	D	5	3	40	..	82	B	D	8	1	33	V
28	B	D	2	..	24	V	56	B	D	6	1	24	..	83	B	D	2	12	28	V
29	B	D	7	11	34	V	57	B	Dp	1	24	23	V	84	B	D	3	5	25	..
30	B	1	8	4	31	V	58	G	1	1	2	22	V	85	B	1	8	1	30	V
31	B	D	6	2	30	V	59	G	D	2	6	33	..	86	B	D	2	4	23	..
32	B	D	8	12	34	V	60	B	D	3	8	32	V	87	G	1	4	2	28	V
33	B	D	1	10	20	V	61	G	D	3	2	19	V	88	B	1	8	2	36	V
34	G	D	2	14	23	V	62	G	1	6	10	38	..	89	G	D	1	..	20	V
35	G	1	6	1	30	V	63	B	D	2	2	25	..	90	B	1	1	1	26	V
36	B	D	2	6	30	V	64	G	Dp	2	3	24	..	91	B	D	4	3	29	V
37	B	D	1	4	25	..	65	B	D	7	4	34	V	92	G	D	1	4	21	V
38	B	D	2	3	31	V	66	G	D	1	1	27	V	93	B	D	1	4	25	V
39	G	D	5	10	38	..	67	G	1	1	2	23	..	94	G	1	1	3	18	V
40	B	D	8	5	33	V	68	B	D	2	9	22	V	95	B	1	2	3	26	V
41	B	D	9	24	33	V	69	G	D	6	6	26	..	96	B	D	2	10	25	V
42	G	D	6	½	32	..	70	B	D	3	8	30	V	97	B	1	2	6	28	V
43	B	D	1	20	21	..														

ON SLOUGHING OF THE URETHRA, OR NECK OF THE BLADDER.

A. B. aged 37, was delivered of her 12th child (a male) with the crotchet, after a labour of eight hours. In this case the labour went on very favourably for 5 hours, and the head got well engaged in the pelvis; when suddenly the pains began to slacken, and in some time after symptoms of slight external hæmorrhage appeared. The pulse became very weak and indistinct, the body and extremities cold, and there was altogether such a state of sinking that immediate delivery became necessary. The uterus, by its action, assisted in expelling the head and body. Large clots of blood, equal in size to the placenta, followed the expulsion of the child. The placenta came away without difficulty. She soon came round and had a rapid convalescence, so much so, that she was with difficulty restrained from being the first in the ward to rise out of bed; all the time, however, her pulse was observed to be very quick, and skin hot. In a few days she began to complain of not being able to retain her urine, which caused an examination to be made, when an extensive communication was found between the vagina and bladder near its neck.

This patient had been delivered in the hospital several years previously of a breech presentation, on which occasion (the head midwife assured us) it required the utmost exertion of the master and assistant to get the head away; and that on another more recent occasion, the labour was so difficult as to make it necessary to use the perforator and crotchet.

In the present instance there can be little doubt the injury was more or less dependant on the difficulty experienced in this patient's previous labours; it must certainly be at least considered to have predisposed much to its occurrence.

This is the only case of *sloughing* of the urethra that was met with in the hospital during my residence.

I do not know of any occurrence more calculated to render the patient's life one of endless sorrow, or at the same time more likely to cause the practitioner such lasting regret. When it unfortunately happens, (as in some instances is unavoidable,) in consequence of the protracted length to which we are at times compelled to permit the labour to proceed, owing to *great difficulty* in the passage of the head, the child being *alive*, here the medical attendant's mind cannot on his *own* account feel distressed; as the only means he could adopt to guard against the danger would be to lessen the head, which, in my opinion, *no consideration* should

induce him to do under such circumstances. When however it is the consequence of a hasty and injudicious use of instruments, his feelings must be deeply harrowed, it being an event of such a nature as never to escape recollection. I am fully satisfied that sloughing of the urethra, or neck of the bladder, the result of pressure from the natural efforts, where due attention is paid to the removal of the urine, is *very rarely* to be met with, *provided* delivery be effected (where the pressure is severe) by lessening the head in a short time *subsequent* to the death of the child; indeed our hospital practice proves this assertion beyond a doubt. Is it not culpable, therefore, to defer delivery where we are perfectly convinced of the child's state, and our patient threatened with an injury so deplorable? I would refer to page 18, where the vital necessity of using the stethoscope in difficult labours is urged with as much earnestness as in my power, in connexion with which several cases are briefly detailed *strikingly* illustrative of what has been here stated.

Different modes of remedying this distressing accident have been resorted to, yet our best efforts have been for the most part unsuccessful. In my opinion the plan adopted by Mr. Earle and others, to cause the edges of the aperture to unite, by producing a raw surface, and with the assistance of sutures retaining them in contact so as to cause adhesion, is that which is most likely to be attended

with success. Where the opening is large, however, or situated close to the neck of the bladder, there is little hope. Here the application of the actual cautery, as recommended by Dupuytren, is better calculated to afford relief; for although there be little prospect of completely closing the aperture by its use, the patient's distress may be much alleviated by thus diminishing its size, so as to enable her to retain her urine for a considerable time. Some interesting cases where the cautery was used may be seen in the 2nd vol. of the Dublin Medical Journal, by Doctor Evory Kennedy, in one of which I attended with him. Its application is extremely simple and attended with inconsiderable pain to the patient. Many cases of *complete* recovery by the use of the suture might be noticed; *two* are recorded in the vol. already referred to, page 306; see likewise *three* cases by Mr. Earle, Medical Gazette, Nov. 1829; also *one* by Mr. Hobart, of Cork, vol. 5, London Medical and Physical Journal, 1825. In other instances a cure has been effected by keeping a catheter constantly in the bladder so as to prevent the urine escaping by the fistulous opening; and in some, pressure on the opening has proved successful, as applied in the case stated, page 20.

In all cases where we have the least reason to apprehend sloughing of these parts, the most scrupulous attention should be paid, from the period

of delivery, to cleanliness &c.; for this purpose tepid injections frequently thrown up into the vagina, containing seven parts of Infusion of Chamomile with one of Camphorated Spirit, will be found most useful. Where sloughing is decidedly threatened injections more active must be had recourse to.

GENERAL OBSERVATIONS.

ON PATIENTS DYING IN THE HOSPITAL.

I shall in this article give an abstract of *all* the women who died during my residence, with a tabular view as to the cause of death in each, followed by some not uninteresting cases, which could not so well be recorded elsewhere.

One hundred and sixty-four women died; of the children these had given birth to, *one hundred and eleven* were males, and *fifty-seven* females; in *three* the sex was not stated. *Seven* had been delivered of twins. *Ninety-five* of the 171 children were born alive. *Seventy-five* were still-born, of which 20 were *putrid;* in *one* it was not noted. Of the seventy-five still-born children, *fifty* were males, of which 16 were *putrid.*

The following tables shew the number of children each had given birth to; also the age of the patient; and duration of labour; the length of time each lived subsequent to delivery; and the cause of death:—

Number of pregnancy; thus: 86 were 1st pregnancies, and so on. See cases for 4. With respect

to the greater proportion of deaths met with in *first* pregnancies, we should carefully bear in mind that of the 16,414 women delivered, 4,969 gave birth to *first* children; which is nearly a *third* of the entire; therefore, any relative proportions should be made with reference to this fact. This observation is equally applicable to the *several* calculations in each section.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	11	13
No. of Women,	86	20	11	11	9	7	2	6	2	3	2	1

Age of patient; thus: 1 was 16 years of age, and so on. See cases for 4.

Age of Patients,	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
No. of Patients,	1	3	3	3	7	4	10	10	7	7	9	9	11	5	30	1	4	4

Age of Patients,	34	35	36	37	38	40	42
No. of Patients,	2	9	10	5	2	3	1

Hours in labour; thus: 1 was $\frac{1}{4}$ of an hour, and so on. See cases for 26.

Hours in labour,	$\frac{1}{4}$	$\frac{1}{2}$	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18
No. of Women,	1	2	8	11	15	13	4	12	2	5	4	3	1	6	1	1	1	1	3

Hours in labour,	19	20	22	24	26	30	35	36	40	44	48	55	56	59	60	64	68	72
No. of Women,	1	1	1	9	2	1	2	3	3	1	9	1	2	1	2	1	1	3

Length of time each woman lived subsequent to

delivery; thus: 1 lived ½ an hour, and so on. See cases for 7.

HOURS ALIVE.

Length of time,	½	1	2	3	4	6	10	11	14	17	30	34	56
No. of Women,	1	2	2	3	2	1	2	1	2	1	1	1	1

DAYS ALIVE.

Length of time,	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	19	20
No. of Women,	2	7	13	23	18	13	10	9	12	6	3	1	2	3	1	1	1	1	1

Length of time,	21	22	25	28	30
No. of Women,	2	4	1	2	1

Table shewing the cause of death, viz.:—

*	Diarrhœa		1
*	Typhus Fever		5
	Rupture of the Uterus or Vagina		32
	Uterine Hæmorrhage		11
*	Puerperal Fever		59
*	Inflammation of Brain		3
*	Ulceration of Intestines		3
	Hectic Fever		1
*	Grief apparently		2
*	Stricture of Intestine		1
	Effects of Tedious and Difficult Labour		11
	Convulsions		2
	Sloughing of Vagina		6
*	Hydrothorax		2
*	Pericarditis		1
	Peritoneal Inflammation (Placenta retained)		4
*	Abscess in Spinal Canal		1
*	Lumbar Abscess		1
*	Phthisis		2
*	Diffuse Cellular Inflammation		1
*	Abscess in Abdomen		2
*	Acute Bronchitis		1
*	Anomalous Disease		12

Such is an outline (as nearly as can be given in a *Tabular* form) of the cause of death in the 164. The cases are fully detailed elsewhere.

Thus of the 16,414 women delivered, 164 died; or in the proportion of 1 in 100. If from this number we deduct the deaths from puerperal fever, which may be considered *accidental*, the proportion

becomes greatly diminished, viz. to 1 in 156 deliveries; and again, if we subtract those deaths from causes *not the results* of childbirth, (which are marked thus * in the table,) the mortality from effects arising in consequence of *parturition* is vastly reduced, viz. to 1 in 244.

In stating under each section the number of deaths, it is to be observed that the same case will be found reported *fatal* under different headings, thereby increasing *apparently* the mortality, though in each the absolute cause of death is clearly given; this repetition could not be avoided, on account of the *complications* met with in the several cases; thus, for example, under the head of hæmorrhage between the birth of the child and expulsion of the placenta, *two* of the seven fatal cases there recorded, viz. Nos. 38 and 40, died of puerperal fever, and will be found again included in the number of deaths reported from that disease, this being the *absolute* cause of the fatal termination; a similar example may be found in the section on Convulsions, where of the five fatal cases reported, *three*, viz. Nos. 8, 19, and 25, died from rupture of the uterus. See also page 187.

Could the *great hazard* of entrusting a female in child-bed to the care of an individual ignorant of his profession, or as is sometimes done to one of her *own sex*, be more clearly demonstrated, than in the catalogue of diseases which proved fatal to our

patients? Here we see disease as varied and obscure as under any circumstances whatsoever, requiring on the part of the practitioner, the utmost skill and experience. Out of the 164 deaths, there were no less than 97 cases arising from diseases perhaps amongst the most difficult of treatment; nor is it possible for a medical man to be placed in a situation demanding more decision and information, than in the management of the 67 remaining cases, to which, in the table, the star is *not* prefixed.

I know of no department in the profession, where the life of the patient is more immediately dependant on the measures adopted by the medical attendant, than that of midwifery; and I am happy in adding, that I believe there is none better provided with highly qualified and competent practitioners.

The following are cases not of common occurrence, and therefore given here:—

No. 11.—Was admitted in the evening; her labour commenced shortly after, but the pains were trifling until the following morning at 7 o'clock, when the uterus acted better, and the head came to press on the perinæum. At half-past nine she became insensible. The case being such as to admit of the forceps, she was at once delivered. Her strength rapidly sunk, and she died in three hours. Her body was much emaciated, and covered

with scrofulous sores; she seemed to have suffered much from poverty.

No. 16.—Was admitted in a very feeble state; immediately after delivery, violent purging came on, which continued, almost without intermission, till death took place on the 5th day after. She experienced no relief from treatment.

On dissection, the entire alimentary canal, particularly the large intestines, were found in a highly ulcerated state, being in some parts almost perforated. The liver was much tuberculated, and some fluid of a straw colour was found in the cavity of the abdomen.

No. 43.—In this case the bowels could not be acted on during the progress of labour; after delivery, however, violent purging set in, which at length became involuntary. She did not complain on pressure being applied to the abdomen, though it was suspected she was trying to conceal her distress. Her pulse was hurried, and her tongue covered with florid papillæ. The abdomen was tense, and the purging went on uncontrolled, until death took place on the 10th day. She did not complain of pain on pressure, till the day before her death, and for two days previous to this event there was a black fœtid discharge, in considerable quantity, from the uterus.

On dissection, the colon throughout, as also the

cœcum, parts of the ilium, the jejunum, and stomach, were found inflamed and loaded with vessels. The uterine veins, particularly towards the fundus, contained a considerable quantity of pus.

No. 63.—Was delivered June 4th, after 2 hours' labour. She was seized with partial paralysis of the tongue and extremities; her articulation was indistinct, and her scalp hot; she had slight pain in her head and chest, with some difficulty of breathing.

She was bled freely with leeches to the temples, the back of her head and neck blistered, and her bowels well acted on by purgatives; she was at the same time kept under the influence of tartar emetic, without vomiting; coma set in, notwithstanding, on the 10th, and she died next day. She had amaurosis of both eyes for two years previous.

On dissection, a small quantity of fluid was found under the arachnoid membrane, and a considerable quantity in the lateral ventricles. The optic nerves were remarkably diminished in size, and the tractus opticus seemed wasted.

No. 93.—Was brought to Hospital from Drogheda, reported to have been two days in labour before leaving home. She was delivered, two hours after admission, without assistance, of a living child. On the third day after, she was seized with severe pain in the abdomen, which yielded completely to leeching, warm bathing, stuping and

calomel, within 48 hours. From her delivery she never properly rallied, and died on the 22d day.

No. 115.—Was delivered of her 1st child, September 10th, after 2 hours' labour. On the 5th day she was seized with acute pain in the lumbar region. The most prompt and active treatment, by leeching, warm bathing, stuping, friction with tartar emetic ointment, and blistering, besides the internal use of tartar emetic and small doses of calomel with opium so as to affect the mouth, failed in affording relief, and she died on the 14th day from the attack.

On dissection, several abscesses were found communicating with the spinal canal, having formed under the contiguous muscles of the back from the 4th dorsal to the 1st lumbar vertebra. The spinal sheath and marrow were quite healthy, as was also the brain.

No. 119.—Was delivered of her 1st child, November 5th, at 11 A.M., after a labour of 17 hours, without any unusually severe pain. In the evening, she had the ordinary purging powder of the Hospital, containing 4 grains of calomel, and 8 of jalap, and was directed to take 8 drachms of castor oil next morning early.

November 6th, 9 A.M.—Tongue dry; abdomen much distended, with considerable pain on pressure; bowels not opened since 12 last night, having previously acted well; slept little; took the oil at 7 this morning.

Ordered two drachms of castor oil, with as much oil of turpentine immediately; to have injections thrown up frequently, until the bowels yield; should the pain be not relieved, to have three dozen leeches applied to the abdomen, followed by a warm bath.

12 A.M.—Bowels not yet acted on; injections returned immediately unchanged.

Ordered four drachms of castor oil with as much oil of turpentine; injections to be continued and abdomen well stuped.

2 P.M.—Medicine has produced no effect; abdomen tense and painful.

The leeches to be applied without delay followed by a warm bath, in which she is to be permitted to remain as long as agreeable; draught to be repeated, as also injections.

7 P.M.—Bowels continue obstinate. A long gum elastic tube has been passed up to the extent of about 16 inches, and large quantities of tepid water thrown up, which returned immediately unchanged.

Eighteen ounces of blood to be taken from the arm and then to be put into a warm bath; injections occasionally; to have calomel and hippo of each 4 grains, every 3d hour.

11 P.M.—Took one powder; vomited several times, has also had some hiccough; bowels have not acted.

Omit powders; to have 3 grains of calomel in a

pill every 2nd hour; to have the epigastric region well rubbed with a liniment consisting of four drachms of castor oil with four drops of croton oil; the injections to be continued, and the abdomen well stuped.

Nov. 7th, 9 A.M.—Pulse 120; tongue moister; bowels have been three times well acted on since 3 A.M.; abdomen still much distended, but not very hard, and less painful on pressure; felt much relief from the bowels yielding; slept well; uterus large and hard; drinks freely; took 5 pills; vomited but once since bowels began to act; stools dark and slimy.

Pills to be continued; a warm bath for an hour if agreeable.

From this time she was treated with small doses of calomel, occasionally combined with opium, when the bowels acted too freely; she had frequent warm baths with repeated stuping; the abdomen became soft, and free from pain even on pressure; the evacuations from the bowels natural; the pulse fell to 114; she slept well; took her food with relish, and seemed to improve a little.

On the 19th, on making pressure over the abdomen, a quantity of *extremely fœtid* sanies escaped from the vagina, which continued to be discharged, more or less, for some days, having occasionally a kind of excrementitious appearance and odour; this did not seem to affect her general

health, for the report on the 21st was, that she gradually improved, slept well, and relished her food; her bowels at times act too freely, but are easily regulated by a small opiate. On the evening of the 26th she had a slight discharge of blood from the vagina, at 6 next morning she became suddenly faint, and expired in a *few minutes*.

On dissection, a most extensive lumbar abscess was discovered, capable of containing some pints of fluid; it had been almost entirely emptied by means of an opening between the sac and the vagina; what remained in it was extremely fœtid. There was also lying in it a large portion of disorganized membranous substance. The communication with the vagina was as large as a crown piece, seated at the left side, at its junction with the cervix uteri; most likely the result of laceration occurring during the expulsion of the child. The sac had also formed a communication with the ileum, the consequence of adhesion and ulceration. The intestines were filled with blood, both in a fluid and clotted form, which escaped from one of the mesenteric vessels, and was the cause of her sudden and unexpected death.

No. 131.—Was a poor woman who had been seduced; when about to leave the hospital, she became very much depressed in mind; she had no local distress or apparent disease, yet her situation

so much affected her, that she became gradually more feeble, and sunk on the 28th day, evidently from the effect of grief.

On dissection, no morbid appearance could be detected, with the exception of a more than usual quantity of fluid in the pericardium.

No. 147.—Was delivered of her 1st child after a labour of 15 hours not unusually severe. The child made a feeble effort at respiration; its head shewed evident marks of severe pressure. On the 3d day she complained much of soreness of the vagina, which continued to increase. The most scrupulous attention as to cleanliness was paid; stimulating lotions were injected, and the fermenting poultice applied to the external parts; at the same time tonics were administered internally. Extensive sloughing of the soft parts set in, and on the 9th day she complained of severe pain on pressure in both iliac regions particularly the right, which continued to increase, and she died on the 17th day.

On dissection, the vagina was found in one entire state of slough, with an opening communicating with the rectum, and another with an abscess formed in and around the right ovary; there was also a disposition to a similar formation on the opposite side, with an extensive deposition of matter behind the ossa pubis on both sides. The intestines

seemed healthy, except such portions as were in contact with the uterus and its appendages in the iliac regions. The lungs were much diseased. The pelvis measured from pubes to sacrum $3\frac{3}{4}$ inches; and laterally 4 inches.

No. 154.—Was seized 28 hours after delivery with very severe headache, with all the symptoms of pyrexia. Bleeding was employed repeatedly, viz. from the temporal artery, the arm, and temples by leeching; she was well purged; her head was shaved and kept bathed with cold lotions, and a blister was applied to the nape of the neck and back of her head. The treatment did not seem to make any impression on the disease, and she died comatose after 55 hours' illness.

On dissection six hours after, the blood vessels of the cranium and brain were found unusually empty. The serous covering of the brain exhibited, in some places, an opaque and thickened appearance, (the result of inflammation;) the ventricles were distended, containing a light coloured serous fluid to the amount probably of four table-spoonfuls.

Such is a short statement of some of the cases alluded to; several others might be added, but as they do not exhibit much peculiarity it is unnecessary to detail them.

The following general table contains many interesting particulars. In the column indicating the life

or death of the child, the figure 1 denotes its having been born alive, the letter D still-born, and the letters D p *putrid.* In the column headed *presentation*, the letter P shews it to have been preternatural.

No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.	No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.
1	..	30	9	22	4	Dp	B	..	22	..	8	6	30	8	1	B	..
2	..	3	48	21	1	1	B	..	23	..	12	4	42	10	2	BB	..
3	..	7	3	18	1	1	G	..	24	..	7	½	21	2	1	B	..
4	..	1	9	28	2	D	G	..	25	..	2	..	32	4	D	G	..
5	11	..	20	..	13	1	B	..	26	..	22	4	23	1	1	B	..
6	..	..	1	35	3	D	B	..	27	..	8	12	20	1	1	G	..
7	4	..	..	35	10	D	B	..	28	..	5	3	25	1	1	B	..
8	..	5	12	27	2	D	G	..	29	..	5	48	17	1	Dp	B	..
9	..	22	3	29	2	1	B	..	30	..	13	64	28	1	Dp	B	..
10	..	6	3	22	1	1	G	..	31	..	8	3	23	1	D	G	..
11	3	..	8	..	1	1	B	..	32	..	4	30	30	1	1	B	..
12	..	4	24	29	2	D	G	..	33	..	8	60	37	1	Dp	B	..
13	..	7	..	24	3	D	B	P	34	..	..	..	37	..	Dp	B	..
14	..	..	..	26	1	D	G	P	35	34	..	22	22	1	D	BG	..
15	..	3	6	24	3	2	GG	..	36	..	..	72	35	1	Dp	B	..
16	..	5	4	29	2	1	G	..	37	..	9	10	19	1	D	B	..
17	..	15	3	26	1	1	B	..	38	..	..	24	30	..	D	G	..
18	..	6	18	35	4	1	B	..	39	..	9	4	20	1	1	G	..
19	10	..	..	30	11	D	B	..	40	..	10	2	23	1	1	G	..
20	..	3	10	35	3	D	B	..	41	6	..	..	37	9	Dp	B	..
21	..	4	26	30	5	D	B	..	42	..	..	..	35	6	..	..	P

No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.	No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.
43	..	10	48	25	1	D	B	..	71	..	9	6	18	1	1	B	..
44	..	5	3	27	2	1	B	..	72	..	4	..	31	1	Dp	B	..
45	..	6	1	40	5	1	B	..	73	..	2	72	36	1	Dp	G	..
46	..	7	48	30	2	1	G	..	74	3	..	6	40	4	1	G	..
47	56	..	24	35	3	Dp	B	..	75	..	8	6	33	3	1	B	..
48	..	4	6	30	1	1	G	..	76	..	6	4	27	4	1	B	..
49	..	5	3	35	1	1	B	..	77	..	2	12	28	2	D	B	..
50	..	6	1	30	5	1	B	..	78	..	4	3	22	1	1	B	..
51	..	10	4	23	1	1	G	..	79	..	3	5	27	2	1	G	..
52	..	11	2	27	5	1	B	..	80	..	3	1	22	1	Dp	G	..
53	..	6	1	30	7	D	B	P	81	..	7	10	27	5	1	B	..
54	..	2	40	37	1	2	GG	..	82	..	6	3	20	1	1	B	..
55	..	4	..	..	1	Dp	B	..	83	..	3	½	24	1	1	B	..
56	..	4	3	25	2	1	B	..	84	..	5	6	26	1	1	B	..
57	..	4	..	28	1	Dp	B	..	85	..	6	6	28	2	1	B	..
58	30	..	8	34	6	D	B	P	86	..	6	24	26	1	1	G	..
59	..	14	6	30	1	2	BB	..	87	..	3	¼	23	4	1	B	..
60	..	9	3	20	1	1	G	..	88	..	4	2	28	5	1	G	..
61	..	4	4	30	4	1	B	..	89	..	4	2	34	3	1	B	..
62	..	7	3	26	1	1	B	..	90	..	5	9	30	1	1	B	..
63	..	7	2	27	6	I	G	..	91	..	3	60	22	1	1	B	..
64	..	5	2	30	4	1	B	..	92	..	5	4	30	2	1	B	..
65	..	5	12	38	8	1	B	..	93	..	21	2	28	2	1	B	..
66	..	3	36	25	1	D	B	..	94	..	4	5	19	1	1	B	..
67	..	9	4	16	1	D	G	..	95	..	2	1	36	8	1	B	..
68	..	2	..	30	1	Dp	B	..	96	..	4	6	18	1	1	B	..
69	..	4	..	24	1	Dp	B	..	97	..	4	3	22	2	1	B	..
70	3	..	..	30	8	1	B	..	98	..	3	2	30	3	1	G	..

No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.	No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.
99	..	4	24	21	1	1	G	..	127	4	..	55	27	3	D	..	..
100	..	6	8	17	1	1	G	..	128	..	6	35	28	1	D	B	..
101	..	5	24	30	1	1	G	..	129	..	5	12	24	1	1	G	..
102	..	4	6	22	1	1	G	..	130	..	9	40	27	4	D	G	..
103	..	5	5	25	1	1	B	..	131	..	28	4	30	1	1	B	..
104	1	..	..	36	9	D	B	P	132	..	18	24	26	1	1 D	BG	..
105	..	4	68	30	1	D	B	..	133	..	7	8	21	1	Dp	G	..
106	..	2	44	30	6	D	B	..	134	..	22	26	20	1	D	B	..
107	..	13	24	26	1	1	B	..	135	..	14	..	36	1	Dp	G	..
108	..	10	18	22	1	1	B	..	136	½	..	8	36	3	1	G	..
109	1	..	7	19	1	1	G	..	137	..	1	4	38	3	D	B	..
110	..	11	4	32	4	1	B	..	138	..	8	56	20	1	D	B	..
111	..	10	6	30	1	1	G	..	139	..	6	12	23	1	D	B	..
112	..	9	14	23	2	D	G	P	140	..	8	..	26	2	D	G	..
113	..	9	..	30	1	D	B	..	141	..	8	48	28	1	D	B	..
114	..	25	19	25	1	D	B	..	142	..	..	..	36	..	D	B	..
115	..	19	2	20	1	1	G	..	143	14	..	36	30	2	D	B	..
116	..	8	24	30	1	D	BG	..	144	..	28	2	33	4	1	G	..
117	..	4	..	28	1	D	G	..	145	2	..	..	36	8	D	B	..
118	..	20	..	30	5	D	G	..	146	..	4	1	29	6	Dp	B	..
119	..	22	17	23	1	1	G	..	147	..	17	15	30	1	D	G	..
120	..	4	3	37	6	1	B	..	148	..	9	40	32	1	D	G	..
121	..	21	7	30	1	1	B	..	149	..	5	..	35	7	1	B	..
122	17	..	36	24	2	D	B	..	150	..	3	5	33	1	1	G	..
123	..	10	35	29	1	1	B	..	151	..	5	18	23	1	1	B	..
124	..	4	48	40	6	D	B	..	152	..	5	48	23	1	1	G	..
125	..	3	48	17	1	D	G	..	153	2	..	..	..	..	D	..	..
126	..	5	48	32	5	1	B	..	154	..	3	4	33	8	1	B	..

No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.	No. of Case.	Hours Alive.	Days Alive.	Hours in Labour.	Age of Patient.	First or Subsequent Pregnancy.	Child Alive or Dead.	Sex.	Presentation.
155	..	7	72	26	1	D	B	..	160	10	..	11	30	1	1	B	..
156	..	7	13	24	2	1	B	..	161	..	6	2	22	1	1	B	..
157	..	14	1	36	5	1	G	..	162	..	11	56	25	1	Dp	B	..
158	14	..	..	30	1	D	B	..	163	..	9	59	28	1	D	B	..
159	..	9	..	36	10	Dp	B	..	164	..	9	9	36	11	D	B	..

ON PUERPERAL FEVER.

No subject has given rise to a greater diversity of opinion, or has stronger claims on our attention than *puerperal fever*. It is a disease, which, when met with in *Lying-in Hospitals*, is singularly alarming, proving fatal to a vast majority of those attacked under every mode of treatment as yet recommended.

In private practice among the higher classes in Dublin, puerperal fever accompanied by the *low typhoid symptoms* so prevalent in hospitals, is scarcely known. The late Doctor Joseph Clarke informed me, that in the course of *forty-five* years' most extensive practice, he lost but *four* patients from this disease. Amongst the lower classes in Dublin, it occurs occasionally of the same character as is observed in hospitals, never however, as far as I have been able to judge, to any extent. In London and Edinburgh puerperal fever not unfrequently proves fatal to many females in the upper ranks.* It has been known likewise to

* See Edinburgh Medical and Surgical Journal, vol. 22, page 89. See also Medico Chirurgical Journal, vol. 10, 1828, pages 202 and 3. See Dr. Gooch's work on some of the most important diseases of Females, page 75, &c.

appear with great violence, at precisely the *same period* in situations very remote; for example, in the year 1819, it was epidemic in Vienna, Dublin, and Glasgow; in the two first named cities to a frightful extent. In 1829, in Paris, it was extremely fatal, while at the same time, in London and Dublin, it was prevalent to a considerable degree.

This disease has also become epidemic in our hospital, upon several occasions when typhus fever prevailed in the city, and at other periods when erysipelas was frequently met with. When Doctor Labatt was master of the hospital, puerperal fever commenced its attack on one occasion in the following striking manner. A patient was admitted at a late hour at night, into one of the wards, labouring under a bad form of typhus fever with petechial spots over her body; when observed next morning, she was removed into a separate apartment, where she died shortly after. The two females who occupied the beds adjoining her's, while she remained in the large ward, were attacked with puerperal fever and died. In October 1827, when I was resident as master, an occurrence precisely similar took place. A patient in typhus fever was admitted at night into one of the labour wards, where she remained for some hours; the ward contained four beds. The three women occupying the other beds were attacked with puerperal fever, of

whom *two* died. We had, however, eight months previous to this, a patient admitted under similar circumstances in typhus fever, of which she died on the 2d day after admission; none of the other patients were then attacked. When typhus fever was very prevalent, we have been frequently compelled to admit such patients when in labour, and in the majority the recovery was favourable. The child, in many such cases, seemed to be expelled without any effort on the part of the patient, and so quickly, that the attendant had little notice of the occurrence. The recovery of the patient, as in the instances alluded to, attacked with typhus fever at the *full period* of pregnancy, is an interesting fact, as I believe, no complication proves more generally fatal than the *premature* expulsion of the child under such circumstances.

Puerperal Fever first became epidemic in the Lying-in Hospital of Dublin in the year 1767, about ten years after the institution was established, since which time it has been epidemic in the following years, viz. 1774, 1787, 1788, 1803, 10, 11, 12, 13, 18, 19, 20, 23, 26, 28, and 1829. The mortality in some of these attacks, was not great, and in others the contrary.

In the year preceding my appointment as master, which took place November 1826, puerperal fever prevailed in the Hospital to an alarming extent. In the succeeding year, 1827, the mortality from

this disease was slight. Typhus fever was, during these periods, very prevalent in Dublin, many cases of which appeared in Hospital. In 1828, the attack of puerperal fever was much more severe, proving fatal to 21 women. It continued to increase in violence considerably, in the months of January, February, and the early part of March, 1829, after which it disappeared, and for the four remaining years of my mastership we did not lose a single patient from this disease.

This fever makes its attack, for the most part, on the 1st, 2d, or 3d day after delivery; sometimes before, immediately, or in a few hours; at other times, not till the 7th or 8th day. Of *eighty-eight* cases that occurred during my residence, *one* had the disease well marked before delivery; *one* was attacked in 6 hours; *one* in 9; *one* in 10; *three* in 12; *one* in 13; *one* in 15; *two* in 17; *one* in 18; *one* in 20; *one* in 21; and *two* in 30 hours from delivery. *Thirty-two* were attacked on the *first day; twenty-nine* on the 2d; *eight* on the 3d; *two* on the 4th; and *one* on the 8th day.

The ordinary symptoms of puerperal fever are, a cold shivering fit; acute pain in some part of the abdominal cavity, with great tenderness on pressure; rapid pulse, varying from 120 to 140. In many instances the abdominal distress sets in without any previous shivering fit; thus of the 88 cases, only 33 commenced in that manner. In the very

early stage, the tenderness is often most acute over the uterine region, but it generally diffuses itself rapidly over the entire of this cavity.

In hospital, the female, (perhaps from fear,) will at times insist that she is quite easy and free from pain, though the presence of the disease is most clearly pronounced, even by the external symptoms. The appearance of the countenance, of itself, particularly where there is much watchfulness, leaves to the experienced eye but little doubt. As the disease advances, the abdomen becomes distended, in some to a great amount, in others it is inconsiderable.

This disease seems to run its course with great rapidity in most instances. In *fifty-six* deaths in the Hospital, it proved fatal at the following periods after the date of the seizure, viz. :—*Two* in 24 hours ; *one* in 27 ; *one* in 36 ; *nine* on the 2d day ; *fifteen* on the 3d ; *thirteen* on the 4th ; *four* on the 5th ; *five* on the 6th ; *three* on the 7th ; *two* on the 8th ; and *one* on the 11th day.

From this statement it will be seen that the 2d, 3d, and 4th days are the periods at which death takes place in most instances.

Forty-four of the 88 cases of puerperal fever occurred in women who had given birth to *first* children ; *sixteen* with 2d children ; *nine* with 3d ; *six* with 4th ; *seven* with 5th ; *two* with 7th ; and *four* with 8th children. *Thirty* of the 44 women

delivered of 1st children died.* *Fifty-four* of the 88 gave birth to *male* children.

It is stated by several writers on this subject, that females who have suffered from tedious and fatiguing labours are particularly liable to puerperal fever. This does not accord with my experience, as may be seen by the following table; thus: *two* women were ¼ of an hour in labour; *one* ½ an hour, and so on.

Hours in labour,	¼	½	1	2	3	4	5	6	8	9	10	11	12	13	15	18	20	24
No. of Women,	2	1	10	13	16	5	3	11	2	1	3	1	3	1	1	2	1	4

Hours in labour,	30	48	61
No. of Women,	2	1	1

Thus of 88 cases, *seventy-one* were delivered within 12 hours; *eighty* within 24 hours; *one* was an arm presentation; the length of the labour in three instances was not noted.

Women whose constitutions are much impaired previous to labour, are by many considered to be the most frequent subjects of this attack. The great proportion of women delivered of *first* children, whose general health has usually not suffered much, seems a strong fact in opposition to this opinion.

* Of *one hundred and fourteen* women who died in this Hospital in the epidemic of 1819 and 20, *sixty-eight* were *first* pregnancies.

Doctor Joseph Clarke states it was generally observed that, previous to puerperal fever becoming epidemic in the Hospital, the patients recovered more slowly; or, to use the language of the nurses, it was much more difficult to get them out of bed than usual.* This, from experience, I have no doubt is the case; and when observed, should arouse the medical attendant to adopt, without delay, every means he considers in the least degree calculated to prevent its occurrence.

The vital importance of prevention to those physicians who have charge of Hospitals, is best impressed by the notoriously fatal result of this disease when prevalent.

On this subject I shall state some interesting occurrences connected with our Hospital.

When Doctor Clarke was Master, observing the patients recover slowly, he thought it might be owing to the wards having remained for a considerable time without painting, whitewashing, &c. He accordingly made application to the Governors of the Charity, and estimates were ordered for the execution of the work. Doctor Clarke states, while they were thus waiting in expectation of repairs, puerperal fever began to make its appearance in a very treacherous manner, and shortly after became

* See his account of the puerperal fever in this Hospital, in the 15th Vol. Edinburgh Medical Commentaries—year 1790.

epidemic. As soon as the Hospital was completely cleansed, from having been most disagreeably harassed by disease, it became remarkably healthy. In a subsequent epidemic, Doctor Clarke adds, he was compelled to have recourse to the same expensive and troublesome process of painting, &c., and with the same salutary effects. Every symptom of fever subsided as the patients were received into clean wards. In the epidemic of 1819 and 20, the most scrupulous and unwearied attention was paid to cleanliness, ventilation, &c. by Doctor Labatt, who was then Master; every effort, however, was insufficient to check the disease for a considerable time. In one instance a ward, in which there had not been any patients for several months, and which had been in the meantime kept strictly clean and well aired, was opened, and five patients admitted, *three* of whom were seized with the fever, and two died.

In Feb. 1829, at which time I was Master, puerperal fever, which for several months previous had prevailed in the Hospital, now increased much in intensity. On consulting with the Medical Committee, it was deemed advisable at once to recommend that no patients, except such as were absolutely destitute, should be admitted; but that attendance should be afforded to all such as wished for assistance at their own homes, and that they should be supplied with gruel, whey, and medicine

from the Charity, until the entire wards of the Hospital should have been thoroughly purified. We then had all the wards in rotation filled with chlorine gas in a very condensed form, for the space of 48 hours, during which time the windows, doors, and fire-places were closed, so as to prevent its escape as much as possible. The floors and all the wood-work were then covered with the chloride of lime, mixed with water to the consistence of cream, which was left on for 48 hours more. The wood-work was then painted, and the walls and ceilings washed with fresh lime. The blankets, &c., were in most instances scoured, and all stoved in a temperature of between 120 and 130°.

From the time this was completed, until the termination of my Mastership in Nov. 1833, we did not lose one patient by this disease. As the wards of the Hospital are occupied by the patients in rotation, as soon as each in succession was vacated I continued the use of the chloride of lime, confining its application to the floors. In this way each ward was washed every ten or twelve days, the solution being left on for 24 hours, during which time the blankets, quilts, linen, &c., were suspended, so as to be exposed completely to the chlorine gas, which is copiously disengaged from the preparation mentioned. The chloride of lime was then carefully washed off, and the boards when dry, polished with a brush. It may appear strange

that a process, such as stated, should be considered advisable in an establishment which is at *all times* kept in the most perfect state of *neatness* and *cleanliness*, in every respect; so much so, that few private houses would bear comparison; yet the result consequent on such a practice will fully justify our having had recourse to it. To the ventilation of the Hospital, I always paid the most strict attention, so that no heated or vitiated air might be suffered to accumulate. In addition to the air tubes, &c., as described when treating of Trismus Nascentium, I had from one inch and a half to two inches of the upper sash of the window most remote from the patient's bed, kept open day and night throughout the entire year, except during extreme cold at night in winter, thereby ensuring a free circulation of pure air.

All the beds in the Hospital are composed of straw, nor is any one used more than a second time without the cover having been washed and the straw renewed. In every instance where the patient *dies*, this is at once done, and should the most remote symptom of *fever* have been present, every article connected with the bedding is instantly scoured and stoved; the wood-work and floor washed with the chloride of lime solution, and the entire ward whitewashed. This is readily effected, as the sick are invariably placed in a small ward, apart from the healthy. To this precaution

too much attention cannot be paid; I am satisfied the *instant* separation is of vast importance to both.

I have thus minutely described the measures adopted to banish or guard against this disease during my residence, the consequences of which were extremely satisfactory. Of 10,785 patients delivered in the Hospital subsequent to this period, only 58 died, which is nearly in the proportion of *one* in every *one hundred and eighty-six;* the lowest mortality perhaps on record, in an *equal number* of a *similar class of females.*

The facts here detailed are strongly calculated, not only to lead us to suspect, but even to prove, that this fever derived its origin from some local cause, and not from any thing noxious in the atmosphere. To this I should assent, had we not proof, equally well authenticated, of its prevalence and fatality in the *houses* of the *affluent*, as already stated.

I shall now, as briefly as possible, make some general observations on the treatment of puerperal fever, and describe that adopted in those cases met with in the Hospital. These observations I shall follow up by an extensive record of cases, which will be found much more explanatory than any history I could give.

The extreme difference of opinion, and the very opposite measures recommended by practitioners, arises chiefly, I am satisfied, from their treating of

every variety of puerperal fever as one and the same disease, whereas there is perhaps not any other, which exhibits a greater diversity of character in different situations, and even in the same situation, at different periods. In some, the fever is accompanied by symptoms indicative of the most active inflammation, such as to forbid the least delay in the free use of venesection, and the decided employment of antiphlogistic measures. This form of disease, *which is by far the most manageable*, is generally met with in private practice. Puerperal fever, when epidemic in hospital, is directly the reverse; at least in *four* epidemics which I have witnessed, the symptoms were usually of the lowest typhoid description, the pulse being so feeble and indistinct, as to make you dread in many, even the application of leeches; the patients in several instances of this form of the disease, exhibiting somewhat the appearance of those labouring under cholera.

Of the 88 cases that occurred in the Hospital, *thirty-two* recovered, *fifty-six* died. In *fifteen* only of the 88, did we deem it advisable to bleed generally; *seven* of the fifteen recovered. This is a very favourable result. By referring to the cases, it may be seen leeches were freely used conjointly, and often with more decided benefit. In this form of the attack, the practitioner is encouraged in his efforts by the *strength* of his patient, whereas in the opposite, she is little more than *shadow*.

When I was Assistant Physician in 1823, puerperal fever raged to an alarming extent. The master of the Hospital, at the commencement of the attack, was a strong advocate for the free removal of blood *generally;* with his approbation, it was resorted to with great frequency, and in the promptest manner. The effect on the patient and the mortality was such, as to satisfy me fully of the inexpediency of adopting this line of treatment.

As the cases given so fully detail the treatment employed, I shall merely mention the general outline of what appeared to me the most successful. I cannot here omit urging the great importance of the medical attendant seeing his patient *instantly* on her being attacked, whenever this is practicable; it is of the utmost consequence. In the Hospital we made it an invariable rule, at *all times* to visit every patient *twice* daily; but when puerperal fever prevailed, we visited every *six hours*. In truth it may be said, we nearly lived in the wards; and, in my opinion, to discharge the duty effectually in such an establishment this must be done, as you have scarcely concluded your directions in one ward, when your presence is anxiously required in another.*

* In our Hospital, the Master and his Assistants are always resident; than which, a more salutary regulation could not exist; as their immediate presence always insures to the patients the utmost attention, and affords them the full advantage of the Charity.

When the attack seemed threatening, in most instances a draught containing half an ounce of castor oil and as much oil of turpentine was given. This, where the bowels have been attended to during labour and subsequent to delivery, seldom fails to act speedily and freely, often with relief. I do not know any medicine more desirable, particularly where there is much air secreted in the intestines; under such circumstances, it may be repeated occasionally with much benefit. In some cases where the bowels had been tardy previous to the attack, we gave twice the quantity mentioned.* Where the state of the patient was such as to encourage a general bleeding, we used the lancet; I am satisfied, however, that in *hospital*, the immediate application of *three* or *four* dozen leeches, followed by the warm bath in which the patient should remain as long as her strength will bear it, will be found in the great majority the most judicious means of removing blood. If the patient be much exhausted by the leeching, flannels wrung as dry as possible out of boiling water should

* In the Hospital, during my residence, the strictest attention was paid to the state of the bowels before and during labour; every patient, in about six hours after delivery, was given a powder containing 4 grains of calomel with 8 of jalap, which was followed in 6 or 8 hours, by the infusion of senna with epsom salts and tincture of jalap. Where the female was delicate, we were guided by the circumstances of the case.

be used over the whole abdominal surface, as hot as can be endured, changing them every 4 or 5 minutes for at least one hour. When the stuping is concluded, the abdomen should be covered with a large flannel well heated. This will not fatigue her so much as the bath, and when she has recovered from the effects of the leeching, the bath may be had recourse to. The leeches and bath must be repeated at the expiration of 4, 5, 6 hours or longer, according to circumstances, where the tenderness on pressure continues urgent, and the strength will justify it. We have in numerous instances applied leeches in this way, to the extent of 10, 12, 14, and in some 16 dozen; using the warm bath repeatedly, with the almost constant application of stupes in the intervals. The bath should be given at the bed-side to do it with advantage, and great care taken to have her well dried after it, and the bed warmed previous to her being replaced in it. The frequent use of the bath when *thus* managed, and the constant application of flannels as above mentioned, are of great utility. In the mean time, after the bowels had been acted on by the oil draught, we used every effort to bring the patient, as speedily as possible, under the influence of mercury. To accomplish this, in the *low* species of puerperal fever, is *extremely difficult* in almost every instance, and in *many impracticable*, the

system appearing to resist its effects in every form and quantity.* In general I ordered *four* grains of calomel with as much ipecacuan powder to be given every 2nd, 3d, or 4th hour. This combination I found, after the *most extensive* trial, to excite less uneasiness, and act with better effect and speed, than any other with which I am acquainted. Where the stomach would not bear the ipecacuan, pills containing each five grains of calomel and a quarter of a grain of opium, were substituted. This was not often necessary, for although the first powder of calomel and ipecacuan not unfrequently sickened, yet after the second or third dose, the stomach generally became composed. In other instances a grain of opium succeeded. The ipecacuan, where it does not sicken, seems to have the best effect, preventing the calomel exciting irritation in the bowels, and producing moisture over the surface. The quantity of calomel and ipecacuan taken in this way, in many instances, was very great, to the amount of 3, 4, 5 hundred grains, or upwards. With some, in order to hasten its effects on the system, friction with strong mercurial ointment was diligently employed, and blistered surfaces dressed

* In order to try the effect of keeping the patient's body enveloped in mercurial vapour, I had an apparatus constructed for the purpose, so as to be applied while in the recumbent posture. Before it was completed, the disease had disappeared, and I had no opportunity of making the experiment since.

with the same. From the friction we found benefit, but from the latter no good effect was observed. In *several* instances a scruple of calomel was given every 2nd or 3d hour and carried to a great extent. One patient took more than an *ounce*. I could not observe any better effect from the large doses than the small: the system was not more speedily influenced; and when they did so act, it was often with violence, so as to endanger the destruction of the soft parts about the palate.* Opium in combination with calomel I used very freely, also separately to the extent of 8, 10, 12 and 24 grains, in divided doses. With the calomel it is of much benefit, but otherwise it appeared to me of little utility. I did not, however, give it singly an extensive trial.

The result of my observations upon the treatment of puerperal fever is, that *general* bleeding except where there is a strong full pulse and the symptoms are of a highly inflammatory character, is injurious. On the contrary, *local* depletion, by the application of 3 or 4 dozen leeches, followed by the warm bath and stuping, all of which should be repeated according to circumstances as often as the strength will

* It is supposed by some practitioners, that when we can get the system under the influence of mercury, recovery is *certain*. This is not the fact, as I have seen several cases where death took place under these circumstances. It is notwithstanding a very favourable occurrence.

permit, seemed most beneficial. These means, together with the active employment of calomel conjoined with hippo or opium, aided by mercurial frictions, offer the best prospect of relief. Blistering the entire abdomen, *after* leeching had been pushed as far as could be, was found serviceable. In some instances the debility from the very commencement was so excessive as to induce us to apply the blister at once, using calomel and stimulants at the same time.

Before proceeding to detail the cases, I shall give a short outline of the morbid appearances observed in *thirty-seven* of the 56 women who died of this disease. The abdomen being ostensibly the seat of the disease, the morbid appearances were principally found here; however in *seven* we observed fluid effused into the thoracic cavities, similar in appearance to that met with in the abdomen.* Effusion of fluid, although differing in character and quantity, was invariably found to have taken place. In *twelve* it seemed to be serum of a straw colour; in *eighteen* it was sero-purulent, something of the consistence of thick cream; and in *seven* it appeared

* We were frequently able, in the progress of the disease, to predict the occurrence of fluid in the thorax, from acute pain setting in in that region, and difficulty of breathing. It is singular that almost invariably when the pain and distress extends to the chest, the patient ceases in a great measure to complain of the abdomen.

bloody serum, with quite a glutinous feel when rubbed between the finger and thumb. *All* the cases but *one*, in which this latter description of fluid was found, occurred in Jan. and Feb. 1829, and rapidly proved fatal. In these there was no lymph whatever formed; whereas in the other varieties it was usually found deposited in large quantities, particularly in the vicinity of the uterus, but often over the entire surface of the intestines and abdominal serous membrane. In some, where the effused fluid was scanty, the intestines were completely glued together by lymph. In almost every body examined the peritoneum exhibited great increase of vascularity, nor could we discover in any instance, that the inflammation seemed to penetrate deeper than this membrane. The uterus in the great majority was quite natural in appearance; in some it was soft and flabby, and in a few unhealthy matter was found in its sinuses.

The ovaries, in numerous instances had suffered much in structure from the effects of inflammation; being generally much enlarged, and so softened in most as to be broken in pieces by the least pressure.*

* I coincide in opinion with those who consider that the change of structure observed in the ovaries of women who die of puerperal fever, accounts satisfactorily for the sterility not unfrequently observed in young females who recover from this disease.

Such are the most striking features observed in the bodies examined; where any peculiarity was noticed, it will be found in the detail of the dissection appended to the particular case.

CASES OF RECOVERY FROM PUERPERAL FEVER.

The following is a statement of nine cases:—

No. I.—J. D., aged 25, was delivered of her second child, (a boy), on the 11th, at 7½ P.M., after a severe labour of 10 hours. She was attacked at 5 A.M. on the 12th with shivering, accompanied by acute pain in the abdomen, when she was ordered to be well stuped, and to have four drachms of castor oil, with the same quantity of oil of turpentine.

9 A.M.—Medicine has operated freely; pain of abdomen continues, particularly distressing in the uterine region.

Four dozen leeches to be applied where the pain is most acute, and afterwards to be placed in a warm bath; to have 4 grains of calomel with as much hippo every third hour.

9 P.M.—The pain continuing distressing, 3 dozen leeches were again applied at 8 o'clock, followed by a warm bath. Pulse 120; tongue moist and clean; uterus continues hard and enlarged, but much less sensible to pressure than in

the morning; complains much of pain in her loins, and crampish sensations in her legs.

Powders to be given every 2d hour.

13th, 9 A.M.—Pulse 114; tongue tolerably moist and clean; abdomen soft, she still however complains much on pressure being made over the uterus, which remains hard and enlarged; bowels repeatedly opened; has taken 9 powders since the commencement; drank 4 quarts of whey; expresses herself relieved.

Powders to be continued; three dozen leeches over the uterine region; to be repeatedly stuped.

7 P.M.—Pulse 130; tongue moist, rather loaded in the centre; abdomen soft, but very tender on pressure; uterus somewhat softer; took 4 powders since morning and had a warm bath at 8 o'clock, from which she experienced some relief; drinks freely.

Powders and stupes to be continued.

14th, 9 A.M.—Pulse 126; abdomen full but soft, and little sensible to pressure except over the uterine region; took 6 powders; bowels frequently opened; mouth affected by mercury; drank two quarts; slept about one hour; still complains of crampish sensations about her hips at intervals.

Powders to be continued every 3d hour; warm bath.

10 P.M.—Pulse 120; tongue cannot be protruded; abdomen soft and free from pain, except

when pressed immediately over the uterus; took 3 powders; bowels but slightly affected, has considerable tenesmus, stools occasionally tinged with blood.

Powders to be continued and the abdomen frequently stuped.

15th, 9 A.M.—Pulse 108; complains much of the soreness of her mouth; abdomen soft but puffy; uterus somewhat softer and less distended, still very tender under pressure; took 3 powders; bowels frequently opened; slept little; drank 2 quarts; gums much affected.

Omit powders.

10 P.M.—Pulse 108; mouth extremely sore; abdomen soft; little or no pain on pressure; bowels frequently affected; stools watery, scanty, mixed with blood, and passed with pain; drank 2 quarts; complains of weakness and want of sleep.

To have every 2nd hour a pill containing equal parts of blue pill and dovers' powder.

16th, 10 A.M.—Pulse 114; tongue cannot be protruded; abdomen rather puffy but free from pain on pressure; bowels 6 times affected; discharges free from blood, and passed with less pain; took 6 pills; drank 2 quarts; no sleep; mouth very sore; but little salivation.

Omit pills.

This woman continued to recover favourably, and was dismissed well on the 23d.

No. II.—A. C. aged 27, was delivered of her 3d child (a girl) after 12 hours' labour, on the morning of the 29th Dec.; she was suddenly attacked at 10 P.M. on the 30th with violent pain in the abdomen; her pulse became hurried; her bowels had been well opened during the day.

Three dozen leeches to the abdomen; to be repeatedly stuped and to have 4 grains of calomel with as much hippo every 3d hour.

31st, 9 A.M.—Pulse 120; tongue moist and tolerably clean; abdomen soft, and though less acutely painful, yet pressure causes much distress; breathing hurried; slept none; bowels 3 times opened; took 3 powders.

Three dozen leeches to the abdomen; afterwards a warm bath, to be followed by repeated stuping; powders to be given every 2nd hour.

9 P.M.—Pulse 120 intermitting; tongue clean; abdomen more free from pain, but full, and equally sensible to pressure; felt the bath agreeable; took 5 powders; bowels 3 times opened; drank 1 quart.

Leeches and bath to be repeated; to have castor oil and oil of turpentine, of each four drachms; and after it has acted on the bowels to resume the powders.

January 1st, 9 A.M.—Pulse 126; tongue moist and tolerably clean; abdomen flat and rather hard, but free from pain on pressure; took 4 powders; bowels 5 times opened; drank 3 pints; slept

well; feels easy; expresses a wish for a warm bath.

To have a warm bath and continue her powders.

2nd, 9 A.M.—Pulse 114; tongue moist and clean; abdomen more natural, quite free from pain even on pressure; slept well; drank 1 quart; bowels 3 times opened; has taken 7 powders since last report; gums slightly affected; feels easy and disposed to sleep.

Stupes to be continued occasionally; omit powders.

3d, 9 A.M.—Pulse 126; abdomen as before; slept 4 hours; drank 2 quarts, some of which her stomach frequently rejected; had 3 drachms of castor oil last evening, since which her bowels have been six times opened; complains of soreness about her mouth and throat, with weakness.

To have some grapes and apple tea.

4th, 9 A.M.—Pulse 120; abdomen as before; slept little; bowels 3 times opened; drank 1 quart; stomach occasionally rejects its contents; soreness of mouth increased.

To have a warm bath at bed time.

5th, 9 A.M.—Pulse 114; liked the bath; slept well; took 2 pills last night, containing equal parts of blue pill and Dover's powder, which were repeated in an hour; drank 3½ pints; stomach quiet.

To have some flummery.

6th, 9 A.M.—Pulse 98; much improved.

To continue her flummery.

She continued gradually improving and gaining strength, and was dismissed well on the 15th.

No. III.—H. L., aged 30, was delivered of her second child, (a boy,) January 12th, at 2 P.M., after 3 hours' labour. She was seized at 5 A.M. on the 14th, with considerable pain in the abdomen, and slight shivering; her pulse was 120, strong and full; tongue moist and clean; abdomen full, and exceedingly tender on pressure. She is a large full woman, and her abdomen from the period of delivery, has remained distended and unnatural to the touch, in consequence of which, the strictest attention was paid to the bowels, which have been well acted on by mercurial and other purgatives.

She was bled to 15 ounces, which rendered the pulse softer, but did not diminish the abdominal distress; was ordered to be put into a warm bath immediately, and to have a draught containing one ounce of castor oil, with as much oil of turpentine; if the bowels do not act freely, a large injection is to be thrown up in an hour, and when they have acted, she is to be given calomel and hippo, of each 4 grains every 2d hour; the abdomen to be frequently stuped, and if not much relieved by mid-day, 4 dozen leeches are to be applied, and the warm bath repeated.

15th, 9 A.M.—Pulse 120; tongue moist, and tolerably clean; leeches were applied; abdomen more soft, and much less sensible to pressure; has

taken 7 powders; bowels repeatedly opened; slept well; drank 3 quarts; no vomiting.

Leeches and bath to be repeated; stupes every 2d hour; continue powders.

9 P.M.—Pulse 132; tongue moist, tolerably clean; abdomen soft, complains much of pain, particularly at the left side, even when lying quietly, which is much increased on pressure; states that she experienced little relief from the leeches or bath; took 5 powders; bowels once opened; drank 3 quarts.

Leeches and bath to be repeated; to take one ounce of castor oil, with 4 drachms of oil of turpentine immediately; powders and stupes to be resumed when bowels have acted.

16th, 9 A.M.—Pulse 138; abdomen a little full, pain on pressure very considerable, particularly in left side and uterine region; oil draught operated well; says she did not feel much immediate relief from the leeches and bath, but the stuping afterwards gave her great ease; took 5 powders; drank 1 quart; slept 3 hours.

Four dozen leeches to the painful region; warm bath; powders and stupes to be continued.

9 P.M.—Pulse 138; tongue moist and tolerably clean; abdomen much softer, left side still very painful; took 5 powders; bowels once opened; slept 2 hours; drank 1 quart; feels easier.

Powders to be continued; a blister over the entire abdomen.

17th, 9 A.M.—Pulse 126; blister has risen well; abdomen seems full; bowels but once freed since yesterday morning; took 5 powders; feels much better; says she has no distress in her belly; mouth slightly affected; wishes for flummery.

To have an oil draught immediately; powders to be resumed when bowels act; flummery.

18th, 9 A.M.—Pulse 120; abdomen much softer; pressure on left side still produces pain, but not so acute; feels easy when quiet, but very weak; no sleep. In consequence of the bowels not having acted, yesterday at 4 o'clock she was given 4 drachms of castor oil, which operated so freely, it was deemed advisable to substitute for the calomel and hippo, pills, containing each 5 grains of calomel and ¼ of a grain of opium; she had taken 4 powders yesterday; vomited frequently in the night, to which she attributed her want of sleep; bowels not opened since 10 last night.

To take 2 pills in the course of the day, and have the inside of the legs and thighs well rubbed with strong mercurial ointment; to have a small tea-cupful of cold chicken broth occasionally.

19th, 9 A.M.—Pulse 112; abdomen soft; complains merely of the pain of the blister; stomach settled; drank 2 quarts of whey, in the night, and

some chicken broth; took 4 pills; complains of soreness of the mouth, though the gums have little appearance of being affected; bowels twice opened; had a warm bath at bed-time.

Continue as yesterday.

20th, 9 A.M.—Pulse 108: tongue moist and clean; abdomen rather full, but soft and free from pain: took 3 pills: was ordered last night, in consequence of restlessness, 3 drachms of castor oil, with 30 drops of tincture of opium, after which she slept 4 hours: drank 1 quart of small beer, which she fancied; gums much more affected; bowels but twice freed since last report; not at all since she had the draught.

To have castor oil and tincture of jalap, of each 3 drachms, to be followed by a mild injection if necessary; other medicines to be omitted.

21st.—Pulse 102; abdomen soft; bowels opened once; had at bed-time 4 drachms of castor oil, with 20 drops of tincture of opium; mouth very sore.

Oil draught, with tincture of jalap, as yesterday.

22d.—Pulse 96; in every respect improved.

She continued daily to gain strength, and left Hospital well on the 26th.

This patient took 184 grains of calomel; 124 of hippo, and 3 grains of opium, besides castor oil and oil of turpentine in considerable quantities. She lost 15 ounces of blood from the arm; had *sixteen* dozen leeches applied to the abdomen, and its entire

surface blistered; she had *five* warm baths, and the inside of her legs and thighs were frequently rubbed with strong mercurial ointment for 3 days.

No. IV.—A. P., aged 26, was delivered of her 1st child, (a girl,) at 12 P.M., January 20, after 2 hours' labour. She continued quite well till 6 A.M. on the 25th, when she was attacked with pain and tenderness in the abdomen, for which she was ordered an oil draught and stupes.

9 A.M.—Pulse 130; tongue moist, tolerably clean; oil operated once; abdomen soft, but very painful on pressure.

Four drachms of castor oil, with as much turpentine immediately; frequent stupes.

12 A.M.—Oil operated well, from which, and the stupes, she experienced great relief for some time, but the pain has now returned with great severity, so much so, that she is screaming for relief.

Three dozen leeches to the abdomen immediately; a warm bath afterwards; to have 4 grains of calomel with as much hippo every 2d hour.

10 P.M.—Pulse 126; abdomen soft; pain much relieved; took 4 powders; bowels 3 times opened; drank 1 quart; slept half an hour; feels easier.

Powders and stupes to be continued.

26th, 10 A.M.—Pulse 130; tongue moist at edges, tolerably clean; abdomen soft, but little painful on pressure; took 6 powders; bowels twice opened; vomited frequently; drank 2 quarts.

Omit powders; calomel 5 grains, with ¼ grain of opium every 2nd hour; continue stupes.

9 P.M.—Pulse 135; abdomen soft; no pain on pressure; but states that the cough, which is frequent, hurts her very much; took 5 pills; bowels acted once; slept three hours; drank 1 quart.

Pills and stupes to be continued; mercurial inunction to thighs and legs.

27th, 10 A.M.—Pulse 120; abdomen as yesterday; cough less distressing and less frequent; feels easy; took 6 pills; bowels twice opened; slept well; took 4 table-spoonfuls of the following mixture in the course of the night:—

℞ Aquæ Pulegii ℥ viii.
Tart. Emet. gr. iii.
Tinc. Opii gtts. xl.
Syrupi Simpl. ʒ ii.
℔

Medicines to be continued as yesterday.

9 P.M.—Pulse 120; abdomen pretty soft; took 6 pills; bowels twice well freed; stools greenish; feels easier; drank 1½ pint.

Continue medicines.

28th, 10 A.M.—Pulse 132; gums considerably affected; abdomen more full but free from pain; took 6 pills; bowels 3 times opened; slept well and feels easy.

Pills every 3d hour only; mercurial ointment to be omitted; to have a large injection.

9 P.M.—Pulse 126; mouth very sore; abdomen natural; slept two hours; drank 1 quart; bowels 3 times opened; feels easy.

Omit medicine.

29th.—Pulse 114; bowels 3 times opened; stools more natural; slept well; mouth very painful.

She continued to recover favourably, and left Hospital quite well February 6th, with the exception of her mouth being still sore.

No. V.—M. M. aged 27, was delivered of her 3d child (a boy) at 3 A.M. May 25th, after 2 hours labour. She was attacked at 2 A.M. on the 28th with severe pain in the abdomen, for which she was ordered one ounce of castor oil and as much turpentine, with frequent stupes.

5 A.M.—As no relief was as yet obtained, three dozen leeches were applied.

9 A.M.—Pulse extremely rapid; tenderness of abdomen still continues.

A warm bath; and the calomel and hippo powders every 3d hour.

10 P.M.—Pulse 138. At 3 P.M. in consequence of the pain being unabated, three dozen leeches were again applied. The abdomen is now quite soft and much relieved, though there is still considerable distress on pressure.

Powders and stupes to be continued every 2nd hour.

29th, 10 A.M.—Pulse 132; tongue moist, but covered with slimy substance; abdomen more distended, less painful on pressure; slept frequently; feels better; drank 2 quarts; took 2 powders which induced vomiting, when the calomel and opium pills were substituted, of which she has taken 2; the stomach has since become settled.

To have a warm bath; pills to be continued.

9 P.M.—Pulse 120 full; tongue moist, whitish; abdomen considerably distended, but somewhat softer and more free from pain; has taken 4 pills; has had 3 copious evacuations from the bowels; there were three dozen leeches applied after the bath, as the pain continued troublesome; slept frequently since, and feels easy.

Pills and stupes to be continued every 2d hour as before.

30th, 9 A.M.—Pulse 112; abdomen less distended, soft; still complains of pain on pressure; took 6 pills; bowels frequently opened; slept tolerably.

Warm bath; continue pills.

10 P.M.—Pulse 106; abdomen somewhat softer; still extremely sensible to pressure; bowels repeatedly freed.

Three dozen leeches to the abdomen; pills every 3d hour.

31st, 10 A.M.—Pulse 102; abdomen softer and

much more free from pain; feels tolerably easy; took 4 pills; drank 3 pints; bowels 7 times opened; wishes for small beer.

Warm bath; pills as before; some small beer.

11 P.M.—Pulse 108; abdomen improved; took 4 pills; felt much relief from the bath; drank 3 quarts; bowels 4 times opened.

Pills every 3d hour.

June 1st, 9 A.M.—Pulse 112 soft; abdomen soft and free from pain, still a little puffy; took 4 pills; bowels 3 times relieved; drank 2 quarts; slept well; complains of pain under her right breast.

To have a small blister applied to the painful part; pills and stupes to be continued; to have some flummery.

10 P.M.—Pulse 114; tongue moist and tolerably clean; took 5 pills; bowels once freed; abdomen distended but free from pain; pain under right breast increased; blister was neglected this morning.

A large blister to the right side; continue pills; to have a purgative injection.

2d, 10 A.M.—Pulse 114; abdomen softer; pain of side much relieved; took 4 pills; bowels 3 times copiously freed; slept none; perspiration most profuse; drank 2 quarts; cough troublesome; wishes for some wine and water.

Pills to be given every 2d hour; continue stupes; some wine and water.

10 P.M.—Pulse 114; tongue moist and clean;

abdomen free from pain, full but soft; took 4 pills; bowels acted 3 times; feels weak.

Continue medicines, stupes, &c.

3d, 10 A.M.—Pulse 120, feeble; abdomen free from pain; took 6 pills; bowels twice freed.

Continue pills; to have some chicken broth.

10 P.M.—Pulse 120, extremely feeble; abdomen soft and free from distress; took 6 pills; perspiration profuse and clammy; cough distressing; wishes for ale.

Continue pills; to have some ale.

4th, 10 A.M.—Pulse 120, more distinct; abdomen distended but otherwise natural; took 6 pills; bowels 5 times opened; cough distressing; *quite easy* in other respects; slept none; drank 3 quarts.

Warm bath; continue pills, ale and chicken broth.

10 P.M.—Pulse 112 soft; abdomen improved; drank a quart of ale and 1½ pint of chicken broth; bowels 5 times opened; feels easy, but cough is troublesome; liked her bath.

Continue pills.

5th, 10 A.M.—Pulse 98 soft; abdomen natural; took 5 pills; bowels 4 times opened; drank a quart of ale; says her mouth is sore, no appearance of gums being affected; slept well; suffers much from cough and difficulty of expectoration.

Warm bath; continue pills, ale, and broth; to have a little wine and water.

10 P.M.—Pulse 96 full; tongue moist; took 4

pills; bowels 4 times freed; drank 1 pint of chicken broth, and had some bread with it; wine and water caused vomiting; slept after the bath; complains much of her mouth; gums seem but little affected.

Continue pills and ale.

6th, 9 A.M.—Pulse 102; cannot protrude the tongue; gums now becoming turgid; no discharge of saliva; took 4 pills; bowels once copiously opened; drank a quart of ale and ½ pint of chicken broth; feels easy; expectoration very difficult.

Continue pills, &c.

10 P.M.—Pulse 96; drank one pint of ale, and the same quantity of chicken broth; took 4 pills; bowels 4 times opened; slept frequently; feels easy; coughs less.

Continue pills and ale; to have some light mutton broth.

7th, 9 A.M.—Pulse 96; slept well; feels easy; cough improved; complains less of her mouth; some salivation; considerable mercurial fœtor; took 4 pills; had ½ pint of broth.

Continue pills every 3d hour; chicken broth.

9 P.M.—Pulse 96; tongue moist; abdomen natural; gums slightly affected; did not take the pills; bowels repeatedly freed; stools greenish; cough still troublesome; drank ½ a pint of chicken broth, and a quart of buttermilk.

Omit pills.

8th.—Pulse 84; cough troublesome; expecto-

rates more freely; slept well; complains of mouth, but *gums* are *little affected.*

To have chicken and chicken broth.

She continued gradually improving, and left Hospital well on the 25th, being one month from the date of her delivery. She took 388 grains of calomel, and 19 of opium. She had 12 *dozen* leeches applied, and had *seven* warm baths.

No. VI.—E. E., aged 20, was delivered of her 2d child (a girl, putrid) at 12 A.M., Jan. 29th, after 15 minutes' labour. She remained perfectly well until 12 A.M. on the 31st, when she was suddenly seized with most violent pain in her abdomen and loins, so much so, that she screamed from suffering; her pulse was 120; abdomen full.

She was ordered one ounce of castor oil, with as much oil of turpentine, and frequent stupes.

1½ P.M.—Oil has operated freely; pain on pressure very acute.

Three dozen leeches to the abdomen, afterwards the warm bath; to have 5 grains of calomel, and ¼ grain of opium every 2d hour.

9 P.M.—Pulse 114; tongue moist and whitish; pain much relieved; took 4 pills; bowels 3 times opened; slept one hour; drank 3 pints.

Continue pills every 2d hour.

February 1st, 9 A.M.—Pulse 96; took 6 pills; mercurial fœtor; had several short sleeps; drank 2 quarts; complains little of pain on pressure, except immediately over uterus.

To have 2 pills in the course of the day; diligent stuping.

9 P.M.—Pulse 102; abdomen rather full, with some pain on pressure; took 2 pills; bowels acted 3 times partially; slept 3 hours.

To have an oil draught, with tincture of jalap; after bowels are opened, to take 2 pills in the course of the night; continue stupes.

2d, 10 A.M.—Was seized at 3 A.M. with pain in the abdomen so acute as to be impatient of the least pressure, when four dozen leeches were applied, after which she was well stuped, and ordered her pills every 2d hour, of which she has taken 4; these measures were followed by much relief; pulse now 98; tongue more loaded; abdomen flat, but not natural to the feel, complains little of pain on pressure.

Continue pills; to have a warm bath.

3d, 10 A.M.—Pulse 108; took 5 pills; slept well; bowels twice opened; abdomen soft, but has still slight pain; complains of soreness of the mouth.

To be well stuped during the day, and have 2 pills.

9 P.M.—Pulse 130; was attacked this evening with considerable pain in the abdomen, and tenderness on pressure; bowels have acted well; mouth painful.

Three dozen leeches to be applied; diligent stuping; to have 3 pills in the night.

4th, 10 A.M.—Pulse 102; abdomen soft; slight

pain continues; took 3 pills; bowels once opened; drank 3 pints; slept one hour.

Warm bath; continue pills every 3d hour.

9 P.M.—Pulse 96; abdomen much improved; free salivation; bowels have not acted.

Omit pills: to have an injection.

5th.—Continues to improve.

To have chicken broth; continue stupes.

This patient gained strength gradually, and left Hospital quite well on the 24th.

No. VII.—B. E., aged 25, was delivered of her 3d child, (a girl,) at 11 P.M., March 13th, after 3 hours' labour. She remained quite well until 9 P.M. on the 14th, when it was evident that pressure on the abdomen caused pain, though she would not acknowledge it; her pulse was hurried and skin hot.

To have 6 drachms of castor oil, and as much oil of turpentine; frequent stupes; if not relieved, to be leeched and put into a bath.

15th, 9 A.M.—Pulse 114; tongue moist and clean; abdomen softer; does not complain of pain on pressure; felt much relief from the stupes and oil, and now expresses herself as quite easy: slept well.

To have 4 grains of calomel, with the same quantity of hippo, which is to be repeated in two hours; to be diligently stuped.

2 P.M.—Has been suddenly seized with most acute pain in the abdomen, the slightest pressure causing great suffering.

Four dozen leeches to the abdomen: afterwards a warm bath: to have *one scruple of calomel* every 2d hour.

8 P.M.—Pulse 126: abdomen softer; pain on pressure relieved by the leeches and bath; has taken *three calomel powders;* bowels 3 times opened: drank one pint.

Continue powders as before: the entire abdomen to be blistered.

16th, 9 A.M.—Pulse 126: tongue tolerably moist and clean: abdomen soft: does not complain of any pain, but from the blister, which has risen well: slept none: took *five* powders: complains of bad taste in her mouth: gums not much affected: bowels 3 times opened: drank one pint.

Continue powders.

8 P.M.—Pulse 126; no pain; slept 5 hours; has taken *four* powders; *little* soreness of mouth; feels easy.

Continue powders.

17th, 9 A.M.—Pulse 126: slept well: drank 3 pints: bowels 3 times opened: complains of soreness of mouth, also of blister.

10 P.M.—Pulse 126, feeble: powders have been omitted since 4 P.M., previous to which time she had taken *three;* feels easy, except from the effects of the blister: has taken chicken broth in small quantities since last report, as she complained of exhaustion.

To have two ounces of port wine, diluted with two of water: a table-spoonful to be taken every half hour.

18th, 9 A.M.—Pulse 126, more full: tongue moist and clean; abdomen natural: constant tendency to retch, without discharging the stomach: slept well: took all her wine and water: had 4 ounces of saline effervescing mixture, with 20 drops of laudanum.

Wine and effervescing mixture to be continued: to have chicken broth.

This woman gained strength daily, but suffered much from the soreness of her mouth for several days: she left Hospital well on the 7th of April. She had taken 308 grains of calomel in the course of little more than 48 *hours*, in the early period of the attack.

No. VIII.—J. C., aged 21, was delivered of her 2d child, at 3 A.M., on the 1st, after 13 hours' labour.

2d, 9 A.M.—Uterus hard, painful on pressure: says she is quite well in other respects: pulse hurried: bowels had acted well previous to and since delivery.

To have an oil draught with tincture of jalap, and be well stuped.

7 P.M.—Complains of distressing pain shooting through her back and loins: was not relieved by the stupes, &c.: pulse 130: she is a stout plethoric young woman.

To have 15 ounces of blood taken from her arm;

to be diligently stuped, and have six drachms of oil of turpentine, with two of castor oil immediately.

11 P.M.—Pulse 140; blood considerably buffed; no relief from bleeding; experienced some benefit from a large injection with turpentine, which acted on the bowels some hours afterwards; abdomen rather tense and painful on pressure, particularly over uterus; feels better.

Three dozen leeches to the abdomen; diligent stuping; calomel and hippo powders every 3d hour.

3d, 9 A.M.—Pulse 126; abdomen softer; complains little of pain on pressure, yet it is not natural to the feel; took 4 powders; bowels 5 times opened; slept occasionally; countenance anxious.

To have a warm bath immediately, and when taken out to have a blister applied to the lower part of the abdomen: calomel and opium pills every 2d hour.

10 P.M.—Pulse 120: blister has risen well: slept 2 hours: took 5 pills: bowels 3 times freed.

Continue pills.

4th, 9 A.M.—Pulse 108: abdomen much softer: feels easy except from the blister: slept 5 hours: took 6 pills; drank 1 pint of cold water.

Continue pills every 3d hour.

5th.—Pulse 108: tongue moist and tolerably clean: abdomen soft: complains only of the blister: took 8 pills: slept well: bowels 5 times opened:

gums much affected: drank one pint of cold water in the night.

Omit pills; to have some stirabout.

This woman left Hospital quite recovered on the 12th.

No. IX.—E. H., aged 19, was delivered of her first child (a boy) at 1 A.M., October 26, after three hours' labour. She went on well till 8 P.M. on the 27th, when she complained of pain and uneasiness in the lower part of the abdomen, which on pressure was much increased: pulse 120: tongue foul: seems restless and anxious: bowels have been well acted on.

To have 4 grains of calomel, and as much hippo: to be well stuped and seen again at 11 P.M.

11 P.M.—Much relieved.

Continue powders every 3d hour, also stupes.

28th, 9 A.M.—Pulse 126: tongue parched and foul: abdomen full but not hard, very painful on pressure, particularly over uterus: bowels twice opened: took 4 powders: slept tolerably: complains of severe pain in her head.

Three dozen leeches to the abdomen, and one dozen to the temples: warm bath: continue powders.

10 P.M.—Pulse 126: abdomen much distended, but not very painful on pressure: bowels repeatedly opened: first powder this morning was followed

by vomiting: the calomel and opium pills were then given, of which she has taken 10; slept 2 hours; drank 3 quarts of whey.

Two pills to be taken every 2nd hour; abdomen to be stuped for an hour and then covered with a blister.

29th, 9 A.M.—Pulse 126; abdomen continues distended; blister has risen well; complains of pain from it; feels easy in other respects; took 10 pills; bowels 4 times freed; bitter taste on mouth, but gums not affected; slept one hour.

Blister to be dressed immediately with strong mercurial ointment; continue pills.

9 P.M.—Pulse 126; abdomen still more distended; but does not complain of pain except when she moves in bed; took 8 pills; gums little if at all affected; bowels 5 times freed; stools greenish; slept 2 hours; drank one quart of barley water; urine thick; some strangury.

Continue pills every 2nd hour; mercurial ointment to blistered surface; also mercurial inunction over thighs and legs; to have some apple tea, for which she is desirous.

30th, 9 A.M.—Pulse 118; tongue becoming moist; abdomen less distended; is now lying on her side, and feels easy; took 10 pills; bowels 5 times opened; stools greenish and curdy in appearance; slept well.

Simple dressing to blister; continue inunction; to have her pills every 4th hour; feels easy and can turn in bed; vomited twice; had some grapes.

Continue pills and ointment: to have grapes, and drink at pleasure.

31st, 9 A.M.—Pulse 108, soft; abdomen also evacuations much improved; vomited twice; took 4 pills; slept 2 hours; gums more affected; feels easy and can lie on either side.

Omit pills; continue ointment.

9 P.M.—Pulse 106; much improved; gums considerably affected.

Omit frictions.

Her mouth for several days was much affected by mercury; however her recovery was progressive, and she left hospital quite well on the 23d. She took, during the first four days of her illness, 264 grains of calomel; 12 of opium, and 24 of hippo; she had 4 dozen leeches applied, also a warm bath; her abdomen was blistered and mercurial ointment applied to the blistered surface; mercurial inunction was also diligently used.

Such is a statement of *nine* most obstinate cases of this singularly untractable disease which terminated favourably.* A careful perusal of them can hardly fail to shew the *vital importance* of *diligently, in fact hourly*, watching the patient, as also

* For another case see note, page 133.

the necessity that exists for steady and determined treatment; the measures in truth being such, that, in my opinion, nothing but the notorious fatality and suddenness with which the patient is too often snatched away, should induce us to adopt. That our best efforts, however, prove nearly useless in a vast proportion of those attacked, when epidemic in hospitals, *all* physicians in the charge of such institutions have unfortunately had ample experience.

The following are examples of the deadly seizure it makes on the patient under such circumstances, and of the almost absolute certainty of death which stares the medical attendant in the face, at least where treatment the most prompt, and as it might be described, *violent*, affords but little hope of relieving the patient:—

FATAL CASES OF PUERPERAL FEVER.

No. 60.—Aged 20, was delivered at 4 P.M. on the 12th of her 1st child, after 3 hours' labour.

13th, 9 A.M.—Complains of slight pain in the uterine region; pulse quiet.

Ordered an oil draught.

4 P.M.—Pain in uterine region increased; much sensibility to pressure; bowels twice opened; pulse hurried; tongue moist and white.

Four dozen leeches to be applied immediately; diligent stuping.

9 P.M.—Symptoms mitigated; bowels not open since last visit.

To have a draught of castor oil with 4 drachms of oil of turpentine.

14th, 9 A.M.—This morning at 1 o'clock, suffered a great increase of pain in region of uterus, when four dozen leeches were applied, followed by diligent stuping; she was ordered 5 grains of calomel with a quarter grain of opium every 2nd hour, and to have a turpentine injection thrown up. The abdomen is now full and impatient of the least pressure; pulse 132 full; has slept none; bowels twice freed.

Twenty-five ounces of blood were taken from the arm; this she bore extremely well, and the pulse became softer, but the abdominal distress was not in the slightest degree relieved.

To be put into a warm bath and continue her pills.

9 P.M.—At 4 P.M. the pain in the abdomen continuing distressing, pulse 138 and full, she was bled again to twenty-two ounces, but still without the least relief, the most gentle touch producing most acute pain. Four dozen leeches were then applied, followed by a warm bath, and the pills were continued every 2nd hour as before. Her abdomen is now tense and extremely sensible to

pressure; pulse 138 softer; took 5 pills; bowels twice freely opened; while writing this note she has fallen into a sound sleep.

To have 4 drachms of castor oil with as much oil of turpentine; pills and stupes to be continued.

15th, 9 A.M.—Pulse 108; abdomen considerably distended, cannot bear the slightest touch; took 5 pills; bowels 4 times opened; slept tolerably; feels little pain while remaining quiet. A blister had been applied at 7 A.M. to the entire surface of the abdomen the pain being unabated.

Continue pills.

9 P.M.—Pulse 120; tongue dry and whitish; blister has risen well and seems to have caused much uneasiness; took 7 pills; bowels 3 times opened; drank 3 quarts; slept occasionally; was for nearly half an hour in a warm bath.

Continue pills.

16th, 9 A.M.—Pulse 108; slept well; feels easier; complains of soreness in her teeth, but gums are not affected; took 9 pills; bowels twice well opened; drank 3 quarts.

Continue pills.

9 P.M.—Pulse 102; abdomen soft and easy except from the soreness caused by the blister; slept frequently and feels better; is at present resting on her left side; took 10 pills; bowels 5 times freed; complains of her teeth, but gums unaffected.

Continue pills.

17th, 9 A.M.—Pulse 120; abdomen rather distended; complains of some return of pain and tenderness; has occasional intervals of ease; slept none; took 5 pills; bowels 4 times opened.

To have a warm bath; continue pills.

9 P.M.—Pulse 120; experienced some relief from the bath; took 9 pills; bowels frequently opened; slept 4 hours; drank 3 quarts.

Continue pills.

18th, 9 A.M.—Pulse 120; tongue covered with a white fur; abdomen considerably distended; complains much of pain; took 10 pills; bowels twice scantily freed; slept frequently; drank 4 quarts.

Two dozen leeches to be applied to the edge of blistered surface; a warm bath; to have an oil draught and an injection afterwards; continue pills.

9 P.M.—Pulse 126; tongue dry and white; abdomen full and tense; bowels 4 times freed; leeches bled well; experienced much relief from the bath, since which she slept frequently; took 7 pills; complains much of bad taste in her mouth and disagreeable smell.

Continue pills.

19th, 9 A.M.—Pulse 132; tongue more moist; abdomen full, but more free from pain; took 9 pills; bowels 5 times freed; slept none; feels much easier; drank 2 quarts.

To have a warm bath; continue pills.

9 P.M.—Pulse 135; remained a quarter of an hour in the bath, from which she had some relief; abdomen distended but less painful; took 10 pills; bowels acted 5 times; complains of soreness of her gums which appear slightly affected.

Continue pills.

20th, 9 A.M.—Pulse 138 feeble; abdomen much distended; complains less of pain; took 6 pills; frequent desire to go to stool but passes little; feels very weak; rested badly.

Omit pills; to have chicken broth in small quantities at intervals.

21st, 9 A.M.—Her breathing since last report became much distressed, and her strength gradually failed; she died at 2½ P.M.

On dissection, an unusually large quantity of straw coloured fluid was found in the abdomen with flakes of coagulable lymph floating through it. The intestines were adherent in some places, but not so vascular as is commonly observed. The uterus was perfectly healthy. A very small quantity of colourless fluid was found in each cavity of the thorax, but the lungs were quite healthy.

This patient took 460 grains of calomel, and 23 grains of opium. She lost 47 ounces of blood from the arm, had 14 dozen leeches applied, and got 5 warm baths, besides the constant use of stupes, and occasional draughts of castor oil with turpentine, &c.

No. 78—Aged 22, was delivered January 11th

at 5 A.M. of her 1st child, after a labour of 3 hours. She was attacked on the 12th at 1 P.M. with violent pain in the abdomen. Four dozen leeches were instantly applied; she was ordered to be diligently stuped and to have 4 grains of calomel with as much hippo every 3d hour.

5 P.M.—Pulse 140 *extremely feeble:* countenance indicative of the greatest distress: tongue moist at edge but loaded in the centre: pain continues so acute that she cannot bear the least pressure. She had taken the night preceding the attack, a calomel and hippo powder, and an oil draught the following morning: has had but one motion to-day, but the bowels acted extremely well after delivery.

To have one ounce of castor oil with as much oil of turpentine immediately: three dozen leeches to the abdomen, followed by a warm bath.

9 P.M.—Pain on pressure much relieved: experienced great benefit from the leeches and bath: bowels acted freely: pulse 140, more distinct.

Continue powders every 2nd hour, with diligent stuping: if the pain should return the abdomen is to be blistered.

13th, 10 A.M.—Pulse 140 feeble: tongue dry and loaded: abdomen soft and much less painful on pressure: feels better: slept 2 hours: blister was put on at 12 last night in consequence of a return of the pain: bowels 3 times opened: has taken 8 powders since the commencement: drank 2 quarts

during the night, some of which was frequently rejected.

Omit powders: to have 4 grains of calomel every 2d hour, and the inside of her legs and thighs diligently rubbed with strong mercurial ointment; to be constantly stuped: to have chicken broth in small quantities, also the effervescing mixture.

9 P.M.—Pulse 140: tongue dry and loaded: abdomen soft: complains little of pain on pressure: bowels 3 times opened: took 3 calomel powders, and vomited after each, when pills containing 5 grains of calomel and a quarter grain of opium were substituted, of which she has taken 4. Vomiting not so frequent: feels easy, and says she has no pain: countenance still expressive of distress.

Continue pills, ointment, stupes, and effervescing mixture.

14th, 10 A.M.—Pulse 132 more steady: abdomen more full but not very tense: complains little of pain on pressure; feels much distress when she coughs, and weakness: took 6 pills: bowels 3 times freed: slept 3 hours: drank 3 quarts: vomited 3 times: about one ounce of mercurial ointment has been consumed in frictions since yesterday: breathing difficult: countenance distressed.

Continue pills and ointment: warm bath: to have 3 drachms of castor oil, with as much oil of turpentine.

11 P.M.—Pulse 126: tongue parched: abdomen

full: complains much of pain on pressure: bowels twice opened: discharges watery and green coloured: took 4 pills: drank 3 quarts: vomiting constant, in consequence of which she was given at 8 o'clock one grain of opium in a pill.

Opium pill to be repeated: to have the saline effervescing mixture, with the addition of 50 drops of tincture of opium to eight ounces: to continue her pills, ointment, and stupes.

15th, 9 A.M.—Pulse imperceptible; strength rapidly sinking; extremities cold; drinks largely; vomiting incessant with hiccough; took 6 pills and eight ounces of the mixture; bowels 3 times opened; complains much more of pain on pressure; abdomen more distended.

Calomel and opium pills to be continued, with one grain of solid opium with every 2d pill; stupes; wine and water for drink.

16th.—She expired at 4 o'clock P.M.

This was an unfortunate young unmarried woman. On dissection, about a pint of straw coloured fluid was found in the abdomen, with a copious deposition of lymph in various parts, particularly about the uterus. The intestines were distended with air, and extremely vascular; the pritoneum every where was as if injected with red wax; the uterus was healthy.

No. 79, aged 27, was delivered January 3d, at 6 A.M., of her second child, after 5 hours' labour.

She was seized with shivering on the 4th, at 2 P.M., shortly followed by acute pain in the abdomen, with hurried pulse. She was ordered one ounce of castor oil, with as much oil of turpentine, and diligent stuping.

6 P.M.—Pain increased; medicine has acted well.

Three dozen leeches to the abdomen, followed by a warm bath; to take the calomel and hippo powders every 2d hour; diligent stuping.

5th, 9 A.M.—Pulse 140, feeble: tongue moist, tolerably clean: abdomen soft, but cannot endure the slightest pressure: pain most acute at left side: slept none: drank 3 quarts: took 5 powders, the last of which sickened the stomach: bowels 4 times freed by the assistance of turpentine injections.

Four dozen leeches to the abdomen: warm bath: powders to be continued: should the stomach remain irritable, 4 grains of calomel to be substituted.

6th, 9 A.M.—Pulse imperceptible: extremities cold: strength rapidly sinking: abdomen soft: does not complain of pain on pressure: the powders continued to produce sickening subsequent to last report, and pills containing five grains of calomel, and a quarter of a grain of opium given instead, of which she has taken 10: stomach still rejects her drink: was ordered wine whey at evening visit yesterday, of which she drank about four ounces: there was at that time no hope of recovery.

She expired one hour after this morning's visit.

3 P.M.—On dissection, a considerable quantity of thick creamy fluid resembling pus, of a yellowish colour was found in the abdominal cavity: the peritoneum throughout its entire extent was extremely vascular: there was not any other morbid appearance.

In the same ward with this patient there was a second attacked simultaneously with violent pain in the abdomen, &c. &c., which yielded to similar treatment.

No. 80.—Aged 22, was delivered January 5th of her 1st child, putrid, at the 7th month, after a labour of 1 hour. She was attacked at 1 A.M., on the 6th, with shivering, when she got a castor oil draught with tincture of jalap. In 4 hours after she began to complain of very slight pain in the abdomen, which was a little hard, but even on pressure she did not seem to suffer any distress. She was now ordered to be remarkably well stuped, and to have the calomel and hippo powders every 3d hour. At 10 P.M. the pain became exceedingly acute, aggravated by the least pressure: the pulse was now much hurried, between 130 and 140; she seemed also very anxious and restless.

Three dozen leeches instantly to the abdomen, followed by a warm bath; the powders to be continued every 2d hour.

7th, 9 A.M.—Pulse 140; tongue moist and

tolerably clean; abdomen hard, but flat and extremely sensible to pressure; says all her bones are sore, so much so, that she can with difficulty lie in any position; bowels repeatedly opened: felt no relief from the leeches and bath; has taken 7 powders: drank 1 quart: countenance sunk and anxious.

Four dozen leeches and warm bath to be repeated: continue powders.

9 P.M.—Pulse 150, very irregular: abdomen tense and full, but not so painful on pressure: the 3d powder this day caused severe straining, when the calomel and opium pills were substituted: breathing much hurried: has had no sleep from the commencement of the attack: bowels frequently opened.

Continue pills and stupes; to have the effervescing mixture.

8th, 9 A.M.—Pulse almost imperceptible; abdomen tense and very tumid: complains little on pressure: took 6 pills: bowels frequently opened: drank 3 quarts: stomach constantly rejects her drink: slept half an hour: feels easy when undisturbed.

Continue pills: to have some ale, for which she wishes.

9th, 10 A.M.—She expired yesterday at 5 P.M.

On dissection there was found an effusion of seropurulent fluid into the abdominal cavity, not

however to any great extent: there was no lymph.

The entire surface of the intestines exhibited a deep blush of inflammation. The uterus was quite healthy. There was not any other morbid appearance observed.

No 83, aged 24, was delivered, January 18th, at 9 A.M., of her 1st child, after a labour of half an hour. She remained quite well till the 20th, when at 1 A.M. she had a very slight chill, which lasted but a short time; she soon fell asleep, and awoke in about 3 hours shivering. She made no complaint, and remained without these circumstances being known till 8 A.M., when the nurse observing her unwell gave her a draught of black bottle: she had at this time but little distress.

9 A.M.—Medicine has not operated, (her bowels had been previously well acted upon from the period of delivery;) pulse hurried and small: tongue moist and slightly white: pain in temples very severe: countenance sunk and anxious: abdomen full, very painful on pressure.

To have castor oil and oil of turpentine, of each one ounce immediately: to be well stuped: one dozen leeches to temples: if the abdominal pain be not quite removed when the bowels are freely acted upon, to have four dozen leeches applied, followed by the warm bath: to have the calomel and hippo powders every 2d hour.

9 P.M.—Pulse 130, small: leeches were applied at 2 P.M. from which and the bath much relief was experienced: abdomen still very full, unnatural to the feel, and very painful on pressure: took 3 powders; bowels 3 times opened; drank little: no sleep: head quite relieved.

Four dozen leeches and bath to be repeated: diligent stuping: continue powders.

21st, 9 A.M.—Pulse so feeble as to be almost imperceptible; complains little of pain even when pressed: abdomen much softer: took 6 powders: discharged a large quantity of yellowish fluid from her stomach at 8 A.M.: bowels not opened since last evening: slept 1½ hour: drank 3 pints.

Continue powders; blister to abdomen: wine whey and chicken broth frequently.

9 P.M.—Drank chicken broth, wine whey and porter in considerable quantity during the day, her strength however gradually failed, and she died at 7 P.M.

On dissection, 20 hours after death, there was found but little air contained either in the intestines or abdominal cavity: about a pint of bloody serum, thick and glutinous, was found in the latter: the intestines exhibited considerable vascularity: the omentum appeared to have completely escaped inflammation: the fallopian tubes and ovaries were of a very dark colour: the latter enlarged, and when pressed even slightly between the fingers, their

structure broke down, and seemed as if it were to melt away: the uterus was healthy.

No. 86, aged 26, was delivered January 23d, at 3 A.M. of her first child, after 24 hours' labour. She remained quite well till 6 A.M. on the 25th, when she was seized with shivering, followed by tenderness of the abdomen: her breasts were painfully distended with milk.

To have a draught of castor oil with oil of turpentine: diligent stuping.

9 A.M.—Pulse 120; abdomen soft, but very painful on pressure; medicine operated once.

Draught to be repeated: three dozen leeches to abdomen, followed by a warm bath, and when the bowels have acted freely, to take 3 grains of calomel with as much hippo every 2d hour.

9 P.M.—Pulse 120, full; abdomen distended and soft, but most acutely painful on pressure: took 5 powders: bowels often opened: frequent vomiting: slept occasionally.

Four dozen leeches to the abdomen: diligent stuping: omit powders: to have the calomel and opium pill every 2d hour: the inside of the legs and thighs to be well rubbed with strong mercurial ointment.

26th, 9 A.M.—Pulse 120, more soft: tongue moist and white: abdomen full, impatient of pressure: took 6 pills: had no vomiting: bowels 3 times opened: slept 4 or 5 hours: drank 2 quarts.

Continue pills and ointment: warm bath: blister to the abdomen.

9 P.M.—Pulse 114: abdomen full, but not very tense: took 5 pills: bowels once well acted upon: drank 3 quarts: slept 6 hours: feels easier.

Continue medicines.

27th, 9 A.M.—Pulse 126: abdomen much distended: blister has risen well: took 6 pills: bowels once opened: slept 5 hours: drank 3 quarts: complains of a bad taste in her mouth: feels better.

Continue medicines.

8 P.M.—Pulse 132: abdomen much distended, pain most acute, so much so, that even when lying quiet she grinds her teeth from distress: took 5 pills: stools involuntary: had a warm bath at 1 P.M. but without relief: slept none: drank 3 quarts.

Continue pills: blistered surface to be dressed with mercurial ointment.

28th, 9 A.M.—Pulse 132, *extremely feeble:* abdomen tumid and tense, most acutely painful: still grinds her teeth from suffering: took 6 pills: bowels frequently opened: stools involuntary: frequent retching, but nothing discharged; complains most of violent pain in right side under margin of ribs.

Continue medicines: a small blister to part complained of.

9 P.M.—Pulse almost imperceptible: strength rapidly sinking.

Continue pills: to have wine whey.

29th, 9 A.M.—Pulse imperceptible.

Wine whey at pleasure.

She expired in the after part of this day, and her friends insisted on removing the body immediately. She took in her illness 185 grains of calomel, 8½ grains of opium: had 7 dozen leeches applied: and three warm baths: the entire abdomen was blistered, and then dressed with strong mercurial ointment, with which also from the 2d day of the attack, the inside of the legs and thighs were frequently rubbed, yet the mercury did not affect her mouth.

No. 89.—Aged 34, was delivered January 24th, at 11 A.M. of her 3d child, after 2 hours' labour. She remained quite well till the evening of the 25th, when she complained of slight chilliness and uneasiness in her bowels; she had little if any pain on pressure, and had lately taken a draught of black bottle.

26th, 9 A.M.—Pulse 114; medicine operated freely; slept occasionally; abdomen rather full, uterine region very painful on pressure; is restless and anxious; complains of uneasiness.

Three dozen leeches to the abdomen; diligent stuping; to have the calomel and hippo powders every 2nd hour.

9 P.M.—Pulse 120: tongue moist and tolerably clean: abdomen soft, but pain on pressure little

relieved: took 6 powders: bowels not acted upon: got an oil draught at 2 P.M.: vomited frequently: slept none: is very restless.

Two dozen leeches to the abdomen: warm bath: calomel and opium pills to be given instead of the powders.

27th, 9 A.M.—Pulse hardly perceptible: tongue moist and clean: abdomen considerably distended, not tense: pain on pressure much abated: slept none: constant vomiting: drank 3 quarts: no evacuation from bowels for 24 hours.

Continue pills: to have the effervescing mixture with 60 drops of tincture of opium to eight ounces: chicken broth at pleasure, and two ounces of wine every hour.

She expired at 2 P.M.

On dissection, about a pint of bloody serum (which had a glutinous feel when rubbed between the fingers) was found in the cavity of the abdomen: there was not the least trace of lymph: the uterus was soft and doughy to the feel, but healthy in structure: the peritoneum, both parietal and visceral, was very vascular, yet the inflammation did not extend deeper, the inner surface of the intestines was quite natural in appearance.

This case with Nos. 87 and 88 occurred *simultaneously in the same ward*, all precisely of the same character.

No. 90.—Aged 30, was delivered February 7th

at 4 A.M. of her 1st child, after 9 hours' labour. She remained quite well (except that on admission she was labouring under a severe cough) till the morning of the 9th at 8½ o'clock, when she suddenly complained of pain in the abdomen with tenderness on pressure. She was given an oil draught with turpentine and well stuped.

10 A.M.—Pulse 130: tongue moist, tolerably clean: abdomen rather full, very painful on pressure: draught has operated freely.

Three dozen leeches to be applied: warm bath: to have the calomel and hippo powders every 2d hour.

The disease continued obstinately to run its course, and she died on the 12th at 2 A.M.

She took from the commencement of the attack, 171 grains of calomel, 9¼ of opium, and 12 of hippo: the entire abdominal surface was blistered then dressed with mercurial ointment, with repeated inunctions, without having any specific effect: six dozen leeches were applied, and she had two warm baths.

No. 91.—Aged 22, was delivered February 19th at 1½ P.M. of her 1st child, after 60 hours' labour, for the first 40 of which the os uteri was not more dilated than the size of a half crown, and the labour pains were very feeble.

9 P.M.—Was ordered 4 grains of calomel with 8

of jalap: the bowels had been acted on during labour.

20th, 7½ A.M.—Complains of pain increased on pressure in abdomen, which is full and rather tense: is very restless and uneasy: pulse but little hurried.

Castor oil and turpentine of each six drachms: diligent stuping.

10 A.M—Pulse 108: oil draught has not operated: abdomen full and tense, very painful on pressure, particularly over uterus.

An injection with turpentine to be thrown up immediately: four dozen leeches over uterine region: warm bath: calomel and hippo powders every 2nd hour.

4 P.M.—Bowels once opened: abdomen full and tense: pain somewhat relieved: took 3 powders.

Omit powders: to have *a scruple* of calomel every 2d hour.

9 P.M.—Is at present sleeping, and has been so for the last hour: has taken 2 powders: bowels 5 times opened since morning: drank 2 quarts.

Continue calomel.

21st, 10 A.M.—Pulse 126: tongue moist, slightly white: at 4 A.M. the abdomen being much distended and pain very acute, a blister was put on: took 8 powders since last report: gums slightly if at all affected: bowels 4 times opened: drank 3 quarts: slept 4 hours.

Continue calomel.

1. P.M.—In consequence of vomiting setting in, the scruple dose after the 3d was omitted, and the effervescing mixture with a little tincture of opium given.

9 P.M.—Pulse 130, more feeble; abdomen greatly distended, pain very acute: vomiting incessant, with great thirst: bowels constantly acting.

To have 4 grains of calomel with *half* a grain of opium every hour till the stomach and bowels be relieved.

22nd, 10 A.M.—Pulse almost imperceptible: is rapidly sinking: stomach rejects all drink: took 5 powders: bowels only twice opened.

To have wine whey.

She expired at noon.

On dissection, not more than 4 or 5 ounces of bloody serum, without a particle of lymph, were found in the abdominal cavity: there was not much vascularity of the intestines; their mucous coat was in several places covered by a black deposit, perhaps the effect of the calomel, but its structure was in no wise injured: the stomach was healthy: the uterus itself was also healthy, but some pus was found in the fallopian tubes and broad ligaments.

This patient was 52 hours ill, during which time she took 296 grains of calomel, &c. without the system being affected.

No. 92.—Aged 30, was delivered February 18th

at 11 A.M. of her 2nd child, after 4 hours' labour. She continued quite well till 2 P.M. on the 20th, when she was attacked with shivering: her abdomen was full: the uterus hard and enlarged with obscure pain on pressure: she was directed the calomel and hippo powders every 2nd hour.

9 P.M.—Pulse 126: tongue dryish, slightly foul: abdomen full: uterus as before: pain on pressure increased: took 2 powders: bowels 5 times opened.

Three dozen leeches to the abdomen: warm bath: *one scruple* of calomel every 2nd hour.

21st, 10 A.M.—Pulse 138: tongue more moist, a little loaded: abdomen tolerably soft: uterus much enlarged, exquisitely sensible to pressure: took 5 powders: bowels frequently opened: complains of bad taste in her mouth: slept none: drank 1 quart: wishes for porter.

Continue calomel: warm bath, to be followed by a blister to the entire surface of the abdomen: to have one pint of porter.

9 P.M.—Pulse 134: tongue parched: blister has risen well: pain of abdomen still very distressing: has taken 5 powders: bowels 3 times freed: gums not the least affected: slept none: drank 4 quarts.

Continue calomel.

22d, 9 A.M.—Pulse 134: tongue dry, furred: abdomen much softer, pain on pressure less: took 6 powders: has had frequent vomiting since 3 this

morning: bowels once opened: slept 3 hours: drank 6 quarts.

Continue powders every 3d hour.

8 P.M.—Pulse 138, exceedingly small and feeble: abdomen full and tense: constant vomiting: has taken 3 powders, the last had a quarter grain of opium added: bowels 3 times largely acted on.

To have *half* a grain of powdered opium added to each powder: to have chicken broth and the effervescing mixture.

23d, 10 A.M.—Pulse imperceptible: extremities cold and clammy: strength rapidly failing: took 5 powders: bowels frequently opened: abdomen full: says she has no pain on pressure: drank 1 quart of chicken broth: has had no vomiting since 2 o'clock.

To have wine whey.

She expired at 11 A.M, after an illness of 69 hours, during which time she took 488 grains of calomel, without the least specific effect.

An examination of the body could not be obtained.

No. 94.—Aged 19, was delivered February 19th, at 2 A.M. of her first child, after 5 hours' labour. She had been suffering from a severe cold before admission, her tongue was white and loaded. Her bowels were remarkably well opened, and she remained easy till 11 o'clock the same evening, when she began to complain violently of pain in the abdomen, with intolerance of pressure. She was

ordered to be very well stuped, and as she had taken a purgative draught which had not operated, a turpentine injection was administered, which freed the bowels well and afforded much relief.

20th, 9 A.M.—Pulse 108: slept well and continued easy till 8 this morning, when the pain returned: abdomen soft, full, and painful on pressure: uterus large and hard: countenance anxious: is much agitated.

Four dozen leeches to the abdomen: warm bath: calomel and hippo powders every 2d hour.

8 P.M.—Pulse 108: tongue moist and slimy: abdomen softer, pain on pressure less: took 5 powders: bowels have not acted since morning: feels easy while remaining undisturbed.

Continue powders: occasional stuping.

21st, 9 A.M.—Pulse 130: abdomen soft: complains little of pain on pressure: uterus large and hard: took 8 powders: vomited once: bowels but once opened since the bath: slept well: gums evidently affected.

Warm bath immediately: continue powders after 12 o'clock.

8 P.M.—Pulse 132: uterus much enlarged and hard: pain on pressure very acute: abdomen soft: bowels twice opened: took 3 powders: an eruption has appeared over the arms and chest, in distinct red spots, considerably elevated: slept none: drank 1 pint.

Continue powders: abdomen to be covered with a blister.

22d, 9 A.M.—Pulse 132, more feeble: blister has risen well: complains of much distress in her breathing, with cough: eruption more extensive, now covering the legs and thighs: dozed frequently: stomach constantly rejects fluids, and bowels act repeatedly: gums considerably more affected.

Omit powders: to have 4 grains of calomel every 2d hour.

8 P.M.—Pulse so feeble cannot be counted distinctly: abdomen full but not tense: pain on pressure considerable: breathing extremely laboured and quick: took 6 powders: frequent vomiting: eruption continues to spread: was ordered some porter, which her stomach rejects.

To have chicken broth and wine whey at pleasure: repeat powders.

23d, 9 A.M.—She expired at 5 o'clock this morning.

On dissection a considerable quantity of straw-coloured serum was found in the abdominal cavity mixed with lymph: the peritoneum, both parietal and visceral, was very vascular: uterus healthy: there was not any effusion into the thorax.

No. 95.—Aged 36, was delivered February 19th, at 6 A.M. of her 8th child, after a labour of one hour. She was seized in the evening of the same day at 11½ o'clock, with slight pain in the abdomen, and tenderness on pressure: had taken 4 grains of

calomel, with 8 of jalap some hours after delivery, followed by black bottle, which not having operated freely, a turpentine injection was now ordered, with frequent stuping. The pain increased rapidly, and in half an hour was extremely acute, though the injection had acted most satisfactorily.

Four dozen leeches to be applied: diligent stupes.

20th, 6 A.M.—Pulse 120 feeble: was much relieved by the leeches and stupes: slept tolerably till now, when she was again seized with acute pain in the abdomen, and great tenderness.

To have six drachms of castor oil, with as much oil of turpentine: to be well stuped: when bowels act, to take 5 grains of calomel and a quarter grain of opium every hour: to have a warm bath at 8 o'clock, in which she is to remain as long as agreeable: the whole abdomen to be then blistered.

9 A.M.—Pulse 120, so feeble can scarcely be felt, cannot be distinguished in the left wrist: abdomen tolerably soft but full: pain very acute: was very weak after the bath, but felt somewhat relieved: bowels not free: countenance sunk.

A turpentine injection immediately: continue pills every 2d hour.

9 P.M.—Pulse 130, with difficulty distinguishable: blister has risen well: bowels not opened since 11 A.M.: took 5 pills: slept none: drank 1 quart.

A turpentine injection: continue pills: wine negus.

21st, 10 A.M.—Pulse imperceptible; abdomen soft, little painful on pressure; bowels acted 6 times; drank 4 quarts; constant vomiting; slept none: strength failing.

Wine whey and chicken broth at pleasure.

She died a few minutes after 11 o'clock, after an illness of 36 hours.

On dissection not more than 2 or 3 ounces of bloody serum were found in the abdominal cavity, without any lymph: the serous membrane exhibited little if any vascularity; chest healthy; no other morbid appearances. She was a poor starved creature.

No. 96.—Aged 18, was delivered February 11th, at 11 P.M., of her 1st child, after 6 hours' labour. She was brought to Hospital, a distance of 20 miles on a common car, and had been in a bad state of health during her pregnancy. She remained quite well after delivery till 3 A.M. on the 14th, when she was suddenly seized with pain in the abdomen, which was exquisitely sensible to pressure: pulse 132: her bowels had been well acted on the preceding day by castor oil.

To have a draught of castor oil with oil of turpentine: four dozen leeches to the abdomen, followed by a warm bath.

9 A.M.—Pulse 132; tongue moist and clean; rejected the draught; abdomen soft; pain on pressure not relieved; stomach now quiet.

Draught to be repeated; to be frequently stuped; to have 5 grains of calomel and a quarter grain of opium every 2d hour.

12 o'clock.—Pulse 132; abdomen quite soft, pain most acute; bowels twice scantily opened; rejected part of the draught; countenance pale and sunk.

Three dozen leeches to abdomen; warm bath; continue pills; injections with turpentine to be thrown up frequently until the bowels act freely.

9 P.M.—Pulse very quick and indistinct; tongue moist and clean; abdomen soft; pain on pressure somewhat relieved, but still very severe; the abdomen was covered with a blister at 4 P.M.; bowels frequently opened within the last hour; has taken 9 pills; drank 4 quarts; vomited twice within the last hour.

Continue pills.

15th.—She died this morning at 5 o'clock, after an illness of 26 hours.

On dissection a considerable quantity of sero-purulent fluid was found in the abdominal cavity. The peritoneal coat of the intestines was less vascular than usual; the uterus, ovaries, &c., were quite healthy. In the cavity of the thorax numerous adhesions of long standing were observed, and a few spoonfuls of bloody serum, with much vascularity of the serous membrane.

No. 97.—Aged 22, was delivered on the 19th, at 4 P.M., of her 2d child, after 3 hours' labour.

21st, 9 P.M.—Pulse 134; tongue moist but loaded; complains of no distress; abdomen full but soft and free from uneasiness on pressure.

One scruple of calomel every 3d hour.

22d, 9 A.M.—Pulse 134; abdomen very hard and rather full; took 3 powders; bowels twice scantily opened. At 5 A.M. four dozen leeches were applied to the abdomen which was then very tender, followed by a warm bath with much relief. An oil draught with turpentine was at the same time given, which was rejected; the bowels have, however, been well acted upon since; slept tolerably.

Continue calomel.

8 P.M.—Pulse 134, rather feeble; tongue moist and clean; abdomen much softer, still painful on pressure; took 7 powders; bowels ten times opened; vomited once; has been very quiet the greater part of the day; drank 4 quarts.

Warm bath; continue calomel.

23d, 9 A.M.—Pulse 132, more feeble; abdomen full and rather tense; took 5 powders; bowels six times acted on; complains of her teeth and gums being sore; has no pain on pressure, but feels extremely weak; vomited 3 times; drank 3 quarts; slept 2 hours.

Two ounces of port wine every 3d hour; chicken broth at pleasure.

8 P.M.—Pulse almost imperceptible; abdomen tolerably soft and free from pain; breathing hurried;

strength rapidly sinking; took 8 ounces of wine and a pint of chicken broth; drank 3 quarts of whey; vomited frequently; bowels 3 times opened.

Continue wine and broth.

24th, 9 A.M.—She died at 5 this morning.

On dissection about one pint of straw-coloured fluid mixed with purulent matter and lymph, was found in the cavity of the abdomen; the intestinal peritoneum seemed as if injected with vermillion; the ovaries were enlarged and softened in structure, and the fallopian tubes contained some purulent matter; the uterus itself was healthy.

This patient was 56 hours ill, during which she took 300 grains of calomel without the gums being *visibly* affected.

No. 99.—Aged 21, was delivered on the 13th, at 3 A.M., of her 1st child, after a labour of 24 hours; both her eyes were bruised and black from fighting before admission.

14th.—Was suddenly seized with acute pain in the abdomen a few minutes before 9 this morning; at present her pulse is 114; tongue moist and clean; abdomen much distended; very painful on pressure.

To have six drachms of castor oil with as much oil of turpentine; four dozen leeches to the abdomen, followed by a warm bath; when her bowels have been acted on, to have the calomel and hippo powders every 2d hour.

8 P.M.—Pulse 126; abdomen soft; uterus large

and hard; pain very distressing on the least pressure; took 4 powders; bowels 4 times opened; slept 4 hours; drank 2 quarts.

Three dozen leeches to the abdomen; warm bath; abdomen to be covered with a blister when taken out of the bath; leech bites to be protected with thin muslin; continue powders.

15th, 9 A.M.—Pulse 130; tongue moist and clean; abdomen soft; pain on pressure considerably relieved; bowels frequently opened; took 6 powders; slept 5 hours; drank 3 pints; feels easier.

Omit powders; calomel and opium pills instead; blister to be dressed at 12 o'clock.

8 P.M.—Pulse 120; abdomen soft; feels no pain even on pressure, except from blister; took 5 pills; bowels 4 times freed; slept 6 hours; drank 3 quarts; feels easy.

Continue pills.

16th, 9 A.M.—Pulse 126; abdomen rather full but soft; does not complain of pain on pressure; bowels have not been opened but by the assistance of injections; took 6 pills; gums evidently affected; at 2 this morning she was seized with pain darting from the stomach towards the spine; two dozen leeches and stupes were then ordered, from which she experienced much relief; slept 2 hours; drank 3 quarts.

To have 3 drachms of castor oil, with as much

tincture of jalap, and an injection in an hour after; pills to be repeated when the bowels act; continue stupes; to have a warm bath, followed by a blister between the shoulders.

9 P.M.—Pulse 130; abdomen very full and tense; bowels repeatedly opened; stools involuntary; breathing difficult, with tendency to hiccough; complains of darting pains in every part of the chest; took 6 pills; gums more spongy; slept 1 hour; drank 2 quarts.

To have a blister applied to each side of thorax; pills to be continued, and abdomen stuped.

17th, 9 A.M.—Pulse 130; abdomen softer; no pain on pressure; breathes with much difficulty; complains of stitches in the chest; took 6 pills; had frequent retching since 5 o'clock; bowels repeatedly opened; slept none.

Pills to be given every hour; diligent stuping; blistered surface to be dressed with mercurial ointment.

9 P.M.—Pulse so feeble cannot be numbered; abdomen full, but not hard; no pain on pressure; took 8 pills; breathing difficult; strength sinking rapidly; slept frequently.

Continue pills and stupes.

18th, 9 A.M.—She died at 10 last night.

On dissection, extensive effusion of a seropurulent fluid was found in both the abdominal and thoracic

cavities, with a copious deposit of lymph. The intestines were very vascular and greatly distended with air; the uterus was healthy.

No. 100.—Aged 17, was delivered on the 15th, at 8 P.M. of her 1st child, after a labour of 8 hours. Her pulse continued quick; she was anxious and watchful and slept badly; her bowels were particularly attended to; her abdomen was quite soft, but rather full. She was diligently watched, and continued in the state mentioned till ½ past 2 P.M. on the 17th, with acute pain in the uterine region, impatient of the least pressure. The disease from this period ran a most obstinate course, and proved fatal at 6 A.M. on the 21st.

From the time of the attack till death, she took 268 grains of calomel, and 14 grains of opium. Mercurial inunction was diligently used; she had four dozen leeches applied to the abdomen, followed by a blister; had two warm baths with sedulous stuping. The mercury had no effect whatever on the mouth. She was an unmarried woman.

On dissection, a large quantity of thick seropurulent fluid was found in the cavity of the abdomen. A fluid similar in appearance, but not so thick nor in such quantity, was found in the thorax; the entire contents of both cavities and their parietes were coated with lymph and very vascular. A considerable quantity of calomel was found in the

stomach, the internal coat of which was extremely vascular.

No. 102.—Aged 22, was delivered March 31st, at 2 A.M., of her 1st child, after a labour of 6 hours. Her pulse from the time of delivery was hurried, and her tongue foul. The bowels were well acted upon, and she remained easy till the morning after delivery, when she complained of some pain in the head; pulse 130; eyes suffused.

Eighteen leeches were ordered to the temples, and a table-spoonful of the following mixture to be taken every half hour :—

℞ Aquæ Pulegii ℥ viii.
Tart. Emet. gr. iv.
Træ. Opii gtts. xx.
℥

April 1st, 10 P.M.—Pulse 120; tongue dryish; abdomen rather full, but free from pain; bowels 5 times opened; slept well; took the entire of the mixture; pain in temples nearly removed.

Repeat mixture in the proportion of 6 grains to 8 ounces; abdomen to be well stuped.

2d, 9 A.M.—Pulse 100; was seized this morning at 5 o'clock with considerable pain in the abdomen; slept well in the early part of the night, and the bowels acted freely; has been very well stuped, still pressure, particularly over the uterus, causes much distress.

Four dozen leeches to be immediately applied:

warm bath; omit tartar emetic mixture; to have *one scruple* of calomel every 3d hour.

5 P.M—Pulse 132; abdomen full; pain on pressure very acute; took 3 powders; bowels once partially opened; slept frequently since bath; drank 1 pint.

Three dozen leeches to be applied; abdomen to be then well stuped, and afterwards covered with a blister: powders every 2d hour.

3d, 9 A.M—Pulse 114; tongue moist, tolerably clean; abdomen full but not tense; pain on pressure considerably less; took 7 powders; bowels 4 times opened; gums seem slightly affected; slept well; drank 3 quarts; blister has not risen well on lower part of abdomen in consequence of a collection of blood from the leech bites.

Continue calomel; blister to lower part of abdomen.

8 P.M—Pulse 126; abdomen full but soft; extreme pain on pressure; took 5 powders; bowels 3 times opened; slept none; drank 3 quarts; countenance anxious and distressed.

Continue calomel.

4th, 9 A.M.—Pulse 132, feeble; abdomen full but not very tense, most acutely painful on pressure; took 6 powders; bowels once opened; drank 1 pint; slept none; breathing hurried and difficult; countenance anxious; gums considerably affected.

Continue powders with half a grain of opium in each.

8 P.M. Pulse imperceptible; extremities cold and clammy; strength rapidly failing; took 5 powders; bowels twice opened; slept none; drank a pint of porter and a cup of chicken broth.

Porter and broth to be given at pleasure.

She died in two hours after last visit; she had taken 520 grains of calomel during her illness.

On dissection, the peritoneum was every where found extremely vascular, with a considerable quantity of fluid effused, and an extensive deposition of lymph; the ovaries were much enlarged and of a solid consistence; there were no other morbid appearances.

No. 103.—*Aged 25, was delivered March 18th at 1 A.M. of her 1st child after 5 hours' labour. She was an unmarried woman from the country, and was forced into hospital knowing the fever was at the time prevalent. From the period of delivery she seemed extremely anxious and dejected; slept little, and her pulse was seldom less than 120. There was no local distress, still the abdomen was full and unnatural to the touch. The most scrupulous attention was paid to her bowels, and the medicines acted satisfactorily. She con-

* The several Nos. attached to the fatal cases of puerperal fever, have reference to the general table on women dying in the Hospital.

The Nos. attached to the cases detailed in the section on women dying have likewise reference to the same table.

tinued in this state till the evening of the 20th, when pressure evidently caused much distress, still she would not acknowledge it; her countenance was pale and anxious; pulse 126.

Three dozen leeches were ordered to the abdomen, with diligent stuping, and *a scruple* of calomel every 3d hour.

From this time the distress became more urgent, and she died at 7 P.M. on the 23d.

From 10 P.M. on the 20th, the period at which the least pain of the abdomen could be discovered, she had taken 330 grains of calomel and 10 grains of opium, besides leeching, warm baths, stuping and blistering. For 48 hours previous to death she was extremly feeble, and was given wine, porter, and chicken broth in considerable quantity. The mercury had no effect whatever on the mouth.

On dissection, a large quantity of seropurulent fluid was found in the abdominal cavity; the intestines were vascular and in many places adherent; lymph was also largely deposited; the uterus was vascular externally, but when cut into appeared healthy; very slight effusion had taken place into the chest, of a fluid exhibiting the sanious character.*

* For seven additional cases see pages, 131, 78 and 182.

OBSERVATIONS ON STILL-BORN CHILDREN.

THE consideration of this subject, although one of vast extent and importance, has been it must be regretted much neglected by all the best writers on midwifery; nor do I know of any extensive record as to the probable cause of death under such circumstances. It is difficult to assign a reason why so *great* a proportion of still-born children are expelled in a *putrid* state. Where the labour is very protracted, the cause is obvious; but in the great majority of such instances this is not found to be the case, as the general table here given clearly shews; nor is the child born *putrid* in the greater number of tedious labours.* We have no doubt, from the most attentive observation, the cause of death of the child in utero, is in numerous instances owing to a venereal taint in the mother's constitution, from the husband in all probability having been imperfectly cured of this disease previous to marriage, yet the mother at the time may not have any marked symptom of syphilis. In the Hospital we have had repeated opportunities of witnessing

* In the brute species, the birth of their young in a *putrid* condition is, I believe, very rarely met with.

such cases, where no doubt could exist as to the mother being affected as above described, and in which the best effects resulted from putting both husband and wife through a slight mercurial course. When the child's death follows on this cause, it is expelled in *most* cases prematurely. We have known several instances of females having given birth to 4, 5, or 6 *putrid premature* children, who after the mercurial treatment had been adopted gave birth to living children.*

Of the 16,654 children born in the Hospital during my residence, 1121 were still-born; *five hundred and twenty-seven* of these were *putrid*, of which 257 were males; *two hundred and ninety-three* of the 1121 were expelled prematurely, viz. *one* at the 3d month; *eight* at the 4th; *thirty-three* at the 5th; *seventy* at the 6th; *one hundred and two* at the 7th; and *seventy-nine* at the 8th month. *Sixty-two* of the premature children were not putrid, and 146 of the 293 were males. *Six hundred and fourteen* of the 1121 still-born were males. *Four hundred and sixty* of the 1121 were first children, of which 252 were males.

I shall now with as much brevity as possible, state

* In the 4th vol. of the Transactions of the Association of Members of the King and Queen's College of Physicians of Dublin, some most interesting observations are recorded by an "experienced physician," on a species of premature labour to which pregnant women are not unfrequently liable.

In reply to the above, will be found in the same vol. several instructive cases by the late Dr. Beatty.

the circumstances connected with the delivery of such children as were still-born, owing to any peculiarity or difficulty in the labour. By reference to the Observations on Twins, Convulsions, Hæmorrhages, Rupture of the Uterus or Vagina, Prolapsus of the Funis, Retention of the Placenta, Presentations of the Breech, Feet, Shoulder or Arm, and Face, the history of 387 of the 1121 still-born will be found recorded with considerable minuteness; many of these however were born putrid.

In *one hundred and six* of the 1121 the labour was extremely severe, and in nearly *half* of these the patients had been *one, two, three days* ill, or even more, before admission into hospital, and most of them grossly mismanaged.

I shall give a short outline of such of these 106 cases as possessed most interest; to record the entire would occupy too much space, and as there was a *great similarity* in many of them, these will serve as examples of the whole.

No. 45—Was a strong muscular woman in labour of her 1st child. She was during her illness greatly excited, at times amounting almost to a slight convulsion. The os uteri was thick and not disposed to dilate freely, although uterine action was very strong. She was 17 hours in labour, during which she was bled twice to the amount of twenty ounces each time, apparently with considerable benefit.

No. 49.—Was 48 hours in labour of her 1st

child; having made no progress for the last 24 hours, the pulse becoming extremely quick with great general debility, the head was lessened and delivery effected with the crotchet. Considerable difficulty was experienced in getting the head through the pelvis in consequence of the hand having descended with it.

No. 56.—Was a diminutive woman much deformed, had been *twice* force-delivered in this hospital, as from the size of the pelvis it was impossible for a child to pass entire; even after the bones of the head were completely broken down, much difficulty was experienced in completing the delivery.

No. 99.—See particulars in Observations on Sloughing of Urethra, No. 1.

No. 126.—Was sent to hospital a distance of 12 miles, on Tuesday, September 25th, at 4 P.M. in labour of her 4th child, reported to have been ill from the Saturday previous. Her pulse was 120; her tongue loaded.

On examination a large tumour was found in the vagina, which was discovered to be the distended bladder pushed down before the head of the child; the catheter was passed and the urine removed, on which the tumour nearly disappeared. A purgative was then administered, followed by an injection; the uterus continued to act with considerable force at intervals from her admission till 10 P.M. yet the labour made no progress. It was then thought

expedient to deliver her in consequence of the high state of fever and debility she was labouring under. The head was lessened and delivery effected by the crotchet. She was dismissed well October the 6th.

No. 150.—Was 48 hours in labour in the Hospital, the waters having been discharged a considerable time before admission. For several hours after she came in the labour pains were neither severe nor frequent; however, the uterus afterwards acted well, and the head was forced so low as to cause the scalp nearly to protrude, when it remained stationary for 12 hours. The ear could be distinctly felt next the pubes, and there was sufficient room towards the sacrum to admit the introduction of the forceps with ease, yet in the transverse direction of the outlet there was evidently a diminution in size. It was thought, however, as the head was so low, by gentle assistance it might be got down; no force, notwithstanding, consistent with safety was found sufficient. As the patient's strength was rapidly sinking, and the abdomen had become tender on pressure, delivery was accomplished by lessening the head.

No. 173.—Was delivered with the crotchet after 64 hours' labour, having made no progress for the last 24; the child was evidently dead, and the pressure on the urethra was very severe. When brought away it was found large and putrid. This

woman died on the 13th day after delivery. On dissection a stricture of the intestine was found immediately above the sigmoid flexure of the colon; several adhesions were observed between the liver and colon, apparently of old standing. In both cavities of the thorax extensive effusion had taken place, with a considerable deposition of lymph; the lungs were firmly adherent. The heart was extremely large and gorged with blood, its parietes were thickened. The uterus was perfectly healthy and well contracted; the pelvis was considerably diminished in size, in consequence of a projection of the last lumbar vertebra.

No. 209.—Was admitted reported to have been *four days* in labour, and attended by a midwife; the uterus continued to act strongly, yet after waiting 11 hours the labour made no progress, and as there was no doubt the child was dead, the head was lessened. Many of the bones were removed before the delivery could be completed; the child was large and putrid.

No. 210.—A woman of a most fretful and anxious disposition was admitted, February 17, to be confined of her first child. On the night of the 18th she complained of pain and uneasiness, which she supposed was her labour, yet there was no dilatation of the os uteri; the next day she still complained of some uneasiness, but slept the entire of that night. On the morning of the 20th the pain and uneasiness

returned in a more urgent form, and she expressed herself as suffering the most acute distress, still there was no dilatation of the mouth of the womb; it was quite thin and lax, and the head was low in the pelvis; the waters had been dribbling away from the time she was admitted. The pain continued during the night; the following morning at 9 A.M. the os uteri was dilated to the size of half a crown, but the pains had not assumed a bearing down character. She had frequent pains during the day, and the succeeding night had intervals of ease, but slept little. On the 22d the pains still continued, yet the head made no progress, and the mouth of the womb was very little more dilated. From this time till the following morning, the 23d, the uterus continued to act imperfectly; the labour notwithstanding made very considerable progress, the os uteri being now tolerably well dilated, except towards the pubes, where it still covered the head of the child. The pelvis felt of sufficient size to allow the head to pass, and all that seemed wanting to effect this was that the pains should become expulsive. The bowels from the commencement had been attended to with much care, and the abdomen was quite free from pain on pressure. The pulse after this became hurried, breathing difficult, accompanied with great anxiety and considerable debility. It was now thought advisable to administer an opiate to procure rest, in the hope that the

uterus would act with more effect afterwards. Thirty-five drops of tincture of opium with three drachms of castor oil were given, followed by quiet rest till the evening. At 8 P.M. she was easy, had little or no labour pain and took some gruel. An hour afterwards she was seized with the greatest difficulty of breathing, amounting almost to suffocation, accompanied by considerable debility; the pulse was scarcely to be felt, and the extremities cold. On examination the head was found in the same situation as in the morning, and had it not been that the mouth of the womb still remained over it next the pubes, an attempt would have been made to deliver with the forceps. The head was immediately lessened, and almost every bone removed before it could be delivered; and even after it was brought down, much exertion was required to free the shoulders and body. The child was large, and the abdomen somewhat distended with air.

The mother seemed at this time almost lifeless, having lost the power of swallowing. The hand was introduced into the uterus, which was quite relaxed, the placenta was gently removed, and the patient expired immediately.

On dissection the uterus was found healthy, but badly contracted, containing a small quantity of coagulated blood; the intestines were in the highest state of congestion, and there was about a pint of fluid in the abdominal cavity, with portions of

coagulable lymph in different parts, seemingly the effects of inflammation previous to labour. On opening the chest, the lungs were observed to adhere so firmly as to require the knife in many places to separate them. Nothing was discovered to account for the suddenness of death.

No. 256.—Was 32 hours in labour previous to admission; her pulse was rapid and tongue foul. She was delivered some hours after she came in by lessening the head, which was greatly enlarged from hydrocephalus; there was some difficulty in completing the delivery, even after the bulk of the head had been as much as possible reduced.

No. 257.—Was admitted to be delivered of her first child, reported to have been *four days* in labour, and attended by several practitioners. She was much exhausted; pulse 120; tongue foul. The head was low down and firmly fixed in the pelvis; it was large and much ossified. Uterine action had entirely ceased; the urine had been repeatedly removed by the catheter, and she had taken large quantities of medicine without producing any effect on the bowels. The head was opened immediately, and the child delivered by the crotchet; during and after its expulsion, an enormous quantity of matter resembling fæces was discharged from the uterus.

The entire vagina and adjacent soft parts began to slough the following day; the stools and urine

were discharged involuntarily, and she died the 4th day after admission.

No. 303.—Was admitted, reported to have been *three days* in labour of her first child; the head was low and firmly fixed in the pelvis; the bladder greatly distended with urine, having been retained for 30 hours; pulse 140; tongue dry and white. The catheter was passed and three pints of urine removed. As the abdomen was free from pain, it was thought advisable to watch the effect of uterine action for some time. After waiting five hours, during which the pains were pretty brisk at intervals, still the head made no advance, it was lessened and brought away with the crotchet. There was considerable exertion required to get down the shoulders, the abdomen was much distended with air, the consequence of putrefaction. She died on the 4th day from delivery.

No. 425.—Was 58 hours in labour, for the last 24 of which the head made no progress, although the pains were strong during the greater part of that time. As the ear was within reach of the finger, the forceps were introduced, but no force consistent with safety was of the least service. The head was then lessened and delivery accomplished with the crotchet.

No. 441.—Was very much deformed and the pelvis defective; the face was turned towards the pubes; she was delivered with the crotchet.

No. 461.—Was 48 hours in labour of her first child; it was putrid when expelled, although alive at the commencement of labour, as indicated by the stethoscope.

No. 504.—Was brought to Hospital from the country reported to have been *five days* in labour; it was her first child; it was dead and the head firmly fixed in the pelvis. She was much exhausted; pulse 110; tongue parched. The head was immediately lessened, and delivery effected with the crotchet.

She sunk on the 9th day from admission.

No. 509.—Was 33 hours in labour of her 3d child without having made the least progress for the last 12. The bladder was forced down before the head. Her pulse became much hurried, and strength greatly exhausted, rendering immediate delivery necessary. The head was lessened and the child brought away by the crotchet. It was very large; all her former children were still-born.

No. 526.—Was reported to have been 24 hours in labour before admission. About 12 hours after she came in it was discovered that the face was turned towards the pubes, and pressing so strongly on the urethra the catheter could with difficulty be passed. The pains continued strong for 15 hours from this time, yet the head did not advance. It was deemed advisable to lessen it.

This patient had been in the Hospital 13 months

previously, and was then delivered with the *crotchet* of her 1st child, after a labour of three days. She was brought from the county Meath.

No. 555.—Was 60 hours in labour of her first child. The pelvis was defective, and there had been no advance for the last 12 hours; the child's death having been ascertained by the stethoscope some hours previous, the head was lessened and delivery thus completed.

No. 584.—Was 36 hours in labour of her first child, and as its death had been ascertained by the stethoscope some hours before, delivery was accomplished by lessening the head.

No. 608.—The labour pains were very tardy and feeble, producing much irritation without causing any dilatation of the mouth of the womb. In this state she remained for 30 hours; after which opiates were given three times at considerable intervals, each time with benefit, and at the expiration of 53 hours she was delivered naturally of a still-born child.

No. 619.—*Extreme* and *sudden* debility set in, rendering immediate delivery necessary. The head was lessened and the crotchet applied. This patient from the commencement of labour, complained of pain in the abdomen, much increased on pressure, which had now become extremely acute; the bowels were obstinately constipated, purgatives although frequently given, produced no effect.

Fifteen ounces of blood were taken from the arm during her labour, with marked benefit at the time, still it did not afford permanent relief, though the bowels acted afterwards.

The excessive distress of the abdomen was considerably diminished by delivery, yet it remained distended, hard and painful on pressure for five days. It was not until the system was brought under the influence of mercury, with the active employment of leeches, warm baths, and stupes, that it subsided.

No. 626.—The labour having made no progress for 18 hours, the head being firmly fixed in the pelvis, and the heart's action having some time ceased, the perforator was used, and delivery completed by the crotchet. It was a first child, the labour lasted 43 hours.

No. 639.—Was 48 hours in labour, it was her 6th child, all the former were born alive. The head for 12 hours previous to delivery made no progress, although the uterine action was at times so violent as to lead us to dread rupture. She complained of most acute pain in her right leg and thigh, and her pulse became hurried. The soft parts were well dilated, yet the ear could with difficulty be reached by the finger. The forceps were cautiously introduced, and considerable exertion was required to effect the delivery, the child being unusually large. It was still-born,

though the heart's action was audible a short time previous.

Immediately on the birth of the child, most profuse hæmorrhage set in, requiring the instant introduction of the hand for the placenta, the greater part of which was found in the vagina; on its removal the discharge ceased, and by careful binding with compress, and the use of cold applications, there was no return.

She was delivered on the 13th February; on the 15th, she complained of tenderness of the abdomen, which was removed by leeches and stuping. On the 16th, she suffered from uneasiness in her stomach, and on the morning of the 17th, her pulse sunk rapidly, and her extremities exhibited in the most marked manner the appearances of diffuse cellular inflammation, particularly the right fore arm. Her strength continued to fail, and she died the same evening, although stimulants and cordials were diligently employed.

On dissection, the abdominal viscera appeared healthy. There was a slight blush of redness on the anterior surface of the uterus. The muscles of the body were in a remarkable state of decomposition, particularly those of the right fore arm, where they appeared in a state of putrefaction. The blood was fluid in all parts of the body.

No. 665.—Was 35 hours in labour of her first child, for the last 24 of which, the head had not

made the least progress. Her strength being exhausted, and the child some hours dead, as ascertained by the stethoscope, delivery was effected by lessening the head.

She continued to recover favourably till the 4th day after delivery, when she was suddenly attacked with most acute pain in the abdomen, which resisted the most active treatment, and she died in 48 hours.

On dissection, a large quantity of a deep straw-coloured fluid was found in the abdominal cavity, and all the viscera were extremely vascular. The uterus was soft, but in other respects healthy; the vagina was in a sloughing state.

No. 667.—The labour lasted 30 hours; the head was firmly fixed in the pelvis, and had made no progress for 12 hours. As the heart's action had some time ceased, and the mother's pulse was 140, the head was lessened. Great exertion was necessary to effect delivery in consequence of the head being much ossified.

No. 673.—In 14 hours from the commencement of labour this patient became much exhausted, pulse 120, and abdomen very sensible to pressure. On examination, the head was found nearly pressing on the perinæum, and the pupil on duty stated that it had not made any progress for several hours, though the pains had been strong. There was a firm unyielding band of considerable

breadth situated at the posterior part of the vagina, which was evidently the cause of the delay. This had been in all probability the result of inflammation, subsequent to her being *force* delivered of the previous child. A blunt-pointed bistoury was cautiously introduced, and the edge of the band divided, which produced considerable relaxation. As the pelvis was very large, and both ears could be felt, the forceps were introduced, but on attempting to bring down the head, the band before mentioned interfered so much with its descent, that without danger of laceration of the perinæum it could not then be delivered. It was therefore determined to leave it for some time until the parts might become more relaxed, and after waiting four hours, the forceps were again introduced, when it was found the obstruction had given way, and delivery was effected without laceration or difficulty; the child was still-born.

No. 674.—This patient was 36 hours in labour, (1st child,) the head not having advanced for the last 12, the parts being well dilated and the ear within reach, delivery was accomplished with the forceps; the child was still-born.

No. 686.—See Observations on Hæmorrhages, No. 79.

No. 725.—This patient when admitted, was reported to have been 60 hours in labour; the os uteri was very little dilated, and the head high up

in the pelvis. The pains continued constant for 24 hours after she came in, yet the labour made little progress; the mouth of the womb was rigid, jagged, and had the feel of cartilage. The child being dead, as indicated by the stethoscope, the head was lessened, and left in that state for some hours, and afterwards cautiously brought down. Considerable force was necessary to complete the delivery, though the child was putrid.

No. 738.—See Observations on Hæmorrhages, No. 87.

No. 740.—Was brought to Hospital reported to have been a considerable time in labour; the pains continued for 30 hours with little intermission; the labour made but little progress, and the heart having ceased to act for some time, the head was lessened, and delivery completed by the crotchet.

No. 745.—Was admitted in a high state of fever; pulse 120; tongue loaded; teeth covered with sordes. The uterine action was occasionally strong after she came in, but the labour made no progress; the bones of the head were much overlapped and the scalp puffy. The urine was three times removed by the catheter, and on its last introduction a considerable quantity of bloody fluid came away. She became much exhausted, and 26 hours after admission was delivered by lessening the head.

She was delivered on the 12th of August, and lingered until September 3d, when she died.

On opening the abdomen the intestines presented a natural appearance; the uterus was of a natural size; there was found in the right ovary a considerable abscess; also a good deal of ulceration and sloughing of the labia and external parts.

No. 775.—This patient had been in labour many hours before admission; the pains continued strong for 14 hours afterwards, for the last seven of which there had not been any progress made. The pulse became hurried, and the abdomen tender on pressure; it was then found necessary to effect delivery by the perforator and crotchet. She had been *twice force*-delivered in this Hospital previously.

No. 808.—Was reported to have been in labour *two days* before admission; the head was high in the pelvis, and pressing strongly on the pubes. It remained in this situation for 24 hours after, during which time she suffered great distress, uterine action being almost constant. This was her 10th child; she had been *twice force*-delivered in this Hospital; dreading every moment rupture of the uterus, the head was lessened and brought down by the crotchet, as it had still remained so high as to be scarcely within reach of the finger.

No. 817.—Was 56 hours in labour of her 1st child, for the last 24 of which the head made no

progress. The waters were discharged early, the pains were very ineffectual, and the soft parts continued in such a state as to prohibt the use of the forceps. As the child had been now dead some time, as ascertained by the stethoscope, delivery was accomplished by lessening the head.

She died on the 8th day after delivery, from abdominal inflammation. On dissection a considerable quantity of fluid of a yellowish colour, was found in the cavity of the abdomen; the omentum was firmly adherent to the intestines, which were very vascular; there was also an extensive deposition of lymph. The substance of the uterus was very soft, and the ovaries much injured from the effects of inflammation.

No. 820.—Was 48 hours in labour, (1st child) for the last 36 of which there was little progress made, and the child having been some hours dead, as indicated by the stethoscope, she was delivered by the crotchet.

No. 873.—Was 48 hours in labour, (1st child,) at the end of which time she was delivered by the crotchet, the child having been some hours dead, and the labour not having made any progress for a considerable time.

She continued apparently to recover daily; she had no distress, with the exception of slight pain when pressed on, over the head of the colon, which was relieved by leeching with small and repeated

doses of calomel, so as slightly to affect the mouth. She was seized, however, on the 6th day from delivery, with violent pain all over the abdomen, which proved fatal in less than 48 hours.

On dissection the omentum was found thickened and strongly adherent to the intestines. The small intestines were very vascular, with lymph deposited on different parts of their surface. There was a portion of the colon about the size of a crown, corresponding to the place to which she referred the pain, in a state of sphacelus. There was a considerable quantity of fluid effused into the abdominal cavity, resembling pus. The uterus was healthy.

No. 940.—Was reported to have been *four days* in labour previous to admission; she had been visited by two physicians who bled her; the bladder was now greatly distended, and on the introduction of the catheter a large quantity of urine came away; the bowels had not been opened for several days. The fœtal heart's action, on the most minute examination, could not be discovered; as there was no very urgent symptom present, we determined to watch the effect produced by uterine action for some time. After waiting seven hours, and no progress being made, she was delivered by the crotchet.

No. 951.—This patient suffered much from spurious pains, the os uteri being quite undilated. She was ordered a grain and a half of opium to

procure rest for some time, in hope that uterine action might return with better effect. This succeeded, the pains returned and the mouth of the womb began to dilate. In some hours after, the pulse became almost imperceptible, and the os uteri remained but partially dilated. As immediate delivery was necessary it was effected by lessening the head. She was twice accurately examined with the stethoscope during the progress of labour, but the fœtal heart could not be detected.

No. 976.—The labour lasted in this case 48 hours, (1st child,) and although uterine action was strong for the last 16 hours, there was not any progress made. As the fœtal heart had ceased to act for some time, the brain was evacuated, in which state the head was left for six hours, and then brought down with the crotchet.

No. 1005.—Was admitted in labour of her 7th child; she had been delivered *artificially* in her previous labours, and had but one child born alive. She had been ill a considerable time before she was brought to Hospital, and in nine hours afterwards, there being no progress made, the pulse 132, her strength much exhausted, and the child dead, she was delivered by the crotchet.

No. 1032.—Was admitted in labour of her 11th child; uterine action very frequent and strong; the os uteri dilated to the size of a crown, and the fundus very much inclined to the right

side. In 24 hours after admission, (the head not having made any progress for the last eight,) the fœtal heart having ceased to act for some time, it was thought advisable to lessen the head and deliver with the crotchet.

This was the *fourth* time she had been delivered *artificially*. Fifteen months since she was delivered in this hospital with the crotchet.

No. 1038.—This patient was admitted in labour of her 1st child. Uterine action was feeble, and continued so for 72 hours after she came in. As the fœtal heart had ceased to act for some time, and the pulse became hurried, it was considered advisable to deliver her. The os uteri was not fully dilated, the head was high and resting on the pubes ; it was lessened and cautiously brought down with the crotchet.

Severe abdominal inflammation set in shortly after delivery, which resisted the most prompt and active treatment, and proved fatal on the 6th day.

On dissection, the intestines were found matted together, with an extensive deposition of lymph on their surface ; there was also some seropurulent fluid in the cavity of the abdomen. The uterus was coated externally with greenish lymph, and on its internal surface there was a coating somewhat similar in appearance. There was a very small opening in the lip of the uterus so as to admit the point of the finger, and a second similar one in the

vagina, about half an inch below the mouth of the womb.

The pelvis measured 3½ inches from pubes to sacrum, and 4½ transversely.

No. 1041.—Was reported to have been 48 hours in labour when admitted, (1st child.) The waters were discharged, the uterine action strong, and the head had passed through the upper strait of the pelvis. The fœtal heart's action was audible in the right iliac region. Twenty-four hours after she came in, the heart having ceased for some time to pulsate, and the head not having made any progress, it was lessened, and even after this was effected to as great an extent as practicable, it required two hours' diligent exertion to complete the delivery with the crotchet, in consequence of the pelvis, particularly at its inferior outlet, being defective in size.

No. 1053.—The uterine action in this case was feeble; during the first 36 hours the head gradually descended; it then became fixed between the ischia. The fœtal heart did not cease to beat for 63 hours from the commencement of labour, for the last 27 of which there was no progress made. The head was lessened as soon as the child's death was ascertained, and delivery accomplished with the crotchet; the head was much compressed.

For 24 hours before delivery, the mother's pulse was 132; she had been delivered with *instruments*

in Manchester, five years since. She left hospital well on the 18th day.

No. 1058.—The labour lasted 50 hours; (1st child,) the os uteri was very rigid and the pains weak. Twelve hours previous to the birth of the child the heart had ceased to act; as there was no urgent symptom, it was left to the natural efforts; when expelled, there were evident appearances of commencing putrescency.

No. 1087.—See Observations on Hæmorrhages, No. 125.

No. 1091.—Was admitted August 23d, in labour of her 1st child, and was not delivered until the 25th, being a period of 56 hours. Uterine action from the commencement until within six hours of the expulsion of the child, was *extremely feeble*, with long intervals. The head remained high in the pelvis, and although the ear could not be reached, it was evident the head had sufficient room to pass; to effect which, uterine action was alone wanting. As soon as the pains began to be brisk the labour proceeded without difficulty. The fœtal heart was quite audible until eight hours previous to the birth.

In three hours after the hand was passed to remove the placenta; it was found separated, and without the slightest effort the uterus contracted and expelled both. The perinæum

had suffered considerably in the passage of the head.

This patient never seemed to rally after delivery; the pulse continued quick; there was considerable tenderness on pressure over the uterus, with a foul discharge from the vagina. She was treated with small quantities of calomel until the mouth became affected, which produced debility, relieved by mild aperients. She was put on nutritious diet when the abdominal distress had subsided, which occurred when the mercury affected the system. On the 7th and 8th days, she had distinct rigors followed by perspirations, after which her strength became greatly reduced. The vaginal discharges continued foul, notwithstanding the most rigid attention to cleanliness and the use of stimulating injections. She gradually sunk and died on the 11th day, having for two days previous suffered from frequent hiccough. On dissection, the only morbid appearances found, were in the bladder and vagina. In the bladder the mucous surface was covered with yellow lymph, and it contained a quantity of muco-purulent fluid. In the vagina opposite the right ischium, a portion appeared to have been destroyed by slough, but its texture did not in other parts seem materially injured, although of a darker colour than natural.

This was a very singular case, as there was

nothing apparently in the labour in any way calculated to induce such an unfavourable termination.

She was a feeble emaciated woman and seemed to have suffered from hardship.

No. 1095.—See Observations on Hæmorrhages, No. 126.

Such is an outline of 49 of the 106 cases of tedious or difficult labours, where the children were still-born, out of 16,654 births.

The Nos. thus * marked in the General Table, indicate the cases not recorded here, similar in most respects to those detailed.

Twenty-four of the 1121 still-born children were delivered in the street, where the patients were taken suddenly ill; their Nos. in the General Table are as follow:—156, 202, 212, 261, 276, 289, 311, 371, 386, 414, 450, 453, 499, 569, 592, 598, 701, 757, 911, 928, 963, 1021, 1049, 1096. *Seventeen* of the 1121 were born in a diseased or imperfect state. *Thirty-five* of the 1121 were still-born under a variety of circumstances, such as the mother labouring under fever; the children being unusually large; the delivery of the child being delayed for a considerable time after the expulsion of the head, and in several cases no cause could be assigned.

The following is a short account of the seventeen children born in a diseased or imperfect state.

Nos. 85, 217, 344, 363, (527, 7th month,) 611, 982, were acephalous.

No. 121.—The head was very large, the body and extremities much deformed.

Nos. 383, 589, 622.—The head in these was enlarged and deformed from hydrocephalus.

No. 513.—This child had spina bifida, combined with hydrocephalus.

Nos. 628, 780.—These children had spina bifida.

No. 888.—Had congenital umbilical hernia; the sac contained the liver and almost all the intestines.

No. 908.—This child had spina bifida, also hydrocephalus, with distortion of the feet.

No. 1024.—In this child from congenital hernia of the diaphragm, the small intestines were entirely lodged in the left side of the thorax; the lungs at that side not being larger than a shilling in size. The heart was pushed to the right side, was very large, and compressed the lung much.

Of the 16,654 births occurring in the Hospital, in *seventy-nine* delivery was effected by lessening the head, on account of extreme difficulty in the labour, or where the child was dead and interference necessary for the patient's safety. *Forty-two* of the 79 are here recorded, and *three* under the head of Tedious and Difficult Labours. The *thirty-four* cases *not* detailed, (to avoid prolixity) were in most instances, as *nearly as possible similar*.

The following are the numbers of these cases in the general table; where the duration of the labour is not stated, such patients were *two*, *three*, or *four days* in labour before admission: Nos. 32, 42, 199, 211, 218, 262, 287, 298, 316, 341, 362, 367, 500, 519, 585, 650, 714, 721, 726, 736, 755, 856, 859, 910, 917, 930, 941, 967, 979, 1007, 1051, 1061, 1115.

In this report of the number of children delivered by the crotchet, it is necessary to bear in mind, that the *proportion* of such deliveries is greatly increased in consequence of the *same patient* returning to Hospital *two*, *three*, or even *more* times, in whom from deformity or other circumstances, such mode of delivery was rendered *unavoidable;* thus, for example, Nos. 34, 367, 526, and 1053, were delivered by the crotchet of their *second* children, having been similarly delivered of their 1st. No. 686 was *twice* force-delivered. Nos. 56 and 978 were delivered by the crotchet of their *third*, having been delivered by the same means of their 1st and 2d. Nos. 99, 287, 585, 775, and 808, were each *three* times delivered by the crotchet. Nos. 941 and 1032 were each *four* times force-delivered. It is a remarkable fact, that of the examples here given of repeated delivery by the crotchet, but *one* of the women died; thus satisfactorily proving, that where *death* succeeds this operation, the fatal result is not dependant on the mode of delivery,

but upon the circumstances demanding such interference.

Other instances occurred where delivery was effected by lessening the head, viz. in Rupture of the Uterus, Prolapsus of the Funis where the child was dead, and Convulsions; these cases are recorded under the several heads stated. In my opinion, the operation under the latter circumstances is altogether different; as in such, the head is lessened in order to effect delivery with the least possible risk to the mother, without trusting longer to nature's efforts, owing to *immediate* and *extreme* danger to the patient, or to prevent her suffering *unnecessarily* when the child is dead; whereas in the former case, we are from *necessity* compelled to adopt this mode of delivery, in consequence in almost all instances of disproportion between the child's head and mother's pelvis, and where after the most patient trial, the impracticability of delivery being safely effected by any other means is most clearly proved to us.

Fifteen of the 79 women delivered by the crotchet died; twelve of these cases are recorded in this section, viz. Nos. 173, 210, 257, 303, 504, 665, 686, 745, 817, 873, 1038, 1095. *Seven* of the 12 died from the following causes:— No. 173, of Stricture of the Intestine, with effusion into the thorax; No. 210, from abdominal inflammation *previous* to labour; Nos. 257, 303, 504

from the effects of labour *previous* to admission; No. 665 of Puerperal Fever, which was at the time prevalent in the Hospital; No. 745 was admitted labouring under typhus fever. The *five* remaining cases died from the effects of inflammation, and hæmorrhage, or injury produced by pressure. *Two* of the five suffered from hæmorrhage; one previous to the delivery of the placenta, and the other subsequent to its expulsion; in both it was necessary to *pass the hand into the uterus.* One of these women had been *force-delivered* with a former child, and all her children were still-born. These circumstances added considerably to the bad effects arising from the difficulty experienced in the present labour, and must have contributed much to the fatal termination.

See *three tables* at the conclusion of the following general table, shewing the number of hours each patient was in labour, the age of the patients, and whether it was a first or subsequent pregnancy.

In the column indicating the sex of the child in the succeeding table, P represents putrid.

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
1	B p	5	½	23	..	..
2	B p	8	48	31	..	*
3	G p	1	6	27	..	..
4	G	5	1	30	6	..
5	B p	4	9	22	..	V
6	B p	7	48	30	..	V
7	G p	1	4	24	..	..
8	G	6	10	30	..	V
9	B p	2	2	26	..	..
10	G	1	4	23	..	V
11	B	1	1	22	..	..
12	G	1	4	22	..	..
13	G	5	4	28	..	V
14	B p	1	8	34	..	..
15	G	1	3	20	..	..
16	G p	1	70	22	..	*
17	G	4	½	30	..	..
18	B	1	½	33	..	V
19	G	2	2	28	..	V
20	B p	1	5	20	..	..
21	B p	6	3	28	6	V
22	G	2	1	28	4	..
23	B	5	1	30	..	..
24	B	1	8	28	..	..
25	G	10	2	34	6	..
26	B	1	3	22	..	V
27	G	3	36	27	..	*
28	G	3	5	32	6	V
29	B p	1	2	24	..	..
30	G	8	4	40	..	..
31	G p	1	3	24	..	..
32	B	1	54	25	..	*
33	B	3	2	35	..	..
34	G	2	9	28	..	V
35	G	5	1	28	..	..
36	B p	1	3	29	..	..
37	B	7	..	23	..	V
38	B p	1	24	22	..	..
39	B p	3	5	28	..	V
40	B	6	6	28	..	..
41	B p	2	4	24	..	..
42	G	1	36	23	..	*
43	G p	1	1	21	..	..
44	G p	1	24	26	..	..
45	B	1	17	22	..	V
46	B	3	1	35	..	V
47	G	1	3	18	..	..
48	G p	2	3	27	..	..
49	G	1	48	25	..	*
50	B	1	18	25	..	..
51	B	16	..	35	..	V
52	G	2	12	27	..	V
53	B p	2	2	24	..	..
54	B p	2	4	25	..	..
55	B p	1	6	28	..	..
56	G	3	16	30	..	V
57	B p	7	3	34	..	..
58	G p	2	..	20	7	..
59	G p	2	5	26	..	..
60	B p	7	2	26	6	..
61	G	9	..	40	..	V
62	G p	1	10	21	..	..
63	G	3	3	29	..	..
64	B	1	3	22	..	..
65	G	2	2	33	..	..
66	G p	1	1	22	..	V
67	B p	10	6	34	..	..
68	B	1	12	18	..	..
69	G	1	6	24	..	..
70	G p	1	24	19	..	..
71	B	3	..	25	4	..
72	B	2	..	21	5	..
73	G p	1	1	24	..	V
74	B p	9	..	35	..	V
75	B p	3	4	20	..	..
76	B p	3	5	27	..	..
77	G	2	24	29	..	V
78	B p	11	5	34	..	V
79	G p	2	3	25	..	V
80	B	2	3	30	8	..
81	G p	1	8	28	7	V
82	B p	1	8	30	..	..
83	G p	1	3	23	..	..
84	B p	1	7	23	..	..
85	G	5	1	28	..	V
86	B p	11	1	3[illegible]	6	..
87	G	4	..	30	..	V
88	B p	5	1	26	..	..
89	G	2	1	27	..	V
90	G p	4	2	28	..	..
91	B	1	48	24	..	*
92	B	3	..	24	..	V
93	B p	1	5	30	..	..
94	G p	2	2	22	..	..
95	B p	5	2	30	6	..
96	G p	2	4	24	..	..
97	B	3	18	30	..	..
98	B	3	8	23	..	V
99	B	12	8	37	..	V
100	B p	3	5	20	..	V
101	B p	4	2	27	7	..
102	B	2	8	22	6	..
103	B p	3	..	26	5	V
104	G	1	..	24	..	..
105	G	4	3	28	..	..
106	B	2	3	30	..	..
107	B	1	2	25	6	V
108	B	1	7	23	..	..
109	G	1	..	26	..	V
110	B p	4	1	26	7	..
111	G p	8	..	36	..	..
112	B	2	4	27	..	V
113	G p	2	2	26	7	V
114	G	1	4	23	..	..
115	G	12	12	34	..	..
116	B	2	3	32	..	..
117	G p	4	3	24	..	..
118	G p	4	3	22	..	..
119	B p	2	3	21	..	..
120	G	3	3	26	..	..
121	B	2	4	26	..	V
122	B p	3	10	35	..	V
123	B	3	..	34	..	V

No. of Case:	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
124	B	5	26	30	..	V
125	B p	1	..	27	7	V
126	G	4	..	34	..	V
127	B p	2	2	22	..	..
128	G p	2	1	22	..	V
129	G	6	2	30	..	..
130	B p	1	1	23	..	..
131	B p	1	3	21	..	..
132	G	6	..	35	..	V
133	B	2	8	30	..	..
134	B	3	1	29	..	..
135	B p	1	1	19	7	..
136	B	7	4	28	..	V
137	G	7	2	30	..	..
138	G	4	..	32	..	V
139	B	9	3	35	..	..
140	B p	9	2	36	..	V
141	B p	2	1	28	6	..
142	B	8	3	40	..	V
143	G p	1	6	20	6	..
144	G p	7	2	30	..	V
145	G p	3	5	22	7	V
146	G p	9	..	32	7	V
147	B	3	48	28	..	..
148	B p	1	3	22	7	..
149	G	1	1	21	8	V
150	G	3	48	30	..	V
151	B	4	3	26	..	V
152	B	3	2	22	..	..
153	G	1	36	30	..	V
154	G	1	7	23	..	..
155	B	4	5	23	..	..
156	B p	5	..	32	..	V
157	B	2	8	21	..	..
158	B	9	13	35	..	V
159	G p	2	1	23	8	V
160	G	1	24	22	..	..
161	B	4	5	40	..	..
162	B	1	10	28	..	..
163	G	1	5	21	..	..
164	B	2	24	28	..	V
165	B	6	6	30	..	V
166	G	1	4	18	..	..
167	B	1	24	27	..	..
168	G p	1	54	21	..	*
169	B	1	1	22	..	V
170	G	1	46	30	..	*
171	G p	2	3	23	..	..
172	B	1	29	22	..	V
173	B p	1	64	28	..	V
174	G p	2	1	22	7	..
175	G p	1	..	..	6	..
176	G	1	3	23	..	..
177	B	3	2	30	7	..
178	B p	2	4	19	7	V
179	B p	1	4	26	..	..
180	B p	1	3	24	..	..
181	B p	1	60	37	..	*
182	B p	7	3	29	6	..
183	B p	4	1	26	..	..
184	G p	3	3	44	..	..
185	B p	3	3	20	..	.
186	B	3	5	30	..	..
187	B p	6	3	28	8	..
188	G p	4	3	30	..	..
189	G p	1	1	19	5	..
190	G	7	3	30	..	..
191	B p	2	2	25	6	V
192	B	3	1	25	..	..
193	G	4	7	34	..	..
194	B p	1	1	23	6	..
195	G p	2	5	25	6	..
196	B p	3	6	21	8	..
197	B p	1	2	28	7	..
198	G p	4	5	27	7	V
199	G p	1	66	30	..	*
200	G p	1	6	19	..	..
201	B p	5	1	30	8	..
202	G p	3	..	24	..	V
203	B	7	1	30	..	V
204	B	2	24	25	..	*
205	G	1	..	20	6	..
206	G	5	7	29	..	..
207	B p	1	48	21	..	*
208	B p	1	1	19	7	..
209	G p	1	11	30	..	V
210	B p	1	72	35	..	V
211	B	1	30	22	..	*
212	B p	2	..	20	4	V
213	B	1	10	19	..	V
214	G	5	24	30	..	V
215	B	5	2	32	7	V
216	G	1	6	25	8	..
217	G	2	3	23	..	V
218	B p	1	53	31	..	*
219	G p	2	3	23	8	..
220	G	2	8	26	4	V
221	B p	7	5	32	..	..
222	B	1	16	20	..	V
223	G p	11	1	38	8	..
224	G p	2	1	25	7	V
225	B p	1	2	20	..	V
226	B p	3	..	23	6	..
227	B p	1	1	27	..	..
228	G p	1	21	20	..	V
229	B	5	3	26	..	..
230	G p	1	2	19	7	..
231	B p	4	2	27	8	..
232	G p	2	2	24	..	..
233	B p	8	¼	30	8	..
234	G	2	12	27	..	V
235	B	6	3	30	..	..
236	B	1	8	30	..	..
237	G	6	2	37	..	V
238	G p	6	2	28	8	..
239	G	1	24	30	..	..
240	B p	9	..	37	..	*
241	B	1	24	20	..	V
242	B p	1	5	23	..	V
243	G p	1	2	19	..	..
244	B	7	5	40	..	..
245	G	8	2	30	..	V
246	B	4	5	29	..	V

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
247	G	1	8	25	..	..
248	G p	2	2	22	6	..
249	B	1	6	30	..	..
250	B	3	4	29	..	V
251	B	7	1	30	..	V
252	G p	1	2	18	6	..
253	G p	1	½	24	7	V
254	B p	2	6	24	..	..
255	G	2	2	37	..	V
256	B	3	32	22	..	V
257	B p	1	..	28	..	*
258	B	6	8	34	..	V
259	G p	3	3	30	..	..
260	B p	2	1	26	..	..
261	G p	1	..	26	6	V
262	B	3	..	27	..	*
263	B	1	8	28	..	V
264	B p	2	21	24	..	..
265	B	1	2	21	3	..
266	B	1	48	25	..	..
267	B	5	2	26	..	..
268	G p	9	1	27	..	V
269	B p	4	2	30	..	..
270	G p	1	4	21	..	..
271	G p	1	8	21	..	..
272	B p	2	1	25	..	..
273	B	4	2	36	..	..
274	B p	6	3	28	..	..
275	G p	6	4	36	..	..
276	B p	3	..	24	6	V
277	G p	1	½	20	6	..
278	G p	1	..	23	4	..
279	B	3	4	20	6	..
280	B p	1	7	21	7	..
281	B	1	70	20	..	V
282	B	1	36	25	..	V
283	B	1	6	21	..	..
284	G	1	4	16	..	V
285	B	1	2	28	..	V
286	G	14	1	40	..	..
287	B	3	15	30	..	*
288	G	4	5	29	..	V
289	G	10	..	32	..	V
290	G p	1	1	20	7	V
291	G p	1	4	20	..	..
292	B p	1	10	25	..	V
293	B	2	30	24	..	..
294	G p	2	1	22	4	V
295	G p	1	4	20	5	..
296	G	1	12	22	..	V
297	B	1	18	34	..	..
298	G	1	50	25	..	*
299	B p	1	1	21	8	..
300	B p	1	4	25	..	..
301	B p	1	4	24	6	..
302	G p	1	10	23	..	..
303	B p	1	..	24	..	V
304	G p	4	12	22	..	..
305	G	1	6	27	..	..
306	B p	5	3	22	..	..
307	G p	2	1	20	..	..
308	B p	1	4	24	..	..
309	G p	8	3	28	..	..
310	B p	2	4	19	..	..
311	G p	3	..	26	5	V
312	B	1	6	30	..	..
313	B	2	24	28	..	..
314	G	1	4	19	..	..
315	B p	3	12	27	..	..
316	B	7	50	34	..	*
317	B	2	6	34	..	..
318	B	9	6	42	..	V
319	B	1	14	28	..	..
320	G	10	3	37	..	V
321	G p	2	1	23	8	V
322	B p	2	2	26	..	..
323	G p	5	2	32	..	..
324	G	3	6	22	7	..
325	G	6	7	30	..	V
326	G p	1	5	21	5	..
327	B p	5	7	38	7	V
328	B p	3	2	24	7	..
329	G p	3	2	22	7	..
330	B p	1	3	27	7	..
331	G	7	½	28	..	..
332	G p	1	..	31	..	*
333	G p	1	4	28	..	..
334	G p	2	3	30	..	..
335	B	2	24	24	..	..
336	G p	2	18	25	..	..
337	B	2	3	30	..	V
338	G	3	2	36	..	..
339	G p	1	70	36	..	*
340	B	2	2	24	..	..
341	B	2	57	28	..	*
342	G p	2	1	21	6	..
343	B	4	3	35	..	V
344	B	2	7	35	..	V
345	B	1	..	18	..	V
346	G p	4	5	30	7	V
347	G p	2	2	20	7	V
348	B p	1	1	20	..	..
349	B	5	3	30	..	..
350	B	9	2	35	..	V
351	G p	1	1	23	8	..
352	G	1	3	30	..	V
353	B p	1	3	25	..	..
354	G p	3	6	23	6	V
355	G p	5	2	30	..	..
356	B	2	12	28	..	V
357	G p	4	½	30	..	..
358	B p	1	2	18	..	..
359	G p	1	1	26	..	..
360	B	4	3	35	..	..
361	B	3	10	22	..	..
362	G p	1	48	24	..	*
363	B	2	7	25	..	V
364	G p	1	1	22	7	V
365	B	2	10	24	..	..
366	G p	5	5	26	..	V
367	B	2	40	22	..	*
368	G p	2	¼	28	..	..
369	G p	2	¼	20	..	..
370	G	1	24	22	..	..
371	B p	4	..	30	4	V
372	B	2	8	24	..	..

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
373	B	3	7	23	..	V
374	G p	1	6	22	..	..
375	G p	9	5	35	..	..
376	B p	2	2	30	..	..
377	G	3	8	28	..	..
378	G	1	47	30	..	..
379	B p	3	4	26	..	..
380	B p	10	7	35	7	V
381	B p	1	7	25	8	..
382	G	5	21	32	..	*
383	B p	3	1	28	..	V
384	B p	1	2	24	..	..
385	G	2	1	30	..	..
386	G p	2	..	20	5	V
387	B	1	33	28	..	..
388	G	7	¼	35	8	..
389	B	1	24	27	..	..
390	B p	1	¼	18	7	..
391	B	1	24	23	..	..
392	Gp	4	3	26	7	..
393	B	1	70	22	..	*
394	G p	1	8	26	..	..
395	G	1	40	23	..	..
396	G	1	38	30	..	*
397	B p	1	½	24	5	..
398	G	1	8	17	..	..
399	G	9	5	43	..	..
400	G p	1	6	22	..	..
401	G p	1	¼	26	7	..
402	G p	1	7	20	6	..
403	B	9	..	36	..	V
404	B	1	..	26	..	V
405	G p	4	2	30	..	..
406	B p	2	4	23	7	V
407	B p	1	1	32	..	..
408	B	10	3	30	7	..
409	B	2	2	28	..	..
410	G p	4	12	24	8	..
411	G p	5	2	25	7	..
412	G	1	3	29	..	..
413	B p	7	1	30	..	..
414	G p	2	..	25	6	V
415	G p	1	2	20	7	..
416	B	3	1	29	..	V
417	G p	5	3	28	..	..
418	G	10	8	39	..	..
419	B	7	1	34	..	..
420	G	7	12	30	..	V
421	B	2	10	23	..	..
422	G p	4	50	30	..	*
423	B	2	..	24	..	V
424	G	1	5	26	..	..
425	B	1	58	24	..	V
426	B	7	11	34	..	V
427	G	1	..	34	..	*
428	G p	1	54	27	..	*
429	B p	1	1	20	..	..
430	B p	1	2	20	7	V
431	G p	5	2	36	7	..
432	B	6	4	31	..	..
433	G p	1	11	23	7	..
434	G p	1	3	21	..	V
435	B	8	2	36	..	..
436	B p	2	8	26	..	V
437	G p	4	6	32	..	V
438	B	1	12	24	..	..
439	G	1	8	22	..	..
440	G	6	1	30	..	V
441	G	1	21	30	..	V
442	B	6	44	30	..	V
443	G p	4	..	40	5	..
444	B	6	2	30	..	V
445	B	8	12	34	..	V
446	G p	6	2	32	..	V
447	B p	8	12	28	..	V
448	B p	1	1	19	6	..
449	G p	1	3	20	6	..
450	B p	1	..	27	6	V
451	G p	1	1	23	..	..
452	G p	1	6	20	..	..
453	G p	1	..	17	..	V
454	B	1	13	25	..	..
455	G	1	30	24	..	..
456	B p	3	8	30	..	..
457	B	8	2	36	..	..
458	B p	5	4	30	..	..
459	B p	3	2	24	7	V
460	B p	1	3	21	7	..
461	B p	1	48	30	..	V
462	G p	2	1	27	6	V
463	B	1	3	23	..	..
464	G p	5	2	28	..	..
465	G p	12	1	36	8	..
466	B p	6	1	30	8	..
467	B	1	8	26	..	..
468	G p	1	4	19	..	V
469	B	1	..	25	..	V
470	G p	1	2	27	8	..
571	G p	6	3	30	..	..
472	B p	1	7	21	8	V
473	B	2	3	21	..	..
474	G p	6	3	33	8	..
475	B p	1	3	20	7	..
476	G	3	..	31	..	V
477	B	1	10	20	..	V
478	B p	2	4	19	6	..
479	G p	10	½	39	6	..
480	B	2	1	26	..	V
481	G p	1	4	23	..	..
482	B p	4	2	24	..	..
483	G p	4	1	30	..	..
484	G p	2	1	24	..	..
485	G p	6	12	30	..	..
486	B	5	1	34	..	..
487	B	1	2	23	..	..
488	G p	3	2	24	..	..
489	G p	5	5	26	..	..
490	G p	2	1	22	..	..
491	G p	2	3	27	7	..
492	B	1	6	25	..	..
493	B p	6	2	29	..	..
494	B p	1	3	18	7	..
495	G p	4	4	40	..	..
496	B	3	1	24	..	..
497	G p	2	14	23	..	V
498	G p	6	¼	50	..	..

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
499	B	4	..	32	..	V
500	B	1	30	22	..	*
501	G p	1	4	22	7	..
502	B p	1	2	21	..	..
503	B p	2	4	28	8	..
504	B	1	..	30	..	V
505	G	5	7	32	..	V
506	B	4	4	23	..	..
507	G p	1	3	20	..	..
508	G p	2	1	30	..	..
509	B	3	33	25	..	V
510	B p	1	2	19	..	..
511	B p	1	4	19	7	..
512	B	2	6	30	..	V
513	B	4	1	32	..	V
514	B	3	6	23	..	V
515	B	1	30	29	..	..
516	G	6	5	30	..	..
517	B	1	2	22	..	..
518	B p	2	2	21	8	..
519	B p	1	40	35	..	*
520	G p	2	1	29	8	..
521	B	1	30	28	..	..
522	B p	1	4	22	..	..
523	G	3	1	27	.	V
524	G p	1	1	19	7	..
525	G p	4	1	29	..	..
526	B	2	27	29	..	V
527	B	1	1	20	7	V
528	B	1	24	28	..	..
529	B	5	3	40	..	V
530	B	1	6	19	..	..
531	G	2	9	27	..	V
532	G p	5	3	27	7	..
533	B	3	..	27	..	V
534	B	1	4	25	..	V
535	B	2	3	31	..	V
536	G p	1	2	21	..	..
537	G	1	16	26	..	..
538	B p	1	24	34	..	V
539	G	5	10	38	..	V
540	B p	2	1½	26	..	..
541	G p	1	4	22	6	..
542	B p	2	3	26	..	..
543	B	1	20	23	..	..
544	B	1	6	20	..	..
545	B p	3	2	26	6	..
546	B	3	11	27	..	..
547	G p	2	3	28	7	..
548	B p	1	5	19	8	..
549	B	10	8	32	..	..
550	B p	2	3	22	8	..
551	B p	1	2	20	7	V
552	B	1	12	25	..	..
553	G p	2	2	19	7	..
554	B	1	19	25	..	V
555	B	1	60	30	..	V
556	G p	1	6	35	..	..
557	B	1	5	38	..	V
558	B	8	5	33	..	V
559	G p	2	2	26	..	..
560	B p	1	1	25	..	..
561	B p	1	½	18	6	..
562	B p	7	½	27	..	..
563	G p	2	2	26	7	..
564	G p	2	1	20	..	..
565	B	1	17	22	..	..
566	B	2	¼	23	5	..
567	B	1	12	25	..	..
568	B	7	3	30	5	..
569	G p	1	..	19	7	V
570	B	1	3	22	..	..
571	G p	5	2	33	..	..
572	B	1	¼	20	..	V
573	B p	2	30	24	..	..
574	B	9	24	33	..	V
575	G	1	3	30	..	..
576	G p	3	1	31	..	..
577	B	2	3	22	..	V
578	B	1	5	28	..	V
579	G	1	2	22	..	V
580	G p	5	2	23	..	..
581	B p	1	½	19	6	..
582	B p	1	..	30	..	*
583	G	1	..	30	..	V
584	B	1	36	30	..	V
585	G	9	48	35	..	*
586	G p	2	¼	20	5	..
587	G	5	6	28	5	V
588	G p	5	6	28	5	V
589	B	4	1	28	..	V
590	G	6	½	32	..	V
591	G	1	..	28	..	V
592	G p	6	..	30	..	V
593	B	1	20	21	..	V
594	B	4	2	27	..	V
595	B p	1	2	20	7	..
596	G p	6	13	34	8	..
597	B p	1	2	20	6	..
598	G	5	..	30	..	V
599	B	1	12	23	..	..
600	B	1	24	22	..	..
601	B p	2	12	27	..	..
602	G p	3	½	30	..	..
603	G	1	7	19	..	..
604	B p	12	3	27	8	..
605	G	8	5	40	..	V
606	B	2	2	25	..	V
607	B	2	6	25	..	..
608	G p	1	53	27	..	V
609	B	2	36	24	..	V
610	B	3	4	31	..	..
611	G	2	4	30	..	V
612	B	1	17	25	..	V
613	G p	2	10	20	..	..
614	G p	4	2	28	8	V
615	B p	1	..	30	..	..
616	B p	3	1	26	7	..
617	B p	1	3	21	8	V
618	B p	1	9	21	8	..
619	G	6	38	40	..	*
620	G p	1	4	18	..	..
621	B p	2	3	22	..	..
622	B p	1	2	22	..	V
623	G	5	3	30	..	V
624	B	1	36	28	..	V

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
625	G	1	32	30	..	*
626	G	1	43	23	..	*
627	G p	5	4	30	6	..
628	B	3	1	28	..	V
629	G p	3	1	28	..	..
630	G p	3	4	27	8	V
631	B	1	6	26	..	..
632	G p	1	2	20	5	V
633	G p	1	1	26	6	..
634	G p	2	1	24	6	..
635	B p	2	3	25	..	..
636	B p	1	7	28	6	..
637	G	1	1	27	..	..
638	B p	2	1	25	7	..
639	B	6	48	40	..	V
640	B p	2	5	19	6	..
641	G	1	48	17	..	V
642	B	2	½	23	..	..
643	B	3	4	30	..	..
644	G p	1	..	26	7	..
645	B	1	24	28	..	V
646	B	6	5	35	..	V
647	B p	1	6	32	..	..
648	B p	2	1	21	8	..
649	G	1	2	24	7	..
650	B	1	60	30	..	*
651	B p	4	2	30	8	..
652	B p	3	3	30	..	V
653	G p	1	12	18	..	..
654	B	2	6	30	..	V
655	G	6	1	30	..	..
656	G	7	1	30	..	..
657	B p	2	2	22	6	..
658	B	5	1	34	..	..
659	B	3	6	35	..	..
660	G	7	1	34	6	..
661	B p	3	2	27	..	..
662	B	1	2	23	..	V
663	..	3	55	27	..	V
664	G p	2	¼	27	7	..
665	B	1	35	28	..	V
666	B	2	3	23	..	..
667	G	2	30	28	..	V
668	B p	5	1	26	..	..
669	B	6	1	30	..	V
670	G	6	10	36	..	..
671	G	1	12	24	..	..
672	G p	2	1	24	6	..
673	G	2	18	29	..	V
674	G	1	36	28	..	V
675	G	3	1	27	..	..
676	G p	10	2	25	..	..
677	B	2	48	26	..	..
678	G p	4	¼	36	7	..
679	B	3	18	30	..	..
680	B	2	13	23	..	..
681	B	1	21	30	..	V
682	G	1	10	20	..	V
683	G	3	4	30	..	..
684	B	2	6	29	..	..
685	B	5	3	40	..	V
686	G	4	40	27	..	V
687	G p	2	2	20	5	..
688	B	1	5	21	7	..
689	G	1	3	22	5	..
690	B	1	36	25	..	..
691	B p	5	1	25	..	..
692	G	3	10	30	..	..
693	B p	1	4	19	7	..
694	B p	3	4	22	..	..
695	B	6	1	24	..	V
696	G p	4	2	26	8	..
697	G p	8	1	47	..	..
698	G p	5	2	32	..	V
699	G	2	4	29	..	..
700	G p	3	3	24	7	..
701	B	6	..	44	..	V
702	B	1	2	25	..	V
703	G	1	3	21	..	..
704	B	3	½	30	7	..
705	G p	1	5	26	..	..
706	B	1	3	20	..	..
707	B p	4	4	28	..	V
768	B	1	¼	21	..	..
709	G	6	2	30	7	..
710	B	1	48	25	..	..
711	G	1	34	30	..	V
712	B	1	6	28	..	V
713	G	2	3	25	..	V
714	B	2	48	34	..	*
715	B	1	4	20	..	..
716	B	7	8	36	..	V
717	G p	2	3	28	..	..
718	B	2	1	20	..	..
719	B	2	1	20	..	..
720	G p	1	5	18	..	..
721	B p	1	17	21	..	*
722	B	1	14	24	..	..
723	B	6	40	37	..	V
724	B p	1	..	23	..	V
725	B p	9	24	40	..	V
726	B	1	50	30	..	*
727	G	2	10	28	..	..
728	G	1	5	22	..	..
729	B p	3	2	25	7	..
730	G	1	24	26	..	V
731	B p	5	3	30	8	..
732	B	1	3	23	..	..
733	B	3	6	35	7	..
734	G	4	3	32	8	V
735	G	2	2	20	8	..
736	B	1	90	28	..	*
737	B p	9	4	32	..	..
738	G	1	36	20	..	V
739	G p	2	¼	24	7	..
740	G	1	30	28	..	V
741	G	1	7	22	..	..
742	G p	1	8	21	..	V
743	G p	2	1	22	..	..
744	B p	1	4	30	..	..
745	B	1	26	20	..	V
746	B	5	1	24	..	..
747	B p	4	5	29	..	..
748	G	1	..	27	..	V
749	B	1	1	35	..	..
750	B p	3	4	24	6	..

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
751	B	1	25	30	..	..
752	G p	1	6	21	..	..
753	G p	1	..	22	..	V
754	B p	4	1	30	..	..
755	G	1	30	25	..	*
756	B p	2	1	26	..	..
757	B p	3	..	26	..	V
758	G	3	24	30	..	..
759	B p	3	5	23	..	..
760	G	2	6	33	..	V
761	G p	3	8	26	8	..
762	B	2	1	28	5	..
763	G p	2	2	23	..	..
764	B p	2	1	25	..	..
765	G	5	8	38	..	..
766	B	3	8	32	..	V
767	B	1	18	26	..	..
768	B	2	1	24	6	..
769	B	1	8	21	..	V
770	B	2	1	22	..	..
771	B p	5	2	24	..	..
772	B	1	9	32	..	V
773	B p	6	1	25	7	..
774	B	4	24	30	..	V
775	B	4	14	32	..	V
776	B p	1	2	25	..	..
777	G p	2	¼	22	6	V
778	G	1	19	27	..	..
779	G	1	72	24	..	..
780	B	1	10	25	..	V
781	B	3	7	26	8	..
782	B	1	1	26	8	..
783	B	3	2	32	7	..
784	B p	8	3	30	..	..
785	B	1	4	20	..	..
786	B	1	48	23	..	V
787	B	1	15	31	..	..
788	G	2	5	28	..	V
789	B	1	36	21	..	..
790	B	1	36	26	..	..
791	B	1	3	21	..	..
792	G	1	10	21	8	..
793	G	1	9	22	..	..
794	B p	3	1	23	8	V
795	B p	1	1	23	6	..
796	G	3	2	19	..	V
797	B p	11	1	35	5	..
798	B p	2	12	20	..	..
799	B p	3	1	25	6	..
800	G	4	3	29	..	..
801	G p	4	3	26	..	..
802	G	1	9	21	7	..
803	G	2	2	20	6	V
804	B	3	4	33	..	V
805	B p	1	1	20	..	..
806	B	3	1	27	..	V
807	B	2	1	21	..	..
808	G	10	48	36	..	V
809	B p	4	1	29	..	..
810	G p	1	3	22	..	..
811	B p	4	3	28	..	..
812	B	1	2	22	5	..
813	G	2	4	24	..	..
814	G	4	5	35	..	..
815	G p	6	..	30	..	V
816	G p	2	3	30	8	..
817	B	1	56	20	..	V
818	G p	1	2	24	6	..
819	B	2	2	25	..	V
820	B	1	48	25	..	V
821	B	1	4	23	..	..
822	B	2	14	28	..	..
823	G	5	..	35	..	V
824	G	6	4	35	..	..
825	B	8	1	30	8	V
826	B	1	24	23	..	..
827	G	5	1	34	8	..
828	G p	2	4	30	..	..
829	G	7	10	30	..	..
830	B p	2	1	22	7	..
831	G	1	18	24	..	..
832	G	1	3	25	..	V
833	B	1	3	25	..	V
834	B	1	3	23	..	V
835	G p	5	2	22	..	..
836	B p	7	2	28	6	..
837	G p	2	3	24	..	V
838	G	1	27	23	..	V
839	G	2	..	26	..	V
840	G	2	2	27	7	..
841	G	1	7	24	..	V
842	B	1	18	37	..	..
843	B p	2	¼	26	8	..
844	G	1	3	25	..	..
845	G p	4	2	30	..	..
846	B p	1	11	22	7	..
847	B	1	12	23	..	V
848	B	7	4	34	..	V
849	G p	2	1	26	8	..
850	G	1	1	27	..	V
851	G p	1	12	27	8	..
852	B	4	1	25	..	..
853	B p	1	3	21	..	V
854	B p	1	2	26	7	..
855	G	1	8	18	..	..
856	B	1	50	32	..	*
857	B p	6	1	30	8	..
858	G p	5	1	32	7	..
859	B	2	30	31	..	*
860	B	1	12	28	..	..
861	G p	9	6	30	6	..
862	G	1	18	28	..	..
863	G	1	2	22	..	..
864	G	7	3	27	..	..
865	B p	2	1	27	7	..
866	B p	6	1	30	6	..
867	G	1	12	21	..	..
868	G p	1	23	33	..	V
869	B	5	8	33	..	..
870	B	2	9	22	..	V
871	G	4	2	25	..	..
872	B p	3	1	28	4	..
873	B	1	48	28	..	V
874	B p	3	3	30	8	..
875	B	..	..	36	6	..
876	B	4	1	27	..	..

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.	No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.	No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
877	B p	2	1	27	7	..	919	G p	4	2	26	5	..	961	B	4	24	28	..	V
878	G p	6	5	32	6	..	920	B	8	..	36	..	V	962	B	1	4	21	..	..
879	G p	4	2	28	..	..	921	B	1	20	30	..	V	963	B p	1	4	26	..	V
880	G	6	6	27	..	V	922	B p	2	5	25	7	..	964	G p	1	4	30	..	..
881	G p	4	4	26	6	..	923	G p	4	1	30	7	..	965	G p	4	1	26	8	..
882	B	3	8	30	..	V	924	G	1	4	26	..	..	966	G p	1	9	21	..	..
883	G	6	1	39	5	..	925	G	5	6	36	..	V	967	B	1	36	24	..	*
884	G	1	14	24	..	..	926	G p	1	5	20	7	..	968	B p	2	2	23	..	..
885	G p	2	1	26	5	..	927	G p	1	2	18	8	..	969	G	2	6	28	..	V
886	B	3	4	28	..	..	928	G	1	..	25	8	V	970	G	5	1	27	..	V
887	G	1	8	21	..	..	929	G p	4	2	25	..	V	971	G	7	2	26	..	..
888	B	1	3	27	..	V	930	G p	1	27	25	..	*	972	B p	6	6	29	..	..
889	B	1	12	27	..	V	931	B	5	5	30	..	*	973	B	1	12	17	..	..
890	G	3	12	29	..	..	932	G p	2	1	22	..	..	974	B	2	..	22	8	V
891	B	1	7	18	8	..	933	B	2	2	27	..	..	975	B	2	1	22	..	..
892	B	1	24	30	..	V	934	B p	1	1	19	6	..	976	G	1	48	23	..	V
893	G	1	6	21	..	V	935	B p	1	2	19	..	..	977	G	4	2	23	..	..
894	B p	3	..	24	..	V	936	B p	2	3	30	5	V	978	B	3	..	28	..	V
895	B p	3	4	25	..	..	937	G	1	24	21	..	V	979	G p	1	70	25	..	*
896	B	5	11	30	..	V	938	G p	1	1	24	..	..	980	B	8	1	33	..	V
897	B	6	48	40	..	..	939	G p	3	1	24	5	V	981	G	3	4	26	..	..
898	B	1	6	26	..	V	940	B p	1	..	26	..	V	982	G	5	4	25	..	V
899	G	1	14	22	..	..	941	G	6	12	30	..	V	983	G p	4	2	26	..	..
900	B	2	3	23	..	..	942	B	1	3	25	..	..	984	G	3	4	34	6	..
901	B p	12	3	37	..	..	943	G	1	3	23	8	..	985	G	1	28	25	..	..
902	B	2	36	30	..	V	944	B p	9	13	40	..	..	986	B p	1	2	22	6	..
903	G	1	8	35	..	..	945	B p	2	3	27	..	..	987	G	1	4	25	..	*
904	B p	4	6	35	..	..	946	G	2	4	24	..	..	988	B	2	3	26	..	..
905	G	1	3	30	..	V	947	B	2	6	23	..	..	989	G p	6	3	28	7	V
906	B p	3	4	34	..	..	948	B p	1	6	22	7	..	990	G p	8	2	33	..	..
907	B	9	15	37	..	V	949	G p	2	2	22	8	..	991	G p	2	6	24	8	..
908	G p	6	26	40	..	V	950	G p	3	1	30	7	..	992	G p	1	5	25	6	..
909	B p	1	4	22	8	..	951	B	1	..	24	..	V	993	B p	2	2	26	..	..
910	B	1	72	27	..	*	952	G p	2	2	23	8	V	994	G p	1	24	25	..	..
911	B p	2	..	22	6	V	953	B p	2	1	25	7	..	995	B	1	36	24	..	..
912	B p	4	1	34	8	..	954	B p	6	1	29	..	..	996	G	7	3	35	..	..
913	B p	1	1	22	6	..	955	B	1	2	23	..	V	997	B	7	3	30	8	..
914	B p	1	4	19	5	..	956	G	1	15	30	..	V	998	B	5	4	28	8	V
915	B	4	4	33	..	..	957	G p	1	3	33	..	..	999	G p	2	2	19	..	..
916	B p	2	1	25	7	..	958	G p	3	4	27	7	..	1000	B p	2	1	30	..	..
917	B	1	48	21	..	*	959	G	1	10	33	..	..	1001	G p	2	3	24	7	..
918	G	5	2	36	..	V	960	B p	1	1	23	6	..	1002	G p	1	8	21	..	..

No. of Case.	Sex.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Patient.	Age of Child.	Observations.
1003	B	1	1	20	..	V
1004	G	1	24	19	..	V
1005	B	7	9	37	..	V
1006	G	4	4	33	..	V
1007	B p	1	24	28	..	*
1008	B	3	7	27	..	V
1009	G	3	6	30	..	..
1010	B	2	4	26	7	..
1011	B	3	5	25	..	V
1012	G p	1	1	19	8	V
1013	B	1	24	23	..	..
1014	B p	2	3	22	7	..
1015	B	1	4	23	..	V
1016	G p	7	3	38	8	..
1017	G	1	18	23	..	..
1018	G p	2	4	26	..	..
1019	B	8	5	34	..	V
1020	B p	3	10	30	8	..
1021	B	6	..	30	..	V
1022	G	1	..	20	..	V
1023	G	1	13	21	..	..
1024	G	8	6	30	..	V
1025	G	1	1	21	..	..
1026	G p	6	2	28	..	..
1027	G	3	8	36	..	..
1028	G p	5	¼	26	8	..
1029	B p	5	¼	30	6	..
1030	B	2	4	22	8	..
1031	G	2	1	23	..	..
1032	B	11	24	38	..	V
1033	G p	3	6	24	..	..
1034	B	5	3	26	..	..
1035	B	4	3	29	..	V
1036	G p	3	4	25	8	..
1037	G	3	8	27	..	..
1038	B	1	72	26	..	V
1039	G p	1	8	18	..	..
1040	B p	1	5	21	7	..
1041	B	1	24	33	..	V
1042	B	2	4	24	8	..
1043	G	1	4	21	..	V
1044	B	1	4	25	..	V
1045	G p	1	1	20	7	..
1046	B	3	9	21	..	V
1047	G p	6	3	30	8	V
1048	B	1	24	30	..	..
1049	G p	2	..	23	7	V
1050	G p	5	4	24	..	..
1051	G p	1	14	28	..	*
1052	G p	1	12	28	..	..
1053	G	2	63	36	..	V
1054	B	1	24	22	..	..
1055	G	2	5	24	..	..
1056	B	1	..	30	..	V
1057	B p	2	4	30	..	..
1058	B p	1	50	32	..	V
1059	G	8	1	44	..	..
1060	B	6	3	36	..	V
1061	B	1	50	30	..	*
1062	B p	3	1	27	8	..
1063	G p	3	1	37	6	..
1064	B p	10	..	36	5	..
1065	G	1	19	28	..	..
1066	B	1	12	31	..	..
1067	B	3	4	23	..	..
1068	G	7	1	34	..	V
1069	B p	2	4	24	6	..
1070	B	1	5	24	..	..
1071	B	1	8	28	..	..
1072	B p	1	8	35	..	..
1073	G	1	8	26	..	..
1074	B	4	12	32	..	V
1075	G p	1	6	24	..	..
1076	B	1	5	20	..	V
1077	B	1	5	20	..	V
1078	B	4	¼	35	6	..
1079	G p	5	¼	29	..	..
1080	B	2	2	24	..	..
1081	B p	3	3	29	8	V
1082	B p	1	6	24	..	..
1083	B	1	14	24	..	V
1084	G p	2	1	20	7	..
1085	B	11	2	28	8	..
1086	G p	2	1	23	..	..
1087	B	1	48	24	..	V
1088	B	2	12	28	..	..
1089	G p	1	..	32	..	V
1090	G	1	17	19	..	..
1091	B p	1	56	25	..	V
1092	G p	6	1	29	..	V
1093	G p	1	1	28	7	..
1094	G p	4	2	27	8	..
1095	B	1	59	28	..	V
1096	B p	2	..	20	7	V
1097	B p	1	1	20	8	..
1098	G p	4	3	26	7	..
1099	G	7	¼	30	5	..
1100	G	2	3	22	5	..
1101	B	11	9	36	..	V
1102	B	5	8	28	7	V
1103	G	1	6	18	..	..
1104	G	1	60	20	..	V
1105	B	1	40	30	..	..
1106	G p	1	5	23	..	..
1107	G p	1	1	18	..	..
1108	G p	3	3	22	8	..
1109	B	1	14	25	..	..
1110	B p	3	3	31	7	V
1111	G	1	36	25	..	..
1112	B	2	10	25	..	V
1113	G	1	50	22	..	*
1114	B	3	1	28	6	..
1115	B	1	43	20	..	*
1116	G	2	3	23	..	..
1117	B	2	8	23	..	..
1118	G p	1	2	25	7	..
1119	G	1	5	28	..	V
1120	G p	10	2	30	..	..
1121	B p	2	2	24	7	..

The following tables shew the number of hours each patient was in labour; the age of the patients, and whether it was a first or subsequent pregnancy.

Hours in labour, thus 20 were $\frac{1}{4}$ of an hour, and so on: the duration of labour in 76 cases cannot be stated, many having been delivered immediately on admission, and others on their way to Hospital, &c.—See cases.

Hours in labour,	¼	½	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No. of Women,	20	17	168	142	134	97	57	58	23	45	12	32	6	33	6	10	4

Hours in labour,	16	17	18	19	20	21	23	24	25	26	27	28	29	30	32	33	34	35	36
No. of Women,	3	5	11	3	3	5	1	37	1	3	3	1	1	11	2	2	1	1	16

Hours in labour,	38	40	43	44	46	47	48	50	53	54	55	57	58	60	64	66	70	72	90
No. of Women,	2	5	2	1	1	1	24	8	2	3	2	2	2	4	2	1	5	3	1

Age of patients, thus 1 was 16 years of age, and so on.

Age of Women,	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
No. of Women,	1	4	18	33	68	56	85	78	83	83	79	64	96	28	150	12	32	17

Age of Women,	34	35	36	37	38	39	40	42	43	44	47	50
No. of Women,	30	31	24	12	7	4	17	1	1	3	1	1

First or subsequent pregnancy, thus 460 were 1st pregnancies, and so on.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	11	12	14
No. of Women,	460	222	125	82	68	58	36	22	20	14	7	5	1

OBSERVATIONS ON CHILDREN DYING IN THE HOSPITAL.

In the following statement it shall be my object to make known, with as much brevity and correctness as possible, the most important particulars respecting the mortality of infants born in the Hospital, in the course of my residence, during the time the mothers remained in the institution; which, in most instances, was for a period of eight, nine, or ten days after delivery.

The total number of children born was 16,654; of these 284 died previous to the mother leaving Hospital; this is nearly in the proportion of *one* in 58½, which must be considered a moderate mortality under any circumstances; however, when it is considered, that this includes not only *all the deaths that occurred in children born prematurely, and in twins, but also every instance where the heart even acted, or where respiration ceased in a few seconds after birth*, the proportion of deaths becomes *trifling* indeed.

Of the 284 deaths, *one hundred* were premature deliveries, viz.—*three* at the 5th month; of these *one* died in 3 minutes; *one* in 2 hours; the length of time the other lived is not noted. *Fifteen* at

the 6th month; of these *two* died in 5 minutes, *one* in 1 hour, *one* in 6, *one* in 9, *one* in 10, *one* in 11, *one* in 12, and *one* in 16 hours; *five* lived one day; the length of time *one* of the 15 lived is not recorded. *Forty-nine* at the 7th month; of these *four* died in 5 minutes, and *one* in 15; *one* in 3 hours, *one* in 4, *one* in 6, *one* in 9, *one* in 12, *one* in 13, *one* in 26, and *three* in 36 hours; *six* lived one day, *four* 2, *three* 3, *six* 4, *two* 6, and *two* 7 days; the length of time *eleven* of the 49 lived is not entered. *Twenty-eight* at the 8th month; of these *one* died in 15 minutes, *one* in 20, and *one* in 30 minutes; *one* lived 1 hour, *one* 2, *one* 6, *two* 12, *two* 14, and *one* 31 hours; *two* lived 1 day, *four* 2, *two* 5, *three* 6, and *one* 18 days; the length of time *five* of the 28 lived is not noted.

Thirty-two of the children who died were twins; of these 17 were premature. The following Nos. refer to the twin cases in the General Table, (in a few instances in this table the two children are included under the same No., the column indicating the *sex* will shew where this occurs):— Nos. 5, 11, 12, 23, 34, 41, 43, 45, 46, 51, 72, 103, 128, 154, 155, 160, 168, 169, 177, 189, 190, 191, 192, 197, 198, 229, 258, 261, 268, 276, 280, 282.

Thirty-two children born at the full period died a few minutes after birth; in *six* of these respiration could not be established, though the heart's action continued for some time.

Seventy children, also born at the full time, but most of them in a very feeble state, died at the following periods after birth :—*One* died in ½ an hour, *three* in 1 hour, *three* in 2, *three* in 4, *two* in 6, *one* in 8, *two* in 10, *five* in 12, *two* in 14, *one* in 15, and *one* in 18 hours. *Ten* died on the first day, *five* on the 2d, *eleven* on the 3d, *two* on the 4th, *four* on the 5th, *four* on the 6th, *four* on the 7th, *two* on the 8th, *one* on the 9th, *one* on the 10th, and *one* on the 37th day; the length of time *one* lived was not noted.

The labour in the above 70 cases was in *one* ¼ of an hour, in *nine* 1 hour, in *fifteen* 2, in *three* 3, in *twelve* 4, in *eight* 5, in *three* 6, in *one* 7, in *three* 8, in *three* 9, in *three* 10, in *one* 12, in *two* 14, in *one* 15, in *one* 17, in *three* 24, and in *one* 30 hours. In these 70 it may be remarked, that the labours were in almost *all* of a very short duration; yet *above one half* of the children died within *twenty-four* hours from birth.

In *nine* instances there was little doubt the mothers destroyed the children; in *nine* other instances the children were born either imperfect or diseased; of these an account is given below.

Fifty of the 284 presented preternaturally, viz., Nos. 5, 23, 157, and 184, with the shoulder or arm. Nos. 5, (a twin case), 12, 34, 43, 44, 46, 48, 59, 71, 74, 88, 105, 122, 129, 131, 146, 163, 177, 192, 196, 197, 211, 229, 243, 255, 258, 259, 261, and

268, with the breech. Nos. 2, 11, 18, 40, 54, 72, 75, 97, 128, 141, 152, 154, 160, 169, 198, 280, with the feet. No. 166 with the knee.

Thirty-seven of the 284 died of Trismus Nascentium; of these *one* was attacked on the 2d day, *two* on the 4th, *eleven* on the 5th, *twelve* on the 6th, *five* on the 7th, *two* on the 8th, and *one* on the 9th; the period after birth at which *three* were attacked, is not noted. *One* died in 18 hours after the seizure, *one* in 19, *one* in 20, *one* in 21½, *twelve* in 24, *one* in 26, *one* in 29, *three* in 30, *two* in 33, *one* in 36, *one* in 38, *one* in 40, *one* in 48, *two* in 70, and *one* in 72 hours; the period at which *seven* died was not recorded. The following are the Nos. of these cases as they are found in the General Table:—Nos. 7, 8, 9, 14, 17, 24, 25, 26, 27, 28, 32, 36, 69, 73, 77, 78, 79, 103, 109, 112, 127, 133, 134, 147, 158, 164, 183, 185, 195, 220, 221, 234, 247, 249, 252, 257, 274.

I shall now give a short detail of some cases not included in the above statements, also of such already noticed as possessed any peculiarity.

No. 6.—The mother came into Hospital covered with petechiæ, and died on the 3d day after delivery of malignant typhus fever; she was 48 hours in labour; the child died in 3 hours.

No. 29.—Was 36 hours in labour; the pains were very irregular, and the abdomen remarkably distended, rendering her very helpless; as soon,

therefore, as the os uteri and soft parts were well dilated, the membranes were punctured, and a large quantity of water discharged, followed by an immediate reduction in the size of the abdomen, and a more regular action of the uterus; the child was born in a very feeble state, and died on the 4th day.

No. 70.—Was 48 hours in lingering labour; the child died in 24 hours.

No. 81.—Was 40 hours in lingering labour; the membranes did not give way until 15 minutes before the child's birth; it was born at the 8th month, and died in a quarter of an hour.

No. 82.—This child died of enteritis, after two days' illness on the 5th day.

No. 171.—The uterus continued to act with considerable vigour for several hours, yet the pains were inefficient; and when the head came nearly to press on the perinæum, it remained stationary for 12 hours. The pelvis appearing sufficiently roomy, the forceps was applied, and the child cautiously brought down; the funis, however, was around the head, and so compressed during delivery, that though immediately previous the fœtal heart's action had been distinctly heard, it had ceased to pulsate when the child was born. Stimulants and artificial respiration succeeded in exciting the heart's action, and also a strong pulsation in the funis; but though it continued to

act for 40 minutes, natural respiration could not be established.

The mother from the period of delivery gradually sunk, never having afforded the slightest hope of recovery. Extensive inflammation of the vagina and all the soft parts set in, followed by sloughing, and she died on the 10th day.

On examination after death, the soft parts within the pelvis exhibited an extensively sloughy appearance; the inflammation extended to the ligaments of the uterus, where matter was found in several points; the uterus itself was soft and flabby. The urethra was uninjured. On opening the chest several tubercular abscesses were observed in the substance of the right lung, with tubercles in different stages. All the viscera were more or less unhealthy. It was evident she must have been labouring under a very general state of disease for some time, which may possibly account for such rapid sinking, after a labour by no means severe. It was her first child, and she was 36 hours ill.

No. 40.—The funis was prolapsed; see Observations on Presentations of Feet, No. 6.

No. 178.—This child was delivered with the forceps, uterine action being feeble and inefficient.

The labour lasted 50 hours; it was a first child, and died on the 4th day.

No. 152.—The feet presented in this case, with a prolapsus of the funis.

No. 214.—The heart acted for 15 minutes after birth, but respiration could not be established. It was a first child, the labour lasted 36 hours.

No. 245.—This labour lasted 60 hours; it was a first pregnancy; the child died in 24 hours. The placenta was retained by an hour-glass contraction.

No. 10.—The mother was 30 hours in labour; it was her 2d child; she had very severe labour with her first.

No. 21.—The mother had very violent labour pains for several hours, from the effects of which the child seemed to have suffered.

No. 35.—This child was born between the 6th and 7th month: it died on the 3d day.

The mother was bled before delivery for a fixed pain in the lower part of the abdomen. It returned after delivery, and required for its removal the active employment of leeches, fomentations, and purgatives.

No. 61.—This child was very large, weighed 11¾ lbs.; it lived but 6 hours; the waters were discharged before the mother's admission.

No. 63.—This child was also large, weighed 10 lbs; it lived but one hour.

No. 110.—Was born between the 7th and 8th month, and died on the first day. The mother came into Hospital labouring under typhus fever, in an advanced stage. She recovered slowly. Her husband was in the fever hospital at the same time.

No. 138.—The labour lasted but 16 hours; the pains however were for some time severe. It was her first child, and merely respired for a few minutes.

No. 166.—This child presented with the knee; there was a good deal of difficulty in delivering the head, and a considerable time elapsed before respiration could be established.

No. 172.—This child was born apparently lifeless; it was however resuscitated, but died in 15 hours.

No. 157.—This was an arm presentation; it was turned, but died in an hour and a half.

No. 182.—The funis had prolapsed, and the child was apparently still-born; it was with some exertion resuscitated, but died in 18 hours.

No. 184.—See Observations on Presentations of Shoulder or Arm, No. 25.

No. 211.—Here premature labour was induced, in consequence of the uterus having ruptured during her preceding delivery. See Observations on Rupture of Uterus, No. 14.

No. 228.—This child died 14 hours after birth; it was a 10th child, all of which, except two, were still-born; and one of the two died one week after delivery.

No. 237.—The labour lasted 24 hours; the head having made no progress for the last 14, the child being alive, as indicated by the stethoscope, and

the ear to be felt, the forceps was applied, and delivery thus effected in about 10 minutes, without any effort of consequence being required, yet the child was born in an extremely feeble state, and, although the heart's action was heard most distinctly previous to delivery, it was necessary for several hours to use the most unremitting exertions before respiration could be even imperfectly established. It died in 28 hours. We regretted much our interference in this instance, and had little doubt if we had trusted to the natural efforts, the child would have sustained less injury.

No. 248.—The mother was labouring under low nervous fever on admission, which continued for some time after delivery.

No. 251.—The mother was admitted labouring under typhus fever.

No. 265.—Was born on the 11th of the month, was seized with convulsions on the evening of the 12th, and died the following morning.

No. 270.—See Observations on Prolapsus of the Umbilical Cord, No. 95.

In the *nine* succeeding cases the children were either born in an imperfect or diseased state. The two syphilitic cases are *extremely rare* occurrences. I have only met with two other instances, where the children were born *alive* with the eruption so characteristic. I have a very accurate

drawing of one these cases, which was peculiarly well marked.

No. 15.—This child died on the 3d day. No evacuation could be procured from the bowels; injections when thrown up even in small quantity were instantly returned unchanged. This led us to suspect obstruction of the intestine, which was found to be the case. On dissection, the gut was found impervious, so high up as the head of the colon. A substance, similar in appearance to the testicle of an infant, was found at the place where the obstruction existed; it was not however glandular in structure.

No. 19.—This was an acephalous fœtus, much deformed; it died in an hour.

No. 74.—This child had umbilical hernia when born, with a covering so transparent that the intestine could be seen through it. It was immediately returned into the abdomen, when a tumour as large as a walnut was found still remaining. Mr. Colles, our consulting surgeon, was called to see the case, when it was thought advisable to apply a ligature nearer to the body of the child, the first having been put on so as to avoid including any portion of the contents of the tumour. When the ligature was put loosely round the neck of the tumour the sac was opened, and found to contain what was considered by some to be an

appendage to the intestine; but was by others thought to resemble very much in shape and appearance the gall-bladder of an infant. This appendage was adhering most firmly to a substance very similar to clotted blood, but more dense, requiring much care in its separation. When separated, it was cautiously returned into the abdomen; during the operation a considerable quantity of intestine protruded, which was carefully replaced. The child died in 15 hours.

On dissection, the substance before mentioned, proved to be the gall-bladder, and an appendage from one of the small intestines was found included in the ligature.

Would this child have had a better chance of life if left as before the operation? I am of opinion it would, if we could suppose that the covering of the tumour, which was formed by the dilatation of the funis, would not slough; this would most likely have taken place, and it was on this account that it was thought best to return it into the abdomen.

The bowels were once opened after the operation; they had been quite regular and easily affected by medicine before it.

No. 161.—This child was quite livid, and the circulation very imperfect from its birth; it died on the 2d day.

No. 201.—This child had spina bifida; it died on the day following its birth.

No. 204.—This child was born with a large tumour projecting from the back of the head, close to the neck, nearly as large as the head itself. It burst shortly after, when eight or ten ounces of a fluid resembling water tinged with blood escaped. The child died in 10 hours.

The tumour to a considerable extent was covered with hair; the remainder being bare skin, of a thin texture with a bluish tinge, with the exception of one spot the size of a shilling, which had almost the appearance of serous membrane. The ventricles of the brain were much dilated, and communicated freely with the sac. The membranes were extremely vascular, and the whole contents of the cranium in a dark, congested state. The opening through which the tumour had formed, was about $\frac{3}{8}$ of an inch in diameter, and half an inch behind the foramen magnum. The bones of the head generally were very imperfect as to ossification.

No. 212.—This child had a well-marked syphilitic eruption all over its body and extremities, of which a drawing was instantly made. It breathed but for a few minutes.

No. 222.—This child died in 15 minutes; its body was covered with a syphilitic eruption, similar to No. 212.

No. 262.—This child had spina bifida; the tumour was remarkably large and globular; it lived to the 5th day.

I have thus given as many of the particulars respecting such children as died in the Hospital as practicable without lengthening the detail to a wearisome extent. I have shown, that of the 284 deaths, 100 were *premature* births; 32 born at the full period, died in a *few minutes;* 70 also at the full period, died in a short time after birth; more than the *half* within 24 *hours;* 9 were destroyed by their mothers; 9 were either diseased or imperfectly developed at birth; 37 died of *nine-day fits;* 15 were twin children born at the full period. Of the remaining cases, as also of such as exhibited any peculiarity, I have given the most important features.

I have been thus minute, in order to satisfy those who will examine this subject with attention, of what I have no hesitation in stating as a fact, viz. that death in children, from the *effects* of *disease* during the first 10 days, (with the exception of those attacked by trismus,) is not a common occurrence. The chief mortality is observed in children expelled *prematurely*, and in such as are born in *an extremely feeble* state, so as not to have strength to survive delivery many *hours*. This feeble condition is frequently the consequence of delivery, where the child presents preternaturally; or of the labour being tedious or violent; yet in the great majority of such cases, we shall find much difficulty in attempting to explain how

this is the case. To prove, that tedious labour is not often the cause, it will be sufficient to mention, as is clearly shewn by the tables, that of the 284 children dead, the labour, in 246 instances, did not exceed *twelve hours*.

I shall conclude, with a few remarks on the occurrence of trismus in the Hospital during my residence; a disease, from its obstinate resistance to all modes of treatment, of much interest to the medical practitioner.

Although, when it attacks the infant it has hitherto proved fatal, yet in the year 1784, Doctor Clarke suggested a means of prevention which was successful in the extreme, as shewn by the diminution in the mortality consequent on its adoption. In his highly instructive treatise on this subject, published in the 3d vol. of the Transactions of the Royal Irish Academy, he states that, "at the conclusion of the year 1782, of seventeen "thousand six hundred and fifty infants born alive "in the hospital, 2944 died within the first fort-"night;" that is, nearly every *sixth* child, or about *seventeen* in the hundred; about 19 of every twenty of these, he adds, died of *nine-day fits*.

He considered a foul and vitiated state of the air in the wards of the Hospital to be the *principal cause* of this disease. To counteract which, he had apertures of considerable size made in the

ceilings of each ward (these have since been changed for air-tubes six inches in diameter passing to the roof) three holes of an inch diameter were made in an oblique direction through each window frame at top; the upper part of the doors opening into the galleries were also perforated with numerous holes. By these means a free circulation of air was at all times secured through the wards, and effected in such a way as put it out of the power of the nurses to control it.

The consequences of these alterations, as stated by Doctor Clarke, were favourable beyond the expectation of the most sanguine. Of 8033 children born subsequently to the wards being ventilated as described, only 419 died; that is about one in 19⅓, or from 5 to 6 in 100, instead of the enormous mortality before mentioned.

Thus, by his valuable suggestions, 16,371 lives have been saved; as had the mortality of infants continued one in 6 till this day, the number of children dying of the 131,227, (which is the total number born in the Hospital,) would be 21,871, instead of 5500, as the Hospital Registry now shews.

This is an *astounding* fact, sufficient to arouse the attention of all those engaged in the management of large institutions, where numbers of young creatures are assembled together under the same roof, and calculated to enforce upon them the ne-

cessity of paying that attention to *ventilation* to which it is so preeminently entitled.

We may further observe, had the mortality from the period at which the Hospital was opened been in the proportion of one in 58½, as during the last *seven years*, the deaths would not have amounted to *one half* even of the reduced number, 5,500 as above stated, and thus the number of lives saved would have been more than *doubled*.

I have but little doubt that by *strict adherence to free ventilation*, in conjunction with *extreme vigilance* as to *cleanliness*, so as to entirely destroy and prevent an accumulation of foul or heated air in the wards, this frightful disease may be nearly banished from Lying-in Hospitals. The means of effecting this, as adopted with singular benefit, will be found in the Observations on Puerperal Fever, which see page 386.

During my seven years' Mastership there were only 37 cases of trismus; of these 14 occurred the *first* year, 7 the *second*, 3 the *third*, 3 the *fourth*, 3 the *fifth*, 3 the *sixth*, and 4 the *seventh* year. The diminution in the number attacked after the second year, is explained by the additional steps taken to free the wards from impure air. When the very great number of children born in the Hospital is considered, the proportion of deaths from this disease during the above period is incon-

siderable, not amounting to more than *one* in 450 for the entire time; but for the last *four years*, *one* in 666; a fact strongly corroborative of the statement as to the benefit to be derived from the means of prevention above described.

In order to insure the free evacuation of the bowels in the course of the first 24 hours after birth, every child born in a *healthy state* was in 4 or 5 hours given one grain of calomel and two of sugar, followed in eight or ten hours by castor oil in small quantities, until the bowels yielded satisfactorily. This was an invariable rule, and is a practice which I consider very desirable, nor have I ever found it injurious.

For a description of the way in which trismus attacks infants, I shall refer the reader to Doctor Clarke's excellent paper already alluded to.

From dissection in such cases we have never been able to discover any peculiar morbid appearance which would justify us in offering any explanation of the pathology of this disease.

With respect to the treatment, I have no suggestion to propose, as I have never seen an instance where the child seemed even temporarily relieved by the measures adopted. Calomel has been tried in large quantity, also in small doses often repeated, as well as extensive friction with mercurial ointment. I have tried frequent leeching along the spinal column, also repeated blistering over its

entire length. Opium I have exhibited in many ways, both in very large and small doses; also Tartar Emetic in the same manner, and at times both combined. I have tried tobacco extensively, in the form of stupes and injections of various degrees of strength, from *one* grain to the ounce of fluid, to *five* or more; besides the frequent use of the warm bath, oil of turpentine, tincture of soot assafœtida, and many of the ordinary purgatives and stimulants; and all, as far as I could judge, without a shade of relief.

After such a statement, comment is hardly necessary, as to the importance of using every possible exertion for the prevention of a disease so universally fatal.

The four following tables shew the length of time each of the 284 children lived after birth; also the duration of the labour; the age of the mother, and the number of children she had given birth to.

Length of time each child lived: thus 15 lived 5 minutes and so on, for the length of time 18 lived, see Observations.

MINUTES.

Length of time,	5	10	15	30
No. of Children,	15	3	7	5

HOURS ALIVE.

Legnth of time,	1	2	3	4	5	6	8	9	10	11	12	13	17	30	36
No. of Children,	7	7	2	7	1	9	3	2	3	2	14	5	3	1	4

DAYS ALIVE.

Length of time,	1	2	3	4	5	6	7	8	9	10	11	12	14	18	37
No. of Children,	41	19	31	11	20	23	13	4	3	1	1	1	1	1	1

Duration of labour, thus 3 women were $\frac{1}{4}$ hour, and so on; for length of labour in 16 cases, refer from general table to Observations.

Hours in labour,	$\frac{1}{4}$	$\frac{1}{2}$	1	2	3	4	5	6	7	8	9	10	11	12	16	17	20	24	28
No. of Women,	3	4	42	57	33	36	17	15	6	9	6	5	2	11	4	1	1	5	1

Hours in labour,	30	35	36	40	48	50	60
No. of Women,	2	1	3	1	2	1	1

Age of patient, thus 3 were 17 years of age.

Age of Patients,	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
No. of Patients,	3	3	7	23	16	20	20	19	18	17	12	22	8	44	7	10	7	7

Age of Patients,	35	36	37	38	40
No. of Patients,	10	5	1	3	3

First or subsequent pregnancy, thus 113 were 1st pregnancies.

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	15
No. of Women,	113	47	41	24	20	18	8	7	4	5	2

The following general table will enable the reader to make many useful calculations; there is also frequent reference to it in the observations already made. In the column headed *hours alive*, where the figure is accompanied by the letter M, it signifies minutes. In the column headed Presentation, Pr. indicates preternatural. In some of the calculations the twin children being in a few instances included under the one number causes apparently a slight inaccuracy.

No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.	No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.
1	B	..	1	..	26	3	..	..	V	15	B	..	3	..	38	3	3	..	V
2	G	..	2	Pr.	30	1	4	..	V	16	G	..	3	..	26	5	2	7	V
2	B	6	..	..	21	2	1	5	V	17	G	..	4	..	30	4	2	..	V
4	B	6	..	..	22	1	12	7	..	18	B	..	1	Pr.	29	1	..	7	V
5	BG	12	..	Pr.	35	4	2	..	V	19	G	1	..	..	30	3	3	..	V
6	B	3	..	..	21	1	48	..	V	20	B	..	3	..	32	4	4	..	..
7	B	..	8	..	25	1	2	..	V	21	B	..	1	..	30	1	12	..	V
8	G	..	8	..	23	1	3	..	V	22	B	..	2	..	20	1	..	7	..
9	B	..	7	..	33	3	2	..	V	23	B	..	4	Pr.	24	1	1	..	V
10	B	12	..	..	28	2	30	..	V	24	B	..	5	..	30	1	5	..	V
11	B	¼	..	Pr.	26	3	2	..	V	25	G	..	9	..	33	2	2	..	V
12	BG	24	6	Pr.	36	15	1	8	V	26	G	..	6	..	31	6	2	..	V
13	B	..	7	..	25	4	2	..	V	27	B	..	7	..	21	1	8	..	V
14	B	..	..	..	34	6	4	..	V	28	B	..	7	..	27	1	6	..	V

No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.	No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.
29	G	..	4	..	26	3	36	..	V	58	B	9	..	.	20	1	12	7	V
30	B	..	8	..	20	1	5	..	..	59	B	½	..	Pr.	32	7	7	8	V
31	B	..	..	..	27	1	8	..	V	60	G	..	4	..	32	4	1	7	V
32	G	..	6	..	20	2	2	..	V	61	B	6	..	..	29	5	6	..	V
33	B	¼	..	..	21	1	11	7	V	62	B	3	..	..	22	1	1	7	V
34	GG	..	..	1 P.	30	3	3	6	V	63	B	1	..	..	28	5	1	..	V
35	G	..	3	..	30	1	5	7	V	64	G	10	..	..	24	1	5	..	..
36	G	..	5	..	30	7	4	..	V	65	G	12	..	..	23	1	3	..	V
37	B	..	..	..	24	2	1	8	V	66	B	6	..	..	29	4	5	..	..
38	G	..	3	..	30	4	3	..	..	67	G	2	..	..	24	1	2	..	..
39	G	..	18	..	30	1	..	8	V	68	B	4	..	..	30	4	5	..	..
40	B	..	5	Pr.	30	2	3	7	V	69	B	..	6	..	24	1	4	..	V
41	B	..	1	..	27	1	4	8	V	70	G	..	1	..	26	1	48	..	V
42	B	½	..	..	22	2	2	8	V	71	B	..	2	Pr.	31	5	4	..	V
43	B	1	..	Pr.	25	1	2	6	V	72	G	2	..	Pr.	32	7	3	8	V
44	B	..	3	Pr.	26	2	2	7	V	73	B	..	6	..	30	1	..	..	V
45	G	..	1	..	27	2	..	7	V	74	B	..	1	Pr.	20	1	5	..	V
46	G	5	..	Pr.	36	6	4	..	V	75	G	12	..	Pr.	25	1	9	..	V
47	G	..	..	..	26	4	2	..	V	76	B	..	3	..	19	1	2	8	V
48	B	..	..	Pr.	29	4	6	..	V	77	G	..	5	..	30	5	4	..	V
49	G	..	3	..	31	1	2	7	V	78	G	..	6	..	34	5	2	..	V
50	B	..	1	..	24	2	1	8	V	79	B	13	..	..	25	3	1	7	V
51	GG	..	14	..	24	3	6	..	V	80	B	..	2	..	29	4	10	..	V
52	B	..	3	..	30	6	2	..	..	81	B	¼	..	..	30	3	40	8	V
53	G	..	7	..	24	3	2	..	..	82	B	..	5	..	21	1	2	..	V
54	B	..	..	Pr.	19	1	4	..	V	83	G	11	..	..	34	5	..	6	V
55	G	..	1	..	28	2	3	6	V	84	B	..	4	..	28	2	2	..	..
56	G	..	3	..	20	1	12	7	V	85	B	..	10	..	32	8	1	..	..
57	B	..	..	..	30	4	1	7	V	86	B	..	5	..	21	1	3	..	V

No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.	No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.
87	B	..	3	..	29	4	1	..	..	116	B	..	3	..	25	4	1	..	..
88	B	..	5	Pr.	30	3	2	..	V	117	B	..	2	..	28	3	2	7	V
89	B	¼	..	..	22	1	16	..	V	118	B	5 M	..	..	35	4	3	..	V
90	G	8	..	..	23	2	4	..	V	119	G	12	..	..	33	1	2	..	..
91	G	..	2	..	26	1	3	..	..	120	G	..	6	..	24	1	2	8	V
92	B	¼	..	..	30	8	3	8	V	121	B	..	3	..	28	1	4	7	V
93	G	..	3	..	23	1	4	7	..	122	G	12	..	Pr.	21	3	4	..	..
94	G	..	1	..	25	1	16	7	V	123	G	..	1	..	35	9	1	7	V
95	B	5 M	..	..	26	6	6	6	V	124	B	..	9	..	23	1	2	..	..
96	B	5 M	..	..	27	1	9	..	V	125	G	..	6	..	24	1	6	7	V
97	B	5 M	..	Pr.	19	2	1	7	V	126	G	..	..	..	28	1	11	..	V
98	B	..	4	..	25	2	4	7	V	127	B	..	..	..	28	2	1	..	V
99	B	..	5	..	32	3	½	..	V	128	B	..	..	Pr.	30	1	5	..	V
100	B	5 M	..	..	20	1	12	..	V	129	B	5 M	..	Pr.	20	1	5	..	V
101	G	..	8	..	20	1	7	..	..	130	B	..	1	..	25	5	3	7	V
102	B	2	..	..	26	2	1	..	V	131	B	..	6	Pr.	24	2	10	..	..
103	B	..	6	..	35	7	..	..	V	132	B	5 M	..	..	22	5	4	..	V
104	G	..	4	..	21	1	10	7	V	133	G	..	5	..	33	6	12	..	V
105	B	5 M	..	Pr.	28	2	36	..	V	134	B	..	..	..	26	1	6	..	V
106	B	½	..	..	27	1	4	..	..	135	G	..	1	..	28	5	2	6	V
107	B	..	1	..	20	6	4	7	V	136	B	12	..	..	20	1	9	..	..
108	G	..	6	..	28	4	1½	8	V	137	B	¼	..	..	40	6	3	..	V
109	G	..	6	..	20	1	..	..	V	138	B	5 M	..	..	23	1	16	..	V
110	G	..	1	..	18	1	4	7	V	139	G	14	..	..	23	2	3	8	V
111	G	6	..	..	22	1	6	..	V	140	B	5 M	..	..	21	1	2	7	V
112	B	..	5	..	31	2	2	..	V	141	B	10M	..	Pr.	22	3	2	..	V
113	G	5 M	..	..	31	6	4	7	V	142	B	14	..	..	22	1	12	..	V
114	B	10	..	..	30	2	8	6	V	143	G	..	1	..	30	6	2	..	..
115	G	4	..	..	32	2	1	..	..	144	G	18	..	..	25	1	30	..	..

No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.
145	B	..	6	..	22	1	6	..	..
146	B	..	5	Pr.	19	1	4	..	..
147	B	..	6	..	36	6	12	..	V
148	G	..	3	..	40	1	..	..	V
149	B	..	1	..	20	1	2	..	..
150	B	6	..	..	35	1	2	..	..
151	G	..	1	..	23	1	3	7	..
152	G	..	3	Pr.	30	6	1	..	V
153	B	..	2	..	21	1	8	..	..
154	B	..	9	Pr.	32	5	1	..	V
155	G	..	11	..	32	5	1	..	V
156	G	..	1	..	30	5	24	..	..
157	B	1½	..	Pr.	30	8	24	..	V
158	B	..	5	..	30	6	¼	..	V
159	G	9	..	..	27	9	1	6	V
160	BB	4	..	1P.	23	3	½	7	V
161	B	..	2	..	34	6	3	..	V
162	B	5 M	..	..	30	2	2	..	V
163	B	5 M	..	Pr.	18	1	4	6	V
164	B	..	6	..	20	1	12	..	V
165	G	2	..	..	22	2	4	..	..
166	G	4	..	Pr.	20	1	4	..	V
167	B	12	..	..	20	1	2	8	V
168	G	..	2	..	21	2	6	..	V
169	G	..	3	Pr.	25	3	2	8	V
170	B	8	..	..	35	8	¼	..	..
171	B	½	..	..	29	1	35	..	V
172	G	15	..	..	30	2	20	..	V
173	B	3 M	..	..	24	3	1	5	V
174	B	14	..	..	30	3	16	..	V
175	B	..	7	..	19	1	2	..	..
176	B	12	..	..	33	6	5	..	..
177	G	..	6	Pr.	29	1	28	..	V
178	B	..	4	..	23	1	50	..	V
179	B	4	..	..	24	3	1	7	..
180	B	6	..	..	30	1	5	8	..
181	B	..	1	..	30	1	4	..	V
182	G	18	..	..	22	1	2	..	V
183	B	..	8	..	22	3	4	..	V
184	B	½	..	Pr.	34	6	2	..	V
185	G	..	3	..	26	3	6	..	V
186	G	..	5	..	38	9	1	8	V
187	B	..	1	..	24	1	3	7	..
188	G	11	..	..	30	3	1	..	V
189	B	..	2	..	22	3	1	7	V
190	G	..	2	..	22	3	1	7	V
191	B	..	2	..	30	1	5	8	V
192	B	..	2	Pr.	30	1	5	8	V
193	B	..	3	..	17	1	8	..	..
194	B	..	3	..	36	5	3	..	V
195	G	..	7	..	23	1	3	..	V
196	B	..	1	Pr.	23	2	8	6	V
197	G	14	..	Pr.	23	1	2	8	V
198	G	..	1	Pr.	23	1	2	8	V
199	B	12	..	..	22	2	6	7	V
200	G	..	6	..	28	2	..	7	V
201	G	..	1	..	24	2	1	..	V
202	B	2	..	..	30	3	7	..	..

No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.	No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.
203	B	..	4	..	37	1	5	..	..	232	G	5 M	..	..	21	1	10	..	..
204	G	10	..	..	27	2	2	..	V	233	B	1	..	..	23	1	3	..	..
205	G	..	2	..	30	5	1	..	..	234	B	..	6	..	27	5	3	..	V
206	B	..	1	..	23	2	4	..	..	235	G	..	3	..	21	1	1	..	..
207	B	..	7	..	23	2	4	..	..	236	B	..	5	..	30	9	1	..	..
208	B	..	7	..	28	2	2	..	..	237	G	28	..	..	25	1	24	..	V
209	G	..	1	..	27	2	1	..	..	238	B	36	..	..	25	1	3	7	..
210	G	..	1	..	27	1	17	..	..	239	G	16	..	..	22	2	12	6	..
211	G	..	2	Pr.	32	7	8	7	V	240	B	..	1	..	34	7	1	6	..
212	G	..	..	..	20	1	3	..	V	241	G	..	3	..	20	1	5	..	..
213	G	..	6	..	28	1	24	..	..	242	B	..	37	..	24	1	24	..	..
214	B	¼	..	..	25	1	36	..	V	243	G	6	..	Pr.	20	2	2	7	V
215	G	..	4	..	26	3	2	7	..	244	B	12	..	..	37	8	2	8	..
216	B	..	3	..	24	1	2	..	..	245	G	..	1	..	24	1	60	..	V
217	G	..	3	..	19	1	6	..	..	246	B	..	1	..	35	10	..	7	V
218	B	..	1	..	20	1	2	..	..	247	G	..	4	..	31	7	1	..	V
219	B	..	5	..	27	2	9	..	..	248	B	..	2	..	21	1	6	..	V
220	G	..	6	..	30	2	1	..	V	249	B	..	7	..	35	7	4	..	V
221	G	..	7	..	17	1	3	..	V	250	G	..	3	..	25	2	9	..	..
222	B	¼	..	..	22	2	4	..	V	251	G	..	3	..	26	3	½	7	V
223	B	..	5	..	18	1	8	..	..	252	B	..	7	..	19	4	4	..	V
224	G	1	..	..	25	6	2	8	..	253	B	6	..	..	17	1	7	6	V
225	B	..	7	..	22	3	..	7	V	254	G	..	3	..	36	6	5	..	V
226	G	..	1	..	33	4	2	6	V	255	G	..	12	Pr.	23	1	9	8	V
227	B	4	..	..	30	10	4	..	..	256	G	..	5	..	30	2	7	8	V
228	G	14	..	..	33	10	1	..	V	257	G	..	7	..	30	3	1	..	V
229	G	¼	..	Pr.	21	3	3	7	V	258	G	..	..	Pr.	28	4	2	..	V
230	B	..	2	..	20	2	1	8	..	259	B	12	..	Pr.	23	2	¼	6	V
231	G	.	2	..	20	1	5	..	..	260	B	..	6	..	25	3	4	8	V

No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.	No. of Case.	Sex.	Hours Alive.	Days Alive.	Presentation.	Age of Patient.	First or Subsequent Pregnancy.	Hours in Labour.	Age of Child.	Observations.
261	G	..	3	Pr.	34	10	3	..	V	273	G	2	..	..	26	5	1	5	V
262	B	..	5	..	28	5	2	..	V	274	B	..	1	..	30	5	1	..	V
263	G	..	8	..	20	1	3	..	V	275	G	..	6	..	24	3	4	..	..
264	B	..	1	..	40	10	4	..	..	276	B	8	..	..	28	4	1	..	V
265	B	..	1	..	30	2	2	..	V	277	G	..	6	..	25	1	2	8	V
266	G	1	..	..	28	4	2	..	V	278	B	12	..	..	21	1	..	7	V
267	B	12	..	..	26	1	7	..	V	279	B	2	..	..	28	5	2	..	..
268	G	..	4	Pr.	30	4	3	7	V	280	B	..	5	Pr.	28	5	8	7	V
269	G	..	3	..	28	3	12	7	V	281	B	..	1	..	23	3	3	8	V
270	B	..	1	..	26	2	3	..	V	282	B	..	1	..	31	3	3	7	V
271	B	..	1	..	35	8	4	..	..	283	G	..	5	..	35	8	..	..	V
272	B	..	..	..	22	1	10	..	..	284	B	..	1	..	28	3	6	..	..

REGISTRY SHEWING THE MORTALITY IN THE EARLY PERIODS OF CHILDHOOD.

In order to ascertain as far as possible the mortality in the *earlier* periods of life, I kept a correct Registry, during my residence in the Hospital, of the *total* number of children each patient had *previously* given birth to, and of the number *alive* at the time of her delivery.

The result of this Registry is, that at different periods the 16,414 women had given birth to 53,458 children; of these 28,532 were *males*, or rather more than 8-15ths of the entire, and 24,926 females. Of the 28,532 males, 17,437 were living, or rather more than 3-5ths; and of the 24,926 females, 16,468 were alive, or nearly 2-3ds.

Of the entire 53,458 children, 33,905, or more than 3-5ths continued to *live* at the time the mothers were *last* delivered.

I cannot conclude without expressing the deep obligation I feel to Doctors Darley, Evory Kennedy (now Master of the Hospital) Jonathan Labatt, Wm. O'Brien Adams, and Edward William Murphy, who were in rotation my Assistants in the Hospital; from whom at all times I received the

most truly valuable aid and advice, and whose unceasing attention to the duties of their office enabled me to furnish these minute details to my professional brethren.

The Dublin Lying-in Hospital, which with its appendages form the south side of Rutland Square, is one of the noblest monuments ever erected to charity by an individual never possessed of much wealth. The magnificent bequests of Guy in London, and Herriott in Edinburgh, effected in their respective capitals what our countryman Doctor Bartholomew Moss accomplished by *genius* and *zeal* so far as I know unprecedented.

With great pleasure, therefore, I take advantage of this opportunity of recording my admiration of the founder of a charity, which, in the last 77 years, has afforded relief to *one hundred and thirty-one thousand one hundred and seventy-two poor women*, and proved highly beneficial to the rich, by affording so vast a school of experience to students anxious to obtain *practical* knowledge.

THE END.

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