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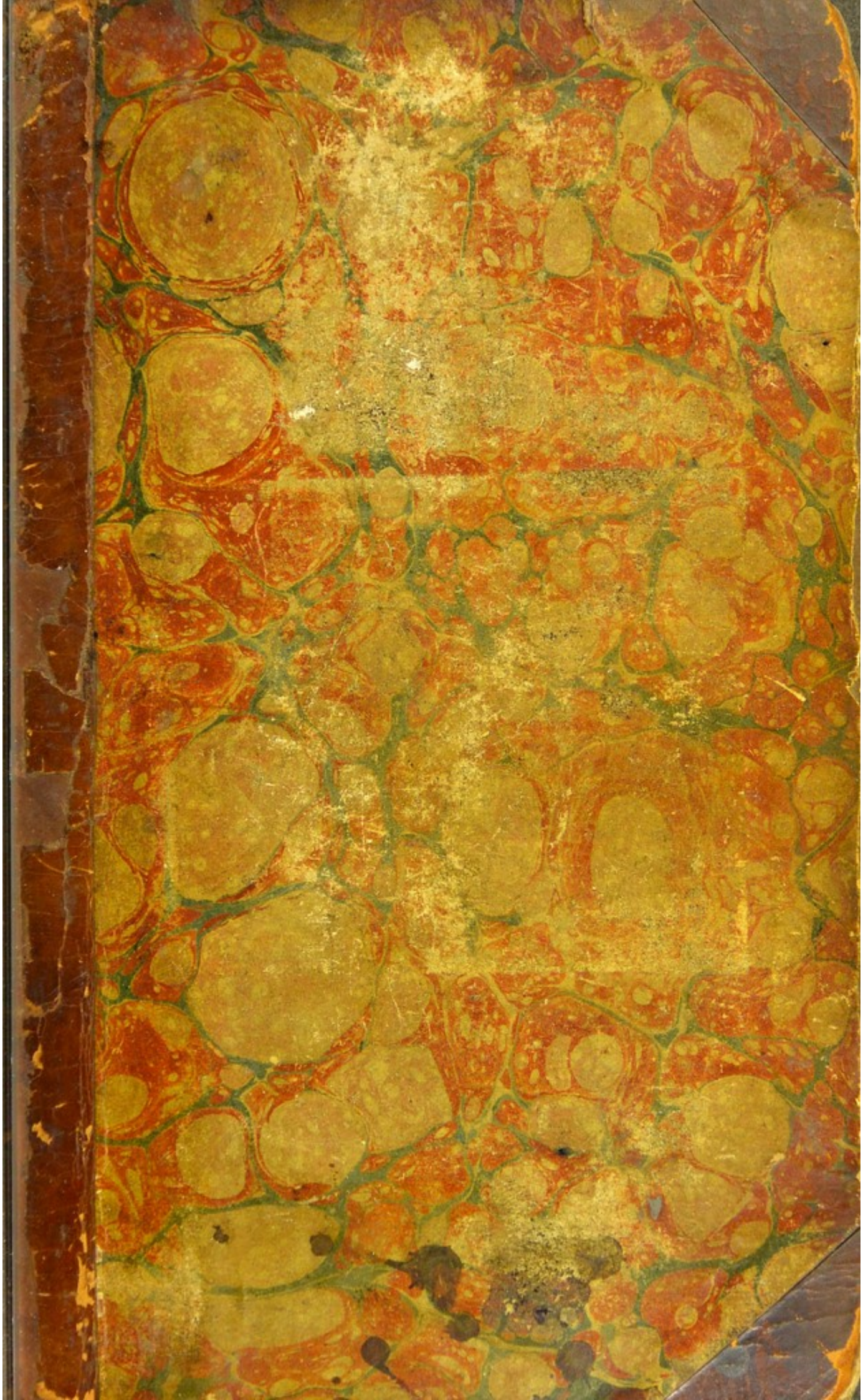

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A

SYNOPSIS

OF THE

VARIOUS KINDS

OF

DIFFICULT PARTURITION,

WITH

PRACTICAL REMARKS

ON THE

MANAGEMENT OF LABOURS.

BY

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Da spatium tenuemque moram, male cuncta ministrat
Impetus. Statii Theb. Lib. x.

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1820.

TO THE

MEMORY

OF HIS

REVERED FRIEND AND BENEFACTOR,

SAMUEL MERRIMAN, M.D.

WHOSE LIFE,

PROLONGED TO EIGHTY-SEVEN YEARS,

WAS

ACTIVELY, CHEERFULLY, CONSCIENTIOUSLY

SPENT

IN CEASELESS ENDEAVOURS

TO PROMOTE

THE WELFARE AND HAPPINESS

OF HIS

FELLOW CREATURES,

THIS VOLUME

IS

PIOUSLY INSCRIBED

BY A

GRATEFUL NEPHEW.

PREFACE.

The First Edition of this work consisted of an Enumeration, in a nosological form, of the principal Deviations from Natural Parturition. To the Second, some Practical Observations were added. A Third Edition is now called for, which contains Additional Observations, and an Appendix of Cases and Tables.

The attempt to arrange difficult Parturition in a nosological form, is not new; *Sauvages*, *Sagar*, *Linnæus*, *Macbride*, *Young*, and others, include Dystocia in their respective systems of Nosology. *Cullen* indeed omits it; but he confesses to have done so "perhaps improperly;" and therefore he has inserted *Dystocia*, in that list of unarranged diseases, to which he calls the attention of future enquirers, by recommending, that they should be examined more narrowly, and their proper places and characters determined.

Notwithstanding the objections that have been raised against systems of Nosology, notwithstanding the errors to which they have sometimes led, and the anomalies with which they abound, no doubt can be entertained, that much improvement in Pathology and Therapeutics has been derived from the more extended study of this part

of Medical Science. Even the inconveniences most complained of, as arising from systematic arrangements, have not been without their use. The discrepancies of opinion respecting the classes under which certain maladies ought to be placed, and the accumulation of synonymes, which the various system-makers have introduced, contribute to excite a strict investigation into the more obvious characters of each complaint, and to a review and separation of their more minute shades of difference; thus fixing the symptoms of the disease more firmly in the memory, and enabling the Physician to direct his means of cure to the more alarming indications at their very onset.

What *Cullen* has advised to be done for his unarranged diseases, in the aggregate, I have attempted in the individual Dystocia. But it was no part of my plan to introduce a new nosological Nomenclature. This, since my book was first published, has been effected by *Dr. Power*, in his *Treatise on Midwifery, developing new Principles, &c.* (1819), who has entered elaborately into the subject of Nosology as applicable to Parturition, and has displayed much erudition in the selection of his Nomenclature. It was my object to conform, as much as possible, to the model placed before me by *Sauvages* and *Young;* but to exhibit a more correct and extensive view of difficult Parturition, than was to be met with in their works.

It was once my intention to exemplify the modern method of obstetric practice, by publishing a complete series of cases in the order of this arrangement of labours. I have, however, only so far executed this part of my original plan, as to give, in an Appendix, a smaller number of cases; and in the choice of these, I have chiefly had in view what might be useful to those practitioners, who have not yet made much advancement in the profession. The cases published are not always authenticated, with the signatures of the parties who communicated them; but none have been inserted unless I had very good reason to be satisfied, that the facts stated were correctly reported.

I have interspersed, perhaps rather too freely, Extracts from other Authors, and from MS. Notes. Some of these, I thought, would amuse, some would instruct, and some, by confirming the doctrines I wished to teach, would cause my instructions to be more readily followed. For these, then, and for frequent Notes of Reference to other Authors, I hope to be excused. Much thus inserted, is, no doubt, already known to those who are advanced in their profession; but it must be remembered, that my book is principally designed for beginners, to whom notices such as these may spare much time and labour in their future researches.

A learned Physician, the late *Dr. Parr* of Exeter, has said, that "in the whole practice of Medicine and Sur-

gery, no subject requires greater firmness of conduct, more profound reflection, nor more sound judgment," than the management of difficult labours. If, by the classification here adopted, any facility is afforded for attaining these valuable requisites of a good accoucheur, my most earnest wish will be fulfilled. I have diligently sought to discover, and to impress upon the mind, those rules which may make our practice, in difficult and dangerous labours, apposite and effective: to enumerate the principal aberrations from Nature, and to shew when these deviations are important or otherwise: to inculcate such cautions as may prevent unnecessary apprehension and dismay; and to point out such evidences of approaching danger as may awaken timely attention and alarm.

If, by any instructions conveyed in this book, I shall ever be the means of relieving that anxiety of the Practitioner's mind, which sometimes, during the attendance on a tedious and difficult labour, becomes acute, even to agony: or if by any admonitions or suggestions I shall be instrumental in preserving women, in the painful exigency of child-birth, from unnecessary suffering or danger; with how much reason may I then exclaim "*nec ego frustra!*"

HALF-MOON STREET,
July, 1820.

CONTENTS.

ERRATA.

Page 33, for Appendix No. 6, read No. 8.
34, ——— No. 7, —— No. 9.
44, ——— No. 8, —— No. 10.
69 in the note, for *os uteri* read *os vulvæ*.

I must here apologize for having attributed to *Celsus* a mode of practice, for which I do not find authority in his works. The error arose from my having inadvertently used a quotation, extracted for some other purpose, without referring to the original. The context there shews, that the recommendation of *Celsus* does not apply to original presentations of the *nates*.

LABOURS

MAY BE DIVIDED INTO

TWO CLASSES:

1. EUTOCIA*—*Natural Labour.*
2. DYSTOCIA†—*Difficult Labour.*

CLASS I.—*EUTOCIA,*

COMPREHENDS ONLY ONE ORDER.

1. *Eutocia Simplex.—Natural Labour.*

NATURAL LABOUR. Smellie, Denman, Plenck, &c.
EASY LABOUR. Cooper.
ORDINARY LABOUR. Aitken.

Definition.—In natural labour the *vertex* presents, and the head descends readily into the *pelvis*, taking such a direction as brings the *occiput* to emerge under the arch of the *pubes*. The labour terminates within twenty-four hours after its commencement.

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* From ευς, bonus, and τοκια, partus.

† From δυς, male, and τοκια, partus.

The *placenta* is expelled within one hour after the birth of the child. The whole process is passed through without danger to the mother.

The definition here given of *natural labour*, EUTOCIA, is sufficiently simple and intelligible, and agrees with that generally adopted: some writers, however, have defined natural labour differently. Thus, *Mr. Burns* considers it as essential to *natural labour*, that it shall not occur before the full term of nine months; he has, therefore, in his classification of labours, introduced *premature labour*, as his second class*.

Mauriceau considered it not only essential, that the woman should have reached the full term of pregnancy, but likewise that the child should be born alive, in order to constitute *natural labour*†.

Dr. Cooper is disposed to consider that, only, as *natural labour*, in which the child is expelled in *twelve* hours, from the commencement of the process‡.

And *Mr. Power* restricts the term, HILAOSIS, *propitious labour*, to *six* hours only ||.

It is certain, that most *natural labours* terminate in a shorter space of time than twenty-four hours, especially if the woman has already borne a child: thus in 500 instances of EUTOCIA, it was found that

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* *Principles of Midwifery.*

† *Maladies des Femmes.* liv. 2. cap. 1.

‡ *Compendium of Midwifery,* (1766.)

|| *Treatise on Midwifery,* (1819.)

201	terminated within 6 hours, and of these 5 were first labours.	
192	12 ditto	27 ditto.
74	18 ditto	31 ditto.
28	24 ditto	10 ditto.
500		73

But as it is always of importance not to limit too narrowly the powers of nature, and thereby to risk the too hasty interference of art; as the complete developement of the parts cannot always be effected in a shorter space of time; and as danger hardly ever occurs during the first twenty-four hours of a natural presentation; it seems unwise to alter the definition of natural labour here adopted.

Of the precursory Symptoms of Labour.

Labour is usually preceded by

1. A general and equal subsidence of the *uterus* and *abdomen.*

   This is a favourable symptom, as it indicates that the *pelvis* is well formed, and that the parts are properly disposed for labour. It is occasionally effected by the *spurious pains;* but very often takes place almost imperceptibly: it sometimes occurs several days before the labour commences.

2. A discharge of a glairy or mucous fluid from the *vagina.*

   When this discharge is tinged with blood, it is popularly called *a shew;* but this appear-

ance is frequently not perceived till the labour has made considerable progress *.

3. A frequent urgency to make water.
4. Frequent gripings or *tenesmus.*

Occurrences during Labour.

Pains.	Rigors.
Restlessness.	Vomitings.
Despondency.	Profuse perspirations.

Pains are of two kinds, *spurious* and *true.*

Pains may be suspected to be *spurious,*

If they occur before the full time of gestation;

If unaccompanied with discharge from the *vagina;*

If the patient has over-fatigued herself;

If she has been exposed to severe cold;

If she has lately taken indigestible or flatulent food.

Spurious pains are to be distinguished,

By their irregular recurrence;

By affecting the belly more than the back or sides;

By not producing any dilatation of the *os uteri.*

Spurious pains are to be relieved,

By aperients, if arising from costiveness or indigestion;

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* Mistakes are sometimes made respecting the *shew.* Thus, if a woman has a slight discharge of blood, not a very unusual occurrence towards the end of pregnancy, she is thought to have a *shew,* and labour is in consequence speedily expected: but the appearance of pure blood does not constitute a *shew.* The *true shew* consists of glairy and sanguineous discharge mixed together; and this rarely happens, till the labour has actually made some progress.

By antacids, if from superabundant acidity in the intestines;

By opiates, if from spasm or fatigue;

By bleeding, if connected with inflammation or fever.

True pains may be known,

By their recurring at regular intervals;

By affecting the back and shooting round to the thighs;

By producing a sensible opening or dilatation of the *os uteri* during each pain;

By protruding the membranes, like a bladder filled with water, through the *os uteri* *.

True pains are of two kinds,

1. *Grinding, rending*, or *cutting* pains, when the *os uteri* first begins to open.
2. *Bearing* or *forcing pains*, after the *os internum* is somewhat opened, and the bag of waters, or the head of the child is forced like a wedge through the circular mouth of the womb, producing its more complete dilatation, and afterwards expelling the child through the *os externum*.

The *restlessness* and *despondency* which parturient women experience, most commonly occur in the early stages, and seem to be produced by nervous irritability

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* "In the true pains of natural labour, the head of the child will be found pressing upon the *os uteri*; as the pain advances, the head rises, and its place is occupied by the *waters*, which gradually protrude through the *os uteri*, like a bag or bladder."
Puzos' Lectures, MS.

during the continuance of the *grinding* pains: these symptoms are generally removed or relieved when the *bearing* pains come on *.

Rigors, tremblings, or *thrillings* often happen during the dilatation of the *os uteri;* sometimes they accompany every pain: more frequently they prevail most when the *os uteri* first begins to dilate, and at the time when the dilatation is about to be fully accomplished: not uncommonly they precede the passage of the head through the *os externum* †, and terminate by producing a violent cramp in the lower extremities.

Rigors or *thrillings*, when connected with uterine action, may be esteemed favorable indications of labour; but they should be distinguished from those severe, distinct shivering fits which are the forerunners of fever, and consequently productive of danger ‡.

It is frequently useful to give warm diluting drinks during these tremblings, such as tea, thin gruel, weak

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* Great restlessness and jactitation sometimes occur in *Dystocia diutina*, when the patient's strength becomes nearly or quite exhausted, and then indicate considerable danger.

† "The external parts are the most irritable, so that when they come to be dilated, the pain is so very great, as to make the woman cry out vehemently. Those are called the *birth pains*. Women are seized with strong trembling fits, just before the birth of the child, particularly in the first labour."

Professor Young's Lectures, MS.

‡ Shivering fits, the forerunners of fever, more commonly happen in long and difficult, than in natural labours: when indicative of danger, they are often accompanied with a furred tongue, quick and laborious breathing, great thirst, and an oppressed pulse, soon becoming hard and rapid.

broths, &c.; but the custom of giving spiced caudle, warm beer, mulled wines, or spirits and water, is highly reprehensible, though very common, especially among the lower ranks of society.

Vomiting is likewise looked upon as a very favourable occurrence during labour, agreeably to an old adage often quoted in the lying-in chamber, that "sick labours are safe;" and whenever it removes from the stomach improper food or drink, which are often, particularly among the lower ranks, the exciting causes of this symptom, it is beneficial.

Vomiting is likewise sometimes useful by producing relaxation; thus it is often observed, that pains accompanied with vomiting, occasion a greater and more rapid dilatation of the *os uteri*, than would be produced by the pains alone, without the vomiting.

But vomiting ought to create alarm,

If it occurs after a long continuance of labour;

If the *os uteri* is completely dilated;

If the pains are suspended, or have altogether ceased;

If the patient has a hard, quick pulse, a furred tongue, and other evidences of fever;

If the fluid ejected be of a dingy, sanguineous, or blackish hue;

If the patient is unable to bear the pressure of your hand on the *abdomen*.

Perspiration is a natural consequence of labour; but the degree of it depends upon various causes and peculiar constitutions. The relaxation that natural perspiration produces in the system, doubtless tends to facilitate parturition; but artificial perspiration, brought on by loading the patient with too many bed-clothes; by keeping the

lying-in chamber too hot and close; or by giving heating liquors; exhausts the strength, and tends in every instance to delay the progress of the labour.

Of the different Stages of Labour.

It has been found convenient to divide labours into stages or periods, each stage being marked by some distinguishing circumstances, either in the nature of the pains, the dilatation of the parts, or the degree of descent of the head; and various have been the divisions arbitrarily adopted by different authors. Thus:— Dr. *Denman* divides labour into *three* stages only. "The first includes the dilatation of the *os uteri:* the rupture of the membranes: the discharge of the waters. The second, the descent of the child: the dilatation of the external parts: the expulsion of the child. The third, the separation of the *placenta:* the expulsion or extraction of the *placenta.*" *Aphorisms*, p. 3.

The *London Practice of Midwifery* makes four stages: "the first stage is that when the head of the child enters the *pelvis*, passing down as far as it can move, without changing its position. The second includes the period of the child's head passing through the *os uteri* into the *vagina.* The third, the change which has taken place in the *vagina* and *os externum.* The fourth, the delivery of the body of the child and the expulsion of the *placenta.*"

Dr. Bard, of New York, makes four stages. "The first is occupied in opening and dilating the internal orifice of the womb; the second, in the passage of the child's head through the bones; the third, in dilating

the external orifice, and the delivery of the child; and the last, in the delivery of the *placenta* or after-birth."

Compendium of Midwifery, p. 105.

Mr. Hogben divides labour into five stages. "The first lasts from the commencement of labour till the child's head enters the brim of the *pelvis*. The second is the time in which the face passes into the lower *pelvis*, the face turning into the cavity of the *sacrum*. The third, the further advance of the head without the *os externum*. The fourth, the expulsion of the body and lower extremities of the child. The fifth, the discharge of the *placenta* and membranes." *Obstetric Studies*, p. 33.

Dr. Romer, of Zurich, makes four stages of labour. "The first is known by the *precursory pains, dolores præsagientes:* the second by the *preparatory pains; dolores præparantes:* the third by the *true pains; dolores veri ad partum:* the fourth by the *vehement forcing pains; dolores conquassantes.*"

Partus naturalis brevis Expositio.

Gottingæ, 1786.

I have preferred a divison into four stages, distinguished as follows:—

1. During the first stage, the head of the fœtus descends into the superior aperture of the *pelvis*, and the *os uteri* becomes dilated to about two inches in diameter in the absence of pain.

2. The second stage produces that change in the position of the head, which turns the forehead into the hollow of the *sacrum*, and brings the *occiput* to emerge under the arch of the *pubes*.

3. The third stage produces the expulsion of the child through the *os externum*.

4. The fourth stage is accomplished by the delivery of the *placenta.*

‡ Sometimes the *os uteri* becomes completely dilated during the first stage: but, in general, this is not accomplished till the second stage is nearly over.

‡*‡ The time at which the membranes rupture, is very various. *The longer they remain entire, the safer in general is the labour.* That labour is the most truly natural, in which the *liquor amnii*, (popularly called *the waters)* is not evacuated till the head of the child is just ready to pass into the world.

GENERAL DESCRIPTION OF THE STAGES OF LABOUR.

Of the first Stage.

The woman having, a few days or hours before, experienced a subsidence of the *uterus*, and a discharge, more or less in quantity, of mucus from the *vagina*, will at length begin to be sensible of sharp pains, generally described as being more felt in the loins than in the *abdomen;* but, in fact, shooting through the *pelvis*, either from behind forwards, or from before backwards. These pains recur occasionally, at intervals of twenty, thirty, or more minutes; but very often come on much quicker: and sometimes the intermissions are so slight, that the patient will hardly acknowledge them to be intermissions. The constantly repeated attacks of these pains, and the teaz-

ing sensations they occasion, have induced the French ladies to call them, "*les mouches,—the flies,*" for they come on and sting, and go off, and return and sting again, just as flies buz about and teaze, in the heat of summer.

Most women, who have already borne children, either do not feel these pains so acutely, or knowing how little efficacious they are, do not regard them so much, as those who are for the first time about to undergo the process of labour.

If an examination, *per vaginam*, be made during the pains, the *os uteri* will be found but little opened, yet a slight pressure will be felt upon the finger, during each pain, and the membranes will be endeavouring to force their way through the small opening.

The intensity and duration of these *grinding* pains depend chiefly upon the degree of thickness or rigidity of the *os uteri:* they continue till that part is sufficiently dilated to allow a more complete protrusion of the membranes. This will take place when the *os uteri* is open to about an inch in diameter; and now the membranes enclosing the *liqour amnii*, will, during every pain, be pushed forward, through the circular aperture of the *uterus*, and the extreme edge of the *os tincæ* will be equally pressed upon through its whole extent, by the bag of water performing the office of a wedge.

When the wedge begins to act, the *grinding* or *cutting* pains diminish, and as a larger quantity of the waters increases the bulk of the protruding bag or wedge, the *bearing* pains begin to be felt; and, in proportion as the pains grow stronger, there is a greater freedom from uneasiness during the intermissions; commonly too the pains are rather longer apart.

The irritable state of the *os uteri*, during the first stage of labour, very often produces, from sympathy, those shiverings and vomitings already spoken of; and when the *cutting* pains are very frequent and severe, despondency and lowness of spirits generally prevail.

The first stage of labour may be considered as terminated, when the *os uteri* is dilated to the full extent of two inches in diameter, provided that the head of the *fœtus* has descended so much, as to occupy the superior aperture or brim of the *pelvis*.

So many circumstances may occur to protract this stage of labour, particularly with first children, that it is impossible to calculate its duration with any degree of accuracy: in young women, *cæteris paribus*, it is more spedily terminated, than in those who are more advanced in life; and this observation holds good, likewise, with regard to the second and third stages.

Of the second Stage.

When the first stage of labour has terminated favourably, the second seldom offers much difficulty or delay; the pains become more *forcing*, and of longer duration, and a new power is called in, to assist in propelling the child through the *pelvis*. This assistance is afforded by the diaphragm and abdominal muscles, which are brought into action during the pains.

It is no uncommon thing, during the earlier period of the labour, to hear the poor patient advised by her nurse and female friends to assist herself and bear down with all her might, and the chidings that she undergoes, for not making her pains useful, tend greatly to produce

dismay and depression of spirits; whenever the accoucheur observes this, he should endeavour to repress such absurd and improper behaviour. The fact is, that during the first stage of labour, the voluntary efforts of the patient are neither called for, nor can be beneficial. They may exhaust her strength, but cannot advance the labour. The action of the diaphragm and abdominal muscles is almost, if not altogether, useless, till the *os uteri* is getting well dilated; then, indeed, it becomes a powerful auxiliary in producing greater dilatation, and in propelling the child through the *pelvis.*

And, now the woman cannot withhold her exertions, it is no longer a matter of choice, but of necessity; she is compelled to strive in forwarding the birth; she eagerly grasps in her hands whatever is within her reach, and endeavours to fix her feet against some firm body; she holds in her breath, and *bears down* with all her force. By these powers united, she is enabled to get through the second stage of labour, which may be considered as finished, as soon as the *os uteri* is fully dilated, and the head of the *fœtus* is so placed, as for the forehead to occupy the hollow of the *sacrum.* A violent straining to vomit occasionally accompanies the pain, which completely dilates the *os uteri.*

Sometimes, however, the second stage of labour takes up a longer time, depending, perhaps, upon the want of a due proportion between the pelvic cavity and the fœtal head. And delay is sometimes occasioned by the premature rupture of the membranes, and the discharge of the *liquor amnii.* Whether this arises spontaneously, accidentally, or by design, it has the effect of interrupting the progress of the labour; for the dilating power so admirably possessed by the soft, steady, equable pressure

of the bag of waters is now removed, and the dilatation must be effected by the head of the child slowly moulded into a conical shape; the hardness and inequalities of which little adapt it for such a purpose. When the wedge, instead of being formed by the bag of waters, consists of the head of the *fœtus*, it almost infallibly forces down a segment of the *os uteri* between itself and the *ossa pubis:* this portion of the *uterus* usually becomes tumefied, which indisposes it to dilate; and the action of the *uterus* grows irregular, spasmodic, and more acutely painful.

If the *shew* has not already appeared, it will be discovered during this stage, and may be considered as a very favourable occurrence; for the discharge of this intermixture of blood and glairy matter, tends very much to produce relaxation in the soft parts of the mother.

Of the third Stage.

The strength of the pains now increases; but generally there is a longer interval between them; and during this the patient sometimes gets a few minutes sleep, and always is refreshed. After each period of quietude, when the pain returns, strong pressure is made to force forwards the head of the child and to expand the external orifice; the *perinæum* is stretched, the *anus* opens, the anterior part of the *rectum* is pushed outwards; the woman imagines that she is going to part with a stool, and if any *fæces* are contained in the *rectum*, they are actually expelled. The pain now ceases, the head is retracted, the bag of waters, if still entire, becomes flaccid, the woman is again at rest. After a while, another pain comes on; it would seem, as if the force was sufficient to make the

head break down every thing that opposed it; but again the pain abates and again the head is retracted. Thus the patient must continue to suffer, till the external outlet is sufficiently dilated to allow the child's head to pass.*

During the second and third stages of labour, the pulse will have been gradually encreasing in quickness and force; the skin grows hot; the face becomes intensely red; drops of sweat stand upon the forehead; and a perspiration, sometimes profuse, breaks out all over the body; frequently violent tremblings accompany the last pain, and at the moment that the head passes into the world, the extremity of suffering seems to be beyond endurance.

The head of the child being born, the poor woman experiences complete relief from pain; but soon the throes return for the purpose of expelling the shoulders; and this is effected thus: when the head passes into the world, the chin of the *fœtus* rests against the *perinæum;* but while the head continues in this position, the shoulders are in a wrong direction for passing through the inferior bony aperture; for the long diameter of the shoulders is opposed to the short diameter of the *pelvis.* The first effect of the pain, then, is to turn the chin of the child towards the thigh of the mother†; this alters the

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* The term *crowning* was formerly used to express that degree of advancement of the child's head which just precedes its full expulsion: it is *crowned* when about half way passed into the world.

† *M. Baudelocque* remarks that the chin is generally turned to the right thigh, in what he denominates the first position of the head; and to the left, in the second position. See Appendix, No. 1.

direction of the shoulders, and first one and then the other passes through the external parts: this is often effected by the same pain, and not unfrequently the whole body is at the same time protruded; but sometimes two or three pains are required to accomplish the entire expulsion.

Thus ends the third Stage of Labour.

Of the fourth Stage.

After the child is born, secondary pains arise to expel the *placenta*.—The time at which these may occur is various: in some women within a few minutes, in others not till an hour or more has elapsed*. The pain which produces the separation of the *placenta* is sometimes so slight, that the patient is hardly sensible of it; in this case, however, she perceives a little discharge from the *vagina* at the time of separation.

The practitioner, then, having waited ten or fifteen minutes, or as long as he judges proper, after the child is born, must enquire of the patient, whether she has felt a pain, or has found any discharge; and if she answers in the affirmative to either of these questions, it may be presumed that the *placenta* is expelled from the *uterus* and is lying loose in the *vagina*, from which it may be removed by the accoucheur; but if upon passing his finger,

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* The late *Dr. John Clarke* took some pains to ascertain the length of time which nature required for effecting the expulsion of the *placenta*; and he found, that, upon an average, it took up *twenty-five* minutes.

for the purpose of ascertaining this, he should find that the *placenta* is not completely separated from the *uterus*, he need not be anxious to hasten the delivery of it, unless it should be discovered that extensive hemorrhage is going on.

As, however, neither the patient nor the attendants are fully satisfied till the *placenta* is removed, it will be expedient to make some pressure on the *abdomen* over the *uterus*, or to gently rub the part, in order to excite uterine action; and this is usually successful*.

Rules for the Management of Natural Labour.

1. Natural labour requires but little assistance on the part of the accoucheur. During the whole of the first stage, indeed, and great part of the second, if he attempts to give assistance, he will do mischief. The dilatation of the soft parts will be effected by the natural pains, assisted by the bag of waters gradually insinuating itself, through the *os uteri* and *vagina*, much more easily and more safely, than by any artificial means that he can employ; of course no attempts ought to be made by him to produce artificial dilatation.†

2. During the first and second stages, the patient may be allowed to sit, stand, kneel, or walk about,

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* For two cases illustrative of Natural Labour, see Appen. No. 2.

† See *Smellie*, Coll. xlix, Case 1.

as her inclination may prompt her; if fatigued, she should repose occasionally upon the bed, or a couch; but it is not expedient, during these two stages, that she should remain very long at a time in a recumbent posture.

3. She should be supplied, from time to time, with mild bland nourishment in moderate quantities. Tea, coffee, gruel, barley water, milk and water, broths, &c. may safely be allowed. Beer, wine, or spirits, undiluted or diluted, should be forbidden; they are very rarely required, even when the third stage of labour is nearly terminated, but in the earlier periods, are almost always manifestly injurious.

The attendants in the lying-in chamber frequently object to toast and water, lemonade, oranges, and other subacid fruits, &c. but under many circumstances, such articles are highly grateful to the patient, and may be indulged in without hazard.

4. If the presence of the practitioner in the lying-in chamber is not absolutely required, it is better for him to be in another room; thus the patient, being less under restraint, will attend to the calls of nature, which ought not to be interrupted. It has already been observed, that during the early stages of labour, a frequent urgency to make water is present.

5. The bowels should be opened by castor oil, or other mild aperient, early in the labour. After

the labour has made much progress, the *rectum*, if loaded, should be emptied by clysters. Indeed, the utility of clysters, in almost every stage of labour, is so apparent, that it is to be lamented they are not more frequently employed.

6. It will be necessary for the practitioner occasionally to pass his finger, *per vaginam*, in order to judge of the progress of the labour: but this should not be too often repeated, lest the parts should be irritated and heated, and great care must be taken not to rupture the membranes.

7. The spirits of the patient should be kept up, by kind and cheerful conversation. Noisy discourse is always offensive to the parturient woman, and all conversation on melancholy or unpleasant topics should be checked. Particularly no mention should be made of unfortunate cases in midwifery. The discreet practitioner will discourage all such subjects of discourse; and will likewise endeavour to prevent calumnious reflections and insinuations against his medical brethren, whose character and reputation are too often abused in the lying-in chamber.

8. Towards the end of the second stage of labour, the patient should be placed upon the bed, properly made up and secured; and in the third stage, as soon as the head of the child begins to protrude through the *os externum*, the accoucheur should place his hand, covered by a soft napkin, in such

a manner as to afford a regular and equal support to the *perinæum*, and guard it from laceration.

9. After the head has passed through the *os externum*, it is best to wait for another pain or two, to expel the shoulders, and not hastily to drag them into the world; the delivery of the *placenta* being always facilitated by allowing the shoulders to be protruded by the uterine action.

10. After the child has breathed freely and cried vigorously, a ligature may be made upon the navel string *, at the distance of two inches from the

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* "A ligature upon the navel string is absolutely necessary, otherwise the child will bleed to death, and when tied slovenly, or not properly, it will, sometimes, bleed to an alarming quantity. As we take such vast care to secure the navel string, you will naturally ask,— how brutes manage in this particular? I will give you an idea of their method of procedure, by describing what I saw, in a little bitch of *Dr. Douglas's*. The pains coming on, the membranes were protruded: in a pain or two more they burst, and the puppy followed. You cannot imagine, with what eagerness the mother lapped up the waters, and then, taking hold of the membranes with her teeth, drew out the secundines; these she devoured also, licking the little puppy as dry as she could. As soon as she had done, I took it up, and saw the navel string much bruised and lacerated. However, a second labour coming on, I watched more narrowly, and a soon as the little creature was come into the world, I cut the navel-string, and the arteries immediately spouted out profusely: fearing the poor thing would die, I held it to its mother,

belly, and another an inch nearer to the *placenta*, and the *funis* should be divided with a pair of scissors, between the two ligatures. This operation should never be performed under the bed-clothes. A very careless accoucheur, not long since, included one of the little fingers of the child, in the ligature which he had made upon the *funis*, and cut off the first joint with his scissors. This accident could not have happened, had he brought the part to be divided into view.

11. After the child is born, secondary pains come on, to separate the *placenta;* these usually occur in less than twenty minutes, and the *placenta* is thrown, by them, into the *vagina*, from whence it is easily extracted by the accoucheur.

12. Before the practitioner quits his patient he should make it his constant habit:—

1. To lay his hand upon the *abdomen*, that he may satisfy himself, that the whole contents of the *uterus* are expelled, and that this *viscus* is in a safe and proper state of contraction.

2. To feel her pulse, that he may not leave her in a state of faintness; or with a circulation too much accelerated.

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who, drawing it several times through her mouth, bruised and lacerated it, after which it bled no more. This, I make no doubt, is the practice with other animals."

Dr. Wm. Hunter's Lectures, MS. 1752.

3. To examine that the *funis* of the child is properly secured, lest, after he is gone, an alarming hemorrhage should take place *.

Should any circumstances arise during the process of parturition, that make it more painful, slower, or more difficult than ordinary; that place the mother's life in danger; or that render artificial assistance necessary; such labour must be reckoned as belonging to the class—DYSTOCIA.

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* Two cases have happened within my own knowledge, of children losing their lives from this accident. In one case, from what I may term the criminal apathy and obstinacy of the nurse, who would not apply a fresh ligature round the *funis*, because the patient had been delivered by a midwife!!

CLASS II.—*DYSTOCIA.*

COMPREHENDS FIFTEEN ORDERS.

ORDER 1. *Dystocia Diutina—Lingering Labour.*

NATURAL LABOUR, No. 3. LINGERING LABOUR. Smellie.
SLOW AND PAINFUL LABOUR. Watts.
LINGERING AND PERPLEXING LABOUR. Cooper.
TEDIOUS LABOUR. Burns, Class IV.
DIFFICULT (BUT NATURAL) LABOUR. Hogben.
DYSTOCIA PROTRACTA. Young's Nosology, Class V. Order 17, §6.

Definition.—Labour in which the head presents, as in EUTOCIA; which terminates without danger to the mother; which is effected, principally, by the natural pains; but which occupies a space of time exceeding twenty-four hours *.

Dystocia Diutina, is usually attributable to one or more of the following causes:—

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* *Dr. Breen* does not denominate the labour *tedious*, till *thirty hours* have elapsed from its commencement.—*Edinburgh Medical and Surgical Journal*, Ap. 1819. No. 59, p. 162.

a. original, or accidental weakness of habit in the mother, producing inert, or irregular, or partial action of the *uterus*.

Dystocia à Debilitate.—Sauvages, O. 22, §. 1.
Tedious Labour. Order 1. Burns.

b. a rigid and undilatable state of the *os uteri*, and other parts concerned in the process of parturition.

Dyst. ab Angustiâ. Sauvages, § 4.
Tedious Labour. Order 2. Burns.

c. small size of the *pelvis*,—a very slight degree of distortion, or an unyielding condition of the *os coccygis*.

D. ab Angustiâ. Sauvages.

d. the size of the *fœtus* being unusually large, or the bones of the head not easily compressible.

e. monstrous formation of the *fœtus*.

D. à Mole Fœtus. Sauvages, § 5.
Laborious labour from increased bulk of the infant. Hamilton.

f. extreme distension of the *uterus*, from an excessive quantity of the *liquor amnii*.

g. extraordinary thickness of the membranes, *(chorion and amnion)*.

h. too early an evacuation of the *liquor amnii*.

i. Sudden and violent affections of the mind.

D. à Pathemate. Sauvages, § 3.

k. the *fœtus* being dead.

D. à Fœtu mortuo. Sauvages, § 6.

l. The *funis umbilicalis* being naturally too short, or accidentally shortened, by being twisted round the child.

The method of managing women in lingering labour must in a great measure depend upon the cause of the difficulty.

1. *Original or accidental weakness of habit in the mother (a).*

In treating difficult labours arising from this cause, it will be necessary to allow a great deal of time for the parts to develope themselves. The patient's strength must be supported; and this will be best effected by mild nourishment, as gruel, arrow-root, panada, chocolate, or cocoa, beef-tea, veal-broth, &c. If the pulse requires it, add a little wine.

Open the bowels by clysters; but, if the patient is habitually costive, give suitable aperients by the mouth, till proper evacuations shall be procured. Avoid fatiguing the patient. Be careful not to keep her too hot or much oppressed by the weight of the bed-clothes. Change her posture occasionally. Encourage her by a cheerful unembarrassed manner. Promise a safe delivery; but avoid fixing any period for the duration of the labour.

If there be a want of rest, from ℿx to ℿxx of *tinct. opii* may be given with great advantage. Much larger doses of opium, namely, to the extent of 6, 8, or 10 grains, of *ext. opii* have been recommended in this kind of slow labour, with a view to relax spasm, and render the uterine action more perfect; but such herculean doses

can very rarely be necessary, and would not always be safe*.

Borax, and some other medicines, supposed to possess a peculiar quality of encreasing the expulsive power of the *uterus*, have been recommended in these cases; but the chief benefit resulting from them, was probably effected by the belief, which the patient cherished—that they were to do her good. Thus her mind was made easy, and time was allowed for Nature to work her own way quietly; with this view, some light tonics, or carminatives may be sometimes usefully exhibited, as a few drops of *liq. vol. corn. cervi.—spir. ammon. comp.—sp. lavend. comp.*—or *sp. æther. sulph.* in camphor julep or mint-water.

A clove of garlick, introduced into the *rectum*, has been recommended for the purpose of increasing the expulsive efforts; but I have never known it tried.

There is reason to think that the *ergot of rye* has great effect upon the *uterus*, in increasing its expelling powers; so much so, indeed, as, on some occasions, to hazard the life of the child†.

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* Three cases have occurred within my own knowledge, in the practice of a midwife, much in the habit of giving laudanum freely, where an entire suspension of uterine action was produced, requiring the aid of instruments to effect delivery, by, as I conceived, an injudicious exhibition of laudanum, at the time when the pains, which had been long *lingering*, were just beginning to become effective. Each of these patients had previously taken laudanum to relieve the spurious pains, and had been much rested and composed in consequence.

† See Appendix, No. 3.

2. *A rigid and undilatable state of the os uteri* (*b*).

In labours of this kind, our great resource is to allow time. The *grinding pains* will frequently last for 12, 18, 24, and 36 hours: while these continue, speak of them as only preparatory pains, not as the real pains of labour.

If the teasing irksomeness of the pains prevents the patient from getting rest, give, at discretion, a dose of laudanum*.

Let the patient keep pretty much in an erect posture; but be careful not to overfatigue her. Avoid whatever is likely to produce fever. Let her diet be spare and simple†. Her drink should be tea, or toast and water, or milk and water, or barley water. Avoid cordials and stimulants.

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* *Dr. Breen's* caution respecting the use of opium in labour completely coincides with my experience;—he says, "It should be an universal rule, never to administer opium in labour, unless the bowels be previously opened."—*Observations on the Management of tedious Labour. Edinburgh Med. and Surg. Journal, April* 1819.

Smellie relates rather an amusing case of the improper exhibition of Opium, Coll. xlix, Case 2.

† *Dr. Hunter* used to say in his Lectures, "I have attended a patient three days and nights, and one whole fourth day, without danger; the woman crooked, and child large. *She lived all the time on tea and gruel only.*" Had the Doctor allowed this patient cordials and stimulants, with a view of keeping up her strength, is it probable that her labour would have terminated so favourably?

Pay great attention to the state of the bladder, that it may not become over distended.

Open the bowels by clysters, or by castor oil, or by salts dissolved in emulsion, or gruel*.

Fomentations to the abdomen have been recommended; and are occasionally useful; but I have not experienced any very marked advantage from them†. Sitting over the steam of warm water is sometimes beneficial; perhaps in a great measure from the change of posture which the woman is obliged to undergo.

Some practitioners are fond of introducing lard or pomatum, in order to induce relaxation; but this never does good, unless the rigidity is confined to the *vagina* or external parts; it may then be frequently used with ad-

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* In cases of lingering labour, especially if the pains had become suspended, *Mauriceau* was partial to the practice of giving an infusion of two drams of senna, in a small quantity of water, acidulated with the juice of a Seville orange: after this had been taken about two hours, he threw up a stimulating clyster. And from the combined effects of these remedies, he frequently experienced great advantage. It has been thought, that the griping quality of the senna and orange juice, was the cause of stimulating the *uterus* to fresh exertions, by sympathy with the bowels. I have several times tried *Mauriceau's* remedy with good effect; but I do not know, whether a dose of salts or castor oil may not be equally useful. The practice of giving aperients by the mouth, is often of use during labour, but chiefly in women habitually costive.

† "Fomentations seem particularly serviceable in painful affections of the *Pubic Region, Pudenda and Perinæum.*"

Power's Midwifery, p. 221.

vantage. The best method of using greasy applications in such cases, is, to have very good tallow, scraped and rolled up into a ball, about the size of a nutmeg; this should be carried by the finger as high as possible into the *vagina;* here it gradually dissolves, and is dispersed over the whole surface. It answers best in those cases where the natural mucus of the parts is either not duly secreted, or has been accidentally or incautiously dissipated.

Gardien, and other French accoucheurs, inject mucilaginous liquids, (as *infus. althææ vel lini*) into the *vagina;* and where there is a want of the natural mucus, and much heat and soreness in the parts, I can, from experience, recommend this as a useful practice. *Rueff*, who published in 1554, recommends to introduce a composition of oil and the whites of eggs*.

In cases of great rigidity, particularly if there be any tendency to fever or inflammation, the abstraction of blood has been long since strongly recommended by *Mauriceau*, and others, as a most efficacious remedy, and it is often very beneficial. This practice has been carried to a great extent in America, where women have been bled to the amount of 20, 30, 40, 50, or more ounces at a time, for the purpose, and with the effect of producing general relaxation, and consequently a more speedy dilatation of the *os uteri* and the external organs. But like other pow-

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* *M. Montain* is said to have invented an Instrument for the purpose of carrying oil, or any mucilaginous fluid, above the head of the Child, in cases of dryness of the passages. It is described, as a flat sound or catheter, bent like the forceps.

Journal General de Medecine, vol. 58, p. 217.

erful remedies, this has sometimes been carried to excess, so as to have been injurious to the patient during parturition, and rendering her recovery tedious, if not doubtful.

An accoucheur at Paris lately professed to teach a secret, by which all women, even the most deformed, might be easily delivered. His method was to give an emetic to the parturient woman, and he expected, that the violent straining to vomit would greatly contribute to force the infant through the *pelvis*. It was soon found, that this method was altogether inefficacious in cases of distortion; he was therefore compelled to restrict the practice to cases of slow labour, where the *pelvis* was well formed; but, even in these cases, this plan does not seem to have been productive of much advantage,* and is, I believe, at present, seldom employed.†

Upon the principle of producing relaxation, the use of the warm bath has been recommended. This was tried

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* See *Gardien Traité d'Accouchemens,* tom. ii. p. 273—1807.

† Vomiting, though vaunted by the Parisian Empiric, as a new remedy in labours, is in fact a very old one. *Riverius* mentions it upwards of two hundred years ago, and cautions the physicians against an injudicious use of it. The late *Dr. Lowder,* whose practice was very extensive, says, that "he has often known spontaneous vomiting do good; but has seldom found benefit from the exhibition of emetics, though he has frequently seen them used."

Some writers have recommended remedies of a very nasty character, to expedite delivery; if such horrible messes ever were serviceable, it was probably by inducing nausea or vomiting. *Hartman* says, "apud pauperes vidi sæpe partum difficilem solvi

by *Dr. Smith* in America; but excessive hemorrhage was so often found to be the consequence, that this practice was abandoned. *Gardien* considers, that this accident might be prevented, by having recourse to bleeding before the bath was used; but he does not appear to speak experimentally: from the hip bath I have certainly seen good effects produced, in relaxing the soft parts.

Upon the same principle of inducing relaxation and consequent dilatation of the *os uteri*, clysters of tobacco were recommended, in America; but the alarming symptoms which followed, in the single case where tobacco was thus employed, will, I trust, prevent a repetition of this experiment *.

3. *Small size of the pelvis (c)—Large size of the fœtus (d)—or monstrous formation* (e)†.

The treatment of *dystocia diutina* arising from either of these causes, must be nearly the same. Much must

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haustu urinæ mariti. Sic stercus equinum in vino expressum et percolatum subito fœtum et secundinam expellit."

Hartmanni, Opera, folio, p. 72.

Sarah Stone, a midwife, who published some cases in 1737, mentions several instances of women in labour, to whom was given, the juice of leeks, mixed with their husbands urine, in order to strengthen the pains.

* See *An Essay on the Means of lessening Pain, and facilitating certain Cases of difficult Parturition. By W. P. Dewees, M.D.* 1806. And the *Medical and Physical Journal,* vol. xviii.

† See Appendix, No 4.

necessarily be trusted to time. If care be taken to avoid all causes of fever and inflammation, and to prevent the patient from exhausting her strength by unavailing strainings, the labour may be suffered to proceed for very many hours without danger; and at length the head of the *fœtus* may be squeezed through the *pelvis*, very much elongated and compressed: yet the child may be born living, and the mother may have a favourable recovery.

4. *Extreme distension of the uterus (f)*—or extraordinary thickness of the membranes (g)†.*

Dystocia diutina has very often been ascribed to one or other of these causes, but frequently without sufficient reason.

When an excessive quantity of the *liquor amnii*, or an extreme thickness of the membranes, is *really* the cause of a slow labour, the obvious remedy is to rupture the membranes: but this requires very great caution; for, if rupturing the membranes does not produce manifest advantage, it almost always occasions great inconvenience, increases the distress of the patient, and not uncommonly places her, or the child, in a state of danger ‡.

It may be safely laid down as a rule (which will admit of very few exceptions), that the membranes should not be artificially ruptured:—

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* See Appendix, No. 5.

† See Appendix, No. 6.

‡ See Appendix, No. 7.

1. While the head of the *fœtus*, or a large portion of it, is above the brim of the *pelvis*.
2. While the *os uteri* is undilated, or in a state of rigidity.
3. While the *perinæum* is thick and firm, or rigid.

These rules are especially to be observed, if the woman is in labour of her first child *.

5. *Too early an evacuation of the liquor amnii (h).* The membranes sometimes rupture spontaneously without previous notice, or any explicable cause. When this happens, the *waters* usually escape from the *uterus*, in small quantities at a time, keeping the woman constantly wet and uncomfortable. This is called the *dribbling of the waters:* and no uterine action comes on till nearly the whole of the *liquor amnii* is discharged; so that frequently 24, 48, or more hours elapse, before any true labour pains are felt. When labour actually takes place, it often terminates as safely as if this accident had not happened: but commonly the pains are more severe and *cutting* †.

Very little can be done on the part of the practitioner,

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* Various instruments have been contrived, for the purpose of effecting the rupture of the membranes, where this has been judged expedient; among others, canulæ with concealed lancets, or points to be thrown into action by touching a spring; but surely, all these are worse than useless; they may be mischievous. Whenever it really becomes necessary to rupture the membranes, and the finger-nail is insufficient for the purpose, a probe may be introduced, which will always succeed.

When it is determined to rupture the membranes, it should always be effected during a pain.

† Appendix, No. 6.

except observing the rules that are applicable to the case of rigidity of the soft parts (*b*). It is right to examine *per vaginam*, early after the *waters* have begun to drain away, in order that he may be satisfied of the condition of the *os uteri*, and mode of presentation of the *fœtus*. If the *os uteri* is found close and thick, many hours will elapse before the labour pains come on: but if the *os uteri* be thin and open, and the *vagina* be cool, moist, and dilatable, a more speedy delivery may be expected. Should the *fœtus* be discovered in a preternatural position, the patient must be frequently visited; and a strict injunction should be given to the attendants, to send for the accoucheur as soon as the pains of labour commence.

It has been proposed, to introduce a finger within the *os uteri*, and lift up the head of the child, so as to allow a more expeditious discharge of the *waters:* but this cannot be effected till the *os uteri* is much dilated, and is then rarely required.

6. *Sudden and violent affections of the mind (i).*—Practitioners of all ages have agreed, that the action of the *uterus* is very much influenced by the mental powers. Evidences of this are to be found in many medical records; and the fact is presented to our view in many occurrences of common life. It is, therefore, to be considered of importance, that the mind of the parturient woman should be kept as easy and tranquil as possible*.

7. *The death of the fœtus (k).*—This is not necessarily a cause of lingering labour. The affection of the mother, of whatever nature it might be, which occasioned

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* See Appendix, No. 7.

the death of the child, may possibly retard the labour; otherwise it will terminate favourably, unless the size of the *fœtus* is increased by putrefaction* ; and from this cause, very troublesome and dangerous labours† have sometimes occurred.

8. *Shortness of the Funis (l).*—Shortness of the navel string will seldom be a cause of lingering labour, till the head is about to pass through the external parts; it may then be an impediment to the birth by occasioning the head to be retracted after each pain.

We are not, however, always to conclude, that the retraction of the head is produced by shortness of the *funis*, for the resilition of the parts, especially in first labours, occasions a greater or less degree of retraction of the head.

The delay in the labour, which shortness of the *funis* occasions, will generally be overcome by the unaided powers of Nature. Changing the position of the woman sometimes facilitates the birth.

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* "When a child, after death, becomes putrid, and thence enormously swelled by the included and rarefied air, the birth will be impeded; but the difficulty will arise not from the death of the child, but from its increased bulk."

Bland's Description of the Lever.

† I have known two instances of rupture of the *vagina* arising from the rashness of midwives, who forcibly dragged the children, enormously swelled with putrid air, into the world. In one case, the *vagina* was split completely through. Both the women died in a few hours. Had the bellies of the children been punctured to give vent to the air, these fatal occurrences would have been avoided.

It has been recommended, after the head is born, if the birth of the shoulders is prevented by the navel string being twisted round the neck of the child, to introduce a pair of scissors, divide the *funis*, and thus set the parts at liberty. This operation may sometimes be expedient; great care being taken to guard against doing mischief; but it is proper to remark, that *Dr. Denman* relates a case of the death of the infant from dividing the *funis* under these circumstances*.

Besides the causes of difficult parturition above enumerated, it sometimes happens, that incautious practitioners occasion lingering labours by mismanaging the different stages, and thus interrupting the natural progress of the labour† ; and this may be effected in various ways, particularly

By the injurious practice of giving cordials and strong drinks, under a false idea of supporting the patient's strength ;

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* *Introduction to Midwifery*, p. 288, 4to. edit.

† But this must the mydwyfe above all thynges take hede of, that she compell not the woman to labor before the byrth come forwarde and shewe itselfe. For before that tyme, all labor is in vayne, labor as muche as ye lyst. And in this case many tymes it cometh to passe, that the partie hath labored so sore before the tyme, that when she shoulde labor in dede, her myght and strength is spent before in vaine, so that she is not nowe able to helpe herselfe, and that is a perylous case.

These cautions of honest *Richard Jonas* in 1540, are quite applicable to 1820.

By keeping the room too hot and close;
By letting the patient remain too much in bed;
By allowing too much company, who fatigue the patient, by their noise and talking;
By urging the woman to exert herself in *bearing down* before the parts are well dilated;
By injudicious and unavailing attempts to give assistance;
By prematurely rupturing the membranes;
By suffering the bladder to become over distended*;
By not timely opening the bowels.

Whenever from any such cause the progress of the labour is impeded or suspended, it becomes the duty of the practitioner to retrace his steps, and endeavour to place his patient in the same state that she would have been in, had he not indiscreetly adopted or admitted of such injurious practice. The rules already laid down for the treatment of *Dystocia diutina*, when occurring from natural causes, will be applicable to the cases which are rendered difficult by artificial causes.

Instances of *Dystocia diutina*, including first and all other labours, probably occur as often as *once in* 30 *cases:* but it is very difficult to form an exact average. They

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* This forms *Complicated Labour*. Class 7. Order 6. *Burns.*

Chapman, in his 40th case, gives an account of a poor woman who died undelivered in consequence of an over-distended bladder.

are much more common with first children than with others*.

From what has been remaked respecting this order of labours, it is apparent:

That many causes may produce *Dystocia diutina;*

That in all such cases much delay must necessarily take place;

That frequently very little progress will be made, though the labour may have lasted for several hours;

That sometimes many days will elapse before the termination of the labour; yet it may at length

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* Of 226 women, attended in their first labours, the presentations all natural, and all terminating without extraordinary assistance—

181 were cases of *Eutocia;*
111 being delivered within 12 hours.
70 ..... in between 12 and 24 hours.
45 were cases of *Dystocia diutina;*
12 were delivered in between 24 and 30 hours.
16 ..... 30 and 40
7 .... 40 and 50
5 .... 50 and 60
3 ..... 60 and 70
2 .... 70 and 80

All the above women recovered perfectly from the state of child-bed, and three only of the children lost their lives during the labour. In one of the cases where the child died, the mother was only 20 hours in labour: in another case, the woman was 48 hours; and in the third, 68 hours in labour.

Eight others of the children were dead born, but had evidently been dead several days before the labours commenced.

terminate safely, both to the mother and the child, without artificial assistance*.

It must however be remembered, that all women are not equally capable of undergoing such long-continued sufferings as sometimes occur in this order of labours. Occasionally it will be found, that cases of *Dystocia diutina* will be so long protracted, as to bring the patient into a state of exhaustion, which deprives her of the power of further exertion; when this happens, the case no longer belongs to the order *Dystocia diutina*, but comes under the next order—*Dystocia Anenergica.*

Order 2. *Dystocia Anenergica—Powerless Labour.*

Difficult and Perilous Labour. Cooper.
Laborious Labour. Order 2. Hamilton.
Laborious, or Instrumental Labour. Burns.

Definition.—Labour of long but indefinite continuance, in which the pains becoming weak and inefficacious, or being entirely suspended, and the patient exhausted by her sufferings, it becomes necessary to afford artificial assistance to terminate the labour.

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* "Labours are rendered tedious either by weakening the expelling powers of the mother, or increasing resistance to the passage of the *fœtus*. 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 medicines, the powers of the constitution fail but seldom in expelling the

It is not always easy to distinguish *D. Diutina* and *D. Anenergica* from each other; but attention to the following symptoms will, in general, enable the practitioner to form a correct decision:

Favorable Symptoms constituting Dystocia Diutina.

1. A regular recurrence of uterine action.
2. Perceptible progress* in the labour, however slow.
3. The patient's strength being unimpaired.
4. Her mind being tranquil.
5. A disposition to quiet sleep in the intervals of her pains.
6. The absence of fever or inflammation.
7. The *vagina* and *os uteri* feeling cool and moist.
8. The patient possessing the power of voiding her urine.

While these symptoms are present, the labour may be safely trusted to Nature.

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fœtus, where there is no material defect in the formation of the *pelvis*."—*Clarke*'s *Abstract from the Dublin Lying-in Hospital Registry*. A paper containing much valuable information, in the first volume of the *Transactions of the Association of Fellows and Licentiates at Dublin*, 1817.

* Progress in the labour is sometimes evident, from the head of the child being found to fill up the back of the *pelvis*, rather than from any positive descent of the presenting part. The operator, without being sensible that the head is lower, is, however, able to pass his finger over a larger extent of the *cranium*. The scalp becoming more wrinkled, is likewise a proof of progress taking place.

Unfavourable Symptoms indicating Dystocia Anenergica.

1. Severe shivering fits, unconnected with dilatation of the *os uteri*, or of the passage of the head through the *os externum*.—See p. 6.
2. Frequent or constant vomitings after the *os uteri* is largely dilated.
3. The accession of fever indicated by a quick pulse, a furred tongue, a hot dry skin, and great thirst.
4. Great restlessness or jactitation.
5. An anxious and disturbed mind. A disposition to sing, in a plaintive and wailing tone of voice, has in particular been considered as a very frightful symptom.
6. The want of true uterine action, though there may be irregular and unproductive pains. When this happens after many hours of labour, it is always an unfavourable symptom*.
7. Great heat and soreness in the *vagina* and *os uteri*.

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* "Though a considerable diminution in the strength and frequency of the labour pains, or even a temporary interruption of them in the early part of a labour, or within twenty-four hours from the commencement, should not induce us to have recourse to art; yet the very same circumstance occurring at the end of the third or fourth day, ought to afford a strong presumption of the utter inability of the powers of Nature to accomplish the delivery without assistance from art."—*Osborn's Essays*, p. 57.

8. The discharges from the *uterus* being offensive both in colour and smell.
9. Violent and continual pain and soreness or tenderness of the belly, increased upon pressure.
10. Low muttering delirium.
11. A quick and weak, or low sinking pulse.
12. Clammy sweats.

In proportion to the number and severity of these symptoms, will be the danger of the patient; it becomes the duty of the practitioner therefore to combat, by appropriate remedies, each of these symptoms as they arise; but if several are present at once, unless artificial aid be timely afforded to deliver the patient, both mother and child will perish.

The assistance to be afforded will frequently be that of the *forceps;* for, unless in cases of distorted *pelvis*, the head of the *fœtus* will probably have sunk low enough to allow the ear to be felt, before the strength of the patient becomes quite exhausted.

Order 3. *Dystocia Perversa—Labour, the Head presenting in a wrong Direction.*

Natural Labour, No. 2. Smellie.
Variety of Natural Labour. Denman.
Preternatural Labour. Class 3. Order 5. Burns.
Unnatural Labour. Bland.

Some French writers on midwifery enumerate more than twenty varieties of malposition of the head; but it

seems sufficient for all useful purposes to resolve them into three:

a. The forehead inclined towards the *pubes.*

Vertex cum facie antrorsum rectus vel oblique versus ossa pubis spectante rectus. Plenck.

b. The face presenting.

Facies prævia. Plenck

Faceling presentation. Perfect.

c. The position of the head altered by the descent of the hand or arm with the head into the pelvis.

Vertex cum manu prævius. Plenck.

1. *The Forehead inclined towards the Pubes (a).* —This is the most common of all the wrong presentations of the head.

This kind of presentation is often not discovered at the first examination. Perhaps, because the accoucheur having ascertained that the head is the presenting part, feels little solicitude about its exact position. The labour, however, being much more severe, or continuing longer than he expected, because in this position the bones of the fetal head do not readily adapt themselves to the shape of the *pelvis*, he is induced to make a more accurate examination, and then discovers the wrong position by the following indications:

The presenting part is not so conical towards the arch of the *pubes.*

The bones do not *ride* one over the other.

The scalp does not readily form into a *cushion.*

The hollow of the *sacrum* is not so completely filled up by the head.

The *anterior fontanelle* is to be felt towards the *symphysis pubis**.

The sagittal suture inclines towards the back of the *pelvis.*

This kind of labour is not in general very unmanageable. The head may be longer than ordinary in passing through the *pelvis;* but if this be well formed and the pains are strong, it will be at length excluded, and in the majority of cases the child will be born alive.

Smellie, mentioning a case of this kind, says, that he "gently opened the *os externum* during every pain, raising the head a little when the pain began to abate, and *moving the forehead to the left side of the sacrum*, by which means he effected the delivery;" and this appears to have been his common practice in such presentations †.

Exton recommends a somewhat similar manœuvre.

It is a practice that may be occasionally adopted with

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* See Appendix, No. 8.

† It is not a little extraordinary, that the late *Dr. John Clarke* was unacquainted with this direction of *Smellie.* In his paper "*On the Management of Cases in which the Face of the "Child presents towards the Os Pubis,*" *Dr. Clarke* evidently thought that he proposed a novel practice, when he recommended to push the forehead round towards the *sacrum.* He says, "All the best writers upon the practice of midwifery, "have taken notice of this cause of difficulty in labours; but "they have been contented with describing it without suggesting any means more especially suited to this case."—*Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge,* vol. ii.

advantage; but I have known one instance, in which the space opened between the *pelvis* and the child's head, by passing the finger, allowed the *funis* to prolapse, and thus destroyed the infant.

It is necessary to pay particular attention, to prevent a laceration of the *perinæum*, when the head passes in this direction. For the external parts are so excessively stretched, that even women who have borne many children, have had the *perinæum* lacerated, under the circumstances of this kind of presentation.

2. *The presentation of the face (b).*—This may be known by the general inequality of the presenting part, and by the distinction of the eyes, nose, mouth, and chin.

When the face is the presenting part, the most favourable, and, according to *Dr. Denman*, the most usual position, is with the chin towards the *symphysis pubis.*

The management of this case must, in a great measure, be left to nature and time, which will gradually effect the delivery; but the bones of the face not being capable of compression, do not yield to the form of the *pelvis*, and therefore very often many hours elapse with but little perceptible progress. The children are usually born alive, but the features of the face are amazingly distorted, and do not recover their proper appearance sometimes for many days.

We have been directed to get a finger into the mouth of the child, and to press down the chin upon the breast, or in any other manner, to endeavour to alter the position of the head. But a great deal of caution is necessary to be observed in doing this, lest mischievous consequences

to the child should ensue; of which, instances are upon record*.

It has been strongly recommended, among others, by *Smellie*, *Burton*, and *Cooper*, to turn and deliver footling in face cases; and this practice was enjoined upon the supposition, that the life of the child would be sacrificed unless the labour was quickly terminated; but experience has shewn in this, and many other points of practice, that the safety of the child is not always commensurate with the quickness of the labour.

Yet, under certain peculiarly favourable circumstances, turning of the child might perhaps be adviseable; viz. where the face was found to present, the membranes not being ruptured, the *os uteri* fully dilated, and a relaxed state of the *vagina* and *perinæum*.

I have twice known the presentation of the face converted by the pains alone into a natural presentation.

3. *The hand or arm descended with the head into the pelvis* (*c*).—Independent of the awkwardness of positionwhich the head may assume, from the circumstance of the hand or arm descending with it into the *pelvis*, there will be so much increase in the bulk of the part, as to render its passage slow and difficult. Yet if the case be

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* *Sarah Stone*, in her *Complete Practice of Midwifery*, (1737) mentions a case in which the upper lip was very much torn, the face stripped of its skin, and the right eye absolutely pushed out of its socket, by the mismanagement of an ignorant midwife. The child was born alive, and (except the loss of its eye) perfectly recovered. A somewhat similar instance of mismanagement is related by *Perfect* in his *Cases in Midwifery*, vol. i. p. 218.

not interrupted by mismanagement, it will terminate favourably; for this complication of presentation seldom happens but in a wide *pelvis*.

There will be some difference in the difficulty of the labour, according to the manner in which the superior extremity enters the *pelvis*.

If it be only the fingers or hand coming down in a flattened shape by the side of the head, the difficulty will not be very great. If the elbow be the part, with the fore-arm bent back upon the *humerus*, the difficulty will be increased. And it will be still more perplexing, if the hand and arm have descended before the head; the head resting upon the arm at the bend of the elbow.

Occasionally it will be practicable by means of the operator's fingers, to prevent the hand or arm from descending below the brim of the *pelvis*, till the head has sunk so low as to be clear of the impediment; but in attempting this, care must be taken not to make the case more embarrassing by drawing the arm down lower, or forcing the head above the brim; for this might convert the case into a truly preternatural labour, and render the turning of the child necessary.

The arm of the child is often very much bruised and tumefied in consequence of this position; and it is sometimes difficult to persuade the attendants that it is not fractured or dislocated. I have not, however, known an instance in which the arm did not recover itself in a few days.

The rules laid down for the management of labours of the order *Dystocia diutina*, are in every respect applicable to those of *Dystocia perversa*. In both, the labours are painful, difficult, and slow; yet, in both, the efforts of nature are usually sufficient to effect the deli-

very without artificial assistance, or at least with that assistance which a single finger may give.

Care must be taken to preserve the patient from fever, to keep her spirits calm and undisturbed, and to husband her strength. She should not be permitted to fatigue herself in vain attempts to force the child forwards, before the parts are properly prepared to let it pass; nor ought she to be kept too much in bed, lest she be weakened by profuse perspirations, under a load of bed-clothes. Her bowels must be occasionally relieved, by laxative medicines or clysters, and the urine must not be suffered to accumulate in the bladder.* Under such treatment, the process of parturition may continue for a long time, without hazard.

If, however, the *favourable* symptoms of labour, before enumerated (p. 40), gradually disappear, and those which are *unfavourable* begin; we must consider this order of labours to be degenerating into *Dystocia anenergica*, and must adopt such measures, to insure our patients from danger, as the nature of the case may require.

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* Perhaps there is a peculiar tendency to suppression of urine in face presentations; at least, I have found this inconvenience to happen in several labours of this nature, to which I have been called.

Order 4. *Dystocia Amorphica—Labour rendered difficult from Deformity in the Bones of the Pelvis.*

Dystocia ab Angustia. Sauvages, Cl. 7, O. 26, § 4.
Dystocia Amorphica Young, Cl. 5, O. 77, § 4.
Laborious or Instrumental Labour. Cl. 5. Burns.
Impracticable Labour. Cl. 6. Burns.

Distortions of the *pelvis* may arise—
From *rachitis* in infancy;
From *malacosteon* in more advanced life;
From *exostosis;*
From fracture or dislocation of the bones of the *pelvis.*

From whichever of the above causes the deformity proceeds, the capacity of the *pelvis* will be so much intrenched upon, as to oppose an impediment to the passage of the child, not only in first, but in all future labours.

Yet, sometimes, the efforts of the *uterus* will be sufficient to force the child, with the head much compressed, through the deformed *pelvis.* Much, in such cases, will depend upon the smallness and compressibility of the head, and the strength of the pains.

It becomes us to be exceedingly cautious, not to suppose, upon light and insufficient grounds, that the distortion is too great to allow the child to pass without the intervention of instruments; and particularly, when there

is a question about employing the *perforator*, an instrument always incompatible with the life of the child, we ought to weigh every circumstance very carefully in our minds, *and if possible procure the opinion of some other experienced practitioner*, before we determine upon having recourse to it.

The maxim of the stern satirist,

Nulla unquam de morte hominis cunctatio longa est,

applies not only to the adult, but to the infant in the womb: a human being, yet unborn, is entrusted to our especial care and protection; and when its existence depends, altogether, upon our decision, we ought not to decide, but with the greatest deliberation and wariness.

The reluctance which every well-regulated mind must feel at employing the *perforator*, even in cases of the greatest necessity, while the infant is yet living, naturally occasions a wish to delay the operation, till there are some indications of the child's death; and these indications are sought for, in certain symptoms, which most writers on midwifery have been careful to enumerate.

These symptoms may be divided into two classes; the first are useful in proving, that the *fœtus* has been dead *in utero* for several days or even weeks.

These symptoms are:

One or more distinct and severe shivering fits on the part of the mother, followed by
A sense of coldness in the *abdomen;*
A feeling as of a lump, or dead weight, in the *uterus;*
A subsidence of the *abdomen;*
A want of motion in the child;
A flaccid state of the breasts
A recession of the milk.

When these symptoms have occurred, in something like a regular succession, for eight or nine days, no doubt can well be entertained of the death of the *fœtus:* and when the labour takes place, the first discharges will be of a dingy brown appearance; when the *liquor amnii* is evacuated, it will be dark, and muddy, or tinged with blood, and the scalp of the child will often be found, separated from the *cranium*, full of fluid, and the bones loose and detached.

But evidences to prove that the *fœtus* has been long dead in *utero*, are not what is commonly wanted. The object is, to ascertain whether the child, which was known to be living when the labour commenced, has afterwards lost its life, from the violence of the pains, or the severity of the labour. And this is to be judged of, from the second class of symptoms, which are, however, more or less fallacious. I shall enumerate several of these, and offer some comments upon them as I proceed:

1. "If the woman be four days in labour, the child scarce escapes."

This is given upon very ancient authority, but is not to be relied upon in cases of well-formed *pelvis;* when the *pelvis* is much distorted, a labour, of less than four days continuance, is often destructive of the child.

This rule has been amended thus, "Fœtus per tres dies in Partu hærens merito pro mortuo habetur." By the *in partu hærens* is meant the child being pressed down, or wedged* into, or among, the bones of the *pelvis*, and incapable of being forced lower by the pains,

* The late *Dr. Mackenzie*, in his lectures, used to describe this by the expression of "the head being *nailed* in the *pelvis*."

and under such circumstances, the rule seems unobjectionable.

2. An evacuation of the *meconium* during the labour.

Viardel considers this as a decisive proof of the child's death, but very improperly; since in *nates* presentations, a discharge of the *meconium* always happens, yet in the majority of cases, the child is born alive. Many authors have refuted this opinion of *Viardel.*

Others have supposed, that when the *meconium* is discharged in presentations of the head, a pretty certain proof of the child's death is obtained; but many instances to the contrary have occurred.

Dr. Denman says, that "he has had *many* convincing proofs that the evacuation of the *meconium* is a very doubtful sign of the death or dangerous state of the infant."

3. A fetor, and an ill appearance of the discharges from the *uterus.*

These symptoms are not wholly to be depended upon; but when they accompany others, deserve regard.

4. An entire want of pulsation in the navel string.

The proof here is conclusive, but opportunities of examining the navel string are comparatively rare.

5. An edematous or emphysematous feel of the scalp may be considered, under many circumstances, as evidences of the child's death: but some instances, to the contrary, have been quoted by writers of good authority: when the bones of

the *cranium* are quite separated and loose, the evidence amounts almost to a certainty.*

6. A want of motion in the child is often relied upon, and ought to be enquired about in all doubtful cases. But it is not always to be inferred that the child is dead, because its motions are not felt; for very often the mother does not feel the child to move for many hours† together during labour, and yet it is born strong and healthy; want of motion therefore, in the child, cannot, alone, be considered as proving its death: but, joined with other symptoms, it will materially assist the practitioner in forming his opinion.

In *Parr's London Medical Dictionary*, a work of considerable authority, a rule is laid down for judging of the child's life or death, liable to some objections. His expressions are—"When the head is locked fast at the brim of the *pelvis*, and the *uterus* is contracted round the body of the child, a tumour is perceived on its head, if it be living; but not, if dead." Now, the fact is, that when the child is dead, this tumour is generally to be felt. The mode of judging by the tumour of the scalp is this: if the child be living, when a pain takes

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* "Signum omnium certissimum infantis mortui est cuticulæ capitis supremæ dissolutio; quæ non nisi aliquamdiu post mortem infantis contingit."—*Manningham Aphorismi.*

† *Van Doeveren* states that he knew an instance where the motions of the child were not felt for *thirty hours*, yet it was born alive.—*Observ. Cap. XI.* p. 169.

place, it presses down the head, produces a collapsion of the bones, and thus occasions the loose scalp to be formed into a tumor, or to become wrinkled; but on the pain going off, the expansion of the bones occasions the head to recede, and the tumour or wrinkly state of the scalp disappears, or is very much diminished. But when the child is dead, the expansibility of the cranial bones is destroyed, the resilition of the head no longer takes place to so great a degree, and the tumour of the scalp remains nearly permanent; in this state of things, the tumor soon becomes distended by the fluids forced into it by pressure, and in the case, for instance, of using the *perforator*, the practitioner has frequently to pass his instrument through a tumefied scalp, more than half an inch in thickness, before he can reach the bone.

Besides the symptoms just enumerated, others have been mentioned, appertaining solely to the mother, which have been looked upon as of some validity, in proving the death of the child; the chief of these are,

Vomiting;
Shivering;
Extreme languor and weakness;
Livid paleness of the countenance;
Discoloured and sunken eyes;
Noise in the ears;
Offensive smell of the breath;
Discharges of flatus from the womb;

but none of these can be admitted, as sufficient in themselves, to prove the death of the child. They may have their weight, in determining the necessity of using arti-

ficial means to expedite delivery, inasmuch as they may be evidence of the perilous state of the mother: but even then they are to be very closely scrutinized before they are accepted, since they have occurred, separately, in many women, who have been in no particular danger.

Upon the whole, we cannot be too cautious in forming an opinion respecting the death of the infant *in utero*. In a point of so much importance, it is our duty to call in to our aid every possible evidence; we ought never to be satisfied with a single token of death; but should examine each symptom separately, and afterwards several collectively, before we allow ourselves to come to the ultimate conclusion.

Order 5. *Dystocia Obturatoria—Obstructed Labour.*

Dystocia ab Angustia. Sauvages, § 4.
Dystocia Amorphica. Young, § 4.

Definition.—Labour rendered difficult, by a mechanical obstruction in the soft parts to the passage of the child.

a. By the presence of the *hymen*, or by a cohesion of the *labia*, or of the *vagina*.

b. By a polypous, steatomatous, or other tumor growing from the organs of generation, and obstructing the passage.

c. By a diseased *ovarium*, intrenching upon the capacity of the *pelvis*.

d. By a protrusion of the bladder into the *vagina*.

e. By a portion of intestine or *omentum*, forming a *hernia* in the *vagina*.

All the *species* of this order of labour are of very rare occurrence.

1. *The presence of a hymen, or a cohesion of the labia or vagina (a).*—These will not probably occasion much embarrassment to the accoucheur; the action of the *uterus* will alone be sufficient, in most cases, to overcome the difficulty*. Should it, however, be found necessary to do more, an incision must be made through the obstruction; very great care being taken not to wound or injure any contiguous part†.

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* "Fui ego advocatus ad mulierem parturientem, cui vagina adeo erat angusta, ut nec ego, nec obstetrix digiti minimi apicem potuerimus vaginæ immittere, maritus a triennio, quo ipsi matrimonio erat junctus, nunquam more solito coitum exercere cum illâ potuit. Interim tamen spatio 18 horarum dolores parturitionis vaginam adeo dilatabant, ut partus sine omni rupturâ vaginæ, vel genitalium finiretur."

Plenck Elementa Artis Obstetriciæ, p. 113.

† See *Mauriceau*, Obs. 489 & 583.—*Ruysch*, Obs. 22.—*Benevoli* in his "*Quaranta Osservazione*," annexed to his "*Dissertazioni sovra l'Origine dell' Ernia intestinale*," &c. Firenze, 1747. Osserv. 5.—*Smellie*, Coll. xxxi, Case 26.—*Baudelocque*, vol. i. § 341.

Smellie, Collection xxi, No. 2, Case 4, gives an account of cicatrices and callosities within the *vagina*, which greatly im-

2. *Tumors growing from the organs of generation (b).*—These are sometimes so small and compressible, as to occasion little or no impediment to the passage of the child. But, occasionally, they have been found to occupy so large a space, as to render delivery impossible, without the intervention of art.

Should the case be such as to allow the difficulty to be overcome by employing the *forceps* or *vectis*, there could be no hesitation in having recourse to either of these instruments. But if there be no chance of succeeding with any instrument, short of using the *perforator*, it would be right to pause, and to consider whether to remove the tumor, or to diminish the size of the child, would be most likely to be attended with ultimate advantage; and so much will then depend upon the size, situation, and nature of the tumor, that it is impossible to lay down exact rules upon the subject*.

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peded the labour; but time and good management overcame the difficulties.

I once met with an extraordinary stricture of the *vagina*, of a gristly hardness, the consequence of inflammation succeeding a former severe labour, which contracted the passage so much, as hardly to allow a finger to be introduced. After thirty-six hours of severe labour, the parts yielded, and allowed the child to pass; the patient on the next day appeared better than could be expected after such a labour; but on the day following, became suddenly and unexpectedly faint, and in about two hours expired. After death, a very small aperture through the *vagina* was discovered close to the contracted part.

See Appendix, No. 11.

* See *Two Cases of Tumours in the Pelvis, &c.* by *P. P. Drew, M.D.* in the *Edinburgh Medical and Surgical Journal*, vol. i.

3. Cases of diseased *ovarium* occupying the hollow of the *sacrum*, and impeding parturition, by diminishing the capacity of the *pelvis*, have been mentioned by several authors: and sometimes other kinds of encysted tumors have been discovered, during labour, in the same situation. References to *eighteen** such cases may be found in the 10th volume of the *Medico-Chirurgical Transactions.*

These tumors have been of various sizes and degrees of firmness. Sometimes they have contained only a thin fluid; sometimes the contents have been of the consistence of honey, and sometimes there has been fatty matter, intermixed with long hair and teeth.

Whenever such tumors have been detected during labour, much doubt has generally been entertained respecting their nature, and the proper mode of management. On some occasions the medical attendants have not thought it right to take any immediate steps towards accelerating the delivery, because the patient was not considered to be in immediate danger; and it was hoped, that the tumor would prove sufficiently compressible to

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p. 20. 1805.—*Smellie,* coll. xxi. No. 2, case 3.—*London Practice of Midwifery,* 4th edit. p. 159, and Appendix, No. 12.

* *Two* by *Dr. Denman,* in his *Introduction to Midwifery.*—*One* by *Baudelocque,* in his *Art des Accouchemens,* § 1963.—*One* by *Van Doeveren,* in his *Specimen Obs. Acad.* cap. xii.—*One* by *Giffard,* Case 62.—*Five* by *Mr. Park,* in the 2d vol. of the *Medico-Chirurgical Transanctions.*—*Two* in the 3d vol. of the same Work;—and *six* in the 10th vol. communicated by the present author.

allow the child to pass, when strong pains should come on. And where the tumor was not very large nor very firm, this method has been successful.

Some have taught, that, in such cases, there should be no delay in employing the *perforator;* considering it more advisable to sacrifice at once the life of the child, than to hazard that of the mother. If by this sacrifice of the child's life, the mother's could be always ensured, the practice might be defensible; but, unfortunately, it has happened, that in *three* cases out of *five*, in which the *perforator* was employed, the mother did not recover; and in one of the other cases the mother's recovery was very incomplete.

Sometimes with the view of preserving the child, or from some other reason, the operation of turning has been undertaken; but this does not appear to have been a successful mode of practice, either to the mothers or the infants.

Sometimes the tumors have been opened with the view of diminishing their bulk; but in several instances it has become necessary afterwards to perforate the fetal head, and even then the delivery has been extremely difficult, and ultimately destructive to the mother.

From the enumeration of *eighteen* cases already referred to, it appears that,

Twice, the labour was effected by the pains, unassisted by the art of the accoucheur; but one of these women lost her life, and one of the children was still born.

Five times the *perforator* was used after a longer or shorter duration of labour. Three of these women died; another recovered very imperfectly; and one got well.

Five times the labour was terminated by turning the child. All the children were lost, and one only of the mothers recovered.

Three times the tumors having been opened, the labour was afterwards trusted to nature. Two of these women recovered, but the other remained for a long time in an ill state of health. Two only of the children were preserved.

In *Three* cases, the tumors being opened, it was still found necessary to have recourse to the *perforator*. One of these women died; one remained in an ill state of health for eighteen months, and then sunk under her sufferings; the third recovered.

Thus, in *eighteen* cases of tumors in the *pelvis*, comprehending *thirty-eight* lives, it appears,

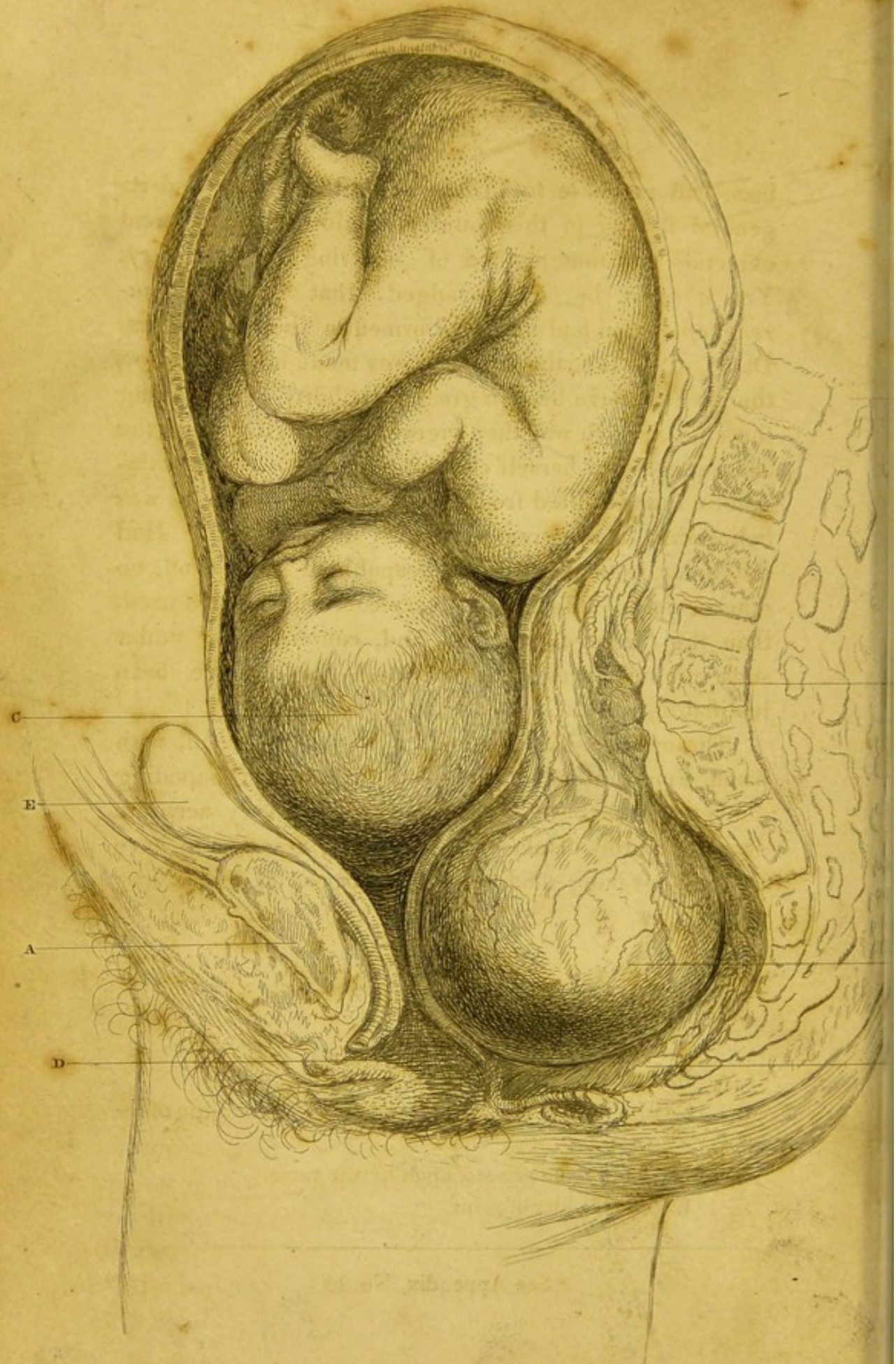
That of the women 9 died;
3 recovered imperfectly;
6 perfectly.

Of the children 16 were still-born;
4 were alive.

So that the lives actually preserved amounted only to 12
The deaths to 26

Upon the whole, the evidence we at present possess, is more in favor of opening the tumors, when they contain a fluid, than of any other mode of procedure; for, of the nine women who recovered more or less perfectly, five appear to owe their safety to this operation; and of the children born alive, two were preserved by the same means.

I am not aware that the *Cæsarean operation* has ever



London, Published May, 24, 1820, by J. Callow.

been had recourse to in cases of this nature; and its general fatality in this country would be a very great objection to that method of effecting the delivery. Yet it must be acknowledged, that if the *Cæsarean operation* had been performed in the case of Mrs. Daly*, at the time the puncture was made into the tumor, there would have been a great probability of preserving the child, which was then vigorous and active; and the consequences to herself could not have been more calamitous, than resulted from her labour, conducted, as was believed, with the greatest caution and judgment. Had the tumor, in this case, been incapable of diminution, no other means of effecting delivery could have been used, than the *Cæsarean section;* and, consequently, under such circumstances, that operation would have been justifiable.

Through the kindness of a most valued friend, with whom I once attended a case of ovarian tumor impeding delivery, I have been favoured with a very accurate drawing of this displacement of the *ovarium*, and have had an engraving made for the purpose of illustrating this subject.

EXPLANATION OF THE PLATE.

A. *Os Pubis.*
B. Spine.
C. The head of the child descending into the brim of the *pelvis.*
D. The *vagina* pressed upon by the tumor.
E. The bladder of urine.

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* See Appendix, No. 13.

F The tumor, being the diseased *ovarium*, which, having lain in the hollow of the *sacrum* till it acquired a considerable size, now prevents the descent of the child's head.

G. The rectum compressed by the bulk of the tumor.

4. *Protrusions of the urinary bladder into the vagina* (*d*) during labour are occasionally met with*; the introduction of the *catheter* will detect and cure this displacement.

5. *A portion of intestine or omentum forming a hernia in the vagina* is more rare, but has occurred and proved destructive to the patient.

Order 6. *Dystocia Ectopica—Difficult Labour from displacement of the Uterus.*

Uterus Obliquatus. Deventer.
Hysteroloxia Anterior—Lateralis—Posterior. Sauvages.
Hysteroloxia Lateralis. *(Imperfecta.)*
———— Antica—Postica—*(Perfecta.)* Plenck.

Authors enumerate three species of obliquity of the *uterus*.

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* See *Hamilton's Select Cases in Midwifery*, p. 9 (1795), and a very instructive paper by *Mr. Christian*, in the *Edinburgh Medical Journal*, vol ix. p. 281. See likewise Appendix, No. 4.

a. The *os uteri* inclined towards one or the other side of the *pelvis*.

b. The *os uteri* tilted up backwards, so as almost to reach the projection of the *sacrum*.

c. The *os uteri* projected forwards, above the *symphysis pubis*.

1. *The lateral obliquity of the uterus* (*a*).—This can scarcely prove a cause of difficult labour; an erect posture will, if the *pelvis* be well formed, speedily rectify this displacement.

2. *The os uteri, tilted backwards, towards the projection of the sacrum* (*b*).—This is not a very unusual occurrence in women with wide *pelves*, and it almost always occasions a slow labour, especially if it be a first child.

Young practitioners are apt to be embarrassed, when they find the *uterus* thus situated: for, upon an examination *per vaginam*, the *pelvis*, at first, seems to be filled up, by the head of the child making a rapid advance towards delivery. A more accurate examination, however, shows, that the part, in contact with the finger, is not the naked head of the child, but the anterior surface of the *uterus* spread over it. And the *os uteri*, scarcely at all dilated, will, with some difficulty, be discovered towards the projection of the *sacrum*, almost beyond the reach of the finger.

This kind of difficult labour is best relieved by time and patience. It has been thought advantageous for the patient to *take her pains* lying on her back; for as the belly is very pendulous over the *symphysis pubis*, this position rather takes off the pressure, which the *uterus*,

interposed between the ridge of the *pubes* on one side, and the head of the child on the other, has to suffer, and by which cramps and spasmodic pains are generally produced. The method proposed by some authors of introducing a finger into the *os uteri*, and drawing it towards the centre of the *pelvis*, is liable to many objections, unless the *os uteri* is in an advanced state of relaxation.

3. *The os uteri projected above the symphysis pubis* (*c*).—This is a very unusual situation of the *uterus; Deventer* describes it, and he has been followed by many other writers, who have evidently borrowed their description from him, without having seen the case. Most modern authors deny the possibility of it; but there are several cases on record, which prove the fact. In "*A Dissertation on Retroversion of the Womb, including some Observations on extra Uterine Gestation*," (1810,) I endeavoured to shew, that the occurrence in question was a retroversion of the *uterus*, more or less complete, taking place at an early period of pregnancy, and continuing till the full term of gestation.

This opinion has, I know, been subscribed to by several practitioners; but I am informed, that a professor of midwifery, whose practice and lectures at a celebrated University have ensured him a high reputation, asserts the utter impossibility of such an occurrence, which, according to him, never did, and never will happen.

In the Appendix, No. 14, I have given an abstract of the cases which led me to form the opinion alluded to: *Dr. Denman* and my uncle, *Dr. Merriman*, who both attended the patient, were convinced, as well as myself, that the *os uteri* was above the *symphysis pubis*, and the *fundus* in the hollow of the *sacrum*: what such a position

of the *uterus* is to be called, if not a *retroversion*, I am at a loss to determine.

Another kind of displacement of the *uterus* sometimes occurs; viz.

4. *The os and cervix uteri sunk without the os externum during labour* (*d.*)

For many years I had never witnessed a case of this nature, but during the last five years I have seen two patients with such a displacement. Almost every author*, who speaks of this, describes it as a very alarming occurrence. Yet all the women appear to have been delivered, almost by nature, without danger. The *os uteri* should, if possible, be returned within the *vagina*, and the edge of it ought to be supported by the expanded fingers, during the passage of the head.

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* *Medical Museum*, vol. i. p. 227. 1763.—*Memoirs of the Medical Society of London*, vol. i. p. 213.—*Medical and Physical Journal*, vol. i. p. 154.— *Mauriceau, Obs.* 6, 67, 95.—*Ruysch, Obs.* 25. *Portal*, Case 10.—*Deventer, Novum Lumen.*—*Smellie*, Col. xvii. No. 1. Case 2.—*Perfect's* Cases, vol. 2, p. 51.—*Barret's* Directions for Midwives, p. 27.—1701.

Order 7. *Dystocia Transversa—Preternatural Labour.*

Dystocia a Fœtus Situ. Sauvages, § 7.
——— Perversa. Young, § 3.
Unnatural Labour. Bland.
Preternatural Labour. Burns.
Accouchement contre Nature. Baudelocque. Gardien.
——— Manuel. Capuron.

Definition.—Labour in which any part of the child presents, except the head*.

Authors have enumerated a great variety of preternatural presentations, but they may be all resolved into the following:

a. Presentations of the *nates*, or of either hip, or of the loins.
b. Presentations of the inferior extremities.
c. ..... superior extremities.
d. ..... back, belly, or sides.
e. ..... *funis umbilicalis.*

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* *M. M. Baudelocque, Gardien, Capuron,* and other French practitioners, do not consider the labour to be preternatural, though the *nates,* the feet, &c. present, provided that it terminates without the extraordinary assistance of the accoucheur. Unless his assistance is required, it is still, according to them, unassisted (or natural) labour. But the old rule, which says, "Partus non exiens in caput omnino præter naturam est," is, I think, preferable.

Preternatural labours can only be known by an examination *per vaginam*.

If upon such an examination it should be ascertained, that the *os uteri* is considerably dilated, and the child cannot be felt, this affords reason to suspect, that the presentation is preternatural. Should the *liquor amnii* be discharged, and the child be out of reach of the finger, the probability of a preternatural position is greater*.

Should the membranes be found hanging down in the *vagina*, not of the usual globular form, but rather conical and small in diameter, this likewise is a presumptive proof of a cross birth; especially if there be any part presenting through the membranes which is smaller, feels lighter, or gives less resistance when touched, than the bulky heavy head.

These, however, are but probable signs; we cannot positively ascertain the fact, but by accurately examining the presenting part.

Whenever there are presumptive signs of a preternatural presentation, it becomes our duty to be very watchful of our patient, that we may be prepared to give the necessary assistance, if it should be required; and when we have fully satisfied ourselves that the child is coming in a wrong direction, we ought to inform some of the patient's friends of the circumstance; but it is best to conceal it from herself as long as possible.

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* In all cases of preternatural presentation, the membranes are apt to rupture at an early period of the labour; perhaps because a larger quantity of the *liquor amnii* is allowed to collect towards the *os uteri*. If the head of the *fœtus* occupies this part of the *uterus*, the waters are prevented from accumulating there in so large a quantity.

There is sometimes much difficulty in ascertaining what the presenting part is. Yet it is often of the greatest importance not to make a mistake, particularly in the presentation of the extremities. The hazard of a mistake is greatest, when only one extremity presents.

The following rules will in general enable us to form a correct opinion:

The head is known by its globular form, and hardness;
by the sutures and fontanelles.
The face, by the inequality of its surface;
by the eyes, nose, mouth and chin*.
The *nates*, by the softness, pulpiness, and globular shape;
by the cleft between the buttocks;
by the parts of generation;
by the evacuation of the *meconium*.
The foot by its thickness, by being longer and heavier than the hand;
by the heel;
by the great toe, being the most prominent part, and near to the other toes;

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* It might be supposed, that but little difficulty could be experienced, in ascertaining the presentation of the face, the marks of which are apparently so distinct: but numerous instances have occurred to prove the contrary. What may seem still more extraordinary, it has often been mistaken for the *nates*. The fact is, that the face very readily swells, and when much swollen, there is so much confusion of parts, as to puzzle very experienced practitioners. This is another argument in favour of early examinations in labours.

by the shortness of the toes;
by the ends of the toes forming nearly an even line, descending from the great toe, the most prominent part.

The hand, by its flatness, by being broader than the foot;
by the length of the fingers;
by the unevenness of the ends of the fingers, the middle finger being the most prominent.
by the thumb, being the shortest part, and remote from the fingers;
by the thumb bending into the palm of the hand.

The elbow has sometimes been mistaken for the knee or the heel; it may be distinguished by being more pointed than either of these parts.

The shoulder may be known by the clavicle and scapula; but generally when the shoulder presents, the arm is found in the *vagina*.

1. *Of the presentation of the nates* (*a*).

In early labour, this presentation is not always easily distinguishable from that of the head, on account of the globular feel of both parts.

Labours of this kind were formerly very much dreaded, as it was supposed, that there was not room for the child in this doubled position to pass through the *pelvis*. Hence some of the older accoucheurs attempted to turn the child, and bring the head to present; others, among the rest, *Celsus**, recommends to bring down the feet.

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* Et si clunes *os uteri* urgere cæperunt, iterum retro repellendæ sunt, conquisitusque Pes ejus adducendus.

Celsus, lib. 7, cap. xxix.

Portal, a celebrated practitioner at Paris, about 1668, gives very judicious directions for the management of this kind of labour; but his instructions were disregarded by subsequent practitioners and writers. His words are, "In such a case as this, you must not be impatient, for though the labour proceeds very slowly, yet it is *not much more difficult* than a natural birth: whence it is that our midwives say, by way of proverb, that where the buttocks can pass, the head will follow of course. The position of the child, in this case, is doubled, with his thighs upon the belly, and the passage being once opened for the buttocks by the re-iterated pains, the head follows without much trouble."

I cannot help contrasting these judicious directions with those of our countryman, *Dr. John Burton*, of York, the cotemporary and rival of *Smellie;* who says, § 89, "When the buttocks come foremost, it sometimes happens (though very rarely) that it may be brought in this posture, if the child chance to be very small, and the passage large: but yet this is very accidental; for though we may discover the passage to be large, yet we cannot so easily judge of the child's bulk, and therefore we should attempt to bring it forth by the feet, as directed § 88."—The 88th section runs thus, "when the buttocks come foremost, the more it is suffered to advance, the more dangerous and difficult will be the labour: therefore as soon as the operator perceives, by the softness and fleshiness of the parts, what part presents, *he must immediately thrust up against the buttocks with all his strength*, but without committing violence to the child's *os coccygis*, or its parts of generation, which are often in this case swelled; and as he thrusts up, he must endeavour to turn the child with its belly towards the *os uteri*, and then search for the feet."

Were this rough and barbarous recommendation of *Burton* generally followed, the most lamentable consequences, both to mother and child, could not fail of being often experienced.

Smellie was too fond of this *pushing up*, indeed it was the doctrine of the day; and *Dr. Hunter*, in the early part of his practice, used to follow the same plan, in breech presentations; but, from a conviction of its impropriety, he afterwards discontinued it*.

The *nates* may enter the *pelvis* in various directions; sometimes one hip only descends through the superior aperture, sometimes the child lies with its face towards the mother's belly, and at other times it is turned towards her back, and this is the most favourable position.

The first stage of labour in *nates* presentations is frequently very slow; for though the *nates* and thighs do not take up so much room as the head, yet either they do not readily adapt themselves to the shape of the *pelvis*, or the action of the *uterus* is slower or less regular, in consequence of the awkward position of the *fœtus*. No means, however, can with propriety be employed to hasten the progress of the labour; and by degrees the dilatation of the parts is effected, and the *nates* are forced lower and lower into the *pelvis*, till at length they protrude through the *os externum*.

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* "When I first began practice I followed the old doctrines in breech presentation, although I did not like them, but yet dared not broach new ones, till I got myself a little settled in life: *at this time I lost the child in almost all the Breech Cases*, but since I have left these cases to nature, *I always succeed*."

Hunter's Lectures, MS. 1768.

As soon as this has happened, the case becomes precisely the same as a footling presentation, and is to be managed exactly in the same way; for which see the next division, p. 75.

Many writers on midwifery recommend, in *nates* presentations, when the buttocks do not readily pass through the *pelvis*, to insinuate a finger on each side, as high as to the groins of the child, and thus to assist the delivery. This mode of practice is seldom necessary, and not always safe.

It has likewise been recommended, when the groins are beyond the reach of the finger, to introduce a *blunt hook*, by which to extract the child: but though in the course of my practice I have attended very many cases of *nates* presentations, I have rarely found it necessary to have recourse to this expedient.

It is practicable, sometimes, to pass a *fillet*, or handkerchief, over the groins, between the thighs and belly of the child; when this can be effected, the necessary extracting force may be employed more advantageously than by the *blunt hook*, and more safely; for fracture of the thigh bone has been found a very frequent consequence of using that instrument*.

Professors Plenck and *Wrisberg* recommend to apply the *forceps*, if the child is alive, in preference to the blunt hook; as does *Dr. Hamilton*†, who says, "they

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* "There is a method of assisting women in these cases by the blunt hook, introduced into the groin of the child; *but it is difficult to use this without breaking the child's thigh.*"

Young's Lectures, MS. 1765.

† *Collection of Engravings to facilitate the Study of Midwifery.*" 1796.

are now exclusively employed by me, under the circumstances alluded to."

Whether *Dr. Hamilton* employs for this purpose his own common *forceps*, or any other kind, is not explained; I have had no experience with them in *nates* cases; but in *the London Practice of Midwifery*, a book supposed to exhibit the doctrines of a very celebrated teacher of midwifery now deceased, the *forceps* in such cases are represented "from frequent trials" to be of no use.

2. *Of presentations of the inferior extremities (b).* This is the most simple, and probably the safest to the mother, of all the preternatural positions: but the hazard to the child is considerable, particularly if it be a first labour.

The danger to the child arises principally from the compression of the navel string, between its own head and the parts of the mother, *after the body* of the child has passed through the *pelvis*.

The great object of the accoucheur, then, is to prevent this compression; and this is to be effected, by getting the head of the child through the *pelvis*, with all proper expedition, as soon as the body is born.

In order for this, it is *not* necessary to hasten the delivery of the body of the child: on the contrary, it is desirable that the delivery of the body should be effected slowly; for thus the parts of the mother will become more dilated and spacious, and of course there will be less resistance opposed to the passage of the head.

But if attempts are too early made to reach the feet, and to expedite the delivery by drawing them down, and afterwards to extract the body rapidly, it will be found, when the head comes to occupy the *pelvis*, that the soft

parts of the mother will be too rigid and undilatable to let the bulky head pass through them; and thus so much delay will take place, and the *funis* will be so much compressed, as to destroy the child.

If, therefore, at the beginning of the labour, the membranes should be entire, let great care be taken not to rupture them, till all the dilatation that can be effected, by the pressure of the bag of waters, is produced*.

Or if the membranes should be ruptured, and I have already said, that this is not unusual in preternatural presentations, and the feet are felt naked in the *vagina*, let no hasty attempt be made to extract by them: it will be better to leave the case entirely to nature, till the *nates* have passed through the *os externum;* by which time the parts will be dilated, as much as circumstances will allow. But as soon as the *nates* are born, the attention of the accoucheur is demanded.

In order that the head of the child may pass conveniently through the *pelvis*, it is necessary that it be so inclined, as for the forehead to occupy the hollow of the *sacrum*, after the head has passed through the superior aperture. The long diameter of the head must, therefore, first be in the direction of the long (or transverse) diameter of the *pelvis*, and afterwards the forehead will fall into the hollow of the *sacrum*.

It becomes us, then, carefully to attend to the position of the child; and this is ascertained by examining the feet. If the toes are turned towards either *sacro-*

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* *Smellie's* Case 2, Coll. xxxiii, shews the mischievous consequences of too much haste in such occurrences; had he allowed more time for nature to have performed her part, the life of the child would almost certainly have been preserved.

iliac synchondrosis, the child is already in a right direction: for when the forehead has passed through the superior aperture of the *pelvis*, it will naturally slide into the hollow of the *sacrum*, and the passage of the head through the *pelvis* will be much facilitated.

But if the toes point to the *symphysis pubis*, or belly of the mother, the head will come in an unfavourable position: it will not readily adapt itself to the shape of the *pelvis:* perhaps, in passing, the chin may project over, and rest upon the *ossa pubis*, and it will be difficult to extricate it from this untoward situation.

To guard against this accident, it will be proper, as soon as the *nates** have passed through the *os externum*, to take hold of the *nates* and both thighs with a warm napkin; and, when the next pain comes on, to give such an inclination to the body of the child, by guiding it with the hands, as will direct the face towards the mother's spine. The napkin is necessary, in order to give the operator a sufficiently firm hold; without it, his fingers would slip, and his object be defeated.

There is not much difficulty in effecting this turn, if it be done prudently and cautiously. Much force is not required; nor is it necessary that the fore parts of the child be turned quite round to the mother's back: an inclination towards the back is all that is wanted.

During the pain, which, with the assistance of the accoucheur, produces this turn of the child, it is probable that the whole of the body will be expelled, and nothing

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* The following rules are applicable, as well to cases where the *nates* is the presenting part, as where the feet first come down.

will remain in the *pelvis* but the child's head, with the arms extended on each side above it.

It has been a question much discussed, whether it be best in preternatural cases to finish the delivery, leaving the arms thus extended on each side of the head, or to draw them down by manual assistance, before any attempt is made to bring the head into the world.

Some writers have asserted that the arms should not be drawn down, because, while thus extended, they prevent the *os uteri* from contracting round the neck of the child, and impeding the passage of the head. But if the early part of the labour has been permitted to proceed sufficiently slow, to allow the *os uteri* to become properly dilated, such a contraction is little to be dreaded; and the arms need not be suffered to remain for this purpose. Indeed, respecting this contraction of the *os uteri*, I must express my belief, that it very rarely takes place *round the neck* of the child. When it happens, it is round the upper part of the child's head, girding it like a band, in a line just above the nasal bones in front, and below the projection of the occipital bone behind. But this contraction, as far as my experience goes, never occurs *speedily*, after the entire and complete dilatation of the *os uteri*. Therefore, in *nates* cases, where the labour has advanced slowly, and the *os uteri* has consequently become properly relaxed and opened, no dread of this accident is to be entertained. But in presentations of the feet, and in cases where turning the child is adopted, if the birth of the body of the child is hurried, the contraction of the *os uteri*, as above described, is likely to happen, and it then is very often the cause of the child's death. In such cases it would be best not to bring down the arms; indeed the attempt would often

fail: but no such reason existing, it is good practice to disengage the arms, as the acceleration of the birth is then rendered more practicable.

Again, it has been supposed that the arms, in their extended position above the head, secure the navel string from compression; but one is at a loss to understand how, with so much more bulk of parts within the *pelvis*, the danger of pressure can be diminished.

A far better reason for not bringing down the arms, is, the danger of dislocating or fracturing them; and, if the practitioner will be so heedless and imprudent as to attempt to extract them at an improper time, or to employ violence and undue force, in effecting it, this danger will be imminent: but if the attempt be cautiously and judiciously made, no hazard need attend this operation.

The operation consists in passing the finger over the shoulder of the child, as far as to the bend of the elbow; which is then to be gently depressed, and the fore arm commonly passes through the *vagina*, without much difficulty. One arm being brought down, the extraction of the second becomes more easy.

In proportion to the rigidity of the soft parts will be the difficulty of the extraction: should it be found that the operator's finger cannot reach the bend of the elbow, or does not readily dislodge the arm, it will be better to defer the attempt, or to give it up altogether, rather than to do injury to the infant. With first children, it will require some care to guard against a laceration of the *perinæum*, as the arm passes.

When the labour has proceeded so far, that only the head remains to be born, we are to extract this with all the speed that circumstances will admit; for little reli-

ance is to be placed on the uterine efforts, solely, to effect the expulsion of the head; and if it remains long in the *pelvis* after the body is born, the compression upon the *funis* will be so great, as speedily to cause the child's death.

It is of importance to get a finger of the left hand introduced into the child's mouth. This serves two valuable purposes:—

1st. By this means, we have it in our power to depress the chin, which alters the position of the head, and adapts it more commodiously to the *pelvis*.

2dly. By opening the mouth of the child, it will sometimes happen that a portion of air will make its way into the lungs, sufficient to distend them, and partially establish the function of respiration: by which the life of the child may be somewhat prolonged *.

If the finger be properly passed into the child's mouth, the arm and hand of the operator serve to support the body of the infant, in such a direction, as tends to facilitate the expulsion of the head.

The fore finger of the left hand being insinuated into the mouth of the child, the fore and middle fingers of the right hand should be passed over the nape of the neck, one finger resting on each shoulder; and now a moderate extracting force may be employed to bring forth the head; care, of course, being taken not to dislocate the jaw, nor otherwise to injure the *fœtus*. The extraction

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* In *Pugh's Treatise of Midwifery*, 1754, a flexible tube is delineated, which he recommends to be introduced into the mouth, for the purpose of inflating the lungs, when there is a difficulty or delay in extracting the head: but he does not speak of it in very high terms of commendation.

of the head will sometimes be more conveniently made, if the woman be turned upon her back, and if the operator stand, while using his efforts.

It is desirable that this attempt be made during a natural pain, and that the operator cease from his attempt as soon as the pain goes off: but if the case be urgent, the extraction must be made without waiting for the natural pains.

The necessity for hastening the extraction of the head, as has been already remarked, is to preserve the life of the child; but so long as a pulsation is to be felt in the navel string, the child's life is in no immediate danger.

It has happened not uncommonly, that the eager desire of the operator to save the life of the child has defeated its own purpose; for if he is led to use too much force, he may thereby strain the child's neck, and thus injure it; or, if he keep the parts constantly upon the stretch, he will so completely compress the *funis*, as entirely to interrupt the circulation through it, and of course produce the death of the child: whereas, if he were to desist occasionally from dragging, the pressure on the *funis* would be diminished, and the circulation might be preserved.

3. *Of presentations of the superior extremities (c).*

There are no presentations more dangerous, nor more difficult to manage, than those of the superior extremities; for whether the part presenting be the hand, the elbow, the shoulder, or both hands, it is clearly impossible that a full-grown *fœtus* should pass through the *pelvis*, unless this position be altered.

It was the practice of the ancients to endeavour to

push back the arm, and bring the head into the *pelvis*; but this method could seldom succeed, and it was, after a time, laid aside, principally upon the authority of *Ambrose Paré*, who directed that the feet should be sought for, and brought down, in all preternatural presentations.

It seems now generally agreed, that the preferable mode is to turn and deliver footling; for though it is sometimes practicable to return the arm, and bring the head to present, yet the chance of success in this way is very trifling*.

The established practice, then, is for the operator to pass his hand into the *uterus*, to take hold of the feet†, and bring them without the *os externum*; thus converting the presentation of the arm into a presentation of the feet.

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* *Guillemeau*, however, the pupil of *Paré*, directs the operator first, to try to bring the head into the pelvis, and if he cannot succeed in this, to seek for the feet; and *Bracken* speaks of this operation as very easy; but his authority is of no value.

See Appendix, No. 15.

† *Dr. Breen*, of *Dublin*, in a paper, well deserving attentive perusal, published in the *Edinburgh Medical Journal*, vol. xiv. recommends the accoucheur to bring down the *knees* rather than the feet; and *Dr. Hunter* was used to recommend bringing down the *breech*; he says, in his MS. Lectures, speaking of arm presentations, "In this case you are to introduce your hand into the *uterus*, and gently put up the arm, and turn the child to a breech presentation. Reduce it, if possible, to a *perfect breech case*, that it may come more gradually, on account of the head and navel string, lest you strangle the child. If, however, you find this impracticable, let it come footling, but sustain the child at the hips as long as you can, they being, next the head, the largest and most unyielding part."

Though the necessity of effecting this alteration in the position of the *fœtus* is universally subscribed to, and though it is by all admitted, that the turning should be accomplished as speedily as possible, yet it is not always in our power to proceed to the operation as soon as the nature of the case is ascertained.

A variety of circumstances may be present in this kind of preternatural position, which will occasion embarrassment to the operator, and add more or less to the difficulty and danger of the case. It is not my intention to enumerate every possible difficulty; but I shall offer a few observations on the method of proceeding in four different cases, which will be sufficient to enable the young practitioner to regulate his method of management in all others.

1st. If it should be ascertained, before the membranes are ruptured, and the *waters* discharged, that the arm is the presenting part, it will be right not to introduce the hand, till the *os uteri* is sufficiently dilated to allow the hand to pass with tolerable ease into the *uterus*. For till the membranes are ruptured, no danger exists, and the dilatation of the parts is more easily and conveniently effected by the *bag of waters*, than by any other means.

But though it may not be expedient for the operator to proceed to the introduction of his hand, till the *os uteri* is favorably dilated, yet he must on no account quit his patient; for he may be obliged to proceed to artificial dilatation, without delay, should the membranes suddenly give way.

As soon as the *os uteri* is sufficiently dilated, (and the more complete the dilatation of this part, the more safe will be the delivery), the operator must dilate the external parts artificially, till they oppose no further

resistance to the introduction of his hand. Then slowly carrying his hand through the *vagina* to the *os uteri*, he must gently insinuate it through this part, in the absence of a pain. If he should find the *os uteri* less relaxed than he expected, or than is necessary, he must proceed to use artificial dilatation here, too, very slowly effecting this, and intermitting his endeavours, from time to time, as he shall judge prudent. Having obtained room to pass his hand through the *os uteri*, he must rupture the membranes by pressing a finger firmly against them; when his hand will immediately come in contact with the body or limbs of the child. He is then to pass his hand forwards till he reaches the feet, *which he should be careful to draw down along the belly, not over the back of the child*, and proceeding slowly, he will find, that as the feet are brought lower, the presenting arm will be retracted; and when the *nates* are brought to occupy the hollow of the *sacrum*, the arm will be drawn nearly or completely within the *uterus*. The case now becomes precisely similar to a feet presentation, and is to be managed accordingly.

This is the easiest and safest case of turning; for the *uterus* is kept distended all the time by the *liquor amnii*, which, after the membranes are ruptured, is prevented from passing off by the operator's arm plugging up the *vagina* and *os externum*. So that the efforts of the accoucheur to turn are not impeded by the contraction of the *uterus* upon the body of the child *.

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* " Mulierem, cui in primo partu Fœtus Brachium in integra adhuc Liquoris Amnii vesica erat prævium, intra 10 minuta feliciter versione obstetricavi. In secundo partu, in quo iterum brachium erat prævium, obstetrix vesicâ amnii ruptâ me vocari

In all cases, therefore, where it is known, or suspected, that the arm is the presenting part, and the membranes remain entire, it becomes us to watch the patient with great assiduity, in order that we may take our own opportunity for turning, before the *waters* are evacuated. And it would be right to keep the patient constantly on the bed, both because a premature discharge of the *waters* is less likely to take place while she is quiet, and in a recumbent posture; and likewise, because there would be no unnecessary delay in passing the hand, if the membranes should rupture spontaneously.

2. Sometimes it will be found that the arm is lying in the *vagina*, or without the *os externum*, the *liquor amnii* having been some time discharged, the *os uteri* nearly or quite dilated, and the patient either quite free from pains, or having pains seldom occurring. Here is another case, in which it is advisable to proceed without delay, to deliver by turning the child: but the turning will not be so easily effected in this, as in the former case, because the *uterus* will be in a state of contraction on the body of the child. There will therefore be greater difficulty in passing up the hand to reach the feet. Still, if there be only the *passive contraction* of the *uterus**, the delivery may be effected without much trouble.

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curavit. Ego pro versione finienda in hoc secundo partu mediâ fere horâ indigui. Hinc patet quantum differentiam faciat Liquoris Amnii præsentia vel absentia. In secundo enim partu idem fœtus situs et magnitudo; eadem pelvis amplitudo; eadem obstetricatoris dexteritas, ac in partu primo fuit."

Plenck Elem. Art. Obs. 1781, p. 157.

* By *passive contraction*, I mean that contraction of the *uterus* which always takes place in consequence of the discharge

The hand is to be passed cautiously through the *os externum*, care being taken to have this part sufficiently dilated. It must then be insinuated, in the most gentle manner, through the *os uteri*, and slowly conducted over the surface of the child, till it reaches the feet. These are then to be slowly drawn down into the *vagina*, and finally without the *os externum*. Should uterine action be excited during the time that the hand is in the *uterus*, it must be kept in a flattened form close upon the body of the child; or may be a little withdrawn while the pain continues; and when the pain has subsided, the hand may again be cautiously carried forwards.

It is generally more difficult in this, than in the former case, to lay hold of both the feet; we must sometimes, therefore, be content with one only; but the turning is always much more safely and easily accomplished when we can command both feet, than when we have only been able to reach one.

3. Again, it may happen, that a superior extremity presents, the *liquor amnii* is evacuated, and the *os uteri* but little dilated, perhaps very firm and rigid. In this case, a cautious attempt may, if the attendant thinks fit, be made to produce artificial dilatation; but it will

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of the *waters*, and which may be considered "as the exercise of that inherent disposition, by which efforts are made by the *uterus* to recover its primitive size and situation, when any cause of distension is removed:" this passive contraction admits of different degrees of intensity.

By *active contraction*, I mean the occurrence of strong muscular action, whether regular, as in labour pains, or irregular, as in spasm. For a further elucidation of this, see *Denman's Introduction to Midwifery*, 4to. p. 440.

probably be found necessary to wait with patience till the parts become more relaxed or dilated: for as there would of course be great resistance to the introduction of the hand, it is probable that the attempt to force it into the *uterus* would excite inordinate or spasmodic action, and a laceration of the *uterus* or other serious mischief might ensue*.

By allowing time, however, the rigidity would diminish, the parts would dilate, slowly and untowardly indeed for want of the mechanical, or wedge-like, action of the bag of *waters*; yet at length there would be so much of softness and dilatability, as to authorise the practitioner to proceed to the operation, which must be slowly and cautiously performed, as before described.

4. Or it may happen, that the *waters* have been early evacuated, the *os uteri* more or less dilated, the pains recurring often, and inordinately strong and forcing. To attempt the turning under such circumstances, would probably be unavailing, and might be attended with great hazard to the mother. Here then nothing remains but to watch the patient attentively, and either to wait till the *uterus*, having exhausted its strength in its fruitless endeavours to expel the child, becomes torpid, and incapable of further exertion; or to lessen the vigour of the

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* "Dans tous les accouchemens contre nature qui procedent seulement de la mauvaise situation de l'enfant, il faut attendre pour le tirer de la matrice, que son orifice interne soit passablement ouvert, et assez preparé et amoli, pour y pouvoir introduire la main sans trop de violence."—*Mauriceau Aphorism*, 185.

system by bleeding, or other depleting means*, or to diminish the uterine action by a large dose of laudanum, This is the method recommended by *Dr. Hamilton* of Edinburgh, who speaks of it as attended with the most obvious good effects†. The dose that he gives is eighty drops.

In patients of a plethoric habit it will be frequently expedient to take away from fourteen to sixteen or twenty ounces of blood, before exhibiting the opium.

When, from either of these plans, the action of the *uterus* becomes suspended, the earliest opportunity is to be taken of proceeding to deliver.

I am well aware, that some practitioners object to delay in either of these last cases, upon the following grounds:

First: they say, that where the child is thus placed and there are strong pains, much danger is incurred of a ruptured *uterus;* for that this accident frequently happens in such cases, from the head or one of the limbs of the child forming a protuberance, against which the *uterus* is so forcibly pressed, that at length its fibres give way, and a laceration ensues. Now it is contended, that the danger of this occurrence can be prevented by one method only, viz. changing the posture of the child, which must therefore be effected at all hazards.

That the danger of a rupture of the *uterus* under such circumstances is very great, I shall not attempt to

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* *M. Capuron* recommends the warm-bath in such cases, but it has not been extensively tried in this country, nor can I, from experience, speak of its value. It seems well deserving of a trial.

† *Select Cases in Midwifery, &c. By James Hamilton, jun. M.D.* p. 102. 1795. See Appendix, No. 16.

deny; but how will it be diminished by the means proposed? Will there be less hazard in the efforts of the operator, to push forward his hand, in opposition to the powerful resistance of the *uterus?* Nay, is not the attempt to introduce the hand likely to excite the *uterus* to still more inordinate action, and consequently to increase rather than to diminish the danger? An appeal to facts will, I doubt not, prove, that rupture of the *uterus* has occurred, at least as often, from the violent and persevering attempts of the operator, as from the untoward position of the child.

Secondly: it is argued, that if the *uterus* be not ruptured by its own powerful action, yet that the labour pains will, by degrees, force the arm, shoulder, breast, and perhaps the head of the child so firmly into the *pelvis*, as to render it impossible to pass the hand into the *uterus*, after the pains become suspended*.

In the practice of midwifery, as in other branches of the art of healing, we have sometimes only a choice of difficulties, and much must of necessity be left to the discretion and judgment of the practitioner, in each individual case that he attends. I am not disposed to think lightly of the hazard that attends having the *fœtus*, thus preternaturally presenting, wedged into the *pelvis;* yet I am strongly inclined to believe, that there is less danger in this, than in forcing the hand into the rigid, unyielding *uterus*, in a state of active contraction and irritability. Upon the whole, therefore, I am of opinion, that there is a greater probability of doing good by delay, and by

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* *Dr. Hamilton,* in his "*Select Cases,*" gives an instance of this, and has subjoined some very judicious remarks upon the subject.

using such means as are likely to controul the excessive action of the *uterus*, than in persisting to introduce the hand, when the *uterus* opposes a resistance so obstinate and impetuous. But as soon as this excessive action is subdued, the turning should be cautiously undertaken*.

A curious phenomenon, first accurately noticed by *Dr. Denman*, and since by other authors, may, perhaps, under some circumstances be admitted, as a farther justification of delay. It has occasionally happened, in these presentations, that the labour pains have had the effect of forcing the *nates* or feet so low into the *pelvis*, that they have been precipitated through the *os externum*, and thus the turning of the child has been produced without the interference of the operator. In one or two such cases, the children have even been born alive. This *Dr. Denman* calls " the spontaneous evolution" of the child.

Dr. Douglas, of Dublin, has most obligingly presented me, with a copy of a very interesting Pamphlet on this curious subject†, the process of which he explains most satisfactorily and clearly; and he is rather sanguine in his belief, that the spontaneous evolution would more frequently take place, if it were more frequently trusted to by the obstetric attendant. The recurrence of the spontaneous evolution has however been, comparatively,

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* See Appendix, No. 17.

† *An explanation of the process of the 'Spontaneous Evolution of the Fœtus,' with some remarks, intended to induce an Inquiry, whether the usual mode of Delivery be the more eligible in Arm Presentations. By John C. Douglas, M.D. &c. Dublin,* 1811. *(Second Edition, enlarged,* 1819.*)*

There has likewise been published, at Dublin, a very judicious *Essay upon the Spontaneous Evolution of the Fœtus. By John Kelly, M.D.* 1816.

so rare, that no man would be justifiable, in implicitly relying upon it. The knowledge that it has sometimes happened, may, indeed, under some circumstances of extreme resistance to the passage of the hand into the *uterus*, reconcile us to the delay, which I have above recommended; but we should never allow it to operate upon our minds, so as to induce us to neglect the proper means, and proper time of turning, when we have it in our power. It is the duty of the accoucheur, on all occasions, to give to nature every possible opportunity of exerting herself, for the relief of the patient, but it is equally his duty when nature becomes embarrassed and oppressed, to interpose the *timely* assistance of art, lest nature being compelled to relinquish the task, the patient should fall a sacrifice to the delay.

I have not attempted to lay down any rules for the position of the patient, while the operator is endeavouring to turn the child; because that position, which gives him the most free use of his hand and arm, is to be preferred, and under some circumstances one position, under others a different position, will be found most convenient.

I generally make the attempt first, with my patient lying in the usual way on her left side, with the hips brought very near to, or even overhanging the edge of the bed, and use my right hand. Sometimes I have found, that while she was thus placed, I have been able to operate best with my left hand; or if I have preferred using my right hand, I have been obliged to place my patient on her right side. *Daventer* recommended, that the patient should be placed on her elbows and knees: I have occasionally adopted this posture with advantage. It is particularly eligible, if the patient strains and forces much against the attempts of the practitioner, to introduce his

hand, for in this posture she has less power of exertion. *Smellie* was an advocate for placing the woman on her back, with the breech raised higher than her shoulders, but I am not aware that any particular advantage results from this position, during the operation of turning; when the body of the child is brought into the world, I have sometimes thought, that I have facilitated the passage of the head through the *pelvis*, by placing my patient on her back*.

In all cases of turning, it will be found necessary to make the arm bare, because the feet will seldom be within the grasp of the operator's hand, till his elbow is even with, or has passed through the *os externum*. The hand and arm should be well smeared over with lard or pomatum, or other greasy substance, before the attempt to introduce

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* The rules laid down by *Plenck*, in his *Elementa Artis Obstetriciæ*, p. 161, may be worthy of attention.

" Situs ad versionem parturienti atque obstetricatori sit commodus. Hinc.

1. Parturiens lecto *transversim* imponatur.
2. Pudendum parturientis margini lecti transverso super stragulis brevibus libere adeo incumbat, ut manus obstetricatoris commode pudendo immergi possit. *Altitudo situs parturientis sit, ut pudendum parturientis respondeat umbilico obstetricatoris.*
3. Adjutrix sedeat in lecto transverso ad caput parturientis, et suo sinu femorum caput parturientis excipiat, ne corpus sub fetus extractione vacillet, vel e lecto cadat.
4. Crura parturientis sedilibus duobus lecto transverso adpositis, firmiter insistant, et ab adjutrice divaricata teneantur.
5. Operator inter femora & crura parturientis stando peragat versionem."

them, as this considerably facilitates the passage. The late *Dr. Thynne* recommended to rub the arm with soap and water so as to form a strong lather upon it; this answers very well. Some have recommended decoctions of marshmallow roots or linseed, some the white of eggs, and others have proposed to inject warm oil into the *uterus*, preparatory to turning.

4. *Of presentations of the back, belly, or sides (d).*

Each of these presentations is stated in the report from the *Maison d'Accouchemens* to have occurred *once in* 5,833 *labours.*

Madame Boivin, in her *Memorial de l'Art des Accouchemens*, has given delineations of these positions; but admits, that, in 20,517 cases, delivered at the *Hospice de la Maternité* at Paris, no instance of such presentation occurred at the full term of gestation.

Dr. Bland takes no notice in his *Calculations of Accidents, &c. in consequence of Parturition*, of these presentations.

Dr. Denman says, "I do not mention the marks by which the back, belly, or sides, might be distinguished, because these, properly speaking, never constitute the presenting part; that is, though they may sometimes be felt, they never advance foremost into the *pelvis*, in the commencement, at least, of a labour."

Introduction to Midwifery, p. 423.

Dr. Hunter says, "I have read much in authors where the navel is said to present, or on the contrary where on introducing the finger, you feel the middle of the spine: I do not believe there is the possibility of such a thing in nature; the shape of the *uterus, pelvis, &c.* all deny it."

Lectures, M.S. 1765.

In the very extensive practice of my uncle, the late *Dr. Merriman*, and in my own practice, amounting together to nearly 20,000 labours, no instance has occurred of either of these presentations, except in one or two cases, where the mother had not completed her seventh month of utero-gestation, and in these, the children passed doubled through the *pelvis*.

I have however been informed of a very skilful practitioner in the country who has twice met with a presentation of the *back*. Should so unusual a case occur, it is possible that in the course of the labour, the presentation would be changed to one more favourable. If no alteration in the position took place spontaneously, the introduction of the hand would be necessary, as soon as the parts were sufficiently dilated, to bring down the feet, and to deliver before the strength of the patient was too much exhausted*.

Smellie, *Leake*, and some others, speak of having attended in presentations of the *umbilicus*†; but if it ever occurs, it is extremely rare.

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* See Appendix, No. 18.

† *Perfect*, in his 1st volume of *Cases*, p. 25, describes "a presentation of the *funis* and belly;" but his own statement shews, that he was labouring under a mistake. He says, that on passing his hand into the *vagina*, he found the *os tincæ* very high up, and open to a great breadth; he therein felt something soft, which at first he supposed to be the *Breech*; but on examining again, he distinguished the insertion of the *funis* into the *umbilicus*, and therefore concluded that the belly of the child presented. He determined therefore to deliver by the feet, and introducing his hand, for this purpose, found them "close together doubled over the breast." Now if the feet were thus placed, how was it possible that the belly should present?

5. *Of presentations of the funis umbilicalis (e).*

Preternatural Labour. Order 6. Burns.
Dystocia a Secundinis elapsis. Sauvages, § 8.

This kind of presentation appears to have been much misunderstood formerly. It was supposed, when the *funis* came through the *os uteri* into the *vagina*, or without the *os externum*, that the child lay across the *pelvis*, the belly being over the *os uteri* *; and this is the representation of the position given in *Smellie's* plates. This however is seldom or never the case. When the *funis* presents, there will be found beyond it, either the head, the *nates*, or one of the extremities.

The difficulty in this case is not on account of danger to the mother, but because there is a great probability of losing the child.

Attention must be made to the pulsation in the *funis*. If no pulsation is to be felt, the child is already dead; and the case is to be managed precisely as if the navel string were not prolapsed †.

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* This opinion is not yet abandoned. *M. Maygrier* supposes, that the prolapsion of the *funis* always indicates the presentation of the *abdomen*:—" Mais un signe qui ne laisse aucun doute sur la presentation du ventre, c'est la presence du cordon ombilical."

Methode pour manœuvrer les Accouchemens, 1804. p. 49.

† The death of the child in prolapsion of the *funis*, has been attributed by *Exton* and others, to a congelation of the blood, from exposure to cold; but it is beyond a doubt, that its death is always occasioned by compression of the *funis* between the child and the parts of the mother. It is to remove the *funis* from the effects of this compression, that the assistance of the accoucheur is required.

Should there however be a pulsation, we are assured that the child is yet alive; and it becomes us to consider, in what way we can best proceed, so as to preserve its life.

Three expedients for this purpose have been recommended.

First, To let the labour advance, till the head of the child is within reach of the *forceps*, and then to hasten the delivery by means of this instrument.

Secondly, To remove the navel string out of the way of compression.

Thirdly, To hasten delivery, by turning the child and bringing it by the feet.

The first method probably possesses but little advantage, beyond what may be gained by trusting the case entirely to nature. In some instances, where the mother has had children before, where the *pelvis* is very wide, the *fœtus* small, and the pains strong and quick, the child has passed alive without extraordinary assistance. But the probability of this being effected is so remote*, that it would be wrong to trust to it, did any other means of affording assistance present themselves. Should it however be found impossible to remove the *funis* out of the way of compression, or should the child's head have sunk too low into the cavity of the *pelvis*, or should any other

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* As there is so much more space at the sides of the *pelvis*, and towards the *sacro-iliac synchondroses*, than towards the *pubes*, we may safely conclude, that when the prolapsed *funis* is lying in either of these cavities, the danger from compression will be less An exact knowledge of the situation of the *funis* is therefore absolutely necessary, and may very properly influence us, in the mode of practice we may think it right to adopt. See Appendix, No. 19.

circumstance be present, so as to render it hazardous to attempt turning, the application of the *forceps* might be admissible, as the only remaining resource.

The second method would be the most eligible, could it always be put in practice; but the means of effecting a reduction of the prolapsed *funis* are not very easy.

It has been proposed, to carry it upon the points of the fingers, or upon a forked piece of cane or whalebone, through the *os uteri*, and above the head of the child, so as to prevent the *funis* being pressed upon, as the head descends through the *pelvis*. But this expedient has been often found to fail; for upon withdrawing the fingers, or the forked stick, the *funis* usually sinks again into the vagina.

Dr. Aitken says that "a grooved piece of ivory, tied on the edge of the point of the *lever*, to retain and carry the cord, returns it with certainty." * But many of *Aitken's* recommendations are very fanciful.

Dr. Mackenzie once succeeded, by drawing without the *os externum* as much of the prolapsed *funis* as he could bring down, and inclosing the whole in a small bag, which was slightly tied at the neck. This he passed into the *uterus* beyond the child's head, where it was retained, and the child was born alive. This method seems deserving of farther trials, but *Dr. Mackenzie* never succeeded in it but once.† I have tried it and failed.

The late *Sir Richard Croft* has related two cases, in which he succeeded, by carrying the prolapsed *funis* through the *os uteri*, and suspending it over one of the

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* *Principles of Midwifery*, 1786, p. 152.

† *Denman's Midwifery*, 4to. p. 559.

legs of the child. In both these cases the children were born alive.*

Mr. Hogben† and *Mr. Hopkins*‡ recommend sponge to be introduced, so as to keep the *funis* from sinking below the head, after it has been carried, as far as possible, above the brim of the *pelvis*, either by the fingers, or any other contrivance.

Any of the foregoing methods that appear practicable, in particular cases, may be attempted; but there is reason to fear that they will frequently fail.

The third method proposed, viz. the hastening of the delivery by turning the child *in utero*, and bringing it by the feet, can only be resorted to under certain favorable circumstances.§ It is to be recollected, that no possible advantage can accrue to the mother by turning the child; it is the benefit of the child alone that we have in view. In case then of a want of pulsation in the navel string, which is a certain indication of the child's death, turning ought on no account to be attempted. Or should there be any circumstances in the case, rendering it very improbable that the child could be pre-

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* *London Medical Journal*, vol. vii. p. 38. 1786.

† *Obstetric Studies*, 1813, p. 62.

‡ *Accoucheur's Vade-Mecum*, 1814, p. 193.

§ *Dr. Haighton, in his Syllabus of Lectures on Midwifery*, 1811, enumerates these favorable circumstances, thus:

"1st. A pulsation of the cord, proving the life of the child;
2d. Its head not having yet entered the *pelvis*;
3d. Pains not strong;
4th. A relaxed state of the external parts, to admit of a ready extrication of the head."

served, even if it were turned, it would be injudicious practice to attempt the operation. For, as turning the child *in utero* is an operation always more or less hazardous to the mother, it is not justifiable to put her to this hazard, unless there be a well-grounded expectation of saving the child. If, however, there should be a tolerable probability of effecting this desirable object by turning, the mother ought not to refuse to risk something in favor of her infant.

What has been said hitherto, applies chiefly to the presentation of the *funis* along with the head: when it presents together with any other part, the accoucheur will be guided in his practice by the peculiarities of the case. If the arm and *funis* should present together, turning must of course be had recourse to; for this operation will then become necessary, not because the *funis* presents, but because the arm has sunk into the *vagina*.

Order 8. *Dystocia Gemina—Labour of Twin (or more) Children.*

Anomalous Labour. Order 3. Denman.
Preternatural Labour. Order 7. Burns.
Dystocia Geminorum. Young's Nosology.
Plural Birth. Aitken.

It is seldom possible to ascertain that there are twins, till after the birth of the first child. Yet sometimes it is known, during the first labour, by the membranes of

each child being felt at the same time in the *vagina*; and sometimes different parts of the two children come down together*.

Each of the twins is commonly smaller than a single child: this often occasions the birth to be rapid, and gives to the practitioner the first idea, that he is attending a case of twins.

At other times, though it is evident to the touch that the child is small, and that there is plenty of room for it to pass, yet the pains, though frequent, do not propel it; hence the attendant is led to suspect, that the uterine action is impeded or interrupted by another child occupying the *fundus uteri*.

Whenever there are good reasons for suspecting twins, it becomes the duty of the accoucheur fully to satisfy himself upon this point, before he quits the lying-in chamber. Generally, he may do this by laying his hand upon the *abdomen*, or introducing a finger or two into the *vagina*; but rather than to remain in doubt, he had better pass the whole hand.

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* In the *Medical and Physical Journal*, vol. 25, p. 29, *Dr. Clough* relates a curious instance of twins, both of which were discovered by the midwife, one presenting with the feet, and the other with the head. The labour advanced very slowly, on which account *Dr. Clough* was called in. He found the feet and body of one child, with the arms down on each side, protruded through the external orifice, and assisted to extract the shoulders. Still finding a difficulty, he examined again, and ascertained that the head of the second child, and that of the first, were in the *pelvis* together. By the efforts of the *uterus*, the head of the second child was expelled, and then that of the first: both had been long dead. The mother recovered.

Much diversity of opinion has prevailed among practitioners of midwifery, respecting the best method of managing twin cases: but this difference exists only with regard to the second labour; for the first requires to be conducted precisely as if it were a single child.

Thus, if the *fœtus* presents naturally, the case is to be left to nature, as in EUTOCIA; if it presents preternaturally, or if any other circumstances occur, constituting difficult labour, it will require the kind of management directed in the various orders of DYSTOCIA: should, however, the case be of such a kind as makes turning necessary, the operator must take care not to mistake the parts of the two children, lest he bring down a limb of each, and add greatly to the embarrassment of the case.

But after the birth of the first child, the question to be resolved is, whether the birth of the second shall be left to nature, or terminated by art?

It is very well known, that repeated instances have happened where the second child has been retained many hours or days*, after the birth of the first, and no mis-

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* In the *Medical and Physical Journal* for April, 1811, vol. xxv, p. 311, a case of twins is related, in which the second child was retained for fourteen days after the birth of the first; and the author of that communication states, that another case had come to his knowledge, in which six weeks had elapsed between the births of the twins.

"March 4, 1814, the wife of Mr. James Pickworth, grazier, of Sempringham, Lincolnshire, was delivered of two boys, after which she was so much composed, that she got up the next day, and remained in that state till the 6th, when she was delivered of two more boys.—*Gentleman's Magazine*, March, 1814.

chief, nor danger, nor much of inconvenience has followed. Hence, some have concluded, rather hastily, that the birth of the second may always be safely trusted to nature, and that the interference of art is very seldom, if ever, necessary.

Others having known very dangerous, and not unfrequently fatal, consequences, from allowing the second child to be long retained after the first is born, have argued, that it is always proper to accelerate by art, the birth of the second child.

Others, again, steer a middle course, and teach us to wait a *moderate* or *reasonable* time, before we interfere by art, to effect the second delivery; and it seems to be the opinion of some authors of great reputation and judgment, that about *four hours* is the proper time to wait.

It will hardly be denied, that some time ought to be allowed to recruit the woman's strength, and to give an opportunity for the second labour to come on spontaneously; but there will often be a difficulty in determining, what space of time is to be considered as reasonable. There are, I imagine, many cases, in which it would be unadvisable to wait so long as four hours, before the birth of the second child is artificially excited; as,

1st. Where circumstances have made it necessary to employ artificial aid in bringing the first child into the world.

2dly. Where the second child presents in a preternatural position.

3dly. Where convulsions, or hemorrhage, or any other accident, has occurred in the interval between the two labours.

In either of these events, no doubt can, I imagine,

be entertained, of the expediency of finishing the labour long before the expiration of four hours.

And even when the first labour has been favourable, and the second child is in a proper position, it may be doubted whether any advantage is likely to accrue from letting it remain four hours before an attempt is made to facilitate the delivery. In general, indeed, under these favourable circumstances, the secondary pains come on shortly after the first birth, and expel the child; but should this not happen, it may be prudent to excite them, by rupturing the membranes, in a much shorter space of time than four hours: it has seemed to me, upon various occasions, when so long a period as this has been permitted to elapse, that the pains of the second labour have been more severe, than they would have been, had the action of the *uterus* been earlier excited.

I should be very unwilling to appear the advocate of precipitation, in any part of the practice of midwifery; but having known more than one instance of mischief, arising from the delay of bringing the second twin into the world, I think myself justifiable in recommending an opposite mode of conduct; though somewhat different from that, which other practical accoucheurs have taught.

The following is an outline of the practice, which I have been in the habit of adopting, in *Dystocia gemina*:

1. When both the children present naturally, and the labour of the first terminates without artificial assistance, and without much fatigue to the patient, I wait for the spontaneous occurrence of the secondary pains; but should these not come on soon, or in a *reasonable*

time*, I rupture the membranes; and then commonly find, that the second child passes with comparative ease through the *pelvis*, the parts having already undergone sufficient dilatation.

2. If the first labour has been natural, and the second child presents in a wrong direction, I have deemed it generally expedient, with very little delay, to extract it by the feet.

3. If the first labour has been preternatural, or very difficult, or dangerous, this has always seemed to me an additional reason for terminating the second, as expeditiously as circumstances will admit. Whether, in this case, it will be sufficient, merely to rupture the membranes, or whether it may be preferable to bring down the feet, or to assist in any other manner, the accoucheur in attendance must determine†.

It is an established rule, not to acquaint the mother that there are twins, till both are born; for as it is known, that sudden emotions of the mind have been productive of ill consequences during labour, so it has been thought, that some mischief or inconvenience might ensue, from the apprehension, with which the patient might contemplate the second labour. But though it is proper to con-

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* Much objection has been made to the terms *reasonable* or *moderate*, because they are indefinite: but this is, in fact, one of the advantages of using these words. The proper time must always be determined by the attending practitioner, according to the circumstances of the case. The *reasonable* time will frequently be less than half an hour; sometimes one or two hours; occasionally, perhaps, four hours.

† A method nearly similar is recommended by *Dr. Hamilton*, in his *Outlines of Midwifery*, 1806, p. 384.

ceal this circumstance from the mother, if possible, yet it is right to acquaint the husband, or some friend of the patient, of the real nature of the case, as soon as it is certainly known to the practitioner.

*** The rules which are applicable to twin cases, will equally apply to cases where there are three or more children.

*** It very commonly happens in *Dystocia gemina*, that the labour occurs before the full term of nine months.

A greater number of twin children, on an average, die during infancy, than of single children; and this remark applies still more strongly, to triplets, and quadruplets; very few of whom reach maturity†.

ORDER 9. *Dystocia Laceratoria—Labour producing, or accompanied with, a Rupture or Laceration of some internal or external Part.*

DYSTOCIA LACERATORIA. Young's Nosology.
COMPLICATED LABOUR. Orders 2, 3, 6. Burns.

LACERATIONS may take place from the violence of the labour pains; from improper exertions, or restlessness on the part of the patient; from mismanagement on the part of the practitioner; and sometimes from causes beyond

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* See Appendix, No. 20.

our cognizance. This order may be divided into five species: *viz.*

a. Laceration of the *perinæum.*
b. ——— of the *labia pudendi.*
c. ——— of the *vagina* or *uterus.*
d. ——— of any other internal organ.
e. ——— of the ligaments of the *pelvis.*

1. *Laceration of the perinæum* (*a*). This, though seldom dangerous, is always a very uncomfortable accident, and when it extends so far, as to divide the septum between the *vagina* and *rectum*, and thus to lay both passages into one, is to the last degree distressing; for the unhappy patient has then no power of retaining her *fæces*, and of course becomes for ever afterwards an object of disgust, both to herself, and to all who are obliged to associate with her*.

It would perhaps be asserting too much, to say, that this kind of laceration may always be avoided; but unquestionably the practitioner ought, in general, to be able to prevent so unfortunate an accident.

The danger of a laceration of the *perinæum* is greater in first, than in subsequent labours; but instances have been met with, where the laceration has happened to women, who have borne several children. The danger is always increased, when the head comes into the world in a wrong direction, as in *Dystocia perversa.*

The means of preventing a laceration are,

1. Carefully to abstain from hurrying the head through the *os externum.*

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* See Appendix, No. 21.

2. To avoid irritating the *vagina* and inner membrane of the *perinæum*, and to guard against removing the mucous discharge, naturally secreted for moistening the passage.
3. Occasionally to employ lard or tallow, internally and externally; or to foment the external parts with flannel, wrung out of warm water, to moisten and soften these parts, when they feel dry and harsh, or heated*.
4. To keep the hand, covered by a soft napkin, against the *perinæum*, so as to afford a regular and equal support to the parts, during the passage of the head.

The cure of a lacerated *perinæum* is very difficult, in some cases impossible. If, indeed, the rent does not extend through the *sphincter ani*, the torn parts will sometimes coalesce, so as to form a tolerable *perinæum*; but when the laceration passes quite into the *rectum*, a cure is rarely perfected.

It is of importance to keep the parts as much as possible in contact, which gives the best chance of their uniting; for this purpose it has sometimes been the practice to bring the edges of the wound together by suture; but this has seldom, if ever, been attended with good effects; on the contrary, the ligatures have been found to slough away, and the patient has in consequence been left in a worse condition than before. This mode of practice is therefore discontinued.

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* Injections of mucilaginous fluids into the *vagina*, as recommended by some French accoucheurs, would probably be efficacious. See p. 23.

I have lately seen a case of perineal laceration, in which the surgeon, who was called in by the midwife, took great pains to promote adhesion, carefully drawing the edges of the wound together by means of adhesive plaster *(emplastrum resinæ)*; but his endeavours were unsuccessful; indeed, I believe that this plaster, by encouraging suppuration, was injurious, and the patient would have had a better chance of doing well, had the case been left to nature.

It was long ago proposed, under such an unfortunate occurrence, to avoid any interference with the parts, till they were healed, and the patient recovered from the state of childbed, and then to attempt the cure, by an operation somewhat similar to that for the hare lip; *Smellie* tried this, but did not succeed well; it must be admitted however, that he performed the operation in a very slovenly manner. *Collect.* xl. *Case* 3.

2. *Laceration of the labia pudendi (b).* These are sometimes so slight, as to require no other treatment than the application of a soft poultice, a cooling wash, or simple ointment. A most painful, but not usually a dangerous accident, sometimes occurs, producing an extensive tumefaction of the *labium*, occasioned by an effusion of blood into the cellular substance*.

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* *Dr. Macbride,* of Dublin, is generally supposed to be the first author who described this kind of tumefaction of the *labium*, in 1766; but I have met with a very exact description of it in the Observations of *Veslingius,* published in 1647; he says, Obs. 50. "Alias jam bis observassem ab effuso intra tunicas vaginæ sanguine in partu difficili pudendi labium ingenti tumore

3. *Lacerations of the vagina and uterus (c.)* These may be classed together, because there is so great an analogy between the cases, and because both these parts frequently participate in the same injury: for the place at which the rent happens, is commonly at, or near the union of the *cervix uteri* and the *vagina*, and the laceration extends to both parts. Sometimes, however, only the *uterus*, sometimes only the *vagina*, suffers.

This accident has happened from a morbid state of the *uterus*, before the period of uterogestation has been completed, and the *fœtus* having escaped into the cavity of the *abdomen*, forms what has been denominated an extra-uterine conception of the ventral kind. Sometimes the laceration appears to have been produced from the untoward situation of the *uterus* in the *pelvis:* hence ulceration has taken place, and the *fœtus* has been transferred into the cavity of the *pelvis*, and finally discharged through the *vagina* or *rectum*, in a dissolved and putrid state*.

But more commonly the rupture is occasioned during labour, from the violence of the pains acting irregularly, or impetuously, against some projecting part of the child,

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distensum fuisse, quo aperto sanguineque atro paulatim evacuato, mulieres evasere."

Professor Boer, of Vienna, in his *Medicina Obstetricia*, has a chapter, *De fluxu quodam sanguinis in Puerperis ante incognito*, in which he describes a most extensive separation of the *vagina*, from its attachments, in consequence of an immense effusion of blood into the cellular substance.

* Consult *Bartholinus de insolitis humani Partus Viis;— Garthshore on Ruptures of the Uterus:* and *A Dissertation on the Retroversion of the Womb; including Observations on extra-uterine Gestation.*

upon which the *uterus* splits; and this is more likely to happen in cases of distorted *pelvis*, or of preternatural presentation of the child. Or it may be occasioned by the rude and forcible attempts of the operator to turn the child *in utero*; or by inconsiderate and violent endeavours to introduce instruments: and sometimes the immense bulk of an emphysematous child, in passing through the *os uteri* and *vagina*, has torn these parts asunder.

If the rupture of the *uterus* has taken place, before the full term of gestation is accomplished, and while the *os uteri* is undilated it is obviously impossible to afford the patient any kind of manual assistance; the case must therefore be trusted to nature, and under such circumstances, some women have wonderfully recovered; the child, in a dissolved state, having in a few instances, after months or years, made its way through the parietes of the *abdomen* by the process of ulceration. The operation of *gastrotomy* has been recommended, to give nature an earlier opportunity of getting rid of the burthen, but the success of such an operation is doubtful.

When a laceration happens during the pains of labour, the following symptoms usually occur*:

A sense of something giving way internally; preceded by a very severe pain, generally described as a cramp;

A sensation of great langour and debility;

A speedy, sometimes an instantaneous vomiting of the contents of the stomach;

A vomiting of a brownish, or coffee-coloured fluid;

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* See Appendix, No. 22.

A very quick, weak, fluttering pulse;
A cold sweat;
Great difficulty of breathing;
An immediate cessation of the labour pains.

If now, the patient is examined *per vaginam*, it will be generally found, that the presenting part of the child, which had before been pressed some way into the *pelvis*, is retracted, and no longer within the reach of the finger; and if the hand is carried through the *os externum*, in order to make a more accurate examination, the child will be discovered to have passed, either wholly or in part, through a rent, into the cavity of the *abdomen*. There are, however, a few instances, in which the child has remained *in utero*, notwithstanding the laceration.

The mode of practice recommended by many authors, in these unfortunate cases, is to give the patient a chance of recovery, by introducing the hand through the rent, till it reaches the feet of the child, wheresoever they are to be found, and extracting the child footling. In a few instances, this plan has succeeded in saving the patient's life, but much more commonly, all that is done proves unavailing, and death speedily ensues.

The practice here recommended was countenanced by *Dr. Denman*, in his *Introduction to Midwifery;* but circumstances have, since that time, induced him to reconsider this case more particularly; and after much inquiry and reflection, he seems to be convinced, that, upon many occasions, the patient would have a better chance of recovering, if the case were resigned to the natural efforts of the constitution, than by any operation or interposition of art.*

* See his *Observations on the Rupture of the Uterus*, &c. 8vo. 1810.

I must believe, that either of these plans is to be preferred, according to circumstances. If in a case of this kind, it should be found, that the child had only in part escaped, into the cavity of the *abdomen*, I should consider, that it was the best practice to bring down the feet, if they were within reach, or to deliver by means of the *forceps*, if the situation of the head allowed of the application of those instruments. And even if the child had been wholly forced through the rent, that it would be expedient to extract it by the feet, provided there was a ready passage for the hand, into the cavity of the *abdomen*, and the accident had not been of long duration; but if some hours had elapsed, after the parts had given way, or if there were a difficulty in passing the hand, on account of the contraction of the *uterus*, it would then perhaps be more prudent to leave the event to nature.

4. *Laceration of some internal organs (d).*—Occasionally a rupture or laceration of some part either contiguous to, or more distant from, the *uterus*, has happened during labour; thus the bladder has sometimes burst from over-distension.

This can only happen from neglect on the part of the practitioner, who should be careful to introduce the catheter from time to time, if the woman has not the power of voiding her urine*.

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* The accoucheur must not implicitly rely upon the reports of the patient or her attendants, respecting the discharge of urine, for very often they mistake a discharge of thin fluid from the *vagina*, or *uterus*, for urine. Very lately I was called to the patient of a midwife in lingering labour, and inquiring

Should the laceration allow the urine to escape into the cavity of the *abdomen*, there can of course be scarcely any expectation of a recovery: but sometimes the laceration has been at the *cervix vesicæ*, opening into the *vagina;* this accident is not necessarily fatal; but the patient will ever afterwards remain in a most uncomfortable state, from a constant involuntary discharge of urine.

Sometimes the *aorta*, or other large blood vessel has suddenly given way*; sometimes the liver has been ruptured†; and others of the *viscera* have experienced the same accident.

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when she had last made water, was told that it ran from her with every pain, so as to keep her continually wet. Not being satisfied with this report, I laid my hand upon the *abdomen*, below the navel, and very distinctly felt the bladder considerably distended, and on passing the catheter, drew off *two quarts and half a pint* of very high-coloured urine. This accumulation in the bladder had prevented the full effect of the labour-pains, and consequently rendered the process of parturition much longer than it otherwise would have been.

* A case of rupture of the internal iliac vein, in the ninth month of pregnancy, is related in the *6th number* of *The London Medical Repository*. The author conceals his name, but the case bears every other mark of authenticity. Another case of rupture of the iliac vein has lately occurred. A poor woman in the last month of her pregnancy having been beat by her husband, was found fainting from an immense loss of blood, and died before *Mr. Ogle*, who was sent for on the occasion, could reach her. On dissection it was discovered that her death had occurred from rupture of the internal iliac vein.

† See *Memoirs of the Medical Society of London*, vol. iii.

5. *Laceration of the ligaments of the pelvis (e).*—When great numbness in the lower extremities continues for a considerable time after delivery, with inconvenience and difficulty in moving the thighs, and pain and tenderness about the groins or hips, it may be supposed that a laceration of the ligaments of the *pelvis* has happened in a slight degree. More rarely a greater degree of laceration befalls these parts, for sometimes the bones of the *pelvis* are forcibly separated, producing a state of lameness and weakness, which months and years very imperfectly overcome.

Order 10. *Dystocia Hæmorrhagica—Labour attended with Hemorrhage.*

Anomalous Labour. Order 1. Denman.
Complicated Labour. Order 2. Burns.
Dystocia Hæmorrhagica. Young.

Hemorrhage from the *uterus* is always an alarming occurrence. In the unimpregnated state, it frequently evinces a diseased condition of that organ. In the early months of pregnancy it often terminates in abortion; in the latter months it is full of peril both to the mother and child: and even after the labour has been accomplished with, apparently, the utmost success, it sometimes bursts forth with sudden and uncontroulable vio-

lence, and almost instantaneously deprives the mother of her life.

There are some general rules for the management of uterine hemorrhage, applicable to all cases in which it may occur. The patient is to be kept perfectly cool, in a recumbent posture, in a state of great quietude. If costive, the bowels are to be opened by saline aperients, or clysters of cold water, or salt and water, or vinegar and water, in the proportion of two table spoonfuls to a pint. The diet must be very simple, taken in very small quantities, and often repeated. No stimulants of any kind are to be allowed. Refrigerant, sedative, and restringent medicines must be exhibited internally; and in the event of profuse discharge, the topical application of cold water and vinegar, iced water, or ice, to the uterine region, must be made.

Other plans of management apply only to peculiar states of hemorrhage. Thus bleeding, which may be sometimes usefully employed in the hemorrhages of unimpregnated women, or in those of early pregnancy, must be cautiously used in the floodings which accompany labour, and are altogether inadmissible in the cases of placental presentations *, and in the hemorrhages after delivery. And the *plumbi acetas*, and many other internal remedies, which are efficacious in restraining

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* *Chapman's* 11th case affords a specimen of the absurdity of taking away blood in cases of placental presentations. And *Smellie* appears to have erred in drawing blood from a woman, "who was taken with a violent flooding, which almost filled the chamber-pot." She died undelivered. Coll. xxxix, No. 1, Case 3.

chronic hemorrhagies, cannot be at all relied upon in the floodings of parturition.

The hemorrhagies which accompany labour may be divided into three species.

a. *Accidental hemorrhage.* Rigby.
Hæmorrhagia placentâ discretâ. Boer.
Menorrhagia à solutione placentiæ. Plenck.

b. *Unavoidable hemorrhage.* Rigby.
Hæmorrhagia placentâ prævia. Boer.
Menorrhagia à placentâ prævia. Plenck.

c. *Atonic hemorrhage.*

The first occurs from the accidental separation of the *placenta*, when occupying its natural* situation within the *uterus*.

The second from the unavoidable separation of the *placenta*, when that is unnaturally situated over the *os uteri*.†

The third from a want of contractile power in the *uterus*, after the child is born.

Of the Treatment of Dystocia Hæmorrhagica (a), when the Placenta is naturally situated within the Uterus.

The *placenta*, thus situated, is liable to be separated by various accidents, especially by blows or falls; by

* *Mr. C. Bell,* in his very valuable Anatomical Paper on the Muscularity of the *Uterus,* is of opinion, that there is always some variation from the natural or proper situation of the *placenta,* when it becomes accidentally separated.
Medico-Chir. Transactions, vol. 4.

† See Plate 2.

overstraining in the act of lifting any heavy burthen; by a violent cough, a sudden spasm, &c. The separation of the *placenta* from either of these causes may be partial only or entire, and in proportion as more or less is separated, will be the danger of the case.

It may happen that the degree of hemorrhage is much greater than appears externally; for blood may be poured into the space between the *uterus* and the *placenta*, sufficient to produce *syncope*, or even death; and yet there may be very little appearance of discharge from the *vagina**.

Whenever hemorrhage happens during labour, no time should be lost in adopting the general rules of ma-

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* The following extract from the *New Medical and Physical Journal* shews not only the possibility of this fact, but likewise that sometimes the loss of a quantity of blood, by no means excessive, will produce fatal consequences: "A very singular case of uterine hemorrhage occurred a few months ago in the practice of *Mr. Saumarez*, which was also seen by *Doctors Denman and Dennison*. A lady, of a weakly constitution and delicate habit, was attacked in the latter months of pregnancy with a slight discharge of blood from the *vagina*, not amounting altogether to half an ounce, accompanied with alarming symptoms of exhaustion and debility. The *os uteri* was scarcely dilated to the size of a sixpence, and was in such a state of rigidity, as precluded the possibility of affording any manual assistance. The lady in consequence died; and on examination after death, it was found that a separation of the centre of the *placenta* from the parietes of the *uterus* had taken place, whilst its edges were completely adherent, forming a kind of *cul de sac*, into which blood had been poured, to the amount of a pint and half, which had become coagulated within the cavity thus formed."—*New Med. and Phys. Journal*, December 1813. No. 38, vol. vi. p. 535.

nagement already mentioned. The patient should be placed in a horizontal posture, with a very light covering; the windows and doors of the rooms should be set open, cloths dipped in cold vinegar and water should be applied over the *abdomen* and *pubes*, and, if necessary, ice should be dissolved in the mixture to make it colder, or pounded ice itself, put into a bag, may be laid upon the belly.

If the patient is costive, a pint of cold water, either by itself, or mixed with salt or a spoonful of vinegar, may be thrown up the *rectum;* this often succeeds in producing a stool, and it is otherwise useful as a refrigerant applied to parts contiguous to the *uterus*.

The diluted sulphuric acid may be given freely, either in rose infusion, mint water, weak cinnamon water, or any other convenient liquid.

But little reliance can be placed upon the other vegetable and mineral astringents; for though efficacious in cases of chronic uterine hemorrhage, their astringent virtues are not sufficiently active in the sudden and violent hemorrhages which accompany the separation of the *placenta* during labour.

Bleeding from the arm was formerly practised in these cases, with a view of making a revulsion from the *uterus;* but unless the pulse is very hard, strong and active, it can hardly be required; at all events, *where the flooding accompanies labour*, blood-letting must be very cautiously employed, as it is likely, under many circumstances, to be more injurious than beneficial.

Fortunately, in many cases of sudden and accidental separation of the *placenta*, a disposition to expel its contents is immediately imparted to the *uterus*, and the expulsion is facilitated by the relaxation which the he-

morrhage has produced. The action of the *uterus* tends likewise to suppress the hemorrhage; if therefore pains come on, if the flooding in consequence diminishes, and if the patient in some measure recovers her strength and spirits, it may not be necessary to have recourse to any further means of relief; but the patient must still be very carefully watched, for the hemorrhage may suddenly increase, and a very little additional loss of blood may prove fatal.

But should the means employed to suppress the hemorrhage prove unavailing, should no pains come on, or should they be insufficient to restrain the flooding, and the danger of the patient augments, something more must be attempted.

Till the time of *Ambrose Paré*, no determinate practice in such cases was established; but we are told by his pupil, *Guillemeau*, that *Paré* taught to turn and deliver by the feet in all dangerous floodings, and he relates several histories in his own practice of the success of this method, and other histories, where, because this plan was not timely adopted, the patients were lost*.

From the recommendation of *Guillemeau*, this method of managing puerperal hemorrhagies became generally adopted; but it was discovered that in this species of

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* This method of treating flooding cases was practised by the celebrated midwife, *Louisa Bourgeois;* and she has been supposed to be the author of it. Indeed, from a passage in her work, it might be thought that she claimed the merit of it; but *Guillemeau* expressly says, that he learnt this practice from his master, *Ambrose Paré*, who died in 1590, and it was not till after that year that *Madame Bourgeois* began to practise Midwifery.

hemorrhage, *the accidental*, the plan might be somewhat modified, and that it would on some occasions answer as well to diminish the volume of the *uterus*, by rupturing the membranes, as to introduce the hand, and turn the child. *Puzos*, a very distinguished accoucheur at Paris, generally followed this method; and his posthumous memoir* on the subject has tended very much to establish the practice.

It has been objected to this method, that it cannot always be depended upon for suppressing the hemorrhage; and it is contended, that if this fails, the patient will be placed in a worse condition than before; because, should it at last become necessary to turn the child, the operation of introducing the hand, and bringing down the feet, will be rendered much more difficult, in consequence of the evacuation of *the waters*.

I am not prepared to deny the validity of this objection under particular circumstances; yet I believe that the plan of piercing the membranes in this species of hemorrhage will so often succeed, that we are justified in having recourse to it. *Mr. Rigby*, in his very valuable *Essay on Uterine Hemorrhage, &c.* has detailed upwards of 60 cases of this kind of flooding, in many of which this method was tried, and was always completely successful. In my own practice, upwards of 30 cases have occurred of *accidental hemorrhage* during parturition, in which I have adopted the method of rupturing the membranes, as a means of lessening or suppressing

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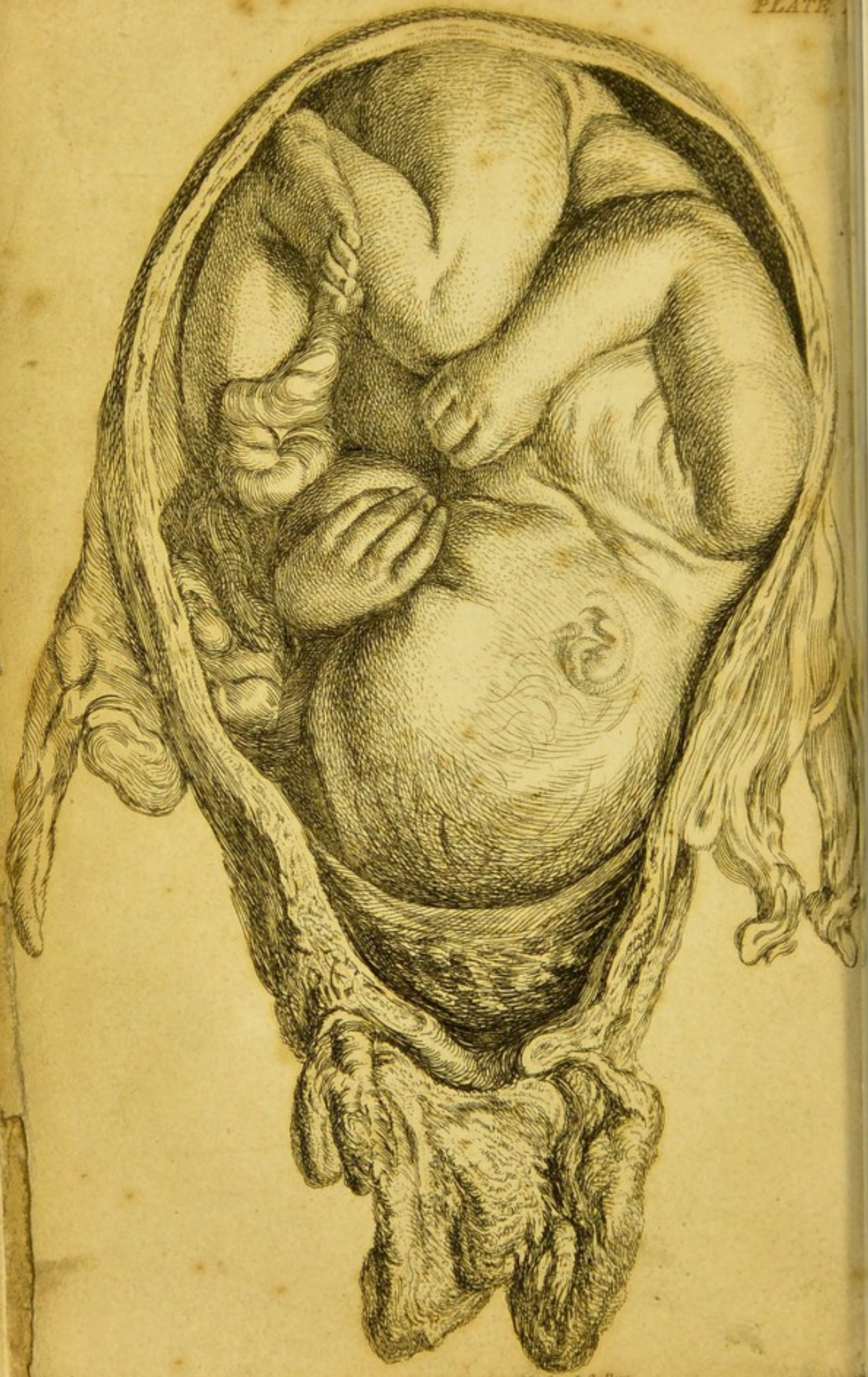
* *Traité des Accouchemens, &c. &c. contenant quatre Memoires dont le Premier a pour Objet les Pertes de Sang dans les Femmes grosses.* 4to. 1759.



London, Published May. 21. 1820. by J. Callow.

the flooding, and as yet have had no reason to be dissatisfied with the plan; for in every instance the discharge has either entirely ceased, or has been so much diminished, as to secure the safety of the patient: and yet there were some among these patients, whose cases, from the profuse hemorrhage, were abundantly alarming.*

The method to be pursued, then, in cases of hemorrhage arising from the accidental separation of the placenta, will be

1st. To employ the common means of suppressing hemorrhage, till the dilatation of the *os uteri* has commenced.

2dly. To introduce the finger, and artificially to increase the dilatation and developement of the *os uteri* during the pains.

3dly. To rupture the membranes during a pain.

4thly. To continue the artificial dilatation, and to increase the force of the pains by one or more fingers in the *vagina*.

The rupture of the membranes being thus effected, and the requisite assistance afforded by the operator, a successful termination of the case may generally be expected.

Of the Treatment of Dystocia Hæmorrhagica (b), when the Placenta is attached over the Cervix Uteri.

This species of hemorrhage was not generally understood till of late years. It was formerly supposed, when the *placenta* was found presenting, that having been accidentally separated from the *fundus*, it had fallen by

* See Appendix, No. 23.

its own weight* to the *os uteri*, which it closed up, so as to prevent the child from passing. More accurate observations and dissections have proved, that when the *placenta* presents, it has been *ab origine* implanted over the *cervix uteri*. *Portal*† seems to have entertained more correct opinions upon this subject than his contemporaries, but his observations on the subject were strangely disregarded.

This species of flooding, *the unavoidable*, is more dangerous than the former. In the *accidental*, the hemorrhage is checked at least, if not stopped, by the labour pains; but in this, every pain tends to produce more dilatation of the *os uteri*, and consequently a greater separation of the *placenta* and an increase of the hemorrhage; it is therefore in vain to expect that the natural pains will effect the delivery. The interposition of art is called for, and must be timely applied, or the patient will be lost. In all cases then of attachment of the *placenta* over the *os uteri*, it is incumbent upon the ac-

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* *Exton's Midwifery*, p. 75.

† *Portal* practised Midwifery extensively in Paris, and in 1685 published *La Pratique des Accouchemens soutenue d'un grand Nombre d'Observations*, which was afterwards translated into English. He gives nearly a dozen cases of floodings. In his 69th observation, he says, "I searched with one finger first, and found the after burthen foremost, and *closely joined round the inner orifice of the womb*. I again felt the after burthen *fastened* to it; *I peeled it off, &c.*" In the 43d, 51st, and 79th observations, he again expressly points out the attachment of the *placenta* over the *os uteri*.

coucheur to make up his mind to the operation of turning the child, and bringing it into the world by the feet.

A few cases, indeed, have been recorded, which did not require this operation; for notwithstanding the presentation of the *placenta*, and the profuse hemorrhage, strong uterine action has been excited, the *placenta* and *fœtus* have been expelled, and the patient has had strength enough to bear the flooding, without undergoing any very imminent danger*.

It has likewise sometimes happened, that a small portion only of the *placenta* has been over the *os uteri*, and the hemorrhage has in consequence been comparatively trifling. These cases have terminated without artificial aid, or with only the assistance of rupturing the membranes.

But these are confessedly rare occurrences, and we are not justified in taking rare or extreme cases, as rules for practice. Here and there women do well without the interference of art, but much more commonly nature is unequal to the task, and the patient would be lost for want of timely assistance; so that all the best practical

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* *Mr. Chapman* relates an extraordinary case of the *placenta* expelled four hours before the birth of the child.

Duncan's Annals of Medicine for 1799, p. 308.

Perfect relates a somewhat similar case.

Cases, vol. 2, p. 288.

I was lately called in consultation to see a patient in puerperal fever under the case of a very judicious practitioner. In this patient's case the *placenta* was expelled many hours before the child was born. Whether the puerperal fever, which afterwards occurred and proved fatal, was owing to this cause, I am unable to say.

writers are unanimous on this point, that the case of a *placenta* adhering over the *cervix uteri* is not to be trusted to nature*.

Though it has been thus decided, that the proper method of practice is to deliver by turning the child, yet it sometimes requires much judgment and discrimination to determine when this is to be effected. If, indeed, the hemorrhage is profuse, and the *os uteri* in a state of dilatation, there can be no doubt of the necessity of proceeding *immediately* to the operation, for a very short delay may be sufficient to prevent the success which is expected.

But sometimes the hemorrhage may not be so violent as to create any great hazard; or the *os uteri* may be so thick and rigid as to prevent the introduction of the hand, and this is by no means unusual, when the hemorrhage begins as early as the sixth or seven month of pregnancy; in such cases it is necessary to wait till the *os uteri* becomes more soft and dilatable, which will happen in a longer or shorter time, according to circumstances†, and the usual means for suppressing, or diminishing hemorrhage, must in the mean time be employed.

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* "This practice is no longer a matter of partial opinion, on the propriety of which we may think ourselves at liberty to debate; it has for near two centuries met the consent and approbation of *every practitioner of judgment and reputation in this and many other countries.*"—*Denman.*

"Hæc menorrhagiæ species est periculosissima, nullo remedio sed sola extractione fœtus curanda."—*Plenck*, p. 133.

† The maxim cannot be too often inculcated, that *in all cases of uterine hemorrhage during pregnancy,* the patient ought to be very sedulously watched by her accoucheur. It may not

It is scarcely possible to lay down an exact rule respecting the period at which the operation of turning shall be undertaken; much must necessarily be left to the practitioner's judgment. In order that the performance of the operation may be as little perplexing as possible to the practitioner, and as little hazardous to the mother, it is necessary that there be a certain degree of softness and dilatability in the *uterus;* but this dilatability is not always to be judged of by the actual dilatation, or openness of the part; for sometimes in hemorrhages, the *os uteri* will be very dilatable, very capable of being dilated by art, though it hardly seems sufficiently open to admit a single finger*. If under such circumstances we were to wait till the *os uteri* became so much open, as to oppose no resistance whatever to the passage of the hand, it is probable, that the operation would be performed too late to save the patient. If, however, the accoucheur duly considers the case in all its bearings, the quantity of blood lost, the strength

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indeed be possible or necessary for him to wait by her side during the whole continuance of the flooding; but he should take care to be in the way in case of a sudden alarm, and should give exact directions to some intelligent nurse or attendant how to act in his absence. A sudden gush of blood from a woman previously reduced, may very shortly prove fatal. We ought not, therefore, to consider any woman subject to flooding, as safe, particularly if the *placenta* be over the *os uteri,* till she is delivered.

* *Plenck* directs us to proceed to the operation of turning "quamprimum uteri orificium adeo hiat, ut duo digiti inferri possint."—*Elementa Artis Obstetriciæ.* Vienn. 1781.

or weakness of his patient, and the actual softness or dilatability of the parts, he will hardly fall into an error; particularly if he recollects that it is better to operate rather too soon, than to delay it too long; for the danger to the patient does not in general arise from the operation of turning, but from the quantity of blood lost; it is therefore our duty, by timely performing the operation, to prevent such a profuse loss of blood as shall put the patient's life in hazard.*

Respecting the method of effecting the turning, it does not differ much from the same operation under other circumstances. The entrance of the hand into the *uterus* will be opposed by the *placenta* adhering over the *os internum*, unless it be a section only of the *placenta*, which has been there implanted. Should this last be the case, (and this more commonly happens, than for the entire orifice to be closed up, the centre of the *placenta* being just over the *os uteri)*, there will be no difficulty in passing the hand by the *placenta*, rupturing the membranes, and turning the child. But, if the *os internum* is quite closed up, by the after-birth adhering to the whole of the *cervix*, the operator must either perforate the *placenta* with his fingers and hand, and thus get in contact with the body of the child; or he must break down the adhesion between the *placenta* and *cervix uteri*, till he reaches the membranes, which he must rupture, and proceed in the usual manner to turn the child.

Of the advantages of these two methods of proceeding, different practitioners think differently. It has appeared to me, that if the membranes can easily be reached, it is much preferable to carry the hand into the

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* See Appendix, No. 24.

uterus by rupturing them*, rather than to perforate the *placenta;* but I have sometimes been compelled to have recourse to the one, sometimes to the other method.

Preparatory to the operation of turning, it will be frequently incumbent upon us to give some nourishment to recruit the patient. Broth, beef tea, warm milk, and gruel, with or without wine or brandy, as circumstances may require, will be very proper. *Smellie* seemed fond of giving the yolk of an egg beat up with a little wine and sugar.

The operation itself should be slowly performed, and the patient's strength must be from time to time supported, by the means already advised.

The child being extracted, the *placenta* is generally

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* *Dr. Dewees* is much commended in the *American Medical Reporter,* Oct. 1819, for having adopted a mode of practice in such cases, which it is said, "obviously possesses many advantages over the other methods commonly pursued. He directs the accoucheur to pass his hand up between the *placenta,* membranes, and the *uterus,* to the top *(fundus)* of this organ—there to rupture the membranes, and laying hold of the child's feet to deliver it." The advantages of this method are said to be these: "1st. Much less violence is done to the connection of the *placenta* with the *uterus,* and thereby the risk of increased hemorrhage prevented. 2. Much time is saved. 3. We arrive at the feet, and can command their descent with much more certainty. 4. We prevent an atony of the *uterus,* by allowing the waters to escape gradually and at will. 5. It prevents the *fœtus* from being entangled in the *placenta,* and thus does away the inconvenience that would arise from the increase of bulk, as in the former method the size of the *placenta* is added to that of the child. 6. It prevents the rude and sudden separation of the *placenta* from the *uterus.*"

found quite separated: this may therefore be removed, and the practitioner should then satisfy himself that the *uterus* is duly contracted.

The patient will require very assiduous attention after such a labour, and is generally very long before she recovers. I have known the *Phlegmatia dolens* to follow this species of labour on several occasions.

Of the Treatment of Dystocia Hemorrhagia (c).—The Hemorrhage after Delivery.

In the floodings which occur after the birth of a child, all the usual means of suppressing hemorrhage are to be diligently employed. If the *placenta* is still retained, the hand must be introduced to separate it; for while it remains *in utero*, it acts as an extraneous body, preventing the proper contraction of that *viscus*, on which contraction alone, the power of stopping the flooding depends. Should the *placenta* be expelled and the hemorrhage be inordinate, in addition to the usual means of subduing it, pressure must be made upon the uterine region, by means of the hands, or a broad bandage put round the body *, and a sponge soaked in port wine, cold vinegar and water, or a lump of ice may be introduced into the *vagina*. Whenever it happens, as is occasionally the case, after the *placenta* is withdrawn, that large *coagula* collect in

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* Some women are so liable to floodings, as to be attacked with them after every labour: such patients should always have a bandage placed round their body, before they lie down on the bed for the purpose of being delivered. This bandage should be made with several straps, which may be gradually and sufficiently tightened as soon as the child is born: by this means profuse hemorrhage will often be prevented.

the *uterus* and prevent its contraction; these are to be considered as extraneous bodies, acting like the retained *placenta*, and must, in like manner, be removed by introducing the hand.*

It will be proper here to notice some other methods, which have been proposed, of treating cases of hemorrhage.

1st. Some writers strongly recommend, to *plug* up the *vagina* with tow, lint, a soft napkin or other convenient substance: and thus to prevent the blood from escaping through that passage.

The advantages of this practice must be very limited. It may be useful in some of the slighter hemorrhages, that occur in the early months of pregnancy, when the *uterus* has neither acquired any great size, nor is very distensible. But it can never be relied upon, after the *uterus* has acquired much bulk, or is capable of being largely dilated; for however completely the *vagina* may be closed, as no pressure can be made upon the open vessels within the *uterus*, these might continue to pour out blood into the uterine cavity, sufficient to destroy the patient's life, though not a drop of discharge was visible without the *vagina*.

The arteries of the *uterus* cannot be closed, except by a due degree of contraction of that *viscus;* whenever the *uterus* is in a distended state, the arteries will continue pouring blood; and the greater the accumulation of coagula within it, so much the greater will be the amount of hemorrhage. The presence of the *plug* then, by preventing the escape of the coagula, so far from benefiting the patient, adds to her peril. The *plug* therefore, as it seems to me, is inapplicable in all cases, where the bulk of the *uterus* exceeds that of a pregnancy of three or four

* Appendix No. 25.

months, or when the parietes are so easy of distension as to yield readily to the accumulation within it.*

2dly. The use of opium in very large doses has been adopted, and it seems to have been recommended almost indiscriminately in all cases of uterine hemorrhage. But it may well be doubted, whether a medicine, which possesses such great efficacy in counteracting and subduing the contractile force of the *uterus* can generally be advantageously used in the uterine hemorrhages of parturient women. If eighty drops of laudanum are sufficient to overcome those powerful contractions of the *uterus*, which prevent the operator from turning in cases of arm presentation, is it not to be expected that a similar suspension of the uterine action may be occasioned by the same remedy in hemorrhages? In the Appendix No. 16 a case is related on the authority of *Dr. Atkinson*, which goes to shew, that eighty drops of laudanum had the effect of so far paralysing the *uterus*, as to render it incapable of further contraction, and the patient died; and I insert another case,† communicated by a very intelligent practitioner, which shews, in a strong point of view, the suspension of a contracted state of the *uterus*, and consequent hemorrhage, on the exhibition of a large dose of laudanum.

That opium may be usefully employed in some states of uterine hemorrhage, is a fact too well established to be denied: but it is surely unwise to have recourse to it on all occasions. The cases in which it seems most beneficial, are, states of irregular or spasmodic action of the *uterus*; cases requiring the child to be turned, but where rigidity of the *os uteri* prevents the ready introduction of the hand; and cases, where, after delivery, great irritability prevails.

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* See Appendix No. 26.

† Do. No. 27.

3. The *ergot* of rye has been strongly recommended as a remedy in hemorrhages; but I have at present no experience of its efficacy. The cases, in which I should expect it to be beneficial, are the accidental hemorrhages, and retentions of the *placenta;* in these it may be deserving of trial.

It has been suggested, that in cases of sudden death from excessive hemorrhage, an attempt might be made to resuscitate the patient, by transfusing blood from the vessels of another person, or animal, into those of the deceased. But I know not that the experiment has ever been fairly tried, nor does it appear to offer any great probability of success *.

ORDER 11. *Dystocia Syncopalis—Labour accompanied with Faintings, a Sense of Distress and Oppression about the Præcordia, and Palpitations.*

COMPLICATED LABOUR. Class 7. Order 3. Burns.
DYSTOCIA SYNCOPALIS. Young.
HYSTERIA A PARTU DIFFICILI. Sauvages.

IN women of a delicate frame, of a nervous, irritable, hysterical habit, faintings during labour sometimes take place.

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* See *Heister's Surgery,* vol. i. part 2. *Dionis Operations de Chirurgie, huitième Demonstration. Medico-Chirurgical Transactions,* vol. ix. p. 56.

They likewise occasionally happen to women exhausted by fatigue, by want of proper food, by want of sleep, by apprehension, or any other debilitating cause; among which may very properly be mentioned, the noisy conversation of many attendants in the lying-in chamber, bad smells, and want of ventilation. These faintings partake generally of the nature of hysterical paroxysms, and have been sometimes mistaken for the true puerperal convulsions.

More dangerous faintings may happen to women, who have laboured under disease during their pregnancies, especially if they have had pulmonary affection, or organic complaints.

Syncope, also, always attends profuse hemorrhage.

The method of obviating this unpleasant symptom is, to give light cordials to women of delicate nervous habits, as *camphor julep, sal volatile, sp. ætheris sulph.* &c. The room should be kept cool, volatiles or vinegar should be held to the nostrils, and the forehead and temples may be advantageously washed with cold vinegar and water.

If the faintings arise from great fatigue or want of sleep, opiates may in addition be had recourse to; if from want of food, (and this is not an unusual thing among poor women, who are delivered at their own habitations at the expense of hospitals and dispensaries,) beef-tea, panada, or some wine or spirits in a little gruel are required. If brought on by the heat and closeness of the room, and the presence of too many attendants, these must be dismissed and the room be ventilated and cooled.

If the woman has been labouring under any severe disease during her pregnancy, and this gives the disposition to faintness, the above means may still be resorted to; but should the fainting be of long continuance, or be

frequently repeated, it would probably be necessary to hasten the delivery, by any *safe* method in our power. And the same may be said of that fainting, which sometimes occurs in consequence of the exhausted state of the patient, from a long and difficult labour.

It seems to be one of those occurrences during labour, which should never be totally disregarded, or be treated with indifference. An accoucheur was once attending a young woman, in labour of her first child. Soon after it commenced and during his absence, she fainted without any obvious cause. On his return the circumstance was mentioned, but as by this time she appeared perfectly recovered, no farther notice was taken of it, and she was safely delivered without any other unusual symptom. On the third day after delivery, she took a dose of some aperient medicine, and while in the act of relieving herself, fell back and immediately expired. Probably no care would have prevented this unfortunate event. It was perhaps, inexpedient to give the patient a purgative under such circumstances, a clyster would have been a more appropriate remedy, and at all events an erect posture should have been strictly forbidden.

Order 12. *Dystocia Epileptica*—Labour accompanied with Epileptic Fits.*

Complicated Labour. Order 4. Burns.
Convulsions During Labour. Watts.
Dystocia Convulsiva. Young, § 10.
Ecclampsia Parturientium. Sauvages. Class 4. Order 18 §. 3.
——————————— Hamilton, *Annals of Medicine*, vol. v. p. 313.

This is a very dangerous kind of labour, and has been so considered by all writers and practitioners.

Dr. Hunter, *Dr. Lowder*, and other teachers of midwifery, used to state in their lectures, that more than half of the women died, who were attacked with convulsions in their labours.

Dr. Parr, in his *Medical Dictionary*, states even a larger amount of fatal cases; he says that "six or seven in ten elude the most active and best concerted measures. And *Jacobs*, in his *Ecole Pratique des Accouchemens*,

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* In the former editions, this order of labours was denominated *D. Convulsiva*, but the term *Epileptica* is less liable to be mistaken.

Dr. Dewees divides puerperal convulsions into three species, viz.

The epileptic,
The apoplectic,
The hysterical.—*Essay on Puerperal Convulsions*, 1818.

says that it is always fatal; scarce an instance of recovery is known. In modern practice, the proportion of deaths is by no means so great.

It is probable, that hysterical paroxysms have sometimes been mistaken for the true puerperal convulsions; at least, if we may judge from the rapid cures, that have been said to be made by, as it seems, very inadequate means.

The cases, alone deserving the appellation of puerperal convulsions, which have fallen under my observation, have borne a very exact resemblance to the epilepsy, and this accords with the description of the complaint, by the best authors on midwifery.

The patient, sometimes before any signs of commencing labour have appeared, sometimes with the first pains, at other times not till the labour has made considerable progress, or even after the birth of the child, is attacked with a strong convulsion. The face is violently contorted, every muscle of the body becomes rigid, and a rattling in the throat is heard: this is followed by a sudden relaxation of the muscles; the limbs become convulsed; the teeth are forcibly pressed together, and the tongue, being at the time protruded, is generally very much bitten; frothy saliva, tinged with blood, issues from the mouth; "a sharp hissing noise" is produced, by breathing through the fixed teeth and the foam; the eyes work about in a shocking manner, and, altogether, the patient presents a most horrid spectacle.

This state of convulsion lasts for an indefinite time, then gradually ceases, and the patient sinks into a sleep, or rather stupor, during which the breathing is stertorous.

In about half an hour or more, if there be no return

of the paroxysm, she slowly recovers a degree of recollection, complains then of great pain in the head, and of soreness in all her limbs; there is a heaviness in her countenance, a different tone in her voice, and a kind of insensibility or stupidity which leads the attendants to be apprehensive of a return of the fit. And this apprehension is generally well founded, for however complete the intermission may be, there is in almost every instance a repetition of the attack.

Sometimes there is no return, even to this imperfect recollection: before the first paroxysm is completely over, another comes on, and thus one fit follows another for many hours or days, without any perfect intermission*.

It has been remarked, that the more perfect the return to sense between the fits, the greater is the probability of a favourable termination to the complaint; and this, I believe, is generally true; but I have known patients ultimately recover, who had no return of recollection in the intervals, and others to die, where the intermission was of long duration, and the return to sense unusually complete.

Of the Causes and Method of treating Puerperal Convulsions.

There have been three especial causes assigned as usually producing this disease:

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* It was first remarked to me by *Sir R. Croft*, and I have frequently observed it since, that an uncommon slowness of the pulse precedes each returning paroxysm.

1. General irritability of the constitution.
2. Irritability of the *uterus* from distention.
3. An overloaded state of the system.

And practitioners have been influenced in their treatment of the complaint, by the opinions they have entertained of its cause: thus those who have attributed the convulsions to general irritability, have considered opium as the proper remedy; those, who have thought distention of the *uterus* the cause, have recommended immediate delivery; those, who believe an overloaded state of the system to be the cause of the convulsions, employ large bleedings, and other evacuants.

1. Of the use of opium I am not able to speak from experience; for I have never yet met with a case of puerperal convulsions, in which, at an early period of the disease, I could have dared to use this remedy. *Dr. Hamilton** says, that he never saw a case where opium was given at the commencement, which did not terminate fatally. I am compelled therefore to believe, where opium has been beneficially employed at the onset of the disease, that it has differed in many respects from the true puerperal convulsions.

2. My experience does not countenance the practice which some accoucheurs have adopted, of proceeding *at once* to terminate the labour, either by turning or by having recourse to the *perforator*†; yet, when the parts

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* *Annals of Medicine,* vol. v. p. 340.

† A strong feeling that the child cannot live, if the mother has been convulsed, has probably tended to make practitioners more ready to hasten the delivery at the expence of the child, than they otherwise would have been. *Boer,* in one of his

are properly developed, the *os uteri* dilated, and the head of the child within reach of the *forceps*, it will probably be right to hasten the delivery by this instrument*. But it will often be found, that by delaying to turn or to use instruments, a better chance will be afforded of preserving the life of the child, without increasing the danger of the mother.

3. Both theory and practice point out the propriety of adopting the third plan recommended. The symptoms indicate an overloaded state of the system. Prior to the attack of convulsions, there is often observed a flushed, or suffused countenance, violent pain in the head, vertiginous affections, drowsiness, heaviness in the eyes, temporary blindness, vacillation of mind, and slight delirium. Frequently, likewise, there will be the usual symptoms of indigestion, nausea, pain in the stomach and bowels, spasms, &c.

In most of the cases that I have seen, the evacuations from the bowels produced by cathartics, have been dark

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aphorisms on convulsions, thus expresses himself, " Raro infans, genetrice convulsa, immunis perstat, sed semper fere sub partu, vel brevi post demoritur. Etsi vix intelligas, quemadmodum accidat, res tamen nihil dubii habet." Experience has proved, that this opinion is not well founded.

* " No cases require more prudence, attention, and sagacity, than the accident of convulsions in women with their first children especially. The state of the *os uteri* is of immense consequence, and when it will admit of your delivering the woman *without violence, trouble, or irritation,* no doubt it ought to be performed with all prudent expedition, as you never can be sure of her being restored without delivery."—*Mackenzie's Lectures, MS.* 1764.

coloured, heavy, copious, and very fœtid; I hardly recollect a case in which the blood has not shown an inflammatory crust; and it has often been very much cupped.

These facts will, I conceive, authorize me to recommend, in the first instance, having recourse to the depleting plan; and when the precursory symptoms, above enumerated, begin to appear, the prudent practitioner will do well to bleed, and employ other evacuating remedies, before the convulsions actually take place.

But if no means have been used to prevent the convulsions, the following plan should be adopted on their first occurrence, whether before, during, or after the labour:—

From ten to twenty or more ounces of blood, according to the strength of the patient, and the state of her pulse, should be drawn from the arm, the jugular vein, or the temporal artery.

If the patient is able to swallow, a pill containing from five to ten grains of calomel should be got down; or the calomel, mixed with moist sugar, may be put into the mouth, and it will be swallowed involuntarily. This should be followed by a solution of salts, every three or four hours, till sufficient stools are procured.

The use of emetics, or the attack of puerperal convulsions, has been reprobated in very strong terms by *Mauriceau*, *Levret*, and others. But when there is good reason to suspect an overloaded stomach, an emetic seems to be so appropriate a remedy, that I should not hesitate to employ it. I do not recollect to have given medicines expressly for the purpose of exciting vomiting, but have sometimes seen vomiting take place in consequence of the dose of calomel, and sometimes spontaneously, and

have always thought it was rather beneficial than otherwise*.

The head should be shaved, and a cold wash should be kept constantly applied upon it†.

The kind of lotion which I commonly prescribe is this :—

℞ Liq. ammon. acet. f.℥ vi.
Sp. rorismarin, f.℥ ij.
Aq. puræ, O. i.—M. ft. lotio.

After giving the calomel, and more especially if the patient is incapable of swallowing, which is usually the case, a cathartic clyster should be injected, and repeated if necessary.

These means will probably relieve the more urgent symptoms, and both the bleeding and cathartics will tend to advance the labour, by producing relaxation about the *vagina* and *uterus*. The patient will have pains, from time to time, and it will be necessary to examine, occasionally, what progress the labour makes.

The convulsions will, however, return periodically; and it may, perhaps, be thought requisite to take away

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* *Dr. Bard,* of New York, in his *Compendium of Midwifery* (1808), says, "after having emptied the vessels by bleeding, and the bowels by clyster, an emetic will frequently be found of great use, particularly if the stomach is distended, or it should appear that the patient had eaten freely not long before the access of the fit."—p. 147.

† *Dr. Denman* recommended to have the face of the patient frequently dashed with cold water, by means of a bundle of feathers, more especially on each attack of the convulsions.

more blood, the necessity of which will be determined, by the appearance of that already drawn, and the state of the pulse; and it may then be taken, either by opening a vein, or by applying cupping glasses in the neck, or behind the ears, or to the temples.

It will now be for the accoucheur to consider, whether it is any longer safe, to leave the labour to nature: if it is proceeding quickly, as sometimes happens, it will not, perhaps, be adviseable to do any thing; yet I think, if the pains are slow, it is generally right, as soon as the child's head comes within reach of the *forceps*, to apply them, and finish the delivery without further delay.

But if the danger to the mother should evidently increase, should she appear to be rapidly sinking, rather than that she should die undelivered, it will be justifiable to have recourse to the *perforator;* yet I have so often had the pleasure, by delaying this dreadful operation, of seeing my patient delivered of a living child, that I cannot too much insist upon caution, and due deliberation upon this subject.

It does not always happen, that the convulsions cease, upon the termination of the labour; on the contrary, they often continue after the birth of the child and sometimes increase in violence, and at length produce death. If, however, the intervals between the fits become longer, a more favourable prognosis may be formed; but it will be expedient to continue our exertions in relieving the symptoms.

The application of the cold wash to the head should be persevered in: a blister may be applied to the back, to the insides of the thighs, or calfs of the legs: sinapisms may be applied to the feet: and if the patient can swallow,

aperient medicines, antifebriles, and light cordials should be given*.

Great attention must be paid to the state of the bladder, as the patient sometimes suffers, under an inability of expelling her urine; in which case, the catheter should be introduced twice a day.

When at length the patient recovers, she remains generally insensible of all that has happened to her; her strength slowly returns, and eventually no trace remains of the disease, nor is there much danger of its recurring in a future labour. But I have known two or three cases of mania occurring, as soon as the convulsions ceased, and remaining for some weeks, yet the patients ultimately got well; and I have known one case, of true chronic epilepsy, which continued for some years, till the patient died of a pulmonic complaint.

I have had few opportunities of examining women after death, who have died of convulsions. *Dr. Denman* says, that he has never seen an instance of effusion of blood in the brain, though the vessels were extremely turgid: but has always remarked that the heart was unusually flaccid, without a single drop in the auricles or ventricles; and the same has been noticed by other practitioners. In one instance, I have seen an effusion of blood in the posterior part of the *cranium*, but the quantity was not large.

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* *Dr. Harvie* thought that perspiration after delivery was always a favourable indication in convulsions; and he adds, "if the Lochia discharge freely, the patient usually comes to herself in a few hours." To promote these secretions he recommends fomentations to the legs and thighs, cataplasms to the feet, and a bladder of hot water, wrapped in flannel, to be applied to the region of the *uterus.—Lectures, MS.*

The plan of treating puerperal epilepsy here recommended, has been employed more or less actively in *thirty-six* cases that I have attended, either in private practice or in consultation: the result of these thirty-six cases is stated below. I regret that the plan proposed was not always so early and effectually adopted, as I could have wished *.

In 3 cases, the convulsions did not occur till after delivery: the women recovered; the children were alive.

In 2 cases the women being in labour of twins, the convulsions occurred in the interval between the birth of the two children, and the labours terminated without artificial assistance: one of these women recovered; and three of the children were born alive.

In 7 cases, the delivery was effected by the forceps: all these women recovered; and two of the children were born alive.

In 8 cases, the perforator was used; seven of these women recovered.

In 3 cases, the children were turned: one of the women died; and all the children were dead born.

In 13 cases, the children were born without extraordinary assistance: nine of these women recovered; and five of the children were born alive.

Thus 28 women recovered — 13 children were born alive.
8 ..... died. — 25 ..... dead.

In 28 instances it was the patient's first labour.

Several of the above patients, from apprehension of a similar attack in their next pregnancy, were bled at their own request, when approaching the full term; and to others it was recommended, on account of severe pains in the head; but there has been no instance of a return

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* See Appendix, No. 28.

of the convulsions in their future labours. *Dr. Dewees*, however, mentions a case, in which from want of proper care, as he conceives, during the last weeks of pregnancy, the third and fifth labours were attended with convulsions as well as the first.

Order 13. *Dystocia Inflammatoria—Labour accompanied with Local Inflammation, or general Pyrexia.*

Dystocia Inflammatoria. Young.

Fever or inflammation may accompany labour, either in consequence of a previous disease being present, when the patient goes into labour; or from improper management, or from some other cause, after the labour has commenced.

Thus, *pneumonia*, *catarrhus*, *pleuritis*, *peritonitis*, *variola*, *rubeola*, *scarlatina*, *typhus*, *&c.* may occur during pregnancy, and many of these complaints will probably bring on premature labour, which commonly rather adds to, than dimishes, the hazard of the patient.

The nature of the accompanying disease will in a great measure influence the treatment of these cases: the means of cure proper for the specific complaint must consequently be resorted to, modified however, as far as circumstances may require, by the state of pregnancy.

If improper management has greatly increased the

usual febrile state * of the process of parturition, or if local inflammation has been excited either in the *uterus* or *vagina*, in the *rectum* producing piles, in the *perinæum*, in the *urethra*, or elsewhere, it will be necessary to have recourse to some of the following means, *viz.* bleeding, aperients, clysters, antifebriles, fomentations, washes, poultices, opiates, rest and quietude; and these means having been duly persevered in, the complaint will generally give way, and the labour will terminate safely.

Order 14. *Dystocia Retentiva.*

Young, Cl. 5. O. 77. § 7.

Labour followed by a Retention of the Placenta for an unusual time after the Birth of the Child—See p. 2.

The usual causes of a retained *placenta*, are,

(*a*) a want of contraction in the *uterus;*

(*b*) a partial or imperfect contraction;

(*c*) a morbid adhesion of the *placenta* to the *uterus*.

Very different opinions have existed, among practitioners of midwifery, respecting the management of the *placenta*.

In the earliest ages, when parturition was a more na-

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* A degree of feverish excitement usually accompanies labour, as may be known by the quick hurried pulse, the tendency to shivering, the thirst and loss of appetite for solid food; but as this seems to belong to the process, it excites little attention, unless the fever rises to an immoderate height. The knowledge of this fact ought, however, to put practitioners on their guard, not to increase by stimulants, the already excited system.

tural process than it now is, the expulsion of the *placenta* was probably always left to nature.

When, however, it became customary, or necessary, to *help* women in labour, the assistance was often rudely, or improperly given, and thus the regular process of parturition was interrupted, and a necessity was produced of giving assistance, to bring away the *placenta*.

The means used were, for the midwife immediately on the birth of the child, to twist the *funis* about her fingers, and to drag by that, till the *placenta* was brought away. This hasty, incautious, and dangerous proceeding, often occasioned the *funis* to be torn away from its attachment to the *placenta*, and not uncommonly produced a total inversion of the *uterus;* for the attempt to extract the *placenta* being made, before time was allowed for the *uterus* to contract, this *viscus* in a state of atony was easily inverted. *Ruysch* informs us, that he was, twice in one day, sent for to women, to whom this unfortunate accident had happened.

The frequency of these accidents afterwards led to the adoption of another method: this was, to introduce the hand into the *uterus*, as soon as the child was born, and at once to separate the *placenta* from it; and many practitioners have supposed, that this operation was always expedient, and uniformly practised it in every labour they attended.

The late *Dr. William Hunter*, whose skill and judgment, in the practice of midwifery, were much esteemed, having a very high opinion of the powers of nature to effect her own work, and probably being acquainted with many mischances, arising from the practice of thus introducing the hand to separate the *placenta*, taught that the delivery of the *placenta* was always to be left to

nature; and this plan he uniformly followed in his own practice, and recommended it strongly to his pupils and others.

For a long time this method was successful; the *placenta* was regularly expelled by the secondary pains, sometimes in an hour or two, sometimes not for twelve or twenty-four hours; and, upon some occasions, the *placenta* was retained even beyond this period, without any ill consequences supervening. But upon other occasions, the ill effects of not timely removing the *placenta* were apparent. In the practice of one of *Dr. Hunter's* pupils, a patient retained the *placenta* thirteen days; it was then expelled in a dreadful state of putrefaction, and the woman expired the same day. Another of this gentleman's patients retained the *placenta* eleven days, and died without at all expelling it; and among *Dr. Hunter's* own patients, two or three calamitous accidents took place, which led him, towards the latter end of his life, to alter the opinion he had formed, of the propriety of always leaving this case to nature.

Experience has now taught us, that if the labour be perfectly natural, and if the operator be not hasty to interfere with his assistance*, the expulsion of the *placenta* from the *uterus*, will generally be effected in ten, twenty, or thirty minutes after the birth of the child; and the

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* The practice of using force, to hurry the shoulders and body of the child through the *os externum*, as soon as the head was born, is now very generally laid aside. There can be no doubt, that this imprudent conduct often brought on a retention of the *placenta*. *See White's Treatise on the Management of Pregnant and Lying-in Women.*

moment of separation is usually made known, either by a discharge of blood, or by a pain, when the *funis* descends, and its insertion into the *placenta* can be easily felt by the finger *in vagina*. All, then, that is required from the accoucheur, is to remove it from the *vagina*; and this, if he proceeds cautiously, he may always safely do, as soon as it is thrown off from the *uterus* by the uterine action.

If, however, the secondary pains do not take place within this period of time, it may be proper for the accoucheur to lay his hand upon the *abdomen*, and gently to rub the part where the *uterus* is to be felt, or to press it with his hand, provided the pressure be not so great, as to occasion much uneasiness. By acting thus, he will frequently be sensible, that a contraction of the *uterus* is taking place; and will find, upon examination, that the *placenta* has fallen into the *vagina*, completely separated from the *uterus*.

This seems all that it is right to do, for a full hour after the child is born; but that time being elapsed, and there being no reason to expect that uterine contractions will spontaneously arise, the accoucheur is to consider whether it is prudent to wait longer, before he proceeds to extract the *placenta*, by introducing his hand into the *uterus*.

If no bad symptoms are present, there can be no danger, in allowing more time to elapse, before we proceed to this operation; and more especially, if there is reason to think, that the retention arises, principally, from the exhausted state of the patient; because it is possible, that a little more delay will recruit her strength, and that afterwards sufficient power may be imparted to the *uterus* to expel the *placenta*.

Yet, generally speaking, we can have but little expectation, that the *placenta* will be expelled by the natural powers, after it has been retained much more than an hour: we may, therefore, consider ourselves justified in interfering to extract it, at the end of an hour or two after the child is born.

It appears then, to be a question of prudence or discretion, which every accoucheur must judge of, in the individual case he is attending, whether to proceed to delivery at the end of the hour, or to wait another hour or two before he undertakes this operation. But of course this only applies to cases, where there is no apparent danger: for in cases of profuse hemorrhage, &c. there is no question upon the subject; here the delivery of the *placenta* is to be immediately undertaken without delay.

The method of proceeding to extract the *placenta* is as follows:—the patient lying in the usual way on her left side, or upon her back, with the *nates* very near the edge of the bed, is to have the belly moderately pressed upon by an assistant; but the pressure ought not to be so great, as to give much pain. The accoucheur then, having taken off his coat, and smeared his hand and arm with lard, is to take hold of the *funis* with his left hand, and to carry his right hand into the *uterus*, making the *funis* his guide.

The irritation and pain which this will produce, may possibly excite the action of the *uterus*, and the *placenta* be cast off; if so, the operation is speedily performed: and if this fortunate event does not take place, it will be right to endeavour to produce uterine action, by moving the fingers about, slightly, near the *os uteri*.

If, notwithstanding, we fail to bring on uterine action, we must proceed to make an artificial separation; and therefore, still making the *funis* our guide, we must pass the right hand on, till we reach the part where the *funis* is inserted; then, deliberately feeling for the edge of the *placenta*, we must cautiously insinuate our fingers between it and the *uterus*, and steadily pursuing our intention, must entirely separate it before we desist; and it is well to keep the hand in the *uterus* for a few moments, till a contraction comes on.

Of the length of time that it will take to perform this operation, it is impossible to speak with certainty. If no impediments should arise, the whole may be effected in a few minutes; but should there be an irregular contraction of the *uterus*, forming what has been called the hour-glass contraction; or should the *os uteri* have become contracted and rigid, it may take a very considerable time, to dilate and overcome this impediment.

This is one of the operations that is performed more safely if performed slowly; it is one in which, to use an expression often quoted, we should "give the head time to direct the hand."

The average number of times, that retention of the *placenta* may be expected, is very difficult to be ascertained. In well-conducted private practice, it rarely occurs, except from a morbid state of the *uterus* or *placenta*. But accidental retentions of the *placenta*, from undue, or irregular, or improper contraction of the *uterus*, very often take place, among inexperienced or hasty practitioners, from mismanagement. During the period of nearly eight years, that I was physician-accoucheur to the *Westminster General Dispensary*, I was called to cases of retained *placenta*, among the patients of that

charity, *once in every 77 labours* :* in my private practice, retention of the placenta has *not* occurred so often as *once in* 300 *lab ours.*

ORDER 15. *Dystocia Inversoria—Labour followed by Inversion of the Uterus.*

Young, § 11.

THE situation and structure of the *uterus* render it liable to many diseases and accidents; among the most dangerous and distressing of which may be reckoned an *inversion.* This accident usually happens during the enlarged and dilated state of the *uterus,* immediately after delivery, and is commonly attributable to a hasty and incautious attempt to bring away the *placenta.*

It has been supposed, that the exploded practice of dragging at the *funis,* to extract the *placenta* immediately after the birth of the child, was the principal cause of this misfortune; but I have known the accident to happen, when the hand of the operator was introduced for the purpose of effecting the separation; and there can be no doubt, that a spontaneous inversion has sometimes occurred. When the *uterus,* with the *placenta* attached to it, is drawn in an inverted state without the *vagina,* no doubt can exist as to the nature of the accident; but if it should happen after the exclusion of the *placenta,* more difficulty in forming an opinion would arise. The following rules, however, would lead to a correct judgment:—

If a globular tumour is found soon after delivery, in the *vagina,* or protruded through the *os externum,* it must be supposed to be, either a polypous excrescence, a pro-

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* See Appendix, No. 29.

lapsed *uterus*, or an inverted *uterus*. If it were a *polypus*, it would be known by its insensibility, its mobility, and its pedicle, which a careful examination could hardly fail to discover: the edges of the *os uteri* surrounding the tumor would likewise be perceptible.

A prolapsed *uterus* may always be known, by the *os uteri* being situated at the most depending part of the tumor.

The inverted *uterus* is sensible to the touch, is less moveable than the *polypus*, has no pedicle, nor a dependent mouth; in a recent state it is entirely covered with a grumous discharge, proceeding from numberless blood-vessels upon its whole surface.

The presence of an inverted *uterus* being ascertained, it becomes the accoucheur to use the most prompt and decisive means of relieving his patient: and this can only be done by immediately re-inverting the *uterus*. To effect this, he must first return the *uterus* within the *vagina*, then having his arm bare and well smeared with lard, he must pass his hand through the *os externum*, and resting the backs of his folded fingers against the *fundus uteri*, he must carry it forward, till he finds his hand within the cavity of the *uterus*, and still pursuing his object, he must push his hand onwards, till he is fully satisfied, that he has completely re-inverted the *uterus*, and that the contraction of the *os uteri* will prevent any future mischief.

Puzos, *Dionis*, and others, have recommended to remove the *placenta* from the inverted *uterus*, before any attempt is made to revert the womb: but *Dr. Denman* and other writers consider it better to return the inversion, while the *placenta* is still attached. In a case of this kind, which occurred in my practice, the *placenta*

was removed without prejudice; but I think I should not in future remove the attached *placenta*, till after the *uterus* was restored to its right position *.

If the *uterus* be not completely re-inverted, in a short time after the accident occurs, the patient either speedily loses her life from profuse hemorrhage, or else uterine contraction takes place and puts a stop to the profuse discharge, but thus renders the disease incurable: for no instance is to be met with, where the re-inversion of the *uterus* could be accomplised, after an entire, or very great degree of contraction had come on †.

Many writers have suggested the propriety of amputating the *uterus*, when in a state of inversion; but so great a dread has been generally entertained of such an operation, that though cases have been cited from ancient authors to prove its possibility, yet in modern times, the excision of the *uterus* does not appear to have been attempted till of late years. My excellent friend, *Mr. Chevalier*, extirpated the *uterus* of a poor woman, in 1804, who lived many years afterwards ‡: and other cases have been recorded by other surgeons §. Notwithstand-

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* See Appendix, No. 30.

† In *White's Midwifery*, 5th ed. (1791), a case of inversion is recorded, in which, by grasping with the hand, and thus compressing the *uterus*, Mr. W. succeeded in re-inverting it, though as much as *two hours* must have elapsed after the accident. In general a much shorter space of time than this is sufficient to render the reduction impracticable.

‡ See Appendix, No. 31.

§ By *Mr. Baxter, Medical and Phys. Journal*, vol. xxv.—*Mr. Newnham, Essay on Inversion of the Uterus*, (1818).—*Mr. Windsor, Medico-Chir. Transactions*, vol. ii.

ing, therefore, the incredulity of some writers, respecting the truth and accuracy of the cases cited, (and little doubt can be entertained, that mistakes have been committed on the subject,) the fact, that the operation has been several times safely performed, is fully established.

OF THE USE OF INSTRUMENTS IN MIDWIFERY.

It becomes every man, who means to enter into the practice of midwifery, to set out with a determination, that he will not hastily, or without due cause, have recourse to instrumental assistance; for he may assure himself, that if he were easily to yield to his own apprehensions, or to the expressions of alarm by the attendants in the lying-in chamber, and in consequence were to try to expedite the delivery by his instruments, he would, on very many occasions, do irreparable injury to the parent or her child.

Abundance of instances might be produced of women, who, from a hasty and improper use of instruments, have been placed in a state of the greatest possible danger, or have actually lost their lives, or have been left in a state of misery and suffering, worse than death itself. Nor can there be a doubt, that many children's lives have been sacrificed, by premature interference with instruments. Now, surely, nothing ought to be more dreaded by every practitioner of midwifery, than the reflection, that a loss of life, or a life of continual distress and pain, has been occasioned either to the mother or the child, by his impatience or want of caution.

Yet, though it behoves us all to entertain a just dread of the improper use of instruments, it likewise becomes

us to be careful, that this dread of instruments be not carried too far; for as much mischief may be done by delaying instruments too long, as by using them too soon.

The old adage, *neque temere neque timide*, though trite, is still the best motto by which the accoucheur can be guided. Let us not be hasty in the use of instruments, so as to do injury by precipitancy; nor let us delay them too long, lest our patient be so much exhausted before they are applied, as to derive no benefit from the operation.

When attending a case of lingering, difficult, or dangerous labour, it is our duty from time to time to consider what probability there is of a favourable termination; and whether it is safe to leave it longer, and how much longer, to the efforts of nature. And in forming our opinion, we may in a great measure be guided by the favourable or unfavourable symptoms, enumerated at page 40. As the favourable or unfavourable symptoms preponderate, we may safely draw our conclusions: but if we are not able to satisfy ourselves perfectly, upon this momentous point, it will be prudent to obtain the opinion of some of our medical brethren, that we may not incur the censure of having acted rashly.

If, after having carefully considered and re-considered the case, it appears expedient to have recourse to instrumental aid, we are then to determine upon the kind of instrument that is adapted to the case.

The instruments used in midwifery are of three kinds:—

1. Those which do not of necessity injure either the mother or the child:

viz. The *fillet*,
The *forceps*,
The *lever*.

2. Those which are intended to mutilate the infant, and the use of which is of course incompatible with the life of the child:—

viz. The *perforator*,

The *crotchet*, for which the *blunt hook* may often be advantageously substituted.

3. Those which are intended to inflict a wound upon the mother, as in the *Cæsarean operation*, or the division of the *symphysis pubis*.

viz. The *bistoury*, or *scalpel*.

Of the Fillet, the Forceps, and the Vectis.

Modern practice has excluded the *fillet*, except in cases of preternatural presentations of the child *.

Of the merits of the *forceps* and *vectis*, different writers and practitioners think very differently: some extol the advantages of the *forceps*, others of the *lever*; some consider the *forceps* as always safe, the *lever* as always dangerous; others assert that the *lever* is always equally safe, and contend that it possesses great advantages over the *forceps*, because it can be applied with greater ease, and can be *secretly* introduced.

After having made a very careful comparative examination of these two instruments, I have been led to draw the following conclusions:—

1. That either instrument, in the hands of a cautious operator, and in proper cases, may be safely and advantageously used.

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* See Appendix, No. 32.

2. That either instrument, improperly applied, is capable of producing very serious mischief.

3. That in general, the *forceps* effects the delivery better than the *lever;* but that in a few rare instances, the *lever* is capable of effecting the delivery, though the *forceps* is not.

4. That as the *lever* is capable of being introduced more easily, and at an earlier period of the labour, much earlier indeed than the case requires, or the rules of art allow, it is more frequently used unnecessarily, and of course hazardously, than the *forceps.*

Lastly, I consider that what has been stated, as an advantage in the *lever*, viz. the practicability of using it *secretly*, is one of its worst properties. For I look upon it as a sacred duty, which an accoucheur owes to his patients, as well as to himself, never to employ instruments secretly. He owes it to his patients, because there can be no security against the rash and improper use of instruments, unless the practitioner avows his intentions, and explains to the friends his reasons for employing them. He owes it to himself, because if the case requires the aid of instruments, he gains credit and reputation for his proficiency and skill.

It would appear then, that we have two instruments, each of which is possessed of useful properties; and the judicious practitioner will use sometimes one, sometimes the other, as circumstances may require; but were we compelled to select one, only, of these instruments for constant use, the *forceps* is that, to which the most decided preference would be given.

Of the Cases that admit of the Application of the Forceps or Vectis.

The cases, that principally require the use of the *forceps* and *vectis*, are those that belong—

1. To the class *Dystocia anenergica*, where the head having passed so low into the *pelvis* as to allow the ear of the child to be felt, is stopped in its progress, there being no pains, or not sufficient pains, to propel it.

2. To some instances of *Dystocia amorphica*, where though there may be deformity of the *pelvis*, it is not so great, as to keep the ear of the child beyond the reach of the finger.

3. To cases of *Dystocia epileptica*, &c. when the ear can be felt.

No case is to be esteemed eligible for the application of either of these instruments, 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 great hazard of lacerating it, when the head is brought down.

So careful have the best professors of midwifery been, to guard against an 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.*"

This is a judicious rule, and ought to be generally adhered to, since very few cases indeed occur (hemorrhage and convulsions excepted) in which it would be unsafe to wait for six hours, after the ear comes within reach of the finger: nor should recourse be had to in-

struments even then, if a probable chance exists of finishing the labour, safely, without them.

It is not necessary to give very minute directions in this place, respecting the manner of applying the *lever* or *forceps**; but I shall make a few general remarks, premising, that it will always be proper, first to introduce a *catheter* into the bladder, in order that we may be sure it contains no urine, and to clear the *rectum* by throwing up a clyster.

Having then placed the patient, in the position most favourable for our purpose, which will commonly be on her left side, the *nates* being brought very near to the edge of the bed, we are to pass the fore finger of the right hand to the child's ear: then taking the handle of the *forceps* in the left hand, we are to introduce the point of the blade into the *vagina*, and, making the finger of the right hand our guide, are with great caution to carry forward the blade to the child's ear, over which it is to be passed, and gently insinuated beyond it, till the clam of the *forceps* is brought quite to, or within the *os externum*.

The first blade being thus applied, is to be kept in its place by the fourth and little fingers of the operator's left hand, while with his right hand, he introduces the second blade of the *forceps*, over the opposite ear of the child.

As he will not be able to feel the opposite ear, he must be guided in some measure, in introducing the second blade, by the position of the first.

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* The *Aphorisms* of *Dr. Denman*, respecting the mode of applying and acting with these instruments, are so judicious and practical, as to deserve the most careful perusal and recollection.

Both blades being introduced, the clams are to be brought together and locked, care being taken not to entangle any of the hair, or soft parts, in the lock.

If, on endeavouring to lock the *forceps*, it should be found, that they do not readily come together, they have not been properly introduced: no force or violence therefore, should be used to bring them together; but the second blade should be withdrawn and introduced afresh.

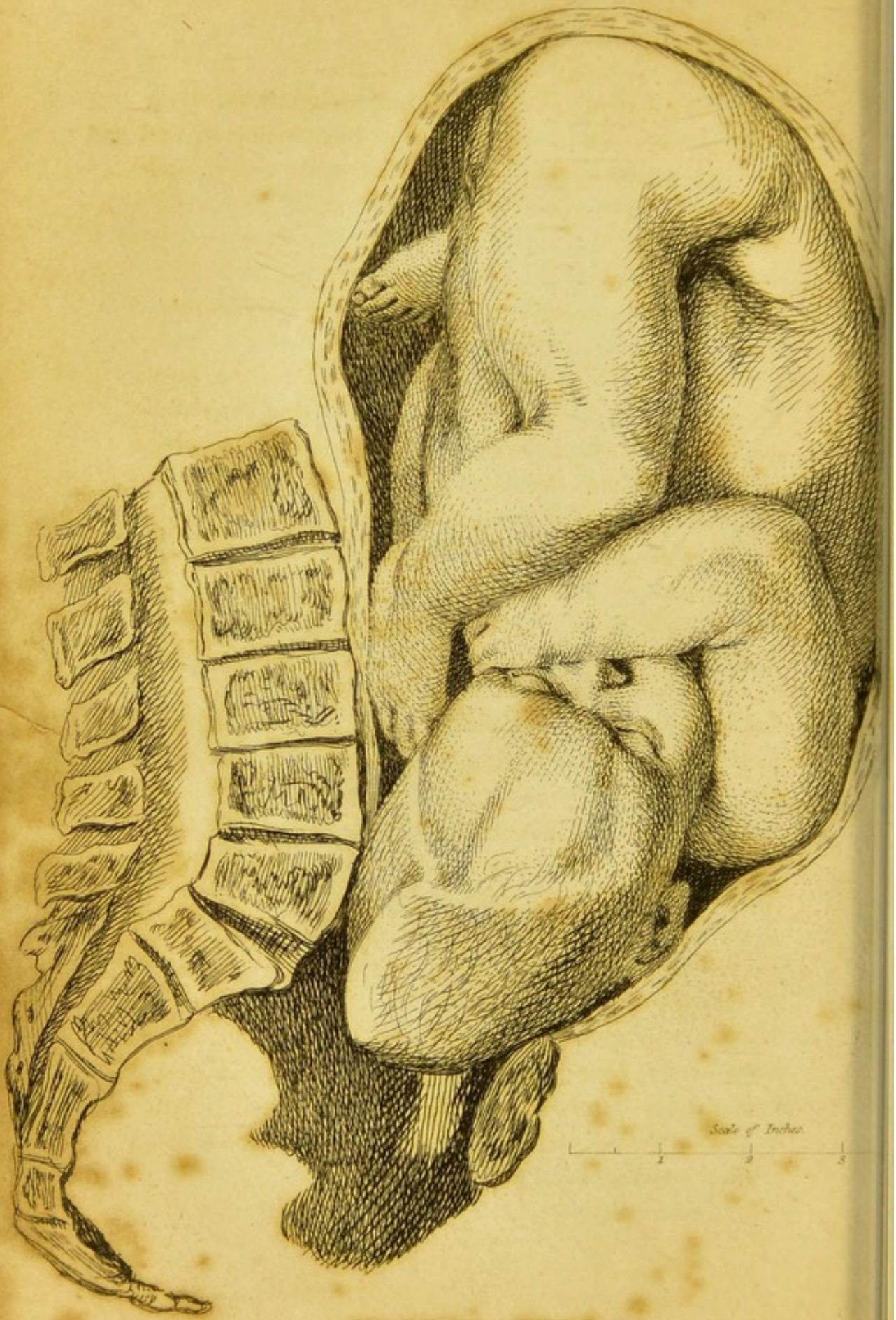
When the *forceps* are locked, if the handles are in contact with each other, through their whole length, they are not properly applied; for the bulk of the head is usually too great, to allow the handles to touch each other, if the head is properly included within the bows.

If the handles are very far apart, the points of the blades probably rest upon the ears; at all events, the head is not properly embraced by the *forceps;* and, in attempting to act with them, they will slip.

When acting with the *forceps*, the force at first used should be very moderate, but is to be increased as occasion may require; yet if the head advances at all, however slowly, with the force first applied, it need not be increased; for, as *Dr. Denman* has very truly observed, "a small degree of force continued for a long time, will in general be equivalent to a greater force hastily exerted, and with infinitely less detriment either to mother or child."

It is unnecessary to appear very adroit, or to use great expedition in introducing the *forceps:* it is much better to introduce them slowly and safely, than hastily and dangerously.

The introduction of, and action with, the *lever*, are subjected to very much the same rules, as those of the *forceps*.



London, Published May. 24. 1820. by J. Callow.

Equal care is to be taken, not to be precipitate in having recourse to it, not to do mischief in introducing it, and not to bruise the mother, or otherwise to injure her, while acting with it.

Of the Cases requiring the Use of the Perforator.

The cases which require the *perforator* are those, where the *pelvis* is so small at the brim, that the child's head cannot pass through it. Other causes do indeed sometimes render the *perforator* necessary: but the *legitimate* cause for using this instrument, is distortion of the *pelvis*.

The degree of distortion of the *pelvis* varies extremely, and it is sometimes very difficult to ascertain, whether the distortion is really so great, as to prevent the head from passing through it undiminished; and, under such circumstances, it becomes us to be extremely careful, not rashly to determine upon having recourse to the *perforator*.

Various means have been recommended for accurately measuring the dimensions of the *pelvis*; and the ingenuity of foreign accoucheurs has produced a number of different instruments, called *pelvimeters*, which are supposed to ascertain this point with great precision.

But there is, probably, more of inaccuracy in this mode of admeasurement on the living body, that at first sight may appear; and certainly the inferences drawn from such admeasurements, and the modes of practice in consequence recommended, have sometimes been grossly unscientific.

*Dr. Osborn**, who took great pains in investigating the best method of procedure, in cases of distorted *pelvis*, considers, that a *fœtus* at full maturity cannot pass alive, if the dimensions of the *pelvis*, from the *pubes* to the projection of the *sacrum*, be only $2\frac{3}{4}$ inches; and *Dr. Clarke*† of Dublin, says, that $3\frac{1}{4}$ inches from the *pubes* to *sacrum* is the least diameter, through which he has known a full grown *fœtus* to pass *entire*; but as it has been ascertained by *Dr. Hamilton*‡, that children have been born living, though the *pelvis* in this diameter was "manifestly under three inches;" it is necessary, that practitioners of midwifery should be very much upon their guard, against being deceived in their estimate of the actual dimensions§.

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* *Essays on Midwifery* (1792), p. 194.

† *Transactions of the Dublin Association, &c.* vol. i. p. 374.

‡ *Letters to Osborn* (1792), p. 101.

§ "Although the sacrum may project so much, or advance into the *pelvis* so far, as to reach within two or three inches of the *pubes*, and consequently the entrance into that cavity would be only of that diameter, if the bones were directly opposite to each other; yet the *pubes* being placed something lower than the greatest projection of the *sacrum*, and opposed to a part of that bone that diverges backward, the real distance between them may be much more considerable than to the touch it may seem to be. Whence it happens, that in cases, where the projection of the *sacrum* has occasioned exceeding great difficulty, in the beginning of the labour, opposing an almost insuperable bar to

In England we are more in the habit of examining the size of the pelvis by our fingers, than by *pelvimeters*; but upon a point of so much consequence, we should do well to take every possible means of ascertaining with precision the real dimensions, and might therefore advantageously call to our aid the occasional use of the *pelvimeters*.

In many cases, however, it will be difficult to determine whether the distortion is so great, as to render the delivery of an entire child impossible; and if there is this difficulty, it becomes us to wait, as long as the safety of the woman will admit, before we proceed to the operation *cephalotomia*. In other cases the distortion will be so very considerable, as must satisfy us, upon the first examination, of the impossibility of effecting the birth without diminishing the child; but even in this case, a considerable space of time may be allowed to elapse, before we proceed to the operation, particularly if it be a first child.

1. Because the operation, by being delayed, will be more easily and safely performed.

2. Because we shall have the comfort of knowing, or

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the entrance of the head of the child into the *pelvis*, by directing it too far over the *pubes*; yet, when that direction has been altered by the *crotchet*, or by any other means, and the head brought into the line of the centre of the *pelvis*, the conclusion of the labour has been frequently effected with very little exertion or force."—*Bland's Observations on Human and Comparative Parturition*, p. 200, 5th section.

The whole of this section deserves the very attentive perusal of every practitioner in midwifery.

believing, that we did not introduce the instrument while the child was yet living.

3. Because it is our duty to let the patient and her friends be convinced of the necessity of the operation, as well as we are. Now *we* form our judgment of the necessity, from examining the dimensions of the *pelvis; they* can only judge from the undue length and severity of the labour; and even then may still require the sanction of a deliberate consultation, which, indeed, the attending accoucheur will often consider it his duty to propose.

When it is at length determined upon, to proceed to this operation, moderate caution will enable the operator to perform it without danger of injuring the mother. He must take care to have the *os uteri* sufficiently dilated, and must let his finger guide the point of the *perforator*, till it reaches the head of the child. After he has made an incision through the scalp, he must guard the instrument from slipping, till he has drilled through the *cranium*, and enlarged the aperture, by drawing asunder the handles of the instrument.

It will sometimes be advantageous, after the perforation is effected, to allow some hours to elapse, before an attempt is made to separate the bones of the *cranium*. But respecting the propriety of this, the practitioner must judge for himself, founding his opinion upon the state of the patient, and the length of time that the labour has already lasted.

OF THE CÆSAREAN OPERATION.

This operation, when performed in Great Britain, has been in almost every instance fatal to the mother. Records of *twenty-two* cases are to be found, and *twenty-one* of the mothers perished. The solitary case of recovery is related by *Mr. Barlow* of Blackburn, in the *Medical Records and Researches* (1798); but doubts have been entertained, whether in this case the incision was actually made into the *uterus**. Of the children, *ten* were born dead; and of the *twelve* extracted alive, *four* survived only a few days. The whole number of lives preserved does not therefore exceed *nine*.

A very astonishing case is stated to have occurred in Ireland†. The patient's name was Alice O'Neal, and the operator was an illiterate midwife, one *Mary Dunally;* the instrument used was a razor, with which she first cut through the containing parts of the *abdomen*, and then the *uterus*. "She held the lips of the wound together with her hand, till some one went a mile and returned with silk and the common needles which tailors use. With these she joined the lips in the manner of the stitch employed ordinarily for the hare lip, and dressed

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* *Mr. Barlow*, the operator, maintains, that he did make an incision into, and extract the child from, the cavity of the *uterus* itself. And I must confess, that the weight of evidence is, in my opinion, greatly in his favour.—See *Hull's Defence*, p. 72, and *Observations*, p. 70.

† *Edinburgh Medical Essays*, vol. v.

the wound with whites of eggs." The woman recovered in twenty-seven days.

However incredible this story may appear, there seems no reason to doubt its truth. It is related by *Mr. Duncan Stewart*, surgeon, in Dungannon, who saw the patient some days after the operation; and the account is confirmed by *Dr. Gabriel King*, of Armagh, who says, that he drew out the needles, which the midwife had left to keep the lips of the wound together.

On the continent the Cæsarean operation has been more frequently performed, and has been less fatal to the mothers than with us; how often it has been successful in preserving the lives of the children, has not been recorded with so much exactness, as the subject requires.

It has often been an object of inquiry, why this operation should have been more successful upon the continent than in this country. Some writers have attributed it to the climate of England; but this cannot possibly have had sufficient influence to prevent a recovery; nor can it very well be attributed to the want of skill in our surgeons, since they succeed in other operations, apparently as hazardous. Two other causes are obviously more probable. 1st. That many of the patients have been in a previous ill state of health, suffering under the ravages of the *Mollities Ossium* at the time of the operation:—2dly. That too great a length of time has been allowed to elapse before the operation was performed; so that the patient, having undergone a long and ineffectual labour, has been operated upon, when worn out with fatigue, languid and feverish*.

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* References to all the known cases of Cesarean operation in England, will be found in the Appendix, No. 33.

The continental accoucheurs are evidently more familiarized with the idea of the *Cæsarean operation*, than the British. Some of the most approved writers on midwifery have sanctioned and recommended it, and have even laid down rules, calculated upon accurate, or supposed accurate admeasurements of the *pelvis*, as to when the *vectis* should be employed, when the *forceps*, when the *perforator*, when the *Section of the Symphysis pubis*, and when the *Cæsarean operation**.

But the consideration of the propriety of performing this awful operation, has not been left solely to the judgment of medical men; it has been made the subject of ecclesiastical discussion, and the doctors of the *Sorbonne*, and the heads of theological schools and colleges have freely given decisions upon it.

By these authoritative teachers it has been ruled, that the *Cæsarean operation* ought to be performed, whenever it is known that the child is living, and it is impossible by other means to extract it alive; for they assert, that it is a deadly sin *(Péché mortel)* to perforate the head of a living child in the womb. The clergy are instructed, in the event of a mother refusing to submit to the operation, to omit no means of persuading her: they are to point out all its advantages, and to intimate, that the operation is not so cruelly painful as might be thought: they are directed to speak of submission to it, as an act of the greatest love to God, and resignation to his will, that can possibly be shewn: it is even suggested, that under some circumstances, the patient might be forcibly confined, and the operation be performed against her will. It is further declared, that physicians or surgeons refusing to recommend, or to perform the operation, when they should

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* See Appendix, No. 34.

think it necessary, would thereby render themselves guilty of a deadly sin, and ought to be reprimanded by the magistrates; and praise is given to an edict, in force in Sicily, which declares, that no person shall be admitted to practise as a surgeon, till he has been carefully examined as to the manner of performing the *Cæsarean section* on the living mother*.

These causes combined will explain the reason, why this terrific operation is more readily acceded to on the continent, than in this country; and a very cursory inspection of the various cases that have been published will shew, that the operators have not always been very nice in making their selection; for in many instances, the operation was resolved upon very rashly, and unnecessarily, as *M. Baudelocque*, a supporter of this method, himself admits.

It cannot be matter of much surprise, that, with so little success as has attended the *Cæsarean operation* in England, the British accoucheurs should be reluctant to propose or adopt it; and therefore recourse is never had to it, except in such deplorable cases only, as preclude the possibility of delivery by any other means. Such instances have been met with, and a specimen is now to be seen in the museum of my friend *Mr. Charles Bell*, in which the distortion of the *pelvis* is so extreme, that a marble, measuring less than one inch in diameter, cannot be made to pass through it in any direction. In this case, and some others of a similar nature, the *Cæsarean section* was the means of preserving the child.

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* See *Cangiamila Embryologia sacra*, passim. *Raynaud de ortu Infantis contra Naturam. Peu Pratique des Accouchemens*, &c.

It hardly need be observed, that in the event of a woman, near the full time of pregnancy, dying undelivered, the *Cæsarean operation* ought always to be performed, with as little loss of time as possible; since by this measure a chance of preserving the child will be afforded, and several cases of such an operation, after the death of the mother, have been recorded, with the desired effect of saving the infant*.

How long, after the death of the mother, the child may survive *in utero*, it is perhaps impossible to say; some authors mention twenty-four or forty-eight hours! In the late *Dr. S. H. Jackson's Cautions to Women* (1798), mention is made of a child extracted by the *forceps*, which, by the very praise-worthy and persevering exertions of *Dr. Jackson*, was restored to life, though the mother had been dead full half an hour before it was born.

The dreadful sacrifice of life, which necessarily attends the use of the *Perforator* or the *Cæsarean section*, has led to many laudable inquiries, whether some means could not be adopted, to prevent the frequency of these operations, in cases of pelvic deformity; and the three following methods have been proposed, at various times, for the consideration of obstetric practitioners with this view:—

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* "Wednesday, July 15th, at Eddescastle, Staffordshire, the wife of Mr. Prescott, an exciseman, being killed by a flash of lightening, was opened, and a living male child taken out, which was immediately christened Jonah, and is like to live." *Gentleman's Magazine*, 1747. — See also *Spence's Midwifery* (1784), — p. 495. *Viardel*, cap. xxiv. — *Embryologia sacra. Schurigii Embryologia*, p. 122.

1. *The Division of the symphysis pubis, for the purpose of enlarging the pelvis.*
2. *The prevention of the full growth of the fœtus in utero, by abstinence and other depleting measures.*
3. *The inducement of premature labour.*

Of the Section of the Symphysis Pubis, or the Sigaultian Operation.

M. Sigault, a surgeon at Paris, submitted, in the year 1768, to the Academy of Surgery, a proposal to divide the *symphysis pubis* during labour, as a mode of facilitating delivery; and in the year 1777, assisted by *M. Alphonse Le Roy*, he performed the operation on a woman named Souchet, who had borne four children before, but not one alive. On this occasion, however, the life of the child was preserved; but the woman was placed in a state of great danger, and the *urethra* and bladder were seriously injured by the operation.

Perhaps there never was a surgical operation more enthusiastically received and commended than this. The operator was immediately honoured with a pension from the French government, and a medal was struck to commemorate the invention. So eager were many accoucheurs to adopt this operation, that in a comparatively short space of time, it was performed on a great number of women. And now the admirers of this new method discovered, that they had been too hasty in forming their opinion. *Forty-four* women have undergone this operation in different countries; *fifteen* only of the children were preserved, and *thirty* of the mothers; and of these,

many remained infirm, or suffered from want of power to retain their urine, or other grievous complaints during the remainder of their lives.

At length the ill success of this practice occasioned it to sink into complete desuetude, and the remembrance of it can now be beneficial, only as it may serve to caution us against the inconsiderate and hasty adoption of modes of practice, unsupported by just reasoning, and unsanctioned by experience.

Of Abstinence, &c. as a Means of preventing the Growth of the Fœtus.

This measure has been recommended by *Mr. James Lucas*, surgeon to the Infirmary at Leeds, in a paper published in the 2d volume of the *Memoirs of the Medical Society of London;* and he has related several instances, by which he attempts to shew, that abstemious diet, with occasional blood-letting, and a moderate use of aperients, has tended to restrain the growth of the *fœtus*, and to render the bones of the head more yielding. There can be no doubt, where well-formed women are accustomed to have difficult labours, from the large size of the child, that this method may be occasionally useful; and in a few cases of deformed *pelvis*, where the deformity is not very great, some good might result from it. But the expected benefits seem to be confined within very narrow limits, and therefore this plan can only be occasionally useful.

Signor Assalini * relates a case, in which abstinence

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* *Nuovi stromenti di ostetricia e loco uso*, 1811.

was usefully enjoined; but remarks that no great reliance is to be placed upon it; for women who constantly reject by vomiting every particle of food they swallow, have, notwithstanding, on many occasions large children *.

On inducing Premature Labour, as a Means of preventing the Necessity of having Recourse to the Perforator.

Practitioners of midwifery could not fail to have observed, that on many occasions of distorted *pelvis*, children at seven months, when labour was accidentally excited at that period, have passed with comparative ease, and been born alive; though, when they reached the full term of utero-gestation, they fell sacrifices to the difficulty of the labour. *Smellie* mentions several such cases, particularly a woman whose *pelvis* measured less than two inches and a half of conjugate diameter; she had been five times delivered, "and only one child was saved by being born in the eighth month, of a very small size." He has likewise given two plates shewing a *pelvis* of two inches and a quarter conjugate diameter. One of these demonstrates the impossibility of a full grown *fœtus*, though the bones of the head are very much compressed, passing unmutilated; the other exhibits a seven months *fœtus* clearing the strait. These plates, in a diminished form, are here subjoined.

When it was once ascertained, that spontaneous or

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* See Appendix, No. 35.

accidental premature labour, was thus serviceable in preserving the lives of children, in cases of distorted *pelvis*, it was natural to consider whether the artificial inducement of labour would not be attended with equal success; and accordingly, as we are informed by *Dr. Denman**, there was, in 1756, "a consultation of the most eminent men in London at that time, to consider of the moral rectitude of, and advantages which might be expected from this practice, which met with their general approbation."

The morality of this mode of practice has however been doubted by many other persons; but probably for want of considering the question in a proper point of view. For the proposal was, that labour should be prematurely induced, *in those cases only*, where it had been *decidedly proved*, that the *pelvis* was so much contracted in its dimensions, as to render it impossible for a full sized *fœtus* to pass undiminished; and it is supposed, that this proceeding, while it affords a chance of preserving the child, does not much implicate the life of the mother.

To say that no danger is incurred by the mother from such an operation, would be to assert what is contrary to fact; for no doubt can be made, that several women have lost their lives after this operation; but it may be truly said, that the woman, who is to undergo the operation of having the child extracted, after the use of the *perforator*, is always placed, in at least as much, if not in more danger.

What has been the success of this practice in preserv-

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* *Introduction to the Practice of Midwifery*, 4to. p. 395.

ing the lives of children, cannot perhaps be exactly ascertained; but there have occurred among my own patients, and I have been consulted about, or made acquainted with the particulars of, thirty-three cases of labours prematurely induced, in the eighth month of pregnancy, on account of extreme distortion of the *pelvis*.

In 21 of these the children were born dead,
4* were born alive, but incapable of living more than a few hours,
9 were born alive, and capable of being reared.

Thus nearly *one-third* of the children were saved, who must have lost their lives, had the women gone to their full times, and been delivered by the *perforator;* and all the women recovered, the majority of whom, if not the whole number, must have been lost, had the *Cæsarean section* been performed.

It may be worthy of remark, that of the children born dead, fifteen presented in a preternatural direction: and in only one instance of malpresentation (that of the *nates)* was the child born alive. In some other cases, the death of the child appeared to take place immediately after the mothers had been attacked with severe rigors, followed by active fever.

It is of the utmost consequence, in recommending this practice, that the principles, upon which alone it seems justifiable, should be duly weighed and considered. It ought not to be concealed, that it has been had recourse to, by wicked and unprincipled persons, for the atrocious

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* One of these was a case of twins.

and criminal purpose of procuring abortion: and sometimes has been unnecessarily adopted by the ignorant or incautious. It is therefore incumbent upon all, who wish to steer clear of either of the above imputations, so to act, that should any judicial inquiry be instituted, they may be able to assign a just and satisfactory reason for their conduct. The possibility of such an inquiry is by no means to be treated slightly; a physician, whose motives could only be praise-worthy, was lately threatened with a prosecution, for proposing such an operation; and it is not long, since an accoucheur of eminence was, on an occasion of this kind, called before a Coroner's Jury, to account for his conduct, which he did most satisfactorily and honourably.

A few years ago, I presented a paper on the subject of inducing premature labour, to the *Medical and Chirurgical Society of London*, which was published in the third volume of their *Transactions*. In this paper, I endeavoured to point out such limitations and cautions with respect to this practice, as seemed necessary to be observed, to render it safe and eligible: these rules I shall here take the liberty of repeating.

" 1. As the *primary* object is to preserve the life of the child, the operation should never be undertaken, till *seven complete months* of utero-gestation have elapsed; and if the *pelvis* of the mother be not too much contracted to allow of it, the delay of another fortnight will give a greater chance to the child of surviving the birth.

" 2. The practice should never be adopted, *till experience has decidedly proved*, that the mother is incapable of bearing a full-grown *fœtus* alive.

" 3. It is sometimes necessary to have recourse to the *perforator* in the first labour, though there may be

no considerable distortion of the *pelvis;* therefore, the use of this instrument, in a former labour, is not *alone* to be considered as a justification of the practice.

" 4. The operation ought not to be performed when the patient is labouring under any dangerous disease.

" 5. If upon examination, before the operation is performed, it should be discovered that the presentation is preternatural, it might be advisable to defer it for a few days, as it is possible that a spontaneous alteration of the child's position may take place * ; particularly if the presentation be of the superior extremities.

" 6. The utmost care should be taken to guard against an attack of shivering and fever, which seems to be no unusual consequence of this attempt to induce uterine action, and has often proved destructive to the child, as well as alarming with regard to the mother. The peculiar circumstances under which the operation is performed, and the habit of body of the patient, will determine the accoucheur either to adopt a strictly antiphlogistic plan, or to exhibit opiates, or antispasmodics and tonics.

" 7. In order to give every possible chance for preserving the life of the child, it will be prudent to have a wet nurse in readiness, that the child may have a plentiful supply of breast-milk from the very hour of its birth.

" Lastly, *A regard to his own character should determine the accoucheur, not to perform this operation unless some other respectable practitioner has seen the patient, and has acknowledged that the operation is advisable.*"

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* See *Medico-Chirurgical Transactions,* vol. iii. p. 144.

APPENDIX

OF

CASES, TABLES, &c.

TO ILLUSTRATE

THE FOREGOING SYNOPSIS.

Quibusdam remedia monstranda sunt, quibusdam inculcanda sunt.

SENECÆ EPISTOLÆ.

APPENDIX, No. I.

Presentations of the Head.—(See page 15.)

Baudelocque, and most other French authors consider that the head, in *natural labour*, may present in six different positions: viz.

In the first, the *sagittal suture* cuts the *pelvis* obliquely, the *anterior fontanelle* being turned towards the right *sacro-iliac synchondrosis*, and the *posterior* a little behind the left *acetabulum*.

In the second, the *anterior fontanelle* is to the left *sacro-iliac synchondrosis*, and the *posterior* to the right *acetabulum*.

In the third, the *posterior fontanelle* answers to the *symphysis* of the *pubes*, the *anterior* to the *sacrum*, the *sagittal suture* traversing, in a direct line, the conjugate or short diameter.

In the fourth, the *anterior fontanelle* is to the left *acetabulum*, the *posterior* to the right *sacro-iliac synchondrosis*.

In the fifth, the *anterior fontanelle* is to the right *acetabulum*, the posterior to the left *sacro-iliac synchondrosis*.

In the sixth, the *anterior fontanelle* answers to the *symphysis pubis*, the *posterior* being opposed to the projection of the *sacrum*.

Consequently the three last positions, which are considered in this *Synopsis* as forming *Dystocia perversa* (*a*),

would by French authors be classed under the head *Eutocia.*

In the 18th volume of the *Journal de Medecine*, a statement is made of the various positions of 16,286 children presenting with the head, by which it appears that

13598 were in the first position.
2592 —— in the second.
5 —— in the third.
54 —— in the fourth.
36 —— in the fifth.
1 —— in the sixth.

APPENDIX, No. II.

Natural Labour.—(See p. 17.)

CASE I.

M. Sacombe, an accoucheur at Paris, who has published several works on Obstetrics, had an opportunity, however indecorously embraced, of witnessing the progress of a natural labour, not by the finger, but the eye: and having his watch in his hand, was enabled to minute down with great accuracy, the accession and duration of each pain: altogether, the statement, which he gives, is curious and novel; I have therefore taken the liberty of translating it, with some abridgments. In doing this, I have divested it of a great deal, of what the author probably thought, very fine writing, but which might be more properly termed rhodomontade, and for this I hope I shall stand excused.

PLATE IV.

London, Published May. 24. 1820. by J. Callow.

" June 11, 1781, a counsellor of the Court of Excise at Montpellier invited me to dine with him at his country house, at Laverune, a village about a league distant from Montpellier. We were scarcely arrived, when we were informed, that the daughter of his gardener, sixteen years of age, tall and well made, was attacked with the first pains of labour.

" The midwife of the village was dangerously ill, my friend therefore recommended me to supply her place, and in consequence I was willingly accepted by the patient.

" The pains were pretty active, and were directed towards the *os uteri*. Eager to avail myself of an opportunity so favorable for examining the secrets of nature, and of seizing her, as it were, in the midst of her operations, I had a camp bed prepared for the young woman in a large and airy room, where I alone was present with her. I was very sure, that I should not be interrupted in my observations. The girl's mother was at Montpellier; her husband had left home, early in the morning, to proceed to sea; the master of the house had no wish to witness the process of childbearing; in short, I was destined, in the attendance on my patient, to be *tête à tête* with nature herself.

" The situation and position of my patient were such, as easily allowed me to be a spectator of every thing that passed, while she was altogether ignorant of the breach thus furtively made upon her modesty: and that I might neither be surprized, nor interrupted by her, in my observations, I hung up a curtain between us, under pretence of preserving her from the rays of the sun, and from the teazing of the flies.

"I ought to observe that I should not have placed the patient on the bed, but the labour pains were very forcing, the *os uteri* was dilated at every throe and approached the centre of the *pelvis*, the pulse was become quick, the countenance was flushed, her anxiety was constantly increasing; in a word, every thing announced that the termination of the labour was approaching. Unless all these symptoms of a speedy delivery are present, the woman in labour ought to be prevailed upon to walk about, because moderate exercise tends to induce the natural contractions of the *uterus*.

"In this state of affairs, I took my station, watching every thing attentively, and determined to leave every thing to nature, as much as if my patient had been alone, in the midst of a forest. Thus, with, if I may so say, a pair of compasses in my eye, a watch in one hand, and a pencil in the other, I witnessed the truly ravishing spectacle of a natural labour.

"From ten o'clock in the morning, precisely, till eleven, the girl had seven pains, which progressively increased in force, and succeeded each other as follows:

"Between the first and second pain there was an interval of

		15 min.	and the pain lasted	21	sec.
Between the	2d and 3d	14 —	———	27	—
	3d and 4th	10 —	———	27	—
	4th and 5th	8 —	———	29	—
	5th and 6th	7 —	———	32	—
	6th and 7th	6 —	———	35	—

"From eleven o'clock till twelve, the patient had twelve pains, progressively increasing in force, and succeeding each other as follows:

		Interval.	Duration.
Between the	7th and 8th Pain,	6 minutes,	36 seconds.
	8th and 9th —	6 ——	40 ——
	9th and 10th —	6 ——	42 ——
	10th and 11th —	5 ——	45 ——
	11th and 12th —	6 ——	45 ——
	12th and 13th —	5 ——	47 ——
	13th and 14th —	5 ——	49 ——
	14th and 15th —	5 ——	55 ——
	15th and 16th —	4 ——	62 ——
	16th and 17th —	4 ——	70 ——
	17th and 18th —	4 ——	87 ——
	18th and 19th —	4 ——	93 ——

"The results from this observation are—1st. that the interval between the pains is in an inverse ratio to their duration; 2ndly. that the duration of each pain is in a direct ratio to their force; that is to say, that in proportion as the interval of the pains diminishes, their duration progressively increases, and in proportion as their duration increases, the force of each pain is progressively augmented.

"The clock struck twelve, the membranes burst, and the *liquor amnii* was discharged with such violence as bedewed me from head to foot: and now, for the first time, I perceived the vermillion disk of that globe, which was about to thrust a new being into life."

Here follows some of the fine writing before alluded to, comparing this spectacle to the glorious view of the morning sun, just rising above the horizon, &c. &c.

"At the twentieth throe, which occasioned to the patient a most acute expression of pain, the head of the child passed through the inferior aperture of the *pelvis*. This I could easily judge to be the case, from the quivering of the external parts of generation, from the violent

contraction of the genital muscles, and from the tension and protrusion of the *perinæum*.

" At the twenty-first pain, the head of the child passed through the external soft parts, the chin being turned towards the *os coccygis* of the mother. The child remained in this situation about five minutes, when the twenty-second pain came on, and gave to the body of the infant a new direction, turning the right shoulder towards the *sacrum* of the mother, and the left towards the *symphysis pubis*, thus allowing them to pass through the long diameter of the inferior aperture of the *pelvis*. The head of the child described a circle of ninety degrees, the nose being at once turned towards the internal and middle part of the mother's left thigh.

" This movement of rotation was a ray of light, which gave me more information respecting the mechanism of natural labour, than all the lessons that I had received from my masters *.

" The twenty-third and last pain expelled the body of the child, which was received upon a cloth, prepared for that purpose.

" The *placenta* was expelled in five minutes after the birth of the child, being directed by the pain towards that thigh to which the child's face had been turned before.

" The woman, fatigued by her pains and by the heat

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* *M. Sacombe* seems to have been unfortunate in his masters: for this movement of rotation was described by *Mr. White*, in his *Treatise on the Management of Pregnant and Lying-in Women*, (1773); and has been taught in all the Schools of Midwifery since that time. *Mr. White's* Treatise was translated into French in 1774.

of the weather, sunk into a sweet sleep, and rested an hour and half."

Thus ends *M. Sacombe's* history of a natural labour; and it may be considered as a specimen of one of the most favourable kind, with a first child.

To accumulate many such cases would be useless; yet as this book is principally intended for those who are just beginning to practise midwifery, I have thought that another case, detailing a more slow progress of natural labor, might not be improperly subjoined.

CASE II.

Mrs. Madden, about 30 years of age, pregnant of her first child, well formed in every respect, rather inclined to be lusty, having had some precursory symptoms of labour for a day or two, was awakened out of her sleep, about four o'clock in the morning, by severe pains, and sent a pressing message to her accoucheur, to visit her without delay. When he arrived at her house, he found his patient crying out with her pains, and very urgent to be relieved: but as the pains were constant, having little or no intermission, he judged that what she felt, were not true uterine pains, and that the labour was not likely to be soon terminated.

Having obtained leave to make an examination *per vaginam*, he slowly introduced his finger, but found so much thickness and tightness of the *perinæum*, that he could not perform this operation, without occasioning to his patient much pain. He however cautiously carried it forwards to the *os uteri*, which was properly placed in the *pelvis*, but thick, though rather soft, and open only to the size of a sixpence.

The accoucheur, having assured his patient of her safety, and told her that the labour would be slow, left her for four or five hours. When he visited her again, he found the pains less constant, but they did not occur regularly; sometimes they returned every fifteen or twenty minutes, sometimes they were absent for an hour at a time. She was not examined at this visit.

In six hours more, she was again visited. The pains now recurred with tolerable regularity every fifteen minutes; they did not occasion such an acute sensation of cutting or tearing asunder, as heretofore: till lately they have been constant in the belly, but are now more felt in the back.

The patient has had no vomiting, is very thirsty, but not disposed to eat; has a frequent urgency to make water, and a sensation, as if she wished to pass a stool, but has tried several times in vain. She has been upon the bed about an hour, during which time she has once or twice slept for ten minutes together. On being examined now, the *os uteri* was found open to the size of a shilling, the edges much thinner, but still rigid. The membranes projected considerably during a pain, and when the finger was withdrawn, it was covered by a sanguineous discharge; this was the first appearance of *the shew*. No *fæces* were to be felt in the *rectum*, therefore a clyster was not recommended; but she was desired to sit over the steam of hot water.

Her accoucheur, not expecting that her labour would be in a state to require his presence till late in the evening, promised to visit her again at ten o'clock; but after she had taken some tea, her pains returned, with so much force, that he was fetched to her again at eight o'clock.

Her pains now returned with great strength every ten minutes; they began in the back, came round to the

pubes, and then darted down the thighs. There was a greater *shew* than before, and, upon examination, the *vagina* was found much moister; the *os uteri* more dilated, softer, and thinner: the head of the child was lower in the *pelvis*, but the greater bulk was still above the superior aperture or brim.

The *perinæum* was full an inch in thickness, and felt hard; it was evident, therefore, that there would be considerable delay to the progress of the labour, from this circumstance alone.

The patient was anxious to continue upon the bed, but was prevailed upon to rise, and take a few pains in a standing posture, the good effects of which were apparent, when she again lay down in about half an hour, for the child's head had descended very much during this time.

At length the *os uteri* was completely dilated, the head had passed through the superior aperture of the *pelvis*; the membranes were beginning to protrude through the *os externum*, when a very strong pain came on, which ruptured them, and the *liquor amnii* was evacuated at near eleven o'clock.

The attendants now expected that the labour would soon terminate, but there was too much thickness of the *perinæum* to allow a speedy delivery.

No pain whatever came on, after the *waters* were discharged for full half an hour; it seemed as if the powers of the *uterus* were for the present exhausted, and it could exert itself no longer: during this interval, the patient dozed a good deal.

When the uterine action recommenced, the pains at first seemed more like cramps than real pains; but after a while they grew much stronger, returned every four or

five minutes, the woman *bore down* with great vehemence, the head was pressed forcibly against the *perinæum*, there was a fresh discharge of bloody mucus or slime; the *perinæum* softened and felt pulpy; the *anus* was opened at every pain; the child's head elongated and grew conical; at length a portion began to be protruded beyond the *labia*, but was retracted after each pain. The woman's exertions threw her into a violent perspiration, her lips and face swelled, her pulse was very hard and quick; it was necessary to make constant pressure on the *perinæum* to guard it from laceration; at last, near two o'clock in the morning, twenty-two hours after the commencement of labour, the child, a full sized boy, was forced into the world. The *placenta* was expelled in less than twenty minutes after the birth of the child.

This was a case, which might easily have been converted into a difficult and dangerous labour, by an incautious or impatient practitioner. The patient herself was indeed manageable enough; but those about her were ignorant and importunate; fearful that she would not have strength to undergo the labour, desirous of supporting her by wine and cordials; and urgent with the accoucheur to use all his endeavours to hasten the birth. It required some firmness to appease their fears, and to overcome their obstinacy and prejudices.

In *Smellie's Midwifery*, coll. xiv. a case is "particularly detailed, in order to make young practitioners acquainted with the common method of acting in natural labour." And in *Johnson's New System of Midwifery*, (1769), second chapter of the third part, a very accurate description is given of the progress of natural labour.

APPENDIX, No. III.

Effects of the Ergot of Rye.—(See p. 26.)

The *clavus*, or *ergot of rye*, *secale cornutum*, or *spurred rye*, for it is known by all these names, has been strongly recommended by some eminent accoucheurs in America, as having a very decided effect, in exciting and strengthening the action of the *uterus* during labour.

Dr. Bigelow says, "it is now ascertained, by the experience of a number of years, that the spurred rye given to parturient women has an unequivocal effect in increasing the force of the uterine pains and hastening the delivery of the child. This effect it sometimes fails to produce; but its failures are not more frequent than those, to which almost any other article in the *Materia Medica* is liable.

"When given prematurely, or under improper circumstances, it has proved injurious to the mother*, and still more frequently to the offspring. When administered at too early a stage, or while considerable obstacles to delivery exist, it creates unnecessary suffering to the mother, and endangers the child's life. The principal circumstances that contra-indicate its use," are "earliness of the stage, rigidity of the soft parts, any unfavourable conformation, or any presentation that requires changing."

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* It is said to have produced rupture of the *uterus*, when given to a woman with a *pelvis* very much distorted.

This, and some other accounts of the virtues of the *ergot of rye*, made me anxious to procure some for the purpose of experiment; but though I enquired for it, of many corn-dealers, physical-herb-men, &c. I never had the good fortune to get any, till my friend, *Mr. Henry Davies*, of Conduit-street, surgeon and lecturer on midwifery, had the kindness to send me some, which he had received from a friend in America. This gentleman, *Dr. Bibby*, of New York, sent at the same time a letter, from which I have taken the liberty of making some extracts.

" The *ergot*, or spurred rye has been much used in different parts of America and France, in cases of protracted labour, from a want of uterine action. It is given in infusion. A dram, infused in three or four ounces of boiling water for ten or fifteen minutes, is the usual dose. Should pain not come on in half an hour, it may be repeated.

" The period for its exhibition is when the head of the *fœtus* has passed the brim of the *pelvis*, and would protrude the external part during a pain. The infusion is given at this period, with the happiest effects: *at any previous period, by increasing uterine action, the life of the child will be almost certainly sacrificed.*

" A most extraordinary circumstance is noted, that where the *fœtus* has been some time dead, and putrefaction to any extent taken place, the remedy is altogether inert. In no case, where it has been used, has hemorrhage occurred, and in natural labour when hemorrhage does occur, it has been given with great advantage."

The following cases, some occurring in my own practice, and others communicated to me, may assist in forming an accurate judgment respecting the efficacy of this

remedy. The numerous instances in which the child was still born after its exhibition, cannot fail to lessen our favourable opinion of its virtues.

CASE I.

Mrs. W—— was delivered of her first child in Liverpool: the labour was long and tedious, in consequence, as was said, of the very early discharge of the *liquor amnii*. But the child, a fine boy, was born alive, and the mother recovered well.

In December 1815, I attended Mrs. W—— of her second child, a girl, in town. Her labour was very quick, and *the waters* were not discharged till the child was just about to pass into the world.

Being a third time pregnant, she expected to be confined in February 1819, but her labour did not begin till Monday, March 22, when slight pains came on in the evening, and about one in the morning of the 23d, the membranes gave way. The pains recurred slightly at intervals, and I saw her about noon. On examination, the *os uteri*, thick and indurated, was found high in the *pelvis*, it was just sufficiently open to give entrance to the tip of the finger, and to ascertain that the head presented. The pains continued slight and irregular through the day, but in the evening became more frequent and severe, with but little apparent progress in the labour, except that the *os uteri* was thinner and softer. A dose of laudanum was given, to procure rest; but it failed of this effect, and the patient passed a very restless night, being, to use her own expression, in continual pain.

When I saw her next morning, the *os uteri* was open rather beyond the size of a crown piece, and appeared

very dilateable, but the child's head was high. The pains were now very much diminished in frequency, and made very little impression on the finger *in vagina*. The patient complained of great weariness and debility, and her spirits were very much dejected. Various means were used to soothe, and to compose her, but without success; the pains became less and less active; and, in proportion to the slowness of the pains, her inquietude increased.

Seeing now no prospect of a speedy delivery, and convinced, that if the pains were to become a little more efficient, there was nothing to obstruct the passage of the child, I determined to give the *ergot* of rye. Accordingly, having broken in bits a dram of this substance, I infused it for exactly fifteen minutes, in a tea-cup-full of boiling water. A deep red coloured liquor was produced, having a sweetish and rather empyreumatic taste. This was given precisely at a quarter past one: her pains for more than an hour before had occurred only once in from fifteen to twenty minutes. In less than five minutes after taking the liquor, a pain came on; in three minutes more a second; a third soon followed, which indicated more intense power in the uterine contractions; and from this time no interval of more than five minutes elapsed without a strong pain, by which the child was expelled a little after two o'clock. The *placenta* came away with very little diffiiculty in about fifteen minutes, the *uterus* was afterwards felt contracted to a very small size.

The next day Mrs. W—— considered herself to be unusually free from after-pains, and the lochial discharge was scanty; but on the third day, the after-pains became troublesome, and the discharge greater; on the whole, however, she recovered in a very favourable manner.

Just before the infusion was swallowed, I felt the pulse; it was exactly 84, full and equal. I examined it again, about a quarter of an hour before the child was born, and found it equally full, but not more than 78.

The child was a very large boy, and what is called still-born; but it required no great efforts to restore it to animation.

CASE II.

March 27, 1819, another opportunity presented of giving the *ergot* in the case of a soldier's wife, who had arrived from a march on the 23d, and who was in a state of the most pitiable poverty and distress. She was attended by a midwife and a medical gentleman in the army; who, I was afterwards told, had endeavoured to deliver by the *forceps*. The account I received from the gentleman attending, was this: that it was the poor woman's second labour, that the pains had come on four days ago, that early on the 26th the waters had been spontaneously discharged, and that he had sat up with her all night, expecting her delivery to take place; that about 3 o'clock in the morning of the 27th, she became very feverish, restless, and violent; on which account he had bled her to the amount of thirty ounces, since which she was cooler, and more composed, and the parts had become more dilated. For the last four or five hours, the pains had become very slight and inefficacious.

On examination, I found the head of the child pushing through the superior aperture, but firmly grasped by the *os uteri*, which bound it like a cord. The parts were cool, and the *vagina* and *perinæum* much relaxed. The pulse was very small and quick.

I waited full fifteen minutes, expecting a pain; but none occurred; and I thought, from the general appearance of the woman, that there was but little reason to expect a renewal of uterine action, particularly as from the absolute want of necessaries about her, no means could be used with the probable effect of soothing, rousing, or supporting her. So destitute was she of every comfort, that even boiling water could not be procured, without sending to a good woman's in the neighbourhood, and not a single napkin, or substitute for one, was to be found in the house.

Having sent for some boiling water, I made an infusion of one dram of the *ergot;* while I was in the act of pouring off the liquor, she was attacked with a pain, not having had one before for more than half an hour; during this pain she threw herself off the bed, and got upon her knees, and in this posture drank the medicine. She remained upon her knees about twelve minutes, during which time she had four pains, which produced the effect of forcing the head of the child lower into the *pelvis.*

She was now placed upon the bed again, the pains did not now occur so frequently, but they became strong and efficacious. The force of the pains was assisted, by pressing back the *perinæum*, and in rather less than an hour, after the infusion was given, the child was born. This child likewise was still born, but I think would have been restored to animation, had there been any conveniences for using the proper means of resuscitation; for an obscure motion of the heart was excited, by breathing into the lungs.

In this, as well as in the former case, the pulse became somewhat slower, after taking the remedy; and it acquired more firmness.

Doubts may possibly be entertained, whether in this instance the change of posture by the woman throwing herself off the bed upon her knees, did not tend to produce the alteration in the pains, and the position of the child; for the same effect has certainly, on many occasions, proceeded from a similar cause.

CASE III.

I again tried the efficacy of the *ergot*, July 3, 1819, upon Mary Bowtell, a patient attended at her own habitation by one of the midwives of *Middlesex Hospital.* This patient had born several children, and her labours were always very long and severe; but all, except her two first children, were born alive. The knowledge of this fact appears to have influenced the midwife, in delaying to call any assistance longer than was right; for I was not sent for, till the patient had been three days in labour. The extreme exhaustion of the patient, together with a very dry, hot skin, and an extremely rapid pulse, were such strong evidences of an almost hopeless state, that I at once became apprehensive she would not recover; and I should immediately have had recourse to the *perforator*, but that I was willing to see, whether any good could be effected by the *ergot*. Accordingly, a strong infusion was prepared and given to her; but after waiting a reasonable time, no sensible effect was produced, and therefore I proceeded to deliver with instruments. The child was quite putrid.

My fears, as to the result of this case, were but too well founded; and it is one of many instances, which I could adduce, to show the importance of paying attention to the unfavourable symptoms as they arise. Had this been

done, timely means of combating what was wrong, might have been adopted, and the patient's life preserved. But it was evident, that inflammation of the *uterus* or *peritonæum* had commenced before I was called in; and though I endeavoured, to the best of my abilities, to stop the progress of the disease, my efforts were in vain, and the patient in a few days died.

That immense and painful distention of the *abdomen*, which very commonly occurs in puerperal fever, was particularly observable in this case; and repeated temporary relief was procured by giving clysters of oil of turpentine in gruel. I may here add, that in two cases of puerperal fever, I have exhibited the oil of turpentine, with, if any, very indistinct indications of its beneficial tendency: and, in both cases, the noisome taste was so disgusting, that the patients declared, they would rather submit to their fate, than repeat the remedy *.

CASE IV.

Mrs. W——, nearly 40 years of age, pregnant of her first child, was taken in labour, Friday, July 2, 1819; her *waters* breaking early in the morning. The accoucheur

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* *Dr. Breen* speaks favourably of the use of oil of turpentine, combined with castor oil, in the proportion of two drams of the former, to six of the latter. "This mixture," he says, "is rarely rejected by vomiting, even by such as have a repugnance to castor oil. It, in most instances, quickly opens the bowels, and I know no other medicine that possesses so much efficacy in relieving flatulent distension, which is generally met with in such cases. *Dr. Breen* always premises blood-letting.—*Observations on Tedious Labours. Edinburgh Journal,* April 1819.

saw her about four hours afterwards, when he found her with very frequent and very regular pains. The *os uteri* was very little open, but felt soft and dilateable.

When visited again in the course of the morning, the *os uteri* was dilated to at least an inch in diameter, and the head of the child so low in the *pelvis* as shewed that its bulk had completely cleared the superior aperture; at four in the afternoon, the *os uteri* was so much open, as readily allowed the finger to reach the child's ear; but the thickness and rigidity of the *perinæum* continued undiminished. The pains were still very frequent and at regular intervals.

Her general health was not amiss, the pulse calm, not exceeding 80, the tongue rather white, but moist, no thirst, nor much heat of skin; the only unpleasant symptom was constant sickness and vomiting. Her bowels had been very freely evacuated at the commencement of her labour. She now took half a dram of magnesia with a few drops of laudanum, to relieve the vomiting; but its good effects were very limited.

Twelve at night.—The pains continue unabated in frequency, the *os uteri* so dilateable as to oppose no obstacle to the delivery, the *perinæum* only occasions an impediment to the birth. A clyster was thrown up, and the external parts fomented, in the hope of removing some of the rigidity.

July 3d.—Has passed a very restless night, having frequent pains, occasionally very sharp and distressing. The position of the child not much altered, but the head rather lower in the *pelvis*. Sickness and vomiting unabated, pulse about 100, tongue white, much thirst, but all that is drank is quickly rejected. Through the morning, the pains became less frequent and less efficacious;

but about three in the afternoon they were renewed, and the *perinæum* appeared to yield a little; the pains continued thus stronger for about two hours, when they again became slight and transient. No water having been passed for several hours, the catheter was passed, and the bladder emptied.

At half-past seven, p. m. the pains recurred, about once in every fifteen or twenty minutes, but so ineffective, that when the finger was within the *vagina*, the impression of the pains upon it could scarcely be felt. The labour had now lasted considerably more than forty hours, during more than twenty-four of which the ear was within reach of the finger; and though there was nothing to indicate immediate danger, yet as so long a time had elapsed without any material progress, and as some unfavorable symptoms were present, and augmenting, it became necessary to consider, whether it was wise, with pains declining in force, to trust longer to the efforts of nature; and after a little deliberation it was determined to exhibit the *ergot*.

About a quarter before eight, therefore, the infusion was given. In less than five minutes she said to her accoucheur, " how hot what you gave has made me ;" almost immediately after, she cried out, " what a terrible pain I have in my back," (this was the first time she had been heard to complain of her back,) and immediately a pain came on, which had so much intensity, as actually to press the finger firmly against the *perinæum*. From this time, there was never an intermission of more than five minutes, before the child was expelled, at ten o'clock, p.m.

The child was still born and irrecoverable. Whether it had lost its life before the exhibition of the *ergot*, or perished from the intensity of the pains afterwards, could

not be determined; but it was thought not to have been long dead. The mother's recovery was slow and not without danger.

I think it will not be denied, that the accoucheur, in this case, trusted to nature as long as was justifiable. Had artificial assistance been delayed much longer, the patient would probably have sunk into a state of febrile exhaustion, similar to that of the poor woman last mentioned: and still farther delay might, as in her case, have been attended with fatal consequences. Whether a greater chance of saving the child would have been afforded by delivering with the forceps, cannot, of course, be determined; but it seems probable, from the statement given, that the forceps would have effected the delivery, in a shorter space of time, than was occupied by the pains, after the uterine action was reproduced by the exhibition of the *ergot*.

CASE V.

Communicated by *H. Davies, Esq. Lecturer on Midwifery.*

"Saturday evening, May 29th, eight o'clock, I was sent for by a midwife, to visit Mrs. Howard, age forty-five years, her seventh labour; she had five living children, the youngest three years old; she had miscarried once of twins between her two eldest children.

"The membranes had broke at four o'clock. On examination, one foot was found in the *vagina*, the second just within the *os uteri*. The pains were very moderate, and had but little effect; she had passed urine and *fæces* that evening. Refreshment was given to the woman; and, by some little assistance, the child was protruded

very gradually, with the toes towards the *symphysis pubis*; after the buttocks were protruded, they turned *almost* spontaneously towards the *sacrum*. The child was delivered a quarter past nine o'clock, still born; the usual means of resuscitation were resorted to, but without the desired effect. On placing the hand on the woman's *abdomen*, it was found very large; and the *uterus* extending high up. On examination, *per vaginam*, the head of a second child was indistinctly felt. As the woman was in every respect well, she was left to the care of the midwife.

"At a quarter before twelve, p. m. found the head nearly stationary, parts relaxed, the woman perfectly easy. As there was some urine in the bladder, this was drawn off to the amount of a pint; some refreshment had been given; warm cloths and friction were applied to the *abdomen*. As there was no appearance of return of labour pain, Tinct. Opii, g^{tt} xx. was given, and the woman left to the midwife at ten o'clock, a. m.

"Sunday, half-past ten o'clock, a. m.—The child's head much as on the last examination. The woman had been up, made water several times, had taken her breakfast, and had had some good sleep. I directed a domestic *enema* to be administered directly; and if the pains did not come on by twelve o'clock, an infusion of *secale* ℥i to a small tea-cup-full of boiling water was to be made, and given at a quarter after twelve. After the *enema*, which did not return, the woman went to sleep at twelve o'clock; there being no symptom of pain, the infusion was made and given precisely as directed. Some few minutes after, pains came on, the *enema* was expelled, the child was protruded naturally by a succession of pains. At nearly a quarter past one, when I arrived, the

midwife was in the act of putting the double *placenta* in the basin. I felt the woman's pulse, which was 80, the *uterus* was contracted below the *umbilicus*, her skin was comfortable, and she appeared in every respect well. I waited to see the child drest, which has every appearance of a healthy fine girl."

29, *Conduit Street*,
Monday morning, May 31.

CASE VI.

Communicated by a gentleman of great skill and judgment in the practice of Midwifery.

"Dear Sir—The patient to whom I gave the *ergot* was about thirty years old, and in labour with her first child. I was called up to her about six one morning, and found that she had been in pain all night, and that the orifice of the *uterus* was nearly dilated, yet through the rest of the day the pains were so feeble and slow, that the head did not descend to the *perinæum*, till three, in the afternoon, and then remained stationary. Between five and six I had two scruples of the *ergot*, finely powdered, infused in four ounces of boiling water, and after it had stood an hour, stirred it up, and gave her half of it, substance and infusion together; she had not taken it half an hour, before there was a remarkable change in the pains; from being short and occurring seldom, they became so rapid, that before one had ended another began, running into one another with a distressing sense of continued pressure: this lasted about an hour and then ceased, but I had gained little ground. I now gave her the rest; it produced the same effect, which subsided in the same way, and left the head very little

advanced beyond where it was before the first dose. I waited till nearly twelve at night, when the pains being feeble and totally inefficient, my patient delicate, the head not advancing and no prospect of it, I delivered her with the *forceps*. The child was dead, it had no pulsation in the chord or chest, and the former was so empty and flaccid, that I judged no blood had circulated through it for several hours.

"Some may say that the child was killed by the *forceps*: if it had been seen how easily it was extracted, they would not think so. Besides, as the extraction did not occupy more than five minutes, there was not time enough for the pressure of the instrument to extinguish life so completely. I cannot prove that the *ergot* was the cause of death, but there was so little else in the labour to explain it, that I think it most likely, and shall certainly never use it again, unless the observations of others should convince me of its efficacy and safety."

March 25, 1820.

In addition to these cases, I may mention that *Dr. Ley* lately gave the infusion of *ergot* to a patient, but it was immediately rejected by vomiting, and produced no other effect.

APPENDIX, No. IV.

Monstrous Formation of the Fœtus.—(See p. 31.)

MONSTROUS formation of the *fœtus* is by no means common. The most frequent kind of monstrosity is an enlargement of the head from *hydrocephalus*; but it has been estimated, that this does not occur oftener than

once in nine hundred labours. Sometimes, in such cases, the head is sufficiently compressible, to be expelled undiminished by the pains. I have known one hydrocephalic *fœtus* pass entire, the circumference of whose head was *seventeen inches;* another passed alive, and lived nearly an hour, whose head measured in circumference *twenty-two inches;* both the above labours were long and painful.

But on many occasions it will not be prudent to trust altogether to nature. In a case, where the circumference of the head was *sixteen inches and a half*, after many hours of hard labour, the attending practitioner called another in consultation, who opened the head and discharged more than a quart of water; soon after which the child was born; and he regretted that this was not sooner done, for the patient was evidently labouring under peritoneal inflammation at the time, which ultimately proved fatal.

In the *Edinburgh Medical Journal*, No. 51, mention is made of a case, in which the circumference of the head was *twenty-one inches and a half*. The midwife did not send for advice till the patient had been four days in labour: the perforator was then used, and the child extracted; but not in time to preserve the life of the mother.

Perfect, in his second volume, p. 525, relates a case of *hydrocephalic head*, of which he has given engraved delineations. The labour was attended with extreme difficulty, and the woman expired in less than two hours after delivery. The circumference of this head was *twenty-four inches**.

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* The 52d of *Ruysch's Observations* describes a singular watery tumour, depending from the back part of the head, of which he gives an engraving.

Sarah Stone records two cases of hydrocephalus; in the first, the woman having been four days in labour, before the fluid was discharged, died; in the second the head was timely opened, and the mother did well.

Mr. Bell, in the *Medico-Chirurgical Transactions*, vol. iv, mentions a case in which the *uterus* became ruptured, in consequence of the child's head being much distended by *hydrocephalus*.

It would appear then, that though cases of enlargement of the head from *hydrocephalus* may sometimes terminate by the efforts of nature, yet that we are not to be too confident in our expectations; and if we find, after a reasonable time, that the impediment is too great to be overcome by the pains, we must proceed to such other means of relieving our patients as are to be justified:

First—by the inability of the mother to expel the infant without such means:

Secondly—by the certainty, that, with such an accumulation of fluid within the *cranium*, the child is incapable of sustaining life.

But it is of great importance, that the operator be satisfied of the accuracy of his judgment before he proceeds to this operation; and the following case, for the particulars of which I am indebted to my worthy friend, *Dr. Maurice*, of Marlborough, whose assistance was not sought for till the patient had lain in more than a fortnight, will hold out a salutary caution to those practitioners, who are hasty in forming their determinations; and, neglecting the proper means of ascertaining the real nature of a case, venture without hesitation upon an operation.

A poor woman in the neighbourhood of that town, being taken in labour of her first child, sent for her midwife, who attended her for two days, and then conceiving

something to be wrong, from the protrusion of a tumour before the child's head, she sent for a surgeon. If a proper investigation into the case had now been made, it would have been ascertained, that the supposed protruding substance was the bladder, over distended and filling up the anterior part of the *vagina**. Unfortunately, the surgeon was not told, that many hours had elapsed, since the patient had last made water, nor did he make any enquiries on that subject; but taking up a hasty opinion, that what he felt was the child's head enlarged by *hydrocephalus*, he determined to evacuate the fluid, and proceeded to puncture the tumour. The patient immediately complained that he was cutting her, and intreated him to desist; but it was too late; he had made an opening into the bladder. Labour pains continuing, the child was at length expelled, unmutilated, but dead. For more than a month afterwards, the poor woman continued in a state of extreme danger and suffering; at the end of which time, a very large portion of the bladder sloughed away, which I now have in my possession, and very slowly the patient was restored to health; but of course remains exposed to the continual distress, of being incapable of retaining her urine.

Thus, by inconsiderate conduct, was this poor woman subjected for the remainder of her life, to great privations and wretchedness. How much of misery and suffering might she have been spared by a very little caution! Simply to have introduced the catheter, before a more hazardous instrument was used, would not only have ascertained the nature of the protruding tumour, but would instantly have removed it.

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* See p. 62, note.

APPENDIX, No. V.

Quantity of Liquor Amnii contained in the Uterus.

(See p. 32.)

VERY various are the statements of writers respecting the quantity of *liquor amnii* contained in the *uterus* at the full period of pregnancy. *Hunter*, *Burns*, *Lowder*, and others estimate it on an average, at between a pint and a quart. If this opinion is correct, and as appears to me, it is generally so, then the quantity cannot be called excessive, unless it amounts to more than a quart; and one would say, that it was unnecessary to rupture the membranes, on account of over distension of the *uterus*, unless the *liquor amnii* greatly exceeded this amount.

But some writers on the continent consider the usual quantity, contained in the membranes, as amounting to very much less. *Van der Bosch** says, sometimes one or two ounces are evacuated during labour, occasionally four, five or six ounces, at the utmost *(ad summum)* eight ounces. *Scheel* remarks, that according to his experience, the quantity is commonly larger than this, namely, ten or twelve ounces; but he says, if it greatly exceeds this amount, it will, from overdistending the *uterus*, occasion the pains to be inefficacious!

Dr. Hunter says, "in one dissection at full time, I found little more than half a pint." *Wrisberg* measured the fluid in two cases, where the entire *ovum* at nine months was expelled, and found in one fourteen, in the other eighteen ounces.

Mr. Ogle of Russell Street was so obliging as to give

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* *Scheel de Liquore Amnii.* Hafniæ. 1799.

me the *uterus* of a poor woman, who died suddenly, about the period that her labour was expected to come on: I measured, carefully, the *liquor amnii* contained in this *uterus*, and found it to amount to five English pints.

It is reported in a MS. copy of *Dr. Harvie's Lectures* in the hand-writing of the late *Dr. Garthshore*, that "ten pints of *liquor amnii* have been spilt at the labour."

APPENDIX, No. VI.

Thickness of the Membranes.—(See p. 32.)

In March, 1812, I was desired to visit a poor woman, in May's Buildings, who had been upwards of thirty hours in labour, under the care of a midwife. On examining during a pain, the *os uteri* being fully dilated, I thought I was feeling the naked head of the child, which appeared putrid, and distended with fluid; the roughness of the surface resembling to the touch, the scalp, when the cuticle and hair is abraded by the pressure of the finger. A more attentive examination, however, convinced me, that this was not the case; and at length I satisfied myself, that the membranes were preternaturally thick, and thus occasioned the delay. I therefore took a probe, and pushing it through the membranes, gave issue to the *liquor amnii*. Immediately the feet of the child came into the *vagina*, and through the *os externum*; and in a few minutes the child was born alive and strong.

On examining the membranes, after the *placenta* was

expelled, I found them amounting to at least the sixth part of an inch in thickness, and the flocculent structure of the *decidua* appeared as perfect as in the more recent periods of conception.

In *Perfect's* second volume, p. 335, a somewhat similar case is recorded.

APPENDIX, No. VII.

Membranes improperly Ruptured.—(See p. 32.)

CASE I.

Mrs. L'Angelle, a well-made, healthy young woman, had a very quick labour with her first child. Being pregnant a second time, and taken with labour-pains, she sent for her accoucheur, who found her with the *os uteri* open, to nearly the size of half a crown; the pains recurred every eight or ten minutes, and every thing promised a favourable and quick labour.

Unfortunately, he was tempted, by the hope of accelerating the delivery, to rupture the membranes; immediately the pains grew inefficacious, and every favourable symptom vanished. Had the labour not been interfered with, it is probable that it would have been as expeditious as the former; but on the present occasion, it was lengthened to thirty-four hours of duration, and the pains were rendered more severe and distressing than was necessary. Luckily, the child was born alive, and the patient recovered; but both were very unwarrantably placed in great danger.

Mrs. L'Angelle became pregnant again in about a year, and was under the care of the same accoucheur; who, being then wiser, left the whole to nature, which effected the delivery in less than eight hours from the first accession of the symptoms.

CASE II.

A young practitioner was engaged to attend, in her first labour, a woman upwards of forty years of age. Symptoms of labour came on early in the morning of August 12th, when he was sent for; but her pains were slight, and continued so all day. On the 13th they became rather more effective, the *os uteri* began to open, and a favourable termination was looked for.

It unfortunately happened, that a female friend of the patient was present, who professed to know a great deal about labours, and was very officious in giving advice. She took upon her to recommend, that the membranes should be ruptured; and quoted the authority of some eminent practitioners of midwifery, with whose opinions she pretended to be well acquainted, in support of this recommendation. The young attendant was too easily influenced, by the volubility and confident language of this silly woman; and in an evil hour he ruptured the membranes, and gave discharge to the *liquor amnii*. But that which was expected, did not happen. The pains, instead of becoming more effectual, ceased altogether, or at least were for a considerable time suspended; and when they returned, were irregular and ineffectual. What means were now pursued does not appear; but it may be imagined, after what has been mentioned, that they were not the most judicious or appropriate.

By the 15th a good deal of alarm was excited at the state of the patient, and the length of time she had been ill; and in consequence the advice of another practitioner was procured. But this gentleman did not consider the case of so urgent a nature, as it seemed to the first attendant; he thought, if time were allowed, that nature would accomplish the delivery, without artificial assistance; and therefore advised longer delay. On the 16th, however, the patient was so much worse, that he determined upon immediate delivery; and accordingly terminated the labour by perforating the *cranium*, more than twenty-four hours after he was first called in. Unfortunately, the operation was too late to save the patient's life; a severe rigor, followed by fever, came on, and in a few days, the patient was a corpse.

The above case was communicated to me by the junior practitioner, as a proof, of the mischief which may arise, from delaying too long, the use of instrumental assistance; it being his opinion, that the patient's life would have been preserved, had the delivery been effected, by means of the *perforator*, at the time when the senior's advice was first obtained.

It must be admitted, that the accoucheur, who was called in consultation, was remiss, in not doing more for the relief of this poor woman. It is possible, that when he first saw her, there might be no necessity for proceeding immediately to an operation; and of course he was justifiable in declining it. But to leave such a labour to time *only*, was surely injudicious. The labour had already lasted from the 12th to the 15th; it had evidently been mismanaged; several unfavourable symptoms had shewn themselves: to trust to time only, under such cir-

cumstances, was depending upon a broken reed. If, by any management or remedies, these unfavourable symptoms could have been removed, it would have been right to employ them, before recourse was had to instruments; but to do nothing, was in such a case to do mischief. And it would have been more consonant to sound practice, to proceed at once to delivery by artificial means, than to leave the woman to the disastrous consequences, which a desponding mind, and unmitigated bodily suffering, must necessarily induce.

While, however, we censure the inactivity of one practitioner, let us not forget, that the first cause of the mischief was attributable to the other. Had he not rashly interrupted the course of nature, by rupturing the membranes, at a time when it was so important to preserve the *liquor amnii* entire, the ill consequences that followed, would not, in all probability, have occurred.

APPENDIX, No. VIII.

Premature Evacuation of the Liquor Amnii.

(See p. 33.)

A LADY of rank, about thirty years of age, pregnant of her first child, in high and robust health, having suffered very little from the usual complaints of pregnancy, expected that her labour would come on between Christmas-day and the first of January. On Monday, the 23d of December, being out in her carriage, about four o'clock in the afternoon, she felt herself suddenly very wet and uncomfortable from a discharge of the *liquor*

amnii, and returned home. Slight pains began to come on almost immediately, and they recurred every five or six minutes. Her accoucheur being sent for, stated the probability, that a slow and tedious labour would be the consequence of this premature discharge of the *waters*, and he was confirmed in this opinion; when, upon being permitted to examine *per vaginam*, he found the *os uteri* lying very high, and rather turned towards the *sacrum*, and so little open, as hardly to admit the finger. He was able, however, to pass the point of his finger through the *os uteri*, and ascertained that the thicknes of this part was at least equal to four lines, or the third of an inch.

As this patient was rather of a costive habit, it was judged proper to give at once a dose of castor oil, and as this did not very soon relieve the bowels, a common domestic clyster was thrown up; and from these two remedies, a very free evacuation was procured, by which she expressed herself very much benefited.

About twelve hours after the first examination, a second was permitted, but no change was to be observed in the state of the parts, except that the *os uteri* had sunk lower into the *pelvis*, and was consequently more within reach of the finger; the pains continued to recur every five or ten minutes. At ten at night of the 24th, another examination took place, and now it was ascertained, that the head of the child had fallen much lower into the *pelvis;* that the thickness of the *os uteri* was rather diminished; but the opening was not at all larger. Twenty-five drops of laudanum were now given, and the patient was left to her repose. During the night, she got, at intervals, a great deal of sleep, and was much refreshed by it; having remained almost entirely free from pains, for several hours, and on their return in the morning of

the 25th, they were found to be less frequent, and gave the idea to the standers by, of more *bearing*. In the evening of this day, the state of the *os uteri* was again examined; it was reduced in thickness at least two lines, admitted the finger freely within it; was moister and much softer, the head of the child was likewise lying much lower than before. As the bowels had not been emptied since the former clyster, another was now injected, and a very copious stool was procured; and after this, a much greater degree of moisture and gelatinous secretion was found in the *vagina*. About four in the morning of the 26th, the *os uteri* was dilated to the size of a shilling; at twelve it was dilated to the size of a dollar; at two the *os uteri* was no longer to be felt; and at a few minutes past four, seventy-two hours after the first appearance of the discharge, the patient was very safely delivered of a large lively male child.

The length of time that may elapse, after the *liquor amnii* has begun to be discharged, before the actual labour comes on, is very various and uncertain. I have known several instances of an interval of four or five days. Two of my patients remained for ten days; one for fourteen, and one twenty-two days, before the labour pains occurred. The above case may be considered, as affording a fair specimen, of what may generally be expected, in such kind of labours.

It has been asserted, that women may proceed in their pregnancy, for two, three, or more months, after the spontaneous rupture of the membranes; and the late *Mr. Hogben* has published a case* to prove this; but his

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* *Obstetric Studies*, p. 166; and *Med. and Phys. Journal.*—September, 1802.

evidence by no means substantiates his opinion. *Mr. Hogben's* was probably a case similar to the following.

Mrs. Finlayson, in the sixth month of her pregnancy, found a great discharge of a watery fluid proceeding from the *vagina*, and thought that *her waters had broke*. In consequence, she sent for her accoucheur, and from what he perceived, he did not doubt, that her opinion was correct; and told her, that when her pains came on, the labour would be quickly over. Several days however passed over; but though the discharge continued, no pains occurred. Thus she went on, with a constant, sometimes a profuse, daily discharge of water, till she had completed her ninth month. The labour pains then occurring, her accoucheur was sent for. The *os uteri* opened, and the membranes protruded in a large body: at length he ruptured them with a probe. The quantity of *water* was not at all deficient. He examined the *placenta* and membranes, but discovered no aperture, whence the fluid could have been discharged. He concluded, therefore, that whatever this discharge might be, it could not have been the *liquor amnii*. This patient was in the habit of living high, and daily drank a large quantity of porter.

APPENDIX, No. IX.

Effect of violent mental Emotions on the Woman in Labour.—(See p. 34.)

My uncle, the late *Dr. Merriman*, was one day sent for in great haste, to one of the villages in the neighbour-

hood of London; on his arrival at the house of the patient to whom he was called, he found her undelivered and quite dead. At the moment, little information as to the cause of her death could be obtained; but sometime afterwards the following particulars were communicated to him.

The woman had been servant to a lady, who was *Dr. Merriman's* patient, and left her to marry a man, in business as a poulterer. She soon became pregnant, and made up her mind to be attended by the doctor she had been in the habit of seeing at her former mistress's labours. But when she mentioned this her intention to her husband, he objected to it; alledging, that *Dr. Merriman* would not attend her at such a distance, unless he received a larger fee, than it would be prudent in them to pay; and that there was living in their own neighbourhood, a most respectable apothecary, who was a customer; and who, on that and other accounts, was a more proper person to be employed.

A great deal of unpleasant altercation took place between the husband and wife upon this subject, and was frequently renewed, and the relations of both parties were appealed to on the occasion; all, or the majority of whom, thought the husband right in maintaining his opinion, and censured the wife as pertinacious and self-willed; so that she felt herself compelled, though very reluctantly, to give way; and the gentleman in question, who of course knew nothing of these family disputes, was engaged to attend her; notwithstanding her constant declaration, that "she hated the very sight of him."

When the first symptoms of labour came on, and her nurse, and some female friends were assembled, it was proposed, that her accoucheur should likewise be sent

for; but she begged that he might not, as she was sure she was not bad enough yet. After a time it was again proposed to send for him, but she still objected. Again and again her friends tried to prevail upon her to see him, but all in vain: if it had been her own doctor, as she termed it, she would willingly, she said, see him; but as it was, Mr. J—— should not come near her, till he was really wanted.

At length, one of the women in the room, disgusted with so much obstinacy, went down stairs and told the husband, that the presence of her medical attendant was absolutely required, and accordingly he was immediately sent for.

Unfortunately, and certainly very inconsiderately, he was, on his arrival, without being announced, introduced at once into her room. The shock of thus suddenly, and unexpectedly seeing the man, against whom she had been long nourishing such a perverse dislike, occasioned her to scream out, and she fell back upon the bed in a fit, from which she never recovered. In the confusion which ensued, a messenger was sent in great haste to London for *Dr. Merriman;* but, as already stated, before he arrived at the house, the woman was quite dead.

No attempt had been made to extract the child, nor could leave be obtained to open the body; so that the immediate cause of her death was never discovered; but that the sudden emotion was the exciting cause, seems unquestionable.

Such extreme cases as this rarely occur; but various kinds of mental excitements continually prevail, and

without producing the more violent ill-consequences, tend however to disturb and interrupt the favourable process of child-birth. The influence of mental emotions, over the act of parturition, was strongly, and very extensively exemplified not long since on the occasion of the sudden decease, immediately after delivery, of an illustrious and most amiable Personage. Indeed this calamitous event is still found to operate unfavourably, on the minds of patients in a certain rank of life.

APPENDIX, No. X.

Pulsation of the Fontanelle.—(See p. 44.)

I was called to Mrs. C——, of Park Street, in the evening of Thursday, Feb. 13, 1817. She said her *waters* broke about four in the afternoon; but this was probably a mistake, as the membranes were to be felt very tense; and the *waters*, in considerable quantity, (equal to what most women have at the time of delivery) were discharged, when they ruptured about one o'clock the next morning. The feel of the anterior *fontanelle* towards the *pubes*, assured me, that the forehead of the child was the presenting part, (*Dystocia perversa*, (*a*). This being a favourable case for determining, whether a pulsation is to be felt in the *fontanelle* before birth, (a fact which has been denied in very positive terms by *M. Baudelocque*, § 459, 460, and, as I have been informed, by another very eminent Lecturer on Midwifery and Physiology), I examined very carefully with my finger; and distinctly felt

the pulsation. I was not contented with one experiment, but examined again several times, six at least, and was fully convinced, that I could not labour under any mistake. Afterwards, as the head descended lower, the pulsation was interrupted, and just before the forehead was about to emerge under the *pubes*, I could not by any means discover the pulsation; but the child was born alive and vigorous.

APPENDIX, No. XI.

Obstruction in the Soft Parts.—(See p. 56.)

CASE I.

In the year 1804, Mrs. Green, a well formed woman, about 26 years of age, in her first pregnancy, engaged me to attend her. On the 4th of June, in the morning, I was sent for to her; and found that she had, for some hours, been suffering pains,which were now become very strong and frequent. Thinking it necessary to ascertain, by an examination, the state of her labour, I had her placed upon the bed, and then attempted to introduce my finger into the *vagina;* but the entrance was quite impervious, and in every attempt I was foiled. At first I thought that my finger was on the external surface of the *labia;* but I quickly satisfied myself that this was not the case. I was sure that I had entered the *vestibulum*, but I could not penerate into the *vagina.* After several times passing my finger over the membranous

expansion, which closed the entrance; at length I felt a small aperture, through which a pea could hardly have passed, and pressing firmly against the edges of this aperture, they gave way, and the tip of my finger penetrated beyond the membrane, which was about the tenth of an inch in thickness.

I now saw clearly what was the nature of the case, and began to think it would be necessary to divide the *hymen* with a scalpel; but I soon ascertained, that the aperture was capable of greater dilatation, and at length, with some difficulty, I got my finger so far through the ring, that I could touch the *bag of waters* projecting from the *os uteri;* and when, during a pain, the membranes were pushed down, I judged, from their bulk, that the *os uteri* was nearly, or quite, dilated.

Being now satisfied that the labour, independent of this obstruction, was going on well, I resolved not to interfere in its progress, and I had reason to be satisfied with this determination; for, by degrees, the bag of *waters* descended so low, as to rest upon the *hymen*, and began to protrude through its aperture; here they soon gave way, and the *liquor amnii* was discharged; the head of the child soon after came in contact with the *hymen*, which became very much extenuated, and at length ruptured through its whole extent; there being now no further obstacle, the child was born in a few more pains.

No injury was done to any of the contiguous parts, and the mother recovered without difficulty.

Mrs. Green told me, she did not know that there was any thing unusual about her; but she had been married five years before she became pregnant. I had no opportunity of conversing with her husband upon the subject.

She was never pregnant afterwards, but died consumptive in less than two years.

CASE II.

"Case of a pregnant woman, in whom the *hymen* was found entire at the time of her being seized with labour pains.—*By Nathaniel Tucker, M.D.*

"On Sunday, the 16th of September, 1781, I was requested by *Mr. Parker* and *Mr. Temple*, both practitioners of surgery and midwifery in Malton, to attend with them at the examination of a woman then under *Mr. Parker's* care, who, though she had the *hymen* entire, had been impregnated, and was at that time seized with labour pains. The patient, by name Hannah Norton, was about thirty years of age, of a robust habit, with dark hair and complexion; and was found to be actually in labour. Upon examining with a candle, the *labia pudendi* were observed to have the usual situation and appearance; but being expanded, they were discovered to be connected to each other by a strong, opaque membrane, nearly a finger's breadth, not distinguishable from their external skin in texture and appearance, which was stretched from the surface of the *perinæum* (of whose outer skin it seemed likewise a continuation or production) over the longitudinal *sulcus* between the *labia*, and over the *clitoris* quite to the *pubis*. Neither the contiguous parts of the *labia*, nor any part of this membrane had any redness or transparency. Between the *labia* and about the midway from their inferior to their superior commissure, or somewhat higher up, there was a circular aperture in the membrane, with a strong ring, just large enough to admit a female catheter one eighth part of an

inch in diameter. Another catheter, whose diameter was one fourth part of an inch, being tried, could not be introduced. Upon passing a probe through this aperture, it entered the longitudinal *sulcus* or cavity between the *alæ* or *labia*, extending upwards to their superior commissure and downwards to the mouth of the *vagina*, and inferior commissure or *frænum*. The probe being directed somewhat downwards, could be made to enter the *urethra*, whose orifice was not quite opposite to the aperture in the membrane, but a little lower. Two inches, or thereabout, below the aperture, within the angle of the *frænum labiorum*, and directly opposite to the *fossa magna*, there was a small spot, about the size of a sixpence, smoother, whiter, and thinner than the rest of the membrane, seeming to approach to transparency. The urine as well as the *catamenia* being discharged into the cavity above described, must have leaked out by degrees through the aperture in the membrane, as it could not pass in a continued stream.

"From the foregoing description it will appear, that this membranous expansion, being extended from the *perinæum* to the *mons veneris*, so as to cover the mouth of the *vagina*, the orifice of the *urethra* and the *clitoris* (all which were included in the longitudinal cavity it formed) must have been more superficially seated than the *hymen* generally is, according to anatomists, so as not to leave externally that opening within the angle of the *frænum*, which *Dr. Hunter* has described under the name of the *vestibulum* or passage to the *hymen*. On the contrary, neither of the angles at which the *labia* meet to form their superior and inferior commissures, were externally marked, the membrane being stretched over them; but by introducing a probe and passing it

along the *sulcus*, the point of their union could be distinguished and ascertained.

"*Mr. Parker* has informed me, that when the child's head descended into the *vagina*, and pressed against the *perinæum*, (which happened about fourteen hours after), he divided the membrane, as had been recommended, with a pair of scissors, from its aperture to the *frænum labiorum*, which made room sufficient for its exclusion. Either from the superiority of the labour pains, or from the want of sensibility in the menbrane, the patient did not feel when the separation was made; neither did any blood, or scarcely more than a drop, flow from the wound. It is remarkable, that the membrane was so strong as to resist the forcible impulse of the child's head, during several pains, while *Mr. Parker* desisted from cutting it and waited to observe whether the efforts of nature alone, would be sufficient to break through the obstacle which was opposed to her operations.

"Though there have been instances recorded by *Morgagni*, *Heister*, and others, (and one, if I mistake not, by *Dr. Hunter*,) of women who became pregnant, notwithstanding the *vagina* was almost impervious from adhesions there formed, or from the interruption of the *hymen*, yet I do not recollect one, where the seminal fluid had so little chance of being conducted to the womb, or where the dimensions of the aperture through which it must have passed, were so small, and so exactly ascertained, as in the present case."

N. TUCKER.

Nathaniel Tucker, M.D. resided at Malton, in Yorkshire, and communicated the foregoing case many years ago to the late *Dr. John Jebb.*

It may be doubted, whether it is properly entitled "the case of a woman in whom the *hymen* was found entire at the time of her being seized with labour pains;" for the situation of this "membranous expansion," as it is elsewhere called, was not that of the *hymen* at the entrance of the *vagina*, but rather it was a closure of the *vulva*, by an adventitious membrane extending completely over the aperture of the *labia*.

Doubts will likewise arise, whether this was an original malformation, and existed before impregnation, or a consequence of inflammatory action, arising after the woman had conceived. It is well known, that frequently the edges of the *labia* cohere in children, when inflammation is suffered to take place in these parts, from want of cleanliness, or other causes, and the cohesion is sometimes so complete, that only one or two small apertures remain through which the urine passes.—I once met with an instance, where the entire opening of the *labia* was so perfectly closed, in an infant of two years old, that there was not the smallest aperture through which the urine could escape, and the child was brought to me, suffering all the uneasiness of an excessively distended bladder; no urine having passed from it for more than twenty hours. It is indeed unusual for such an occurrence to happen to an adult, and especially to a married woman; yet it is possible, that this really happened in the case above described.

The following minute is extracted from the MS. notes of my late uncle, in an interleaved copy of *Smellie's Midwifery*, Col. 2, Case 6. "In two cases I have found (when the labour was far advanced) a thick strong mem-

brane stretched across the *vagina*. In one of them it was burst through by the child's head; and in the other it was pushed aside, sufficiently to allow the exit of the child; but in the subsequent labours (for I delivered her of several children) it was always perceptible, but occasioned scarcely any obstruction or delay."

APPENDIX, No. XII.

Polypous Tumours during Pregnancy.—(See p. 57.)

CASE I.

Mary Peirce, about thirty-five years of age, applied at the *Middlesex Hospital*, in March last, and came under my care as an out-patient. She reported that she had miscarried a few months before, since which, there had been a good deal of weakening discharge from the *vagina*, and occasionally much hemorrhage with coagula, &c. She now suspected herself to be pregnant again, and, from the return of the hemorrhage, expected another miscarriage. The usual remedies were prescribed, and she was directed to keep as free from exertion as her circumstances would permit.

Contrary to expectation, the pregnancy proceeded, and in May she distinctly felt the motions of the child, yet still suffered occasionally from irregular discharges, sometimes sanguineous, but never profuse: sufficient, however, to keep her weak and to render her complexion sallow. What affected her most, however, was a disposition to costiveness, for which she usually took the sul-

phate of magnesia in *infus. rosæ*; and in proportion as the bowels were kept regular, was in general the greater freedom from hemorrhage.

On Sunday, August 8th, having been for three days costive, she felt a great urgency to go to stool, and while straining to evacuate her bowels, was sensible that some substance passed out of the *vagina*, and in consequence sent immediately for *Mr. Hendrickson*, a very well informed pupil of the hospital, who had been appointed to attend her when in labour. Mr. H. soon arrived, and finding something extraordinary in the case, despatched a messenger to request my attendance.

On my arrival, finding the patient lying on her left side in bed, I passed my finger, and at first imagined, that I was feeling the head of a premature *fœtus*, inclosed in the membranes, so great a resemblance did the tumour bear, both in shape and size, to the head of a five months *fœtus*; but a more careful examination ascertained, that it was a polypous tumour, depending from the *os uteri* by a pedicle about the thickness of a thumb.

It appeared to arise just within the *os uteri*, occupying its right lip, which was here very indistinctly felt, being much confused with the pedicle of the tumour, and the whole presented the idea of great hardness and rigidity. The left lip of the *os uteri* was easily traced, but had less of fulness and softness, than is usual at the same period of pregnancy.

The straining to go to stool not having been successful, I thought it best to order some aperient medicines, before I tied the *polypus*, to which, as the patient's health was favourable, and her pulse quiet, I saw no objection.

The tumour was returned into the *vagina*, and the patient was directed to keep in a recumbent posture.

Monday, August 9th.—In the presence of my friends *Drs. Gooch* and *Ley*, and *Messrs. Hendrickson* and *S. C. Griffith*, I brought the tumour into view, and then passing a ligature tightly round its stem, as high as possible without including any portion of the *os uteri*, returned it into the *vagina*.

On Wednesday, the ligature was tightened, and it was necessary to repeat this on Friday the 13th; in a few hours after which, the tumour dropped off.

Saturday, 14th.—I carefully examined the *os uteri;* there was a little raggedness in the feel of the part, to which the tumour was attached, and it was still rather indurated, though much softer than before: about three fourths of the *os uteri* felt perfectly healthy and natural.

The patient experienced very little pain during the whole process: her pulse increased in quickness, and was one day too full and bounding, with a little tenderness of the *abdomen;* but these symptoms easily yielded to aperient and saline medicines, and there was at no period any indication of danger.

After the removal of the *polypus*, her general health improved, so that she went into labour, on the 9th of September following, under very favorable circumstances, and was speedily delivered of a female child; unfortunately still born, for which no other cause could be assigned, than the tightness of the *funis* round the neck. Neither during the labour, nor after delivery, did the *os uteri* exhibit any trace of injury or disease, and the patient is now perfectly well and hearty.

It was a fortunate occurrence for this poor woman,

that the *polypus* discovered itself before the labour commenced, as it would probably have occasioned, as such tumours have often been known to do, much difficulty and perhaps danger.

An unfortunate case of this nature has been communicated to me by *Dr. Gooch*, which occurred in June, 1799, in the practice of *Mr. Borrett*, of Yarmouth: it is in many respects very interesting.

CASE II.

"Dear Sir,—The following Case occurred more than twenty years ago (June 1799) to Mr. Borrett, of Yarmouth, with whom I was then residing as apprentice. I do not relate it from my own observation, but from a MS. account which he drew up at the time, and which, as too voluminous for your purpose, I shall try to abridge.

"The patient was a lady, thirty-one years of age, in labour with her sixth child. On his first examination, Mr. B. found a large fleshy substance almost filling the *vagina;* passing up his finger between the front of the tumour and the *symphysis pubis*, he felt the orifice of the *uterus*, the anterior segment completely dilated, but the posterior could not be felt because of the tumour. Whilst he was examining, a pain came on, and the distended membranes descended between the tumour and the *pubes*, and almost protruded externally; another pain ruptured the membranes, when he discovered the head of the child resting on the *symphysis pubis*. As the head did not advance, he introduced his hand, brought down the feet, and with some difficulty extracted the child; it was born lifeless, but he persevered in inflating the lungs, and in half an hour it cried lustily. Whilst he was occupied

about the child, the *placenta* was expelled, and after waiting for some time, the patient appearing easy and well, he left her; this was at seven in the morning. At three in the afternoon he was sent for again; she had had such violent pains that she thought there was another child; but as the *abdomen* was flat, and the contracted *uterus* could be easily felt, he assured her to the contrary, and gave her an opiate. When he saw her at eight at night, he learnt that the pains had continued violent; she felt as if there was something to come away, and on examination there was discovered a soft round tumour pressing against the *os externum*. What could it be? he would have thought it was the *uterus* inverted, but it was the same tumour which he had felt in the morning before the child was born; there was no hemorrhage; the *placenta* had been expelled spontaneously, and the *uterus* could be distinctly felt in the hypogastric region. He consulted his medical friends in the town, and sent off to Norwich for *Mr. Rigby*. She took an anodyne mixture, but the pains continued with violent expulsive efforts all night, and the next morning they found her with a languid pulse, and a pallid countenance; a large fleshy livid tumour had been forced out of the *vagina*, and every pain brought it more and more into sight; she continued to suffer and to sink through the rest of the day; in the evening *Mr. Rigby* arrived, but she had expired about half an hour before. The body was opened the next day; the *uterus* was contracted, but its mouth was dragged down as low as the external orifice, by a tumour which grew from it by a broad base; it was attached to the posterior part of the mouth of the womb, and some way up the neck, was of a livid colour, and weighed 3 pounds 15 ounces. The patient had born her last child two years

before, easily and naturally; but some time before her present pregnancy, she looked as large as if she was seven months with child.

"The case is curious, not only as a specimen of the rare coincidence of *polypus* and pregnancy, but as a striking proof that mere pain can destroy life. The labour pains continued after the *uterus* was empty, and she may be literally said to have died of a protracted labour which took place after the child and the *placenta* were born."

I am, dear sir,

Yours, truly,

ROBERT GOOCH.

Berners-street, March 26,
1820.

Van Doeveren, in his *Specimen Observationum Academicarum*, cap. ix. relates the case of a patient, to whom he was called after four and twenty hours of severe labour pains; the birth of the child was prevented by a large polypous tumour growing from the anterior surface of the *vagina*. This tumour he removed by twisting the pedicle round, till he tore it away with his hands, after which the woman was delivered, by the natural pains, of a dead and putrid child. The patient appears to have been for several days after in the most imminent hazard, from inflammation and tumefaction of the *abdomen*, &c. but ultimately recovered.

Pugh, in his *Treatise of Midwifery* (1754), p. 121, relates the case of a lady, six months gone with child, to whom he was called after a midwife had been with her two or three days. With some difficulty he ascertained the presence of a fleshy excrescence growing from the *os tincæ*, "the basis about the bigness of a finger, and

the body of it about the bigness of a large turkey egg." He tied a strong ligature of waxed thread round it and then removed the tumour with a bistoury just under the ligature. The child was delivered in about half an hour afterwards.

The patient recovered, and was four times pregnant afterwards; but miscarried at four months with all, except the last, with which she went her full time, and was safely delivered.

Mr. Fordham has recorded a fatal case of polypous tumour expelled after the birth of the child.—*Med. and Phys. Journal*, vol. xxvi.

APPENDIX, No. XIII.

Ovarian Tumour.—(See p. 61.)

CASE I.

THURSDAY, October 1st, 1818, by the desire of *Mr. Hanbury*, I visited Mrs. Daly, thirty-five years of age, in labour of her first child. Some symptoms had occurred on Sunday, September 27th, in consequence of which she had sent for Mrs. Parsons, her midwife; but the labour not proceeding satisfactorily, though the pains increased in strength and duration, *Mr. Hanbury* was called in on the Tuesday.

Mr. Hanbury, finding a very large tumour in the *pelvis*, was aware that the labour would be difficult; but the *os uteri* was so little affected by the pains, that he did not think it necessary to do more than direct some

aperient medicines, and afterwards an opiate. On Wednesday evening, the 30th, the *os uteri* became more open, and while he was engaged in making a more accurate examination, the membranes suddenly ruptured, and a large discharge of the *liquor amnii* took place; after which the strength of the pains increased, and he determined to remain with his patient all night, in hopes that the uterine efforts, now frequently recurring, might improve the condition of the labour: but he had the mortification of finding that no advantage was gained, which made him desirous of a consultation the next morning.

On examining the patient, my fingers immediately came in contact with a large elastic tumour, very much compressing the *rectum*, and lying so close to the *symphysis pubis*, that, when forcibly pushed backwards, it was impossible to gain a clear space of quite an inch of conjugate diameter. The *os uteri* was reached with difficulty, a large portion of it was undilated, nor did it feel very dilateable. The aperture of the *uterus* had the peculiarity of being longitudinal, for there was no space in the *pelvis* to allow of its assuming a circular form; the pains were frequent and severe, and during the pains the lips of the *os uteri* were pressed together in the direction of the back and front of the *pelvis*, while their longitudinal extension was considerably increased towards the *ilia*. Had the *os uteri* taken on the usual circular dilatation, it would have been about equal to the size of a half-crown.

That this tumour was ovarian, and that it contained a fluid, would not admit of a doubt; it was therefore proposed that it should be punctured, and this being consented to, *Mr. Chevalier* was applied to for this purpose. Passing a small sized curved trocar up the *rectum*, he

thrust it into the tumour, and gave discharge to about six ounces of a pale yellow fluid, of the consistence of salad oil, which was received into a bason, and a considerable quantity afterwards escaped which could not conveniently be collected.

The tumour was by this discharge so much diminished in size that we hoped the pains, which continued strong, might be sufficient to force the head through the *pelvis*, or at least that they would bring it within the grasp of the *forceps;* and our hopes were heightened in the course of the evening, by finding not only that the *os uteri* had assumed a circular form, and was much more dilated and softer, but that the head had descended somewhat through the superior aperture of the *pelvis*. The general state of the patient was likewise much improved, her tongue cleaner and moist, her skin temperate, her spirits calm, and her pulse open and not exceeding 90. We judged therefore that we were acting wisely in still leaving the case to nature.

The symptoms continued favorable till towards eight o'clock the following morning, by which time it became apparent that more assistance from art would be required; at ten the *cranium* was perforated, and in less than an hour the *fœtus* was extracted. The child was well sized, and had been dead ten or twelve hours.

The patient went on without an ill symptom till the next day, when she was found very feverish, with pain and soreness of the *abdomen*. Twenty ounces of blood were taken from her arm, and free evacuations were procured from the bowels; these were of a very offensive nature, and the relief which she experienced gave a good augury of her recovery.

Oct. 4. The symptoms continued favourable; she took a sufficiency of mild nourishment.

Oct. 5. She was found to be very languid, pulse quick and feeble; a little tendency to delirium. It was thought right to give her small quantities of wine and rather more generous diet. In the evening the delirium increased; she sunk rapidly, and the next morning expired.

The body was opened the next day, and the following appearances were observed.

The *uterus* was contracted to nearly the usual size at the same period after delivery; it exhibited no marks of inflammation or disease, except a very small tubercle on its outer surface; the left fallopian tube and *ovarium* were deep-coloured, and a layer of coagulable lymph was lying upon them; the right *ovarium* was found imbedded between the *vagina* and the *rectum*, it was about the size of a sheep's bladder, and contained fatty matter (convertible by heat into the same kind of fluid as that which was received into the bason when the tumour was punctured), a large quantity of hair, and the rudiments of two or three teeth; the punctured part was looking healthy, and the *ovarium* itself free from inflammation.

In the *viscera* of the *abdomen* little appearance of disease existed; there was in the *pericardium* rather more water than usual, but the other contents of the thorax were quite healthy; the head was opened, but nothing was therein discovered to account either for the delirium or death of the patient.

On the whole, those who were present at the examination* seemed to consider the death of the patient, as

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* *Messrs. Chevalier, A. White, Pritchett, jun. Chevalier, jun.* and *Sweatman. Mr. Hanbury* was prevented by an obstetric engagement from being present.

more attributable to exhaustion from protracted suffering, than to any organic or other mischief that could be detected by dissection.

APPENDIX, No. XIV.

Projection of the Os Uteri above the Symphysis Pubis.
(See p. 64.)

I HAVE had opportunities of being acquainted with two cases of that peculiar and unusual position of the *uterus*, in which the *os uteri* is projected so high above the *symphysis pubis*, as to be beyond the reach of the finger, and the body of the *uterus* so completely fills up the back part of the *pelvis*, that the *sacrum* cannot be touched. The first of these is thus stated by the late *Dr. S. H. Jackson*, in his *Cautions to Women respecting the State of Pregnancy:* "there is no instance on record of a woman reaching the full period of gestation with a retroverted *uterus*. Such a case, however, I had an opportunity of seeing about two years ago, in company with *Doctors Bland, Denman, Thynne, Merriman, and Croft.* The situation of the patient at the first seemed inexplicable, and she continued several days in labour; but the gradual efforts of nature at length completed her delivery, by restoring the womb nearly to its natural situation. With great care she perfectly recovered; but the child, from the peculiarity of the case, as well as length of the labour, was still born." The other case I published some years ago in *A Dissertation on the Retroversion of the Womb;* an abstract of which follows.

Mrs. F—— was taken with symptoms of labour, on Monday, June 16, 1806, at which time a discharge of the *liquor amnii* began to be perceived, and pains recurred, at distant intervals, severe and apparently strong. In the course of the day, the patient was examined *per vaginam*, when there appeared to be a singular condition of the parts. The whole of the back part of the *pelvis* was filled up by a globular tumour, which prevented the finger from passing in the direction of the *coccyx* and *sacrum*, but it was obliged, in tracing the tumour, to take a direction towards the *ossa pubis*, above the crest of which it could be passed; but, neither here nor any where else, could the *os uteri* be felt.

By introducing a finger into the *rectum*, it appeared that the tumour was uterine, and that some bulky part of the *fœtus* was contained within it; but whether the *nates* or the head could not be clearly distinguished.

On Tuesday the 17th, the discharge of *liquor amnii* continued; the pains were frequent and excruciating, and the tumour was pressed down closer upon the *perinæum*. A rigor, terminating in convulsions, and followed by fever and delirium, took place this day; but a prompt bleeding and evacuating the bowels relieved these symptoms.

Wednesday, 18th, and Thursday, 19th, no material alteration was observed. The pains continued regular and distinctly marked through these days, but were much less severe and distressing, than at first.

Friday, 20th, another very careful examination of the parts was made. The uterine tumour presented the same shape and bulk, quite obstructing the passage towards the *sacrum*, for even the *coccyx* could not be felt, except the finger was introduced into the *rectum*: when

the finger in the *vagina* was carried forward, in the only direction in which it could pass, namely, anteriorly, it reached above the *pubes*, but still the *os uteri* could not be felt: yet, on withdrawing the finger from above the *symphysis pubis*, there was now, for the first time, perceived upon it, the true appearance of a *shew*, which furnished a convincing proof that the *os uteri* was situated in that direction; and encouraged us to hope, that an alteration in the state of the *uterus* was at hand.

Our hopes were not vain; for on the next day, Saturday, 21st, a considerable alteration was discovered in the pains, and in the situation of the globular tumour, which occupied the *pelvis*. The pains were more powerful and effective, and the tumour, which had been contiguous to and pressing upon the *perinæum*, was found to have a little receded, while a flattened mass, (which proved to be the head of the child in a state of complete putrefaction, with the bones separated, and the brain almost dissolved,) was forced down from above the *pelvis*, between the *ossa pubis* and the uterine tumour.

After a few hours of active pains, the tumour ascended above the brim of the *pelvis*, and was no longer to be felt; but now the *os uteri* was easily distinguishable, though still very high.

It was judged right to make an opening into the head, and about a pint of grumous blood and brains was evacuated; this allowed an opportunity of grasping the scalp, and by means of this, so much assistance was afforded, in extracting the child, that the labour was terminated in a few more pains.

The patient perfectly recovered, and lived many years afterwards in good health, but never had another child.

These cases, I conceive, establish the fact, that a re-

troversion of the *uterus* may exist at the full term of utero-gestation, and, if I mistake not, go far to prove, that many cases on record, of supposed extra-uterine gestation of the *ventral kind*, were in reality cases of retroverted *uterus*. There is something so repugnant to all that we know of the processes of conception and generation, in supposing that an *ovum*, accidentally conveyed into the cavity of the *abdomen*, can there be lodged and nourished, and brought to perfection, altogether unconnected with the uterine system; that unless the fact be clearly and unequivocally proved, it will hardly be believed.

Dr. John King, of South Carolina, maintains a contrary opinion, in *An Analysis of the subject of extra-uterine Fœtation and of the Retroversion of the Gravid Uterus*, (1818,) and has commented much at large on my pamphlet. The case, however, which he has published, in support of his argument, though highly interesting and instructive, does not appear to me to decide the question. *Dr. King* believes, that a child brought to perfection in the cavity of the *abdomen*, was extracted from thence alive, by an incision made through the posterior part of the *vagina*. The child "floated," as he supposes, in the cavity of the *abdomen*. If so, to which of the *viscera* did the *placenta* adhere? was the connexion between the *placenta* and the parts to which it was attached, the same as exists between the *placenta* and the *uterus?* were the vessels of communication as numerous and as large? if not, how was the child nourished and matured? if they were, by what means were the vessels closed and effusion of blood prevented, after the *placenta* was expelled? Nay, what was the power which effected the expulsion of the *placenta?* Were the *viscera*, to which it was attached, endowed with

contractility for the especial purpose of expelling the *placenta?* and if so, how were they fitted to perform their natural functions during the state of pregnancy, or to resume them after the delivery was accomplished? These are questions which it will be necessary satisfactorily to resolve, before implicit belief can be obtained to the doctrine of *ventral fetation.*

Whether the opinions I have ventured to suggest upon this subject, be correct or otherwise, time will probably shew. Many cases bearing some relation to this inquiry have been recorded; but they are all too vaguely noticed, too slightly described, to give entire satisfaction. It is to be hoped, that when fresh occasions of elucidating this matter occur, they will not be so cursorily passed over as heretofore; and should any hypothesis more probable than my own, be formed, I shall, without reluctance, yield up that, which, at present, I consider very tenable. "Quæ enim a me super hac re dicentur, non ita accipi velim quasi eadem e tripode prolata existimem, aut aliorum omnium suffragia extorquere cupiam; sed libertatem illam, quam aliis libenter concedimus, nobis etiam jure merito poscimus; ut quæ in obscuris rebus verisimilia videntur, eatenus pro veris offerre liceat, donec manifeste de eorum falsitate constiterit."—*Harvey de Conceptione.*

APPENDIX, No. XV.

Presenting Arm returned, and the Head brought to present.—(See p. 80.)

In April, 1805, I attended Mrs. Rotherham, a woman with a very narrow *pelvis;* she was about eight months

advanced in her pregnancy, and, after a few pains, the *waters* broke, on which I was sent for, and found the arm presenting. I immediately introduced my hand, with the view of bringing down the feet, but could not reach them; I found, however, that I could put back the arm, and that then the head would present at the brim of the *pelvis*. This therefore I determined to do, and then leave the case to nature. The arm was returned at 2 o'clock p. m., there was afterwards no occurrence of pain till six; after which they became very strong, and between eight and nine the child was born. This was the only infant that Mrs. Rotheram had born alive out of six.

The late *Mr. Newby*, of Poland Street, a most worthy and intelligent man, related to me a similar occurrence in his practice *.

APPENDIX, No. XVI.

Suspension of Uterine Action from Laudanum.—(See p. 86.)

The late *Dr. Atkinson*, for many years Physician Accoucheur to the *Benevolent Institution for delivering poor married women at their own habitations*, told me, that an eminent practitioner of midwifery, whose name he did not chuse to mention, had adopted the plan of giving a large dose of laudanum, in order to controul the urgent efforts and irritability of the *uterus;* which prevented

* See likewise *Spence's System of Midwifery* (1784), Case 32.

him from turning the child, in a case of arm presentation. The laudanum had the desired effect in calming and subduing the excessive action, and the child was now turned without further difficulty. But the *uterus* was rendered so torpid, that it did not afterwards contract to expel the *placenta*, and, hemorrhage coming on, the *placenta* was manually extracted; but so completely was the tone of the *uterus* lost, that by no means could its contraction be excited, and the patient sank and died from loss of blood.

I have thought it right to mention this case by way of caution; but it must be recollected, that a solitary unfortunate case is not to lead to the rejection of a practice, which experience has proved to be often successful.

APPENDIX, No. XVII.

Impetuous Action of the Uterus.—(See p. 88.)

A POOR woman, who had a ticket to be attended by a charity midwife, was taken with symptoms of labour, July 23, 1812, and her *waters* were suddenly discharged in the evening; on which account she sent for her midwife. The midwife, finding the woman free from pains, was angry at being sent for, and went away without examining the patient.

Next morning the pains began, and the midwife being again called, found the uterine action very powerful and urgent, and the arm forced down into the *vagina*. She sent therefore to the Medical Superintendant of the Charity; who, on his arrival, undertook to turn the child;

but the contractions of the *uterus*, on every attempt to introduce his hand, were so violent, that he was always foiled. He persevered in his efforts for several hours, at intervals; but being quite unable to effect his purpose, and becoming fatigued with his exertions, he requested the assistance of a neighbouring practitioner. This gentleman likewise was foiled in every attempt, by the impetuous action of the *uterus;* and, after persevering as long as he judged proper, was compelled to desist.

It was now thought, that if the arm of the child were removed, the introduction of the operator's hand would be less impeded, and that the turning might be more easily effected. After some consideration, this experiment was resolved on, and the arm was very carefully separated at the shoulder, but no advantage appeared to be gained; neither of the accoucheurs being able, after repeated attempts, to accomplish the turning.

About three o'clock in the afternoon of this day, a message was sent to another accoucheur, to request his advice and assistance, and it was determined to leave the poor patient to her repose, till he should arrive: twenty drops of laudanum were therefore given to her, and the attending practitioners went home to procure some refreshment. It was three or four hours before the attendance of the third practitioner could be obtained, and during this time the patient got some light sleep, and remained free from pain. On his arrival he examined, and judged that it might be possible to pass the hand. He was therefore desired to make the attempt, which he did, placing the patient on her elbows and knees. His hand very readily entered the *uterus*, it was without difficulty carried on to the feet, and the child was turned

and extracted, with much more facility than could possibly have been believed.

The explanation of this case is not difficult. It was not that the last operator was successful because he was more skilful than the others, for they were both very experienced practitioners. It was not the difference of posture into which the patient was placed; for this posture had been tried before. But it was the diminution of uterine irritability. The first attempts to turn were made just as the action of the *uterus* began to be considerable. The successive efforts to pass the hand kept up a constant irritation; every new attempt was a renewed stimulus, which threw the *uterus* into vehement exertions, and it resisted every endeavour of the operators. But when the stimuli were no longer applied, the irritability ceased. The patient, worn out with fatigue, sank into a state of lassitude, the womb was no longer capable of resistance, and the hand made its way readily through passages, which were now little liable to be excited into action.

This patient recovered without much difficulty.

The 15th case of *Dease's Midwifery* (1783), gives a good illustration:—

First, of the inconvenience of delaying to introduce the hand, till the membranes have ruptured.

Secondly, of the danger of forcing the hand forward, during the powerful contraction of the *uterus* *.

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* See Appendix, No. 19. Case 2.

APPENDIX, No. XVIII.

Presentation of the Back.—(See p. 92.)

The following case has been lately communicated to me by a Surgeon-Accoucheur of great judgment and extensive practice.

"I was desired to attend Mrs. G—— of her third child, in the morning of the 5th inst. I understood she had been awoke by a discharge of the *liquor amnii*, slight pains then came on, which had continued up to the time I saw her, 11 o'clock. Upon making an examination in the usual way, the *os uteri* could not be felt; but upon a subsequent enquiry, *with the hand in the vagina*, I found it dilated to almost the size of a shilling, very rigid and unyielding. As the pains were not strong, even at that early period of the labour, by introducing the finger, I could distinctly feel the spinous processes of the *vertebræ* of the child, passing in a direction towards the left *ilium* of the mother. As the *os uteri* was by no means in a fit state for the introduction of the hand, I determined to wait; the pains, however, did not increase but in a very slight degree. Towards evening, the *os uteri* became a little more dilated; still the pains were comparatively weak. After waiting till about two o'clock in the morning, and finding the *os uteri* in a more relaxed state, I determined to deliver her, which was done without much difficulty, as the *uterus* was by no means so much contracted about the body of the child, as it usually is after the membranes have been so long ruptured. The child was born alive, and of the full size; the mother is doing well.

"I do not know that much practical information can be obtained from this case; at the same time, I think the presentation may be considered as a rare occurrence, never having met with it before in twenty years practice; and I am much inclined to conjecture, that as the *pelvis* is naturally large, had the pains been strong, it would have terminated in a breech case."

April 10, 1820.

In *Perfect's Cases in Midwifery*, he describes (Case LI.) a case very similar to the above; and refers to other authors, most of whom speak of back presentations, though it is evident they have never seen such cases. The following are to be met with in Collections of Cases, *Giffard*, 71 and 142. *Portal*, 59 and 72.

APPENDIX, No. XIX.

Funis Presentation.—(See p. 94.)

CASE I.

The wife of a medical man, and very skilful accoucheur, was taken in labour of her seventh child in September 1819, and the labour not proceeding very satisfactorily, nor the presentation being clearly ascertainable, I was requested to visit her. After several ineffectual examinations, it was at last made manifest that the *funis* was preceding the head, and *as the membranes were still entire*, it became a question, whether it would

not be advisable to turn the child and deliver footling, as affording the most probable chance of preserving its life.

A very serious objection to turning existed; for once, when this lady had a *nates* presentation, it was found impossible to bring the child's head through the *pelvis* with sufficient celerity to save it; and another time, when the hand presented, and the child was turned, though it was with much difficulty brought to breathe, yet it never perfectly recovered; and after a day or two died in convulsions. The probability of success in preserving the child, was not therefore to be considered as very great, if the operation of turning were now adopted.

A very accurate examination of the relative situation of the *funis* and child's head, proved that the *funis* was passing down at the back part of the *pelvis*, in the direction of the right *sacro-iliac synchondrosis*, where it was more out of the way of pressure than in any other part of the *pelvis*. It was determined, therefore, to let the labour continue without interference till the membranes should spontaneously give way; then to accelerate the birth of the child as much as possible, by making pressure on the *perinæum* during the pains; to draw the *funis* towards the side of the *pelvis*, in order to take off pressure; and if it was found that much delay in the passage of the head took place, to effect delivery by means of the *forceps*.

After a few more pains, the waters were discharged, the head sank lower into the *pelvis*, and the *funis* was preserved from much compression, till just as the child was passing into the world; so that the *forceps* were not required. The child was still-born; but all the means of resuscitation being at hand, and actively employed, it was got to breathe, and is now become a very fine boy.

CASE II.

The following Extract is taken from a MS. copy of *Dr. Harvie's Lectures* (1765), in the hand writing of the late *Dr. Garthshore.*

"In the case of a small portion or fold of the *funis* coming down before the head, you may sometimes get it slipped up with the finger behind the ear, and the head jamming in, will come down before it; but if a large portion is come down you never can get it up, but must speedily, in a *well-formed pelvis,* turn the child and bring it by the feet, before the contractions of the *uterus* have taken place; for when such a contraction has taken place, you are never to venture to turn when the head presents, as I was once over persuaded to do in a woman used to this operation, and who insisted on it. The consequence was, that the violence necessary burst the *uterus,* and killed her speedily. She complained of a pain at her heart ever after, till she died."

This case affords another proof of the peril of introducing the hand into the *uterus* in a state of active contraction; and it is the more to be regretted that such an operation was undertaken, because, in cases where contraction of the *uterus* has come on, the probability of saving the child is comparatively trifling. The mother's life therefore was here put to hazard, with very little chance of benefitting the child.

APPENDIX, No. XX.

Plural Births.—(See p. 103.)

There seems to be a very extraordinary variety in the averages of twin and triplet births, in different countries, and under different circumstances. Thus the average of twin births has been stated,

By Dr. Clarke, at the Dublin Lying-in Hospital	as 1 in	56½
By Dr. Bland, at the Wesminster Dispensary	——	80
By Professor Boer, in the Vienna Lying-in Hospital	——	80
By Dr. Denman, at the British Hospital	——	91
By Dr. Denman, at the Middlesex Hospital	——	93
By Mr. Burns, in his own practice	——	95
By Madame Boivin, at the Hospice de la Maternite	——	132
By M. Tenon, Surgeon to the Salpetrière at Paris	——	96

Respecting triplets, the averages are still more various: many accoucheurs, of very extensive practice, have passed through a long life, without once witnessing three children at a birth.

Dr. Bland kept a very exact register of 1897 women delivered at the expense of the *Westminster General Dispensary*, among which there was one case of triplets; while I held the office of physician-accoucheur to that charity, about 3,500 women were delivered; among whom I was twice called to triplet labours.

In the first 18,300 women delivered at the *British Lying-in Hospital*, not a single instance of triplets had occurred: but there were three such cases among 20,357 women delivered at the *Hospice de la Maternite*, at Paris, and 19 among 59,354 women at the *Dublin Lying-in Hospital;* or 1 in 3,124.

The averages of four children at a birth can scarcely be ascertained, yet several such instances are known to have happened; and there are a few authentic histories* of five at a birth. *Dr. Osborn* is said to have once witnessed an expulsion of *six* abortive *ova;* and *Borellus* asserts, that about three years before he published his second Century of Observations, the wife of a nobleman in Languedoc was delivered of eight at a birth†! *Borellus*, it must be acknowledged, tells many other marvellous stories.

Haller says upon this subject; "Non raro femina geminos fœtus parit; rarius paulo tres, neque unquam supra quinque."—*Physiologia*, 929.

So many years had elapsed, notwithstanding repeated inquiries, before I could meet with a well-authenticated instance of three children at a birth, being all reared, that I began very much to doubt the fact. The following account is, however, in all respects, so very particular, that it is impossible to question its accuracy.

"SINGULAR FAMILY OCCURRENCE.

"It is calculated, that only one wife in seven thousand has three children at a birth, and that no one of seventy thousand occurs, of three children of one birth, all growing up, hale and strong, to the age of twenty one. A remarkable instance of both novelties has just been communicated. Mary Baker, wife of Robert Baker,

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* *Philosophical Transactions*, 1787.

† Anno 1650: Uxor nobilis *D. Darre* unico puerperio octo fœtus enixa est probe conformatos, quod valde in his regionibus insolens est: tres enim tantum vitales simul enixos videram.

carrier, at Streatham, in the county of Surrey, was delivered on the 11th day of December, 1796, of three children, one boy and two girls; the children all thrived well, have all grown up hale and strong, and are all now living, having on Thursday completed their twenty-first year. The father and mother are also alive, and in the enjoyment of good health."

Morning Chronicle, Dec. 13, 1817.

A most extraordinary instance of human fecundity is related in the *Menagiana**, tom. i. p. 332; which, if it does not convince, may at least amuse; it is the Abbé himself who speaks. "Mr. D—— told me, the day before yesterday, that the wife of a petty shopkeeper, in his neighbourhood, of the name of Blunet, had borne twenty-one children in seven successive child-bearings. That these triplet children had not only been baptized, but had lived, some several days, others several months, and that twelve of the most robust were still alive, who were all grown up, and in good health. He added, that as doubts might be entertained, whether the husband or the wife contributed the most to produce this kind of prodigy; the man made a further experiment, by seducing a servant girl who lived with them. At the end of nine months, she likewise was delivered of three male children, who, notwithstanding their mother's youth and delicateness, lived a fortnight or three weeks."

M. Menage adds, that probably the whole ancient world could not produce another example of a fecundity so prodigious!

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* Amsterdam, 1713, 4 tom. 18mo.

But this Parisian father of multitudes must be considered as nothing, when compared with the wonderful Russian, who is mentioned in the *Gentleman's Magazine* for September 1783, vol. liii, p. 753.

This man, Feoder Wassilief, a peasant, aged 75, is said to have had, "by his first wife

	$4 \times 4 = 16$		
	$7 \times 3 = 21$		
	$16 \times 2 = 32$		
Births	27	69	Children.

By his second wife.

	$6 \times 2 = 12$		
	$2 \times 3 = 6$		
Births	8	18	Children.
	Births in all	35	
	Children	87	

of which 84 are living, and only three buried."

"The above relation, however astonishing, may be depended upon, as it came directly from an English merchant at St. Petersburgh, to his relation in England, who added that the peasant was to be introduced to the empress."

The above letter is dated Aug. 13, 1782, at which time the man was said "to be alive, and in perfect health, in the government of Moscow."

To what extent plurality of births among animals, commonly uniparous, may proceed, I have not the means of knowing; but there is now lying before me a manuscript, formerly belonging to *Dr. Garthshore*, which states, that "An account was sent to him last year, by Mr. Webb, of one of his ewes, in Surrey, having brought

forth seven lambs; and the same ewe has produced this year, 1790, four lambs, two of which are living."

APPENDIX, No. XXI.

Peculiar Laceration of the Perinæum.—(See p. 104.)

Dr. Denman, in his 2d chapter, 7th section, mentions a peculiar kind of laceration, which he calls a perforation or bursting of the *perinæum;* it is a transverse rent of the part, bounded by the *sphincter ani* posteriorly, and the inferior commissure of the *labia* anteriorly, both of which parts remain uninjured.

A case of this nature I saw, May 26, 1816, through the kindness of the gentleman who attended the labour.

It was the patient's first child, and when her accoucheur visited her, he found the *os uteri* open to the size of a crown-piece, and the membranes protruding. He waited about an hour, and then examined again. The labour was making rapid progress, and shortly afterwards the membranes spontaneously ruptured. The *perinæum* becoming much stretched, by the head of the child pressing down, the operator applied his left hand to support it. While thus employed, he felt a very great protrusion backwards, which at first he supposed to be the *rectum;* on a more accurate examination with his finger, he discovered that it was the nose of the child, and immediately afterwards he felt the mouth, exterior to the integuments. A very strong pain now came on, and the whole head was forced through the lacerated

aperture, and afterwards the shoulders and body of the child.

The *funis* was now tied and divided, and the portion which had passed through was returned into the *vagina*, and brought out at the *os externum*, through which the *placenta* was extracted.

Next day the pulse being very full, the woman was bled, took aperients, antifebriles, &c. and went on very favourably in every respect.

On the ninth day, when I visited her, she was free from fever, had plenty of milk, and her spirits were excellent. "The *anus* is not injured, the anterior edge of the *perinæum* is entire: the lacerated part is much contracted, looks healthy, and granulations are every where springing up to supply deficiencies."

In March, 1820, I heard that this patient was perfectly well, and experienced no inconvenience from the accident, but has never been again pregnant.

Two cases of a similar nature are recorded by *Baudelocque* in his *Art des Accouchmens*, tom. i. § 152.

APPENDIX, No. XXII.

Rupture of the Uterus.—(See p. 108.)

Extract of a letter from *Dr. Bromfield* to *Dr. Addington*, giving an account of a rupture of the *uterus*. Dated December 4, 1783:—

"Mrs. Hawley came to town ten days ago, and brought with her a long account, from a sensible man,

her apothecary in the country, of violent spasmodic affections during her pregnancy, particularly about three weeks ago; with his manner of treating her.

" Last Tuesday night, about nine o'clock, Mrs. Hawley sent for me in great haste, upon breaking of the membranes and discharge of the *liquor amnii*, attended with labour pains. The presentation of the child was natural, though the head could then be but just felt at the brim of the *pelvis;* the pains gradually increased, and of course the advancement of the head was gradual. About two o'clock yesterday morning it was advanced so low, that the scalp was in contact with the *perinæum*, when the pains being strong, and Mrs. Hawley in tolerably good spirits, I told her I had no doubt, from the progress of the labour, she would be delivered in about half an hour; and that possibly three or four more very strong pains might put an end to the delivery, and make her perfectly happy; which I had not said three minutes, I believe, before she cried out in an unusual manner; and upon asking the reason of it, she said she had such a cramp in her belly as must kill her if it continued. She then became sick, vomited, and, in a minute or two, said she had lost her labour pains, which alarmed me exceedingly, fearing the *uterus* must have given way; which, to my great grief, was but too strongly confirmed to me by examining *per vaginam*, where there was no possibility of feeling the child; which, before, had been so near the birth.

" I immediately informed Mr. Hawley, in the best manner I could, of what I had but too much reason to be certain of; and sent not only for *Dr. Ford*, but *Drs. Orme, Osborne, Garthshore*, and *Mr. John Hunter*; the latter as a distinguished anatomist; all of whom gave

their immediate attendance: and *Dr. Ford*, who doubted not of what I suggested to him, soon confirmed my apprehensions by an inquiry. All the gentlemen, as I had done, viewed the case as dreadful and irrecoverable. As the child had not been felt to move for some time, it was suspected to be dead, although it was not certain; and it was, in consultation, agreed that the poor lady should be delivered; which I effected with all the deliberation and care possible, in the presence of *Dr. Ford*, the other gentlemen being in the with-drawing room; but never appeared in Mrs. H.'s room.

"Upon passing my hand gently into the *vagina*, I immediately discovered a transverse laceration in the posterior part of the *uterus*, just above the projection of the *os sacrum*; through which, upon the contraction of the *fundus uteri*, the child's breech and body passed into the cavity of the *abdomen*, and drew up the head, not only entirely out of the *pelvis*, where it was got so low, but into the *abdomen* through the lacerated part; within which it first presented itself to my touch; and upon passing by it, I soon got up to the feet of the child, brought them down, and delivered with ease a full-grown male child, which had been dead some time, as the cuticle stripped off wherever it touched.

"Mrs. Hawley lost very little blood either before or after delivery; vomited only at the time of the spasm; had no convulsions or shiverings from first to last; continued warm, and with a pretty full pulse for six or eight hours after delivery; but last night, at eight, it became feeble, and her extremities cold; when *Dr. Ford* and I concluded she could live but a very few hours; but at eight this morning, my attendance was again required upon her being thought better; and I found her warmth

returned, with a firm pulse; but her respiration short, as if it was from the attack of spasm. During this day we have endeavoured to support her; but upon visiting to-night, she was expiring.

" Mrs. Hawley lived from Wednesday morning between ten and eleven, the time of delivery, till Thursday evening about eight.

Dec. 4, 1783. " R. BROMFIELD."

I am in possession of another case by *Dr. Bromfield*, of rupture of the *uterus*, where the patient died undelivered; respecting which, he thought it expedient to make an affidavit, which was sworn before Charles Marsh, Esq. one of His Majesty's Justices of the Peace for the City and Liberty of Westminster; declaring, that he never passed either of his hands into the *vagina*, or more than one finger of either hand; and that he used no instrument or force of any kind. On what account this affidavit was thought necessary, from a physician of *Dr. Bromfield's* rank and eminence in his profession, does not appear.

APPENDIX, No. XXIII.

Accidental Hemorrhage.—(See p. 119.)

CASE I.

April 13, 1810.—I received a very pressing message to visit Mrs. Orme, the mother of ten children, who was seized with very profuse flooding at the full term of preg-

nancy. She had fainted several times before I reached the house; and I found her lying upon the bed extremely cold and pallid, and without any pulse at the wrist. I gave her some port wine and water, which a little revived her, and then proceeded to examine the state of the *uterus*. I found it open to the size of half-a-crown, and very dilateable; the child's head presenting, and rather low in the *pelvis*. It would not have been difficult to introduce the hand and turn the child; but I thought that to rupture the membranes would put an equally effectual stop to the hemorrhage, and therefore I hesitated not to effect this; having first, by irritating the *os uteri*, excited some degree of pain. The quantity of *waters* discharged was very great, after which no more hemorrhage was observable. The pains began to recur; they were augmented by gently pressing back the *perinæum;* and in less than half-an-hour the child was expelled, but was not alive. Immediately after the expulsion of the child, a great quantity of coagula was discharged, sufficient to fill a large bason, and the *placenta* was spontaneously expelled at the same time.

The cause of this accident was supposed to be indigestion, at least no other probable cause could be assigned. Mrs. O. had not used any exertion, in lifting or walking; nor done any thing that could be supposed capable of producing such an effect. She was in bed at the time it happened, and the first symptom which she felt, was a violent cramp in the belly, followed immediately by the flooding; soon after the cramp, she felt strong convulsive motions of the child, which shortly afterwards ceased to move.

Her recovery was uninterruptedly good.

CASE II.

A poor woman, in the last month of her pregnancy, while in the act of lifting up a pail of water, felt a great discharge proceed from the *vagina*, and thought that *her waters were broke.* She soon discovered that it was a discharge of blood, and it continued with such profusion as to produce fainting. She fell down, and in her fall made so much noise, as to disturb some of the other lodgers in the house, who found her, as they at first supposed, actually dead. On recovering a little from the faintness, she was carried up stairs to her bed, and in the mean time a messenger was despatched to procure assistance. As I happened to live near, the messenger came to my house, and I went immediately to the poor woman. She was just recovering from another fainting fit; her pulse was scarcely to be felt, and her countenance ghastly. Some wine and water was given, which after a little time somewhat revived her, and the usual means of suppressing hemorrhage were had recourse to, with apparent benefit. The hemorrhage however from time to time returned with violence, and it was obvious that more was necessary to be done, to secure the patient's life.

Slight pains were observed to take place now and then, and upon an examination *per vaginam*, the *os uteri* was found relaxed and dilating. I determined, therefore, to rupture the membranes, and by irritating the *os uteri* brought on a pain, during which this was effected and the waters discharged. It was curious to observe how soon the poor woman became more animated; her pulse grew firmer; and her strength in-

creased; for the hemorrhage immediately ceased. The pains soon afterwards became effective, and in little more than an hour she was delivered of a dead child.

This patient's recovery was very slow, not only from the excessive loss of blood, but from her straitened circumstances, which prevented her from procuring many of those comforts that her condition required.

APPENDIX, No. XXIV.

Unavoidable Hemorrhage.—(See p. 124.)

CASE I.

Ann Williams, 10, Heddon Court, Swallow Street, 22 years of age, pregnant of her first child, was seized with a slight flooding, on the 25th of March, which lasted four days. This flooding ceased spontaneously, but in about a fortnight returned for three or four days more, and in the same manner returned again towards the end of April.

On Wednesday, May 16, she had another attack of hemorrhage, accompanied with a discharge of very dark coloured coagula, and sent for her midwife, who was so much alarmed at her condition, as to call in the assistance of the Physician to the Charity, from which this patient had procured a letter.

On his arrival, he examined *per vaginam*: the *os uteri* felt firm and rigid, so that he could not pass his finger within it; but he suspected, from the great degree of thickness which the posterior portion of the *cervix uteri*

presented, that the *placenta* was there situated. The usual means of relieving hemorrhage were steadily adopted, and strict injunctions were given by the accoucheur, to be sent for again, in the event of a return of the discharge.

She continued to have daily some slight degree of hemorrhage; but the midwife did not consider it to be alarming, till June 7th, when it suddenly became very profuse; in consequence of which the accoucheur was again sent for, who found her so weak and faint as determined him to proceed to immediate delivery. Having removed a large quantity of coagula from the *vagina*, he felt the *os uteri* situated very high within the *pelvis*, over which a portion of the *placenta* was lying. The blood continued to flow very profusely, and her pulse was become almost imperceptible. With a little difficulty he passed his hand through the *os uteri*, and soon reached the feet of the child, which were carefully brought down. When the head of the child came into the cavity of the *pelvis*, it was found to be too bulky to be speedily extracted, and in consequence the infant lost its life, by compression of the *funis:* had this not been a first child, probably it would have been preserved.

The poor woman lost very little blood, after the hand was introduced into the *uterus;* but, notwithstanding, grew excessively faint by the time the delivery was accomplished; so that fears were for some minutes entertained of her recovery; by giving her wine and cordials, bread soaked in brandy, &c. she was revived, and ultimately recovered without farther difficulty.

CASE II.

Mrs. J—, when between seven and eight months advanced in her ninth pregnancy, had a slight degree of hemorrhage. It soon ceased, and did not return till after she had completed her eighth month. It now became so profuse as induced her to send for her accoucheur, who, on examination, concluded, from the fulness and thickness of the parts interposed between his finger and the head of the child, that the *placenta* was attached to the *cervix uteri*. Every possible means was taken to prevent an increase of the hemorrhage, and the friends and nurse were strictly charged to send without delay on any return of the flooding. Several days elapsed without any cause of alarm; but on the 26th of January, the hemorrhage re-commenced with great violence, and the accoucheur was immediately sent for. The *os uteri* was in a state to warrant an immediate attempt to deliver, the hand was introduced, turning effected with comparatively little difficulty, and the child was born alive.

The hemorrhage, contrary to what is common in such cases, continued very considerable after delivery, and in consequence Mrs. J. had a very long and tedious recovery. This was one of the patients who had an attack of *phlegmatia dolens*.

CASE III.

Mrs. Mason, pregnant of her first child, was to be attended by Mr. P. a very intelligent young surgeon. When about seven months advanced, she began to have slight discharges of blood from the *vagina*, which in-

creased as she drew nearer her full time. Her surgeon gave her such remedies as seemed most likely to check this discharge, and gave directions to be sent for in case of any alarming occurrence. He visited her on Saturday, May 15th, but discovered nothing then to give him uneasiness. In the evening her flooding became rather profuse; she went to bed and it abated. On the Sunday it returned, and during the whole day was at times profuse. During Sunday night it continued almost without intermission; she wished to send for Mr. P. but the women about her said that he could do nothing without pains, and it would be time enough to send for him when her pains came on. By this absurd reasoning, she was prevailed upon to delay seeking for timely relief: towards morning she became so suddenly weak and sinking as to alarm every one about her. A very urgent message was now sent to Mr. P. who hurried to her assistance; but he was too late; she had ceased to live before he could reach her habitation.

On examination after death, the position of the *placenta* and *fœtus* was found to be almost exactly similar to that represented in one of *Dr. Hunter's* plates; which I have taken the liberty to copy*, in order to give a more clear idea of the nature of an occurrence, respecting which many mistakes have been committed.

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* See Plate II. In *Parr's Medical Dictionary*, this plate has been most absurdly inserted, to shew the natural position of the *fœtus in utero*, at the commencement of labour!

APPENDIX, No. XXV.

Hemorrhage after Delivery cured by removing Coagula from the Uterus.—(See p. 127.)

CASE I.

June 3d, 1798, Mrs. P—, of Bruton Street, was delivered of her sixth child, after a very short labour, and the *placenta* was expelled naturally, almost immediately after the birth of the child. Her accoucheur left her, as he thought quite safe, about half an hour after delivery. In less than an hour afterwards a message was sent to his house, stating that Mrs. P. was dying. On his arrival he found her in a state of syncope, with scarce a pulse to be felt. The usual means of recovery were employed without effect. Her *abdomen* appearing to be wonderfully swelled, he was induced to pass his hand *per vaginam*, and found the *uterus* full of coagula, which he immediately removed; the *uterus* now contracted, and the patient's faintness began to go off. The quantity of blood which was lost greatly reduced her strength, and her recovery was dubious and slow, though at length complete.

CASE II.

June 15th, 1808, Mrs. Price was delivered of her eighth child, after a favourable labour; the *placenta* came away in about fifteen minutes, and her accoucheur soon afterwards left her. In about an hour he was again

sent for, in consequence of the alarm occasioned by her fainting. She was recovered from the state of syncope before he arrived; but he found her pallid, with frequent gapings, the extremities cold, and the pulse extremely weak. On examining the *abdomen* it felt nearly as large as before delivery, and there was a continual draining of blood from the *uterus*. He immediately introduced his hand, and removed upwards of a pound by weight of coagula; this being effected, contraction came on, and the flooding ceased. Her recovery was much retarded from this circumstance.

CASE III.

August 14th, 1802, Mrs. M——, a woman of a delicate habit, was delivered of her first child, after a favourable labour of twelve hours duration. Some assistance was afforded to withdraw the *placenta*, after which her accoucheur quitted her, and went into another room. In about half an hour he was called to her in consequence of her fainting; the blood was still flowing from her in a rapid stream; he introduced his hand into the *uterus*, which was found quite full of coagula; these being removed, contraction took place, and put a stop to the hemorrhage.

CASE IV.

November 29th, 1817, Mrs. B—— was delivered of her second child about two o'clock in the morning, by a very careful surgeon, after a labour of five hours duration. The *placenta* was expelled spontaneously, and the usual discharges took place. After some time she

became faint, and very much alarmed at her own situation, which she thought similar to that of an illustrious Lady, who had recently died almost immediately after delivery.

The usual means of recovering persons from a state of *deliquium*, were employed, but without effect: there was a constant draining of blood from the *uterus*, which kept up a state of faintness and exhaustion; her pulse was extremely weak, above 120, lips blanched, forehead cold, and voice scarce audible. At eight o'clock I was requested to see her, in consultation with her accoucheur. On examining the *abdomen*, the size of the *uterus* was found larger than is common at six hours after delivery, which was attributed to the presence of coagula preventing its due contraction. The hand was therefore passed; and about fourteen ounces of coagulated blood were brought away; the *uterus* immediately contracted, the hemorrhage ceased, and the patient without further difficulty recovered,

CASE V.

Mrs. M——, the mother of several children, was delivered April 15th, 1820, of a very small infant, after a labour of more than twenty-four hours duration. The *placenta* was expelled in about a quarter of an hour, and was also very small in size. Her accoucheur stayed with her about half an hour after she was delivered, and then returned home. In about an hour and a half afterwards he was sent for, on account of her being extremely faint and languid. On his arrival he found her covered over with blankets, the curtains of the bed close drawn, and

the room very hot and oppressive. Having cooled her, and ventilated the room, which did not abate the faintness, he introduced his hand into the *vagina* and *uterus*, and removed an immense quantity of coagula. This allowing the *uterus* to contract, at once relieved the patient, her pulse became firm, the face and lips recovered their natural appearance, and her voice strengthened. In less than half an hour she appeared quite recovered, and no farther bad symptoms occurred.

APPENDIX, No. XXVI.

Inefficacy of plugging the Vagina, while the Uterus is distensible.—(See p. 128.)

CASE I.

In August 1805, I was desired to see a woman in labour, who was attended by a very skilful surgeon; she was a very lusty woman, and, after a labour of more than forty hours, was delivered by the *forceps*. After the removal of the *placenta*, the *uterus* continued to pour out blood in a very profuse manner; to remedy which, my friend proceeded, without delay, to *plug* the *vagina*, and very carefully and completely closed up the passage with soft napkins, &c. But, though not a drop of blood could be seen externally, it was evident, by the enlargement of the *abdomen*, that a great accumulation was taking place within the *uterus*, which occasioned the patient much pain and uneasiness. At length an excessive forcing took place, the *plug* was expelled with great violence,

and such a profusion of discharge took place, as to overspread the bed, and run in a stream upon the floor; while the patient became so faint, as to excite great alarm respecting her. On this, the hand was introduced into the *uterus*, and some coagula were removed, after which contraction took place, and there was no further discharge to create alarm.

CASE II.

A highly respectable practitioner of midwifery in the country, informed me of a melancholy case, in which the *plug* was trusted to. A lady, near the full time of her pregnancy, one morning experienced a discharge of blood, which alarmed her, and induced her to send for the gentleman who had been engaged to attend her. On his arrival, finding that the hemorrhage was considerable, he determined upon *plugging* the *vagina*, and having accomplished this to his satisfaction, he told his patient and her friends, that nothing was to be apprehended, and left her. He went home, mounted his horse, and rode some distance to visit other patients. On his return he called to see this lady, and, on approaching the house, was surprized to see it close shut up, as if a death had happened. Greatly terrified, he knocked at the door, and was told, that, not long after he went out, very alarming symptoms came on, that they had been compelled to seek for other assistance, (which happened to be that of the friend who told me this history), and that, in fact, the patient died of flooding, though the *vagina* was so closely *plugged*, as to secure her, in her attendant's opinion, from all danger.

APPENDIX, No. XXVII.

Extract of a Letter from Mr. H——, dated Feb. 27, 1817.—(See p. 128.)

"My dear Sir,—I have taken the liberty of sending you the *uterus* of a patient of mine, who died of hemorrhage, or at least of the debility consequent on it, twenty-four hours after delivery, thinking it might be useful to you as a teacher of midwifery. The poor woman had borne several children, her labours had generally been severe and tedious. Two years before her death, I attended her in a placental presentation, which proved fatal to the child, and nearly so to her. During her last pregnancy she had such dreadful paroxysms of asthma, as threatened to destroy her. Before she had completed her eighth month, the membranes gave way during one of these attacks, and four days afterwards she fell into labour, after a respite of only twenty minutes from the most violent attack of convulsive asthma I ever remembered to have witnessed: the child was expelled in a few minutes. On my arrival, an hour and a half afterwards, she was almost lifeless, having flooded greatly, the *uterus* was acting forcibly, and the expulsive efforts appeared prodigious, considering her exhausted state. On examination, the *placenta* had not advanced at all, and the pains continuing equally severe for several minutes, without any perceptible progress, I was led to make a more particular examination. The *os uteri* was then found (I should say the neck of the *uterus*) contracted so as to resist the entrance of a finger; fifty drops of laudanum were given, and repeated in fifteen minutes;

the pains abated, but fresh bleeding came on, which induced me to introduce the hand; this proved a work of some difficulty; and I had the mortification of finding myself unable to detach the *placenta* from its adhesions, although my hand was completely in the cavity of the *uterus*. My attempts were gentle, but determined, and, after a lapse of twenty minutes, I thought it adviseable to withdraw it, and desist for the present, the bleeding to all appearance having ceased; the laudanum was repeated every fifteen minutes, till my bottle was empty, (containing about three drams and a half) when she expressed herself very comfortable, but drowsy. On making a last examination previous to my intention of calling in another opinion, I found the *placenta* lower in the *vagina*, and without further effort, it was drawn away in a mutilated state. This happened about three hours and a half after the expulsion of the child. The patient appeared to recover as fast as could be expected for the first twelve hours, when her stomach rejected all nourishment, and she died in a few hours."

From this case it appears, that immediately after a very rapid delivery, profuse flooding took place in a woman debilitated to a great degree by severe illness. However, a strong and powerful contraction of the *uterus* came on, which prevented even the introduction of the finger through the *cervix*, and, by this contraction, a stop was put to the flooding. In this condition, fifty drops of laudanum are given, and, in fifteen minutes, fifty more; the consequence is, that the pains abate, the contracted force is diminished, and the bleeding recommences, to so great a degree, as to make it necessary to introduce the hand, for the purpose of removing the *placenta*.

That the patient would have recovered, had this second hemorrhage not come on, is by no means probable, considering the state of illness under which she was labouring; but the effect of the opium in suspending the action of the *uterus*, and thereby inducing hemorrhage, seems to me too strongly marked to be mistaken.

Spence's 38th case, gives the history of a patient affected with hemorrhage at the full time of pregnancy. Cooling remedies were had recourse to, and *laudanum* mixed with *tinctura antiphthisica* was exhibited. "*In spite* of all these precautions, she turned weaker and weaker, and about six o'clock at night fell into fainting fits, with slight convulsions, and cold extremities." Delivery, which seems to have been longer delayed than was proper, preserved this patient's life. But as it appears to me, from the relation of the case, the exhibition of laudanum was very unnecessary; and to this, probably, was attributable the increased degree of weakness which immediately followed its use.

APPENDIX, No. XXVIII.

Labour accompanied with Convulsions.—(See p. 141.)

CASE I.

Mrs. S——, the wife of a publican, twenty-nine years of age, of a full habit of body and ruddy complexion, arrived, according to her own reckoning, at the full period of her first pregnancy, was taken with symptoms of labour about nine o'clock in the evening of Sunday,

May 10, 1818, and I was desired to see her about five hours after. On my arrival she was sitting up, and there was such an appearance of vivacity in her contenance, and ease in her manner, as assured me that much progress could not be made in her labour; and on an examination, *per vaginam*, I ascertained that there was not the least dilatation of the *os uteri*, even during a pain.

As the bowels had been twice acted upon since the occurrence of the pains, there seemed no necessity for doing any thing with reference to them; I had therefore only to enjoin quietude and patience, till the labour should be more positively established.

After I left her, she went to bed, and slept well at intervals, occasionally roused by slight pains; she took some tea and bread and butter for breakfast, and nothing to create the least alarm occurred, till about ten o'clock in the morning, when she was suddenly seized with a violent convulsion fit, and a message was immediately sent to request my speedy attendance.

The comatose state in which I found my patient, together with the discharge of froth from the mouth, intermixed with blood from the bitten tongue, and the loosened state of the teeth, convinced me that this was the true puerperal convulsion, the *Ecclampsia parturientium* of *Sauvages*. I determined, therefore, to have her bled freely without delay, and sent to a gentleman in the neighbourhood for this purpose, who came immediately.

While he was in the act of tying up her arm, another convulsion came on; and as soon as this was over, the vein was opened. The pulse continuing very strong, full and bounding, the blood was allowed to flow in a full stream, till twenty-eight or thirty ounces had been

drawn, when the pulse beginning to sink, and the countenance to grow pale, the bleeding was stopped.

The state of coma, into which patients fall after these puerperal convulsions, is often very intense, and lasts for twenty minutes or more; but in this case, the coma was much slighter, and of shorter duration, owing perhaps to the loss of blood. As soon as it could be managed after the bleeding, the head was shaved, and a cold lotion was freely applied all over it, by means of moistened cloths frequently removed; a powder, consisting of calomel and sulphate of potass, mixed with moist sugar, was placed upon the tongue, and swallowed unconsiously, and a purgative clyster was ordered to be injected.

An opportunity was now taken of ascertaining the state of the labour. The *os uteri* was open to about the size of a sixpence, the edges thin and soft*; the head considerably lower in the *pelvis*, pushing the *os uteri* before it; the membranes had given way, and a large quantity of *liquor amnii* was discharged.

Labour pains occurred about once in every ten minutes, as might be judged from the evident uneasiness and writhing of the patient, though in a state of insensibility; they seemed to be slight, and soon ceased. At length we perceived a difficulty of respiration to come on; this was followed by a rigidity of all the muscles, and

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* Puerperal convulsions have been supposed to arise from great tenderness and irritability of the *os uteri*, when first beginning to dilate: but there was no indication of such tenderness, or irritability in this case; on the contrary, the *os uteri* allowed the finger to be passed through its aperture, and to be pressed in every direction with the greatest ease. I have found this to be the case in every instance.

a strong convulsion fit ensued. During the struggles of this fit, the vein in the arm burst out afresh, and the state of the pulse warranted me in encouraging the bleeding to the extent of about eight ounces more, after which the pulse became much smaller and softer, and so continued through the remainder of the labour.

This proved to be the last convulsion fit that the patient had.

In about an hour Mrs. S—— was capable of taking a little gruel, and soon afterwards was prevailed upon to swallow a dose of salts, dissolved in mint water; this was repeated in two hours more, and free evacuations from the bowels were procured.

From this time the labour proceeded regularly; by four o'clock in the afternoon, the *os uteri* was in a condition to have allowed of the use of the *perforator*, had the mother's condition required it, and the *forceps* might have been applied by seven o'clock; but as there was nothing now in the case to create alarm, delivery was trusted to nature, and the child was expelled a little before nine. It was rather small, of the female sex, and had apparently been dead, from the first occurrence of the convulsions.

There is nothing in the above case very singular, or curious; but it is a good example of the advantages of free bleeding and other depleting and cooling remedies in puerperal convulsions, and tends to show, that it is not always necessary to proceed to immediate delivery in such cases. A contrary doctrine has indeed been maintained by most respectable authority, but, as appears to me, without due reason.

CASE II.

Sarah Rogers, aged 24, a patient in the Parochial Infirmary of St. George, Hanover Square, being near her full time, was attacked with puerperal convulsions, September 19th, 1811, on which account I visited her. *Mr. Leigh*, the very much respected Apothecary of that Institution, had bled her to the amount of twenty ounces, before I arrived, and had given some purgative medicines, but they had been rejected by vomiting. The number of epileptic paroxysms, which had occurred before I saw her, was five, and there were symptoms which indicated that another was at hand. An examination of the *os uteri* proved it to be very little open and very rigid.

She was directed to be bled again, to the amount of from twelve to twenty ounces: a dose of calomel was to be got down, and if she could be made to swallow it, a solution of salts in senna tea. A clyster, containing two ounces of *magnes. sulph.* was to be injected, and a cold lotion applied to the head.

In the evening she was evidently better; no convulsion had occurred since the last bleeding, and her recollection was beginning to return. A few labour pains had occurred, which had opened the *os uteri* to the size of a shilling. No stool had been produced, though she had taken several doses of her purging mixture, and had received three clysters, each containing two ounces of Epsom salts. A large piece of common nitre was introduced into the rectum, which in less than a minute occasioned a most abundant evacuation of *fæces*, to her great relief.

September 20th.—Better in all respects. The *os uteri*

open to the size of half a crown. Pains slow, but regular. Skin rather hot and dry; tongue furred. Cap. Haust. c̄ Liq. Ammon. Acet. f℥vi. Vin. Antimonii. ♏. x. sextà quâque horà.

September 21st.—Labour had proceeded uninterruptedly, but slowly. The head so low in the *pelvis*, as to be within reach of the *forceps;* but there was so much rigidity in the *perinæum*, that I thought it not right to make use of them.

Towards the afternoon the pains increased in strength, and at eight o'clock, p.m. she was delivered of a living child, by the natural pains, without any extraordinary assistance.

She had a very excellent recovery, and was able to suckle her child, which grew to be a fine boy, and is probably still living.

CASE III.

A woman, thirty years of age, who had once miscarried at three months, and was now advanced beyond the seventh month of her second pregnancy, after undergoing a hard day's work on Friday, and having walked many miles on Monday, March 8th, 1813, in search of a letter for a Lying-in Hospital, was attacked that evening with very severe pains in the stomach and bowels, for which a very respectable practitioner sent her some appropriate remedies.

In about twelve hours afterwards, she was seized with convulsions, and the same gentleman being immediately sent for, he bled her largely, and had her head shaved and blistered. The advice of a physician was

soon afterwards procured, who desired that a physician-accoucheur might be sent for.

When he arrived, the convulsions had occurred at intervals for about eight hours; the fits were very severe and violent: the breathing stertorous; her countenance was oppressed and hippocratic; she was constantly *grinding her teeth*, and could by no possibility be roused to any thing like consciousness. Her pulse was very strong, hard, and throbbing; it was therefore determined that she should be again bled, and about twenty ounces of blood were taken away, which had the effect of rendering the return of the convulsions less frequent.

By an examination *per vaginam*, now for the first time made, it was ascertained that the labour had commenced, but the progress was so small, that there seemed no chance of effecting the delivery by any means that could at present be undertaken. Cathartic clysters were thrown up, a blister was applied between the shoulders, and others to the calves of the legs. It was found impossible to get any thing down the throat.

Though the fits were less frequent, their violence did not seem to be abated; late at night, the *os uteri* was considered to be in too unyielding a state to render any attempt at delivery advisable; a midwife was therefore procured to stay with the patient, who was to apprize the gentlemen of any change that might happen. About three o'clock in the morning of the 9th, the child was suddenly expelled, it was very small, and appeared to have been dead some hours. After this, a longer interval between the fits elapsed, and the woman was capable of being roused sufficiently to take some calomel and other purgative medicines, and some nourishment; but in four

or five hours the fits returned, and at ten o'clock in the evening she died.

The body was opened the next day. The vessels of the brain were much loaded with blood: there was a very trifling effusion on the surface. At the very posterior part of the left lobe about a tea-spoonful of blood was extravasated.

The *uterus* shewed no particular marks of disease, except that on the right side there was a slight appearance of inflammation or contusion.

This patient had frequently complained of pains in the head, which she called rheumatic; this pain was very much increased by her hard day's work. After this hard day's work she complained likewise of having bruised and hurt her side.

It may be deserving of remark, that, during the convulsions and in the intermissions, there was no dilatation of the pupils; they were permanently in a state of contraction.

CASE IV.

Mrs. Westwood, about thirty-six years of age, after an interval of eleven years since her last child, became pregnant; and, towards the close of the usual term of gestation, became extremely dispirited and desponding, being prepossessed with an idea that she should not survive; though her friends and medical attendants were not conscious that she laboured under any disease.

September 2d, 1807, her pains began. I was sent for about eight in the evening, found the labour far advanced, and prevailed upon her to lie down upon the

bed, as I expected that a few more pains would bring the child into the world. She took two pains upon the bed, and we were expecting another, when the nurse observed some contortions in her countenance, and immediately a convulsion fit seized her, at the same moment with a pain, which expelled a live child.

She was largely bled, and after a few hours this operation was repeated: both times the blood presented a very inflammatory appearance. Blisters, calomel, cathartics, cold washes to the head, and clysters, were tried to stop the progress of the disease; but all was unavailing; she died in fourteen hours after the first seizure.

Leave to examine the body could not be obtained.

The countenance of women disposed to convulsions during labour, is frequently very florid; but in this woman, it was at all times very pale; and she was thin and delicate in her appearance.

CASE V.

Mrs. Wood, a healthy young woman, in her second pregnancy, complained frequently of pain in her head, which she considered to be rheumatic. Towards the latter end of November 1813, having then, as she supposed, nearly completed the eight month of pregnancy, she had a woman employed to wash for her, and she assisted in folding the clothes and afterwards in ironing them. Whether or not this exertion contributed to bring on the misfortunes, that occurred in the next week, cannot be known; it does not appear that she made any particular complaint of fatigue, nor did she attribute what followed to this circumstance: but on Sunday,

November 28th, she was much afflicted with this pain in the head, which continued on Monday. On Tuesday, she arose in the morning at her usual time, and began to prepare breakfast, and while she was about to cut some bread and butter for her child, complained that she could not see the loaf. Her husband led her to a chair, and after she had sat a short time, she recovered her sight again, and was so well that he left her to go to his employment. In the course of the morning she again lost her sight, and now sent to the gentleman who usually attended her, for advice. When he saw her, he thought her complaints arose from constipation, and went home to send her some cathartic medicine: at this visit she gave no intimation of any thing like the occurrence of labour, nor did her accoucheur suspect it; but before he could prepare her medicines, he received a hurrying message, stating that she was in labour, and in about half an hour after he got back to her, she was delivered of a premature living child. Nothing unusual occurred during the labour; but soon after she was put into bed, she desired to have her child brought to her, remarking, that she should like to kiss it, though she could not see it; and almost immediately she fell into a convulsion fit. Her medical attendant, who had left her about an hour, was now sent for again; but before he could arrive, she had one or two more fits. She was bled from a large orifice, and lost fourteen ounces of blood; a blister was applied between the shoulders, and other proper remedies were used. The blood had a thick inflammatory crust upon it.

I was desired to visit her between eleven and twelve at night: at this time she had passed a longer interval without a fit, than at any time since she was at first

seized. Her pulse was softer and slower, being about 100. Her face was flushed, skin warm and moist; she lay in a comatose state, but did not grind her teeth, nor was her breathing very stertorous. I ordered her head to be washed with a cooling lotion; directed Hydr. Submur. gr. v. et Solut. Magnes. Sulphat. 3^{ia} horis; a stimulating clyster, and sinapisms to the feet; and desired that more blood should be taken in the event of the convulsions returning.

Next morning I learnt that the fits returned soon after I left her, and continued through the night almost without intermission, so that little hope was entertained that she could recover. Contrary, however, to the expectations of every one, she ultimately got well; but was for a long time under the influence of slight maniacal affections.

APPENDIX, No. XXIX.

Management of the Placenta.—(See p. 149.)

During the time that I held the office of Physician-accoucheur at the *Westminster General Dispensary*, of the twelve stated midwives belonging to that charity, one, in particular, was very frequently in the habit of sending to me for assistance, in consequence of retention of the *placenta;* so that I was called by her to such cases, nearly as often as by all the others together. I had often endeavoured to discover the reason, why this midwife should be so unfortunate in her patients; but I could obtain no satisfactory explanation of the frequency

of the occurrence in her practice. A few years after I had retired from the Dispensary, the daughter of this midwife requested that I would give her some instructions in midwifery, in the course of which I strongly pointed out the propriety of leaving the expulsion of the shoulders to nature, after the birth of the head, as preparatory to a proper contraction of the *uterus*, and more ready and complete separation and expulsion of the *placenta*.

When I next saw her, she told me that she had mentioned to her mother what I had taught her on this subject, and that her mother had said, "she thought it the greatest nonsense in the world, to allow the poor woman to wait for a pain, to deliver the shoulders, when it was possible to finish the labour, by a little assistance without delay; for her part, she was always used to bring the child as soon as the head was born, and so she should still do." This anecdote at once explained the mystery; and I minuted it down, as an excellent illustration of Mr. White's judicious and convincing remarks.

APPENDIX, No. XXX.

Inversion of the Uterus.—(See p. 151.)

CASE I.

In January 1802, Mrs. Edwards, residing in Brick Street, Piccadilly, was delivered of her first child by Mrs. Cobb, a midwife of much practice.

The labour was natural, and of no considerable dura-

tion. Some little time after the child was born, the midwife endeavoured, by tightening the naval string, to extract the *placenta*, when a very violent pain came on, and the *uterus* was completely inverted, the *placenta* remaining attached to it. On this my friend the late *Dr. Seares* was immediately called in; and he, finding things in this state, desired that I might likewise be sent for.

When I arrived, which was in about fifteen or twenty minutes after the accident happened, the body of the *uterus*, with the adhering *placenta*, was lying without the *os externum;* blood was flowing profusely from the internal surface of the *uterus*, especially from those parts where the *placenta* was detached; and the woman was in such an exhausted state, that we doubted if she could survive, till the *uterus* should be replaced. We perfectly coincided in opinion respecting the plan to be pursued; and as no time was to be lost, *Dr. Seares* removed the partially separated *placenta*, and returned the *uterus* within the *vagina*, while I was laying bare my arm. I then introduced my hand, carrying the *fundus uteri* before me, till I had passed my arm quite to the elbow within the *vagina;* at this moment I found the *fundus uteri* spring from the back of my hand, and the *os uteri* began to contract; I therefore cautiously withdrew my hand, and soon had the satisfaction to find that the hemorrhage ceased.

Mrs. E——, during the whole operation, was in a state of *syncope;* but on our giving her some wine and other cordials, she revived, and afterwards recovered perfectly without a single bad symptom. She has since borne several children, and has never found any inconvenience from this alarming and dangerous accident.

Had a very little time longer been suffered to elapse,

before this inversion was reduced, one of two things must have happened; either the patient would have sunk beyond recovery, from the profuse hemorrhage; or had the hemorrhage been stopped by the contraction of the *uterus*, that very contraction would have prevented us from making any impression on the *fundus*, and the *os uteri* would have been closely shut against any attempt we could have made to relax it. Delay indeed in such cases, is, above every thing, to be deprecated; for sometimes the contraction of the womb is so rapid, that unless the inversion be reduced in a few minutes after the accident has hapened, all attempts to return it will be ineffectual.

I had fancied, that the *springing* of the *uterus* from the back of the hand, when its re-inversion was completed, was for the first time remarked in this case; but a similar observation had been made by the late *Dr. Squire*, as the next case evinces.

CASE II.

By the late *Dr. Squire*.

"Mrs. Schroeder, Green Court, Brewer Street, aged about 21, after the birth of her first child, had the *uterus* completely inverted, with the *placenta* adhering to the *fundus*.

"The midwife, who attended her, sent for me, and I was with the patient about twenty minutes after the accident; and, on enquiring into the situation of the poor woman, I was informed there had been a profuse hemorrhage,

and the people about her supposed her really dead; nor had she indeed much appearance of life, for there was no pulse at the wrist, nor could it be perceived that she breathed.

"Examining I found the *uterus* completely inverted, and immediately separated the *placenta;* and whilst I was attempting to replace the *uterus*, *Dr. Douglas*, who had been likewise sent for, came into the room.

"By keeping a steady and firm pressure at the *fundus*, the *uterus* passed gradually before my hand; but when getting just above the arch of the *pubes*, it shot up suddenly with a kind of spring, as is frequently perceived in a rupture, when a part of the contents has been returned. *Dr. Douglas* assisted me, and we were both satisfied that the *uterus* was replaced. We remained with the poor woman for some time, it being long doubtful whether she would not have died from the great loss of blood; and it was near an hour before it could be pronounced that there was a probable chance of her recovery. The day following, a fever supervened, with a tense *abdomen* and great pain, which lasted several days.

"*Dr. Douglas* visited with me till we saw the patient free from danger. At the end of the month she was perfectly recovered. About fourteen months after this accident, she brought forth another child without any untoward symptom in or after labour."

CASE III.

The following "Case of Introsusception of the Uterus, which proved suddenly fatal," by a physician who did not practise midwifery, is detailed with a mi-

nuteness that cannot fail to be interesting and instructive; it was drawn up by *Edward Smyth, M.D.*, formerly of Andover, in Hampshire.

" During my residence at Wexford, a lady in that county, about twenty-two years of age, very tall and corpulent, became pregnant three months after marriage, and passed the term of utero-gestation without any remarkable disturbance to her general health. As she chose to be attended by a midwife, I was requested to be in the house at the time, though I do not practise in that branch of the art.

" On the 25th of October, 1785, her labour came on in the afternoon, her pains continued moderate all that evening, but in one constant uniform tenor without being very violent, and she was that night, about half-past ten, naturally, and with seeming safety, delivered of a large living female child. The *placenta*, which was larger than usual, came away soon after the birth of the child, and the midwife declared, without any force being used; and the *funis* was not divided till after it was delivered.

" I was then called into the room, and the lady complained to me of being very low; her countenance, instead of the usual redness, was become pale; her pulse quick and small; she also expressed a sense of general coldness, with the most ardent thirst. She asked for some claret, and drank two or three glasses, with particular avidity. She now complained of pains, which felt to her far superior in acuteness, to those of labour and which darted from the *uterus* up to the stomach, but were of short duration. Supposing spasm to be the cause, I gave her some thebaic tincture, and quitted the room, in order that the bed-linen might be regulated. On my return, I found her complaining of pains similar to what

women call after-pains, which she said went off, on her feeling something pouring from her; but on examining the cloths, I could not find, that there was any superfluous or weakening discharge.

"To the symptoms above described, were added great restlessness and anxiety, with a gradual increasing coldness of the *abdomen* and extremities, the countenance became cadaverous, and the pulse continued alarmingly quick and small. By the application of flannels dipped in hot brandy to the *abdomen*, by continued frictions, and warm flannels applied to the hands, and by the exhibition of burnt brandy, with a large dose of thebaic tincture, she became universally warm; and about four o'clock in the morning took about a pint of gruel, seemed easier, and inclined to sleep. I then retired, but saw her again before eight the same morning; when I found she had experienced very little ease from the time I left her.

"Supposing spasm and hysteria (to which last she had been subject) as the cause of all these symptoms, I exhibited fetid and thebaic tincture alternately, and endeavoured to support her with wine whey. In spite of which, cold sweats appeared on the face; the extremities became again cold, and symptoms of approaching death were now evident. At ten that morning, her pulse was become imperceptible, although she still spoke strongly and sensibly. At one, she, on a sudden, lost her speech: and, in an hour after, which was within sixteen hours from the delivery, died without a struggle or groan, having neither had syncope, delirium, or any profuse hemorrhage. The nurse, after the lady's decease, told me, that very early after delivery, she had com-

plained to her of the womb and private parts being numbed."

Dr. Smyth being extremely desirous to discover the cause of so fatal an occurrence, obtained permission to examine the body; but there was nothing to explain the symptoms which had preceded the patient's death, till they examined the *uterus;* "which had a very uncommon appearance. It was inverted exactly at the centre of its *fundus*, and resembled a cup with a number of *plicæ* or folds round it, and was so strongly contracted, as to require the utmost efforts of myself and son, by pulling at the *ligamenta rotunda* on each side, to reduce it to its proper shape and situation. Examination *per vaginam* being prevented by the women present, the exact depth to which the inverted *fundus* reached, could not be accurately ascertained, but I think I may aver with confidence, that it had not passed the *cervix uteri*, as it did not seem to me to be inverted beyond half its length."

CASE IV.

A case of spontaneous inversion of the *uterus* occurred in the practice of my uncle, *Dr. Merriman.*

"Mrs. Bishop was so much distorted in the *pelvis*, that it was found impossible for her to be delivered, till the child's head had been lessened by the *perforator.* Having several times successively undergone this process, she was at last prevailed upon to have premature labour induced, when in the eighth month of pregnancy; but the child presenting the *nates*, it was unfortunately dead born. Mrs. Bishop, however, suffered, compara-

tively, so little from this labour, and recovered so well and so speedily after it, that in her next pregnancy, she was quite impatient for a repetition of the operation.

"On this occasion, the membranes were not pierced; but the connection between the *chorion* and the *uterus* was destroyed, by means of the common long flat female catheter, carefully introduced between them.

"In consequence of this irritation, a muco-sanguineous discharge was produced, and the labour came on in two or three days. The child was born alive, and in health, and the *placenta* came away without any difficulty, and certainly without any suspicion of injury to the *uterus*. The mother recovered in the usual time, and was enabled to suckle her child, a fine boy.

"Between six and seven months after her delivery, and while the child was still living upon the breast, upon some slight strain, she suddenly felt something give way within her, and immediately afterwards was sensible of a weight or pressure low down in the *vagina;* upon which the late *Dr. Rowley* was sent for, who, upon examination, found the *fundus uteri* so low in the *vagina*, as almost to protrude through the *os externum*. *Dr. Rowley*, finding matters in this situation, sent for *Dr. Merriman*, and they jointly endeavoured to re-invert the *uterus; Dr. Denman* likewise, and several other accoucheurs, saw the case; but no means that could be used were successful in restoring the parts to their natural state; and the patient remained with the *uterus* in this state till her death, which occurred in about two years."

APPENDIX, No. XXXI.

Extirpation of an inverted Uterus.—By Mr. Chevalier.
(See p. 151.)

"My dear Sir,—Herewith I send you the drawing which was taken by *Mr. Richter*, from Sarah Ford, the woman whose *uterus* I removed by ligature, prior to that operation. I regret that my notes of the case are but imperfect; as the late *Dr. Boys*, who introduced the patient to me at the *Westminster General Dispensary*, assured me of his intention to keep a particular account of its progress after the ligature was passed, and of its antecedent history. I have no doubt that he did so; but after his death, his memoranda could not be found, and therefore I can only refer to my own.

"The woman was 54 years of age, of short stature, and the prolapsus had taken place some years before, after a painful labour. I think she ascribed it to violent straining at stool Adhesive inflammation must have taken place, and have fixed the parts permanently in their unnatural situation; and it will be evident, from the drawing, that the fundus of the bladder must have been drawn down into the prolapsed *vagina*. She had a continual *stillicidium urinæ*. The *vagina* was greatly thickened, of an opaque whitish colour, and had a leathery feel; from the surface of the everted *uterus*, there was a constant mucous discharge. The tumour reached to below the middle of her thighs, and its bulk and friction, and the tenderness of the uterine portion, almost disabled her from labouring for her support. It was therefore ex-

tremely probable, that the removal of as much as could be safely taken off, would save her from a great deal of suffering; and I was the more encouraged to make the attempt, from having a patient at the same time who had as complete an aversion of the *vagina*, and not any of the *uterus*, (which could be distinctly traced, unadhering within it,) and whose inconveniences, though very considerable, were far more tolerable. Indeed, in both cases, the *vagina* seemed to retain but little sensibility.

"The *cervix uteri*, round which the ligature was passed, was about four inches in circumference; the whole of the *uterus* being enlarged by its depending situation, and the construction of its vessels. It was of a dark red colour.

"The ligature was first applied on the 12th of April, 1804, and was tightened successively on the 14th, 20th, 23d, and 26th; and the part having for some days appeared to be completely killed, it was taken off below the ligature on the 2d of May. She suffered very little during all this time. On the 17th her pulse was 84, on the 23d, 120; and on the 28th, 100. There was no tension of the *abdomen*, and the sore healed in reasonable time.

"I saw her from time to time for several years; but having missed her rather longer than usual, I was, on inquiry, informed, to my great vexation, that, having been taken ill some weeks before, she was removed to the parish work-house, and there died and was buried, without any knowledge of these circumstances having been communicated to the medical gentleman, or any other person who attended her.

"On examining the *uterus* after removal, it appeared to be only half everted; so that there was a sort of intus-

susception of it into itself. The ligature, however, had cut it through quite clear of the *fundus*. The vessels by their previous condition, and their strangulation by the ligature, were gorged with blood; and, from these circumstances, and the commencement of putrefaction, the texture of the part was considerably changed; but not so much as to prevent its being recognized as the *uterus* itself, and not an excrescence from it. Indeed not a doubt of this could have existed before the operation in the mind of any person who examined it. It is still preserved in my collection.

"The ligature I used was a simple noose; but were I to do the same operation again, I should now employ that which I have recommended for the extirpation of diseased tonsils, and which is described in the third volume of the *Medico-Chirurgical Transactions*, as it is much more secure and manageable, and is less liable to slip in being tightened. It may be made either single or double.

"I am, dear Sir, ever faithfully your's,

"T. CHEVALIER."

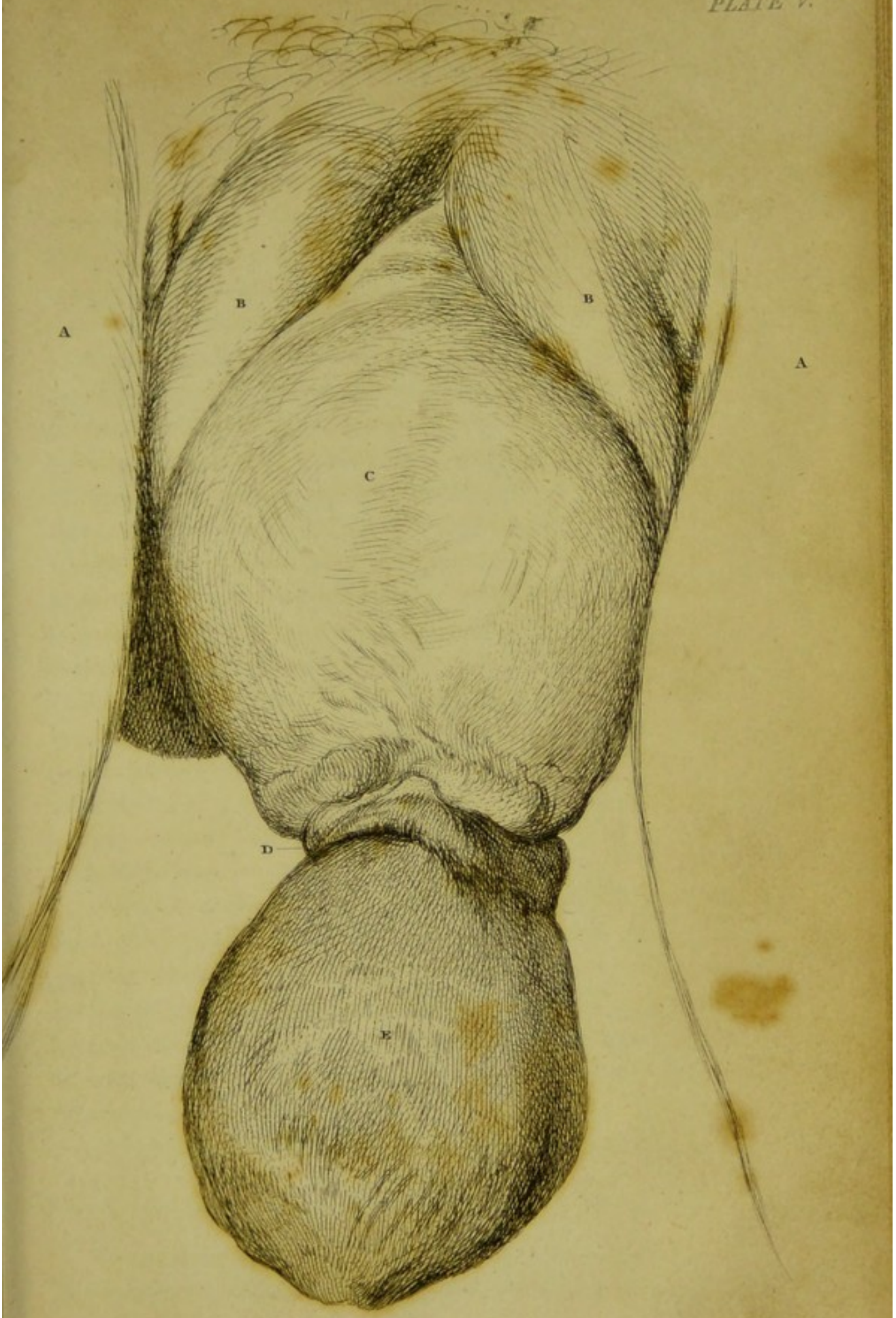
South Audley Street, Oct. 9, 1819.

AA The thighs, BB the *labia*, C the *vagina*, D the part where the ligature was applied, E the *uterus*.

APPENDIX, No. XXXII.

Of the Fillet.—(See p. 154.)

THE *fillet* or *lacque*, consisted of a strip of strong cloth formed into a noose, and it was sometimes con-



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trived with whalebone or steel, so as to be more easily passed over the chin, or round the neck of the child, and thus to give the operator the means of using much force to extract the head. Before the *forceps* became generally known, the practitioners of midwifery entertained a very high opinion of the merits of this instrument; as may be judged, from the care taken by different persons to inculcate a belief that they possessed a secret and superior method of forming and employing this contrivance; and also from the high price which was sometimes demanded for the sale of this supposed secret; which, in the case of *Dr. Birch*, was £500*. It is impossible to divest oneself of the opinion, that there was frequently much of trick in the use of this contrivance; that the operator claimed for himself the merit of having effected the labour by his skill and address in employing an instrument, when in fact the patient was indebted to nature alone for her delivery; for it is sufficiently apparent that this kind of instrument was inadequate to the purpose of safely terminating the delivery in cases of real difficulty.

Probably there is no practitioner now living in England, who has witnessed the use of the *fillet* in natural presentations. I am induced therefore to relate, as a matter of curiosity, the particulars of a case in which this instrument was employed. I have somewhat abridged it from the MS. statement of my uncle, the late *Dr. Merriman*.

When young in practice, he was engaged to attend a

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* "*A short Account of the state of Midwifery in London, Westminster, &c. By John Douglas, Surgeon, F.R.S.* 1736, p. 60.

woman of her second child. In her first labour she was delivered by a midwife; the child came footling, and, after a very painful labour, it was still born. When her second labour came on, which was preceded by a discharge of the *liquor amnii*, she sent for *Dr. M.* who, finding the pains to be very insufficient, left her. For two days little progress was made, but on the third the *os uteri* began to dilate, though very slowly, the head continuing very high in the *pelvis*. The loss of the first child having made the friends of this patient very anxious respecting her, it was proposed that another accoucheur should visit her, and this being agreed to, *Dr. R.* a native of France, and an accoucheur of much celebrity, was sent for. On examining the patient, he gave it as his opinion, that she might be speedily delivered, if assisted by the *fillet*, and politely proposed that *Dr. M.* should endeavour to deliver with that instrument; but he declined the offer, both because he was not convinced that any instrument was then required, and because he doubted whether the *fillet* could he applied or acted with. *Dr. R.* therefore proceeded to the operation.

"A strong new *fillet* being procured, and the proper noose made, it was dexterously enough introduced, and, though it put the woman to a great deal of pain, at length fixed, and drawn close round the neck of the child. The Doctor then began pulling with considerable force; but as the *fillet* galled his hands, he procured a common rolling pin, round which he tied the ends of the *fillet*, and pulled again with very great force, till he exerted the whole of his strength, perhaps not judiciously enough waiting for, and taking advantage of, the pains.

"This exertion put the patient to inexpressible tor-

ture, but did not seem to answer the end proposed, as the head advanced but very little, and probably was turned to one side by the *fillet;* which, from the nature of its hold, could only draw in one direction, and that perpendicularly from the part to which the noose was fixed, which, whether on one side of the neck, over the *occiput* or over the chin, must have a tendency to drag down that part first, and, consequently, the head must be doubled on the neck, and the difficulty thereby increased, rather than diminished. That this was really the case, the event shewed; for, by the prodigious force used in pulling, the *fillet* at length came away, bringing inclosed in its noose, some of the skin and flesh with one of the *vertebræ* of the neck.

"This was an undeniable proof, that the *fillet* had actually cut off the child's head, which was left in the *pelvis.* There remained therefore no remedy, but to try what could be done by opening the head and extracting with the *crotchets;* and, luckily, the head was by this time, so engaged in the bones of the *pelvis*, that it was not pushed back into the *uterus* by the attempt to perforate the skull. This perforation was made, in one of the *ossa parietalia*, and not in the *vertex*, by which it plainly appeared, that the head had been drawn to one side by the *fillet.* At length, with much difficulty, the head was extracted, and the body easily followed.

"Immediately after delivery the *lochia* ceased, a violent fever with *delirium* came on, and the *abdomen* was prodigiously tumefied; on the second day the patient grew stupid and insensible, and in a few hours died."

I have frequently heard my uncle say, that the screams of this poor woman, under the operation, were

greater than he ever witnessed in any other case of labour.

From many inquiries that I have made, I have reason to believe this was the last time that the *fillet*, in natural presentations, was used in London.

In *Hamilton's Elements of the Practice of Midwifery*, (1775,) p. 194, the extraordinary case of a young woman is recorded, who, when apparently in the agonies of death, was deserted by her medical attendant, after he had by some means separated the head from the body. This poor woman was afterwards delivered first of the body, and then of the child's head by *Mr. Robert Smith*, a celebrated surgeon at Edinburgh, and ultimately recovered. It is probable that the separation in this instance was effected by injudicious and violent force with a *fillet*.

APPENDIX, No. XXXIII.

List of Cases in which the Cæsarean Operation has been performed in the British Islands.—(See p. 164.)

	LIVES	
	Preserved.	Not Preserved.
1. *Mary Dunally*, a midwife, performed the operation with a razor, on Alice O'Neal, near Charlemont, in Ireland. Child dead; mother recovered, 1738.—(*Edinburgh Essays*, vol. v.).....	1	1
Carried forward.....	1	1

	LIVES Preserved.	Not Preserved.
Brought forward.....	1	1
2. *Mr. Robert Smith* operated upon —— Paterson, in the Canongate, Edinburgh. Child and mother both lost their lives. The operation is said to have been performed in 1737; but this seems a mistake for 1757.—(*Smellie*, vol. iii. collect. xxxix. No. ii.) ...		2
3. *Dr. Young* operated upon a woman, about a mile from Edinburgh. "She was distressed with a constant vomiting; and I found the *pelvis* very narrow." "In performing the operation, I had no occasion to take up any vessel; having got into the womb, I could not possibly get the child away, till I caused one to press up the head from the *vagina*, a part of it was so closely wedged in the *pelvis**. However, I brought away the child alive; but it fell into convulsive fits, and died in a few days." The mother died.		2
4. *Dr. Young* again operated on "a little de-		
Carried forward.....	1	5

* The bulk of the head must of course have passed through the superior aperture of the *pelvis*, or there could not have been this difficulty in withdrawing the child. Was the operation at all necessary under such circumstances?

		LIVES	
		Preserved.	Not Preserved.
	Brought forward..	1	5
	crepid woman, in the Royal Infirmary." The woman died in a few days; but the child was alive, and "was shewn at the class, a healthy promising girl."—*(M.S. Lectures, formerly Dr. Dale's, taken in* 1773.)	1	1
5.	*Mr. Alexander Wood* is stated, in *Dr. Hamilton's Outlines of Midwifery*, to have performed this operation; but no other account is given, except that the child and mother were both lost.		2
6.	*Mr. Chalmer* performed the operation on Elizabeth Clerk, in 1774. The case is detailed in *Hamilton's Outlines.* Child alive; mother died.....	1	1
7.	*Dr. Hamilton, Jun.* performed the operation in 1795. The case is detailed in *Hamilton's Outlines.* Child was putrid; mother died.		2
8.	*Mr. W. Whyte*, of Glasgow, in 1775. Both mother and child perished.—(See *Hull's Defence of the Cæsarean Operation*, p. 66.)		2
9.	*Mr. Kay*, of Forfar. Child born alive; mother lived eleven days.—*(Hull's Defence*, p. 66.).....	1	1
10.	*Dr. White*, of Manchester. Child and mother both died.—*(Hull's Defence*, p. 67.) ...		2
	Carried forward.....	4	16

	LIVES	
	Preserved.	Not Preserved.
Brought forward.....	4	16
11. *Mr. Thompson* performed the operation on Martha Rhodes, at the London Hospital, in 1769, in the presence of many physicians and surgeons. Child was extracted alive, fell into convulsions on the next day, and the day after died. It had an uncommon excrescence on the forehead, communicating with the brain. Mother died.—(*Medical Observations and Inquiries*, vol. iv.).....		2
12. *Mr. John Hunter*, in 1774, operated on Mrs. Foster. The child was alive; the mother died.—(*Medical Observations and Inquiries*, vol. v.).....	1	1
13. *Mr. Atkinson*, in 1777, operated upon Elizabeth Hutchinson, at Leicester. Child alive; mother died.—(*Vaughan's Cases of Hydrophobia, &c.* 1778.).....	1	1
14. *Mr. Clarke* opened the *abdomen* of a woman, from which he extracted a dead child; the mother died. The child was at the time extra-uterine.—(*Memoirs of Medical Society of London*, vol. iii. p. 197.).....		2
15. *Dr. Hull* operated upon Isabel Redman, in 1794. Child alive; mother died.—(*Hull's Defence*, p. 172.).....	1	1
Carried forward.....	7	23

		LIVES	
		Preserved.	Not Preserved.
	Brought forward.....	7	23
16.	The same gentleman performed the same operation in 1798, on Ann Lee; both mother and child perished.—(*Defence*, p. 162.).....		2
17.	*Mr. Barlow* operated upon Jane Foster, in 1793. Child died; mother recovered.—(*Medical Records and Researches*, p. 154.)	1	1
18.	*Mr. Wood* performed the operation on Elizabeth Thompson, in 1799. Child alive; mother died.—(*Memoirs of Medical Society*, vol. v.—*Hull's Observations on Mr. Simmon's Detection*, p. 109.).....	1	1
19.	*Mr. John Bell* performed the operation, in 1800, at Edinburgh. Child lived; mother died.—This case is fully related by *Mr. CharlesBell.*—(*Medico-Chirurgical Transactions*, vol. iv. p. 347.)	1	1
20.	*Mr. Dunlop*, of Rochdale, operated on Susan Holt. Mother died; child lived a fortnight.—(*Hull's Translation of Baudelocque*, p. 134.)		2
21.	*Mr. Wood* gives the case of Hannah Rheubotham, in the sixth volume of the *Medical and Physical Journal*, p. 346; both mother and child perished.....		2
22.	*Dr. Kellie* relates a case in the *Edinburgh*		
	Carried forward.....	10	32

	LIVES Preserved.	Not Preserved.
Brought forward.....	10	32
Medical and Surgical Journal, vol. viii. p. 11. Mother died; child born alive, died the next day.,.....		2
23. *Mr. Kinder Wood*, in the *Medico-Chirurgical Transactions*, vol. vii. p. 264, relates a case; both died.....		2
Total.....	10	36

APPENDIX, No. XXXIV.

Deformities of the Pelvis.—(See p. 165.)

According to *Stein* and *Plenck*, the varieties in the dimensions of the conjugate, or short, diameter of the *pelvis*, may be reduced to *seven* species.

"1. A conjugate diameter of 4 Paris inches affords an easy delivery. Of course in this case it is to be trusted to nature.

"2. A conjugate diameter of $3\frac{3}{4}$ inches occasions a slow birth, but the child will be alive. This case may require the assistance of the lever.

"3. A conjugate diameter of $3\frac{1}{2}$ inches occasions a dead child, if the labour be trusted to nature; but a timely use of the *forceps* will bring the child alive.

"4. In a conjugate diameter of $3\frac{1}{4}$ inches, the efforts of nature alone cannot effect the delivery; and if the *forceps* are used, the child will be dead: in this case then, recourse must be had to the section of the *symphysis pubis*, if the child be alive; to the *perforator*, if dead.

"5. A conjugate diameter of 3 inches, $2\frac{3}{4}$, $2\frac{1}{2}$, or $2\frac{1}{4}$, prevents either nature or the *forceps* from effecting the delivery. Therefore, if the child should be living, the *Cæsarean section* must be performed, or the *perforator* must be used if it be dead.

"6. A conjugate diameter of 2 inches renders delivery impossible. If the child be alive the *Cæsarean operation* must be performed. If the child be dead, it is scarcely possible to open the head.

"7. A conjugate diameter of $1\frac{3}{4}$ or $\frac{1}{2}$ inch renders delivery impracticable. Whether the child be living or dead, it must be extracted by the *Cæsarean section.*"—*Plenck Elem. Artis Obstet.* p. 103.

The English accoucheur will be not a little surprised at some of the rules thus laid down, especially when he recollects that the Paris inch greatly exceeds the English.

The French inch is divided into 12 *lines*, and it measures about *one line* more than the English. *Four French* inches, therefore, are equal to rather more than *four and a quarter English.*

APPENDIX, No. XXXV.

Effect of Diet upon Pregnant Women.—(See p. 170.)

CASE I.

A lady, who had borne one child, fell into an ill state of health when pregnant with her second. She lost her appetite, became very much extenuated, had an extremely quick pulse, cough, and so much general debility as to be hardly capable of walking across the room. Under the care of a very eminent physician she was repeatedly bled, underwent a course of digitalis and hyosciamus, lived altogether upon vegetable diet and that sparingly, and took no wine or other fermented liquors.

Occasionally she was seen in consultation by another physician, and likewise by the late *Dr. Denman;* and great fears were entertained, whether she could possibly reach the full time of gestation; and, if she did, whether she could long survive the birth of her infant.

Fortunately, however, she arrived at the end of her pregnancy, and was delivered, after a tolerably favourable labour, of a very fine healthy child, larger in size than her first.

This lady, since her recovery, has had another child: but though her health was better during her last pregnancy, the child, at its birth, was hardly equal in size to the former.

CASE II.

A young woman, who was married to a gingerbread baker, took a fancy during her first pregnancy to chew

ginger. The quantity of this spice, which she thus consumed, was estimated at several pounds. She went her full time, and had a favourable labour; but the child was small and meagre, its skin was discoloured and rough, much resembling the furfuraceous desquamation that takes place after *scarlatina*. The child continued in an ill state of health for several weeks, and then died. She had several children afterwards, all healthy and vigorous. The inclination for ginger only prevailed with her first infant.

CASE III.

The wife of a coachman had borne one child, healthy and moderately sized. In her second pregnancy, she became very fond of gin and water: how strong she made it I never learnt; but she drank it in large quantities, taking no other liquor except tea, and frequently she preferred the gin and water to that. When she was delivered, her child was small and lanky. Its voice was weak, its face wrinkled and ghastly, and its belly collapsed; its skin was mahogany coloured, and hung in folds all over the body: there being no muscular fulness to keep it distended. This child lived in much suffering for about ten days, and then died in convulsions.

The mother soon became pregnant again, and told me, that she could not bear the taste nor even the smell of gin; her mind was now directed to porter, and of this she drank three or four pints daily. She was taken ill at her full time, had a very long and tedious labour, and at length was delivered, by the natural efforts, of a very large still born child, which had evidently lost its life from the severity of the labour.

From these cases it may be inferred, that very slender diet is not always to be depended upon, for preventing the growth of the *fœtus*. It is hardly to be supposed, that any healthy woman with a deformed *pelvis*, would subject herself to greater abstemiousness, than the ill health of the lady in Case I. obliged her to submit to: yet in that case, the infant, so far from being deficient in bulk, was really well sized. The ill effects of ardent and heating stimulants on the *fœtus* are sufficiently apparent in Cases II and III.

These cases likewise tend to prove, what no man, who has had opportunities of observation, has ever doubted, that the popular doctrine is false and indefensible, which teaches, that pregnant women should be allowed to indulge all the capriciousness and wanton absurdities of their appetites; it being most certain, that however safe and uninjurious some of the articles of diet longed for may be, others cannot be taken without danger of hurting either the mother or the child.

ADDITIONAL NOTES.

I.

I have been favoured by *Dr. Hamilton,* of Edinburgh, with a letter, dated June 20th, 1820, explanatory of his practice with the *forceps* in *nates* presentations, see p. 72. He says, "when the breech becomes impacted in the *pelvis,* and the pains fail so as to require artificial assistance, if within the reach of the *common short forceps,* there is no difficulty whatever in extracting it, even with four or five efforts, if the belly of the infant be turned towards the nearer *sacro-iliac-synchondrosis.* It was from not understanding this, and partly also from the blades of his *forceps* being too narrow, that the late *Dr. Clarke* was foiled in his endeavours to accomplish the delivery in this way."

II.

Dr. Gooch has described a case of what has been called the spontaneous evolution of the *fœtus,* (see p. 88.) His statement supports, in every point, the explanation of this process as given by *Dr. Douglas. Dr. Gooch* very properly says, "at this time it is impossible to say what influence a minute and accurate knowledge of this process, its causes, its mechanism, and the way to facilitate it, may have on our future practice in arm presentations. In the present state of our knowledge, however, an acquaintance with this fact ought to have little influence on our practice. If the arm and shoulder protrude far, the pains are strong, and the thorax presses hard on the *perinæum,* it will be right to wait and watch for a little time; beyond this, whoever suffers a knowledge of this rare fact to discourage him from turning in arm presentations, would be guilty, I think, of criminal irresolution."

TABLES.

VARIOUS tables have been published, with the intention of shewing, in a strong point of view, the occurrences, extraordinary incidents, deaths, &c. to which the processes of pregnancy and parturition are liable: and it will be admitted, that such tabular views are capable of teaching many facts, which otherwise might escape observation, and of ascertaining many particulars, which might otherwise remain obscure.

The first obstetrical tables that I have met with, are those published by *Mauriceau*, in some of his earlier editions, but omitted in the later. These were intended to prove, that children born at eight months are more capable of living, than such as come into the world at seven months *; and, secondly, to shew, that pregnancies are sometimes protracted beyond the term of ten lunar months, from the period at which the *catamenia* were last observed.

Titzing and *Beckman* collected, at Amsterdam, tables of malpositions, and instrumental cases, for eighteen years between 1741 and 1765†. By these it appears,

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* *Hippocrates* taught, that though infants born at seven months were capable of living, those at eight months were not; and there are some weak people, who even now believe this absurdity.

† *Jacobs' Ecole des Accouchmens*, 1785.

that during those years there were 262 cases of impacted head, and 3 face, 98 arm, 61 feet, 66 nates, 2 back, and 44 funis presentations in that city; but as the number of labours producing these accidents is not specified, they can excite but little interest.

J. F. G. Dietz, one of the pupils of *Roederer*, published, in 1757 *, various tables to determine the time of quickening, and the average weight of children at birth: by which some erroneous opinions on this subject were disproved.

Dr. Joseph Clarke †, Physician to the *Dublin Lying-in Hospital*, has likewise made some calculations, respecting the average size of children at birth, and has shewn, that boys are rather larger and weigh heavier, when first born, than girls: the weight of boys being, upon an average, 7lb. 5oz. 7dr. avoirdupois; that of girls, 6lb. 11oz. 6dr.

Smellie has entered into a loose kind of calculation respecting preternatural and instrumental labours. He supposes that of 1,000 pregnant women, 990 will be delivered without any other than common assistance, that 6 will require to be delivered by the *forceps* or *crotchet*, and that in 4 cases the child must be artificially extracted by the feet, twice on account of the *nates* presenting, and twice on account of the arm. As to malpresentations, he thinks that in the 1,000 labours, the child will present wrong about 60 times.

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* *Roederer Opuscula Medica.* Gottingen, 1763.

† *London Medical Journal*, vol. ix. 1788.

viz. with the forehead to one side, 50 times.
— the ear ——— 1 or 2 —
— the face ——— 2 or 3 —
— the nates ——— 7 —
— the arm ——— 2 —

but he evidently did not intend to have this considered as a very accurate estimate.

Leake, in an equally loose way, states, that in 1,000 women, the proportion of labours will be

900 natural.
70 laborious.
30 preternatural.

The late *Dr. Bland*, taking advantage of the situation which he held, as physician-accoucheur at the *Westminster General Dispensary*, instituted a very exact inquiry into the various kinds of labours which occurred among the patients of that Charity, and published in the *Philosophical Transactions* (1781) the result of his inquiries. A part of *Dr. Bland's* paper, viz. the "Table, shewing the proportion of difficult labours, and of the accidents and deaths that happen in consequence of child-birth," which bears marks of great accuracy and correctness, was printed in the former edition of this *Synopsis*, and is here republished: and several other tables and calculations are inserted, which I thought likely to prove useful.

TABLE I.

Statement of Presentations at the Maison d'Accouchemens, furnished by the late M. Baudelocque.

" There have been admitted into the Lying-in Hospital at Paris *(Maison d'Accouchemens)*, between the 9th of Dec. 1799, and the 31st of May 1809, 17,308 women, who gave birth to 17,499 children: 189 of them have been delivered of twins, and two only of three children. The proportion of twin cases to single births is 1 to 91.

" *Two thousand of these women were affected afterwards with illness, or some serious accident; 700 died out of the* 2000.

" Of the 17,499 births, 16,286 were presentations of the *vertex* to the *os uteri*.

No.		Proportions.
215	were presentations of the feet	1 to $81\frac{2}{3}$
296	the breech	1 — $59\frac{1}{9}$
59	the face	1 — $296\frac{1}{2}$
52	one of the shoulders	1 — $336\frac{1}{2}$
4	the side of the thorax	1 — $4374\frac{3}{4}$
4	the hip	1 — $4374\frac{3}{4}$
4	the left side of the head	1 — $4374\frac{3}{4}$
4	the knees	1 — $4374\frac{3}{4}$
4	the head, an arm, and the cord	1 — $4374\frac{3}{4}$
3	the belly	1 — 5833
3	the back	1 — 5833
3	the loins	1 — 5833
1	the occipital region	1 — 17499
1	the side, with the right hand	1 — 17499

No.		Presentations.
1	the right hand and left foot - -	1 — 17499
1	the head and the feet - - -	1 — 17499
2	the head, the hand, and forearm -	1 — 8749½
37	the head and umbilical cord - -	1 — 473

"Of this great number of women 230 were delivered by art; the rest were natural births: being in proportion of 1 to 76½. 161 were delivered by the hand alone, the children being brought by the feet; 49 were delivered by the *forceps*, either on account of the small dimensions of the *pelvis*, the falling down of the umbilical cord, or the wrong position of the head, when the woman was exhausted, or her life was in danger by convulsions, &c.; 13 were extracted by the *crotchet* after perforation of the head, on account of mal-conformation of the *pelvis*: in these instances, the death of the child was first ascertained.

"The Cæsarean operation was performed in two cases, the diameter of the *pelvis* being only one inch six lines from *sacrum* to *pubes*.

"In one, the section of the *symphysis pubis* was performed, the diameter of the *pelvis* from *sacrum* to *pubis* being only two inches and a quarter.

"*Gastrotomy* was performed once, the *fœtus* being extra-uterine: the child weighed 8lb. 2oz."

TABLE II.

Exhibiting the Result of Practice at the Hospice de la Maternité, at Paris, among 20,357 *Patients, from* 1797 *to* 1811; *taken from Madame Boivin's "Memorial de l'Art des Accouchemens,"* Ed. 2d. (1817.)

N. B. The preceding Table, exhibiting the cases of 17,308 women, is included in this.

20,357 women produced 20,517 children—20,200 being single, 154 twin, and 3 triplet briths.

20,183 children were born without artificial assistance.

218 ——— delivered by *turning.*

96 ——— by the *forceps.*

16 ——— by the *perforator.*

2 ——— by the *division of the symphysis pubis.*

2 ——— by *Gastrotomy.*

No mention is made of the number of deaths among the children born without artificial assistance: but among the 334 were artificial aid was required, 91 were dead born; of which 68 appear to have lost their lives during the labour, and 23 were dead before the labour begun. Of the deaths of the mothers we learn nothing from *Madame Boivin.*

TABLE III.

Statement of the Practice at the Lying-in Hospital at Vienna; from Professor Boer's "Medicina Obstetricia." (1812.)

18,642 women delivered, 211 deaths, or 1 in 93. Among 9,589 of the above patients,

35 or 1 in 274 were delivered by the *forceps.*
13 or 1 in 738 ——————— *perforator.*
51 or 1 in 188 ——————— *turning.*

The number of arm presentations is not expressly mentioned, but is presumed to have been 51.

Nates	presentations	184	1 in 52.
Feet	ditto	68	1 in 141.
Face	ditto	73	1 in 131.
121	women had twins		1 in 80.
1	——— triplets		1 in 9589.

TABLE IV.

Account of the Number of Women delivered in the Hospital of St. Catherine, at Milan, in the year 1810. *From Signor Assalini's, "Nuovi Stromenti di Ostetricia e loro Uso."* (1811.)

Total number delivered	- -	296
Quick and easy labours	-	205
Easy but slow ditto	- -	33
Complicated ditto	- -	27
Impossible ditto	- -	4

Deaths in childbed - - - - 10

viz.: Of women with quick labours 3
Of ditto with slow ditto - - .
Of ditto with complicated ditto 2
Of ditto with impossible ditto 4

The causes of death appear to have been,

Of apoplexy - - -	1	quick labours.
Of organic disease - -	2	
Of epilepsy, 26 days after delivery - - -	1	slow.
Of hemorrhage - - -	1	complicated.
Of metritis - - -	1	
Of rupture of the uterus -	1	impossible.
Of the Cæsarean operation -	3	

Children born alive - - 228
——————— dead - - 41

viz. where the labour was quick - - 12
——————— slow - - 10
——————— complicated - 16
——————— impossible - 3

The life of one child was preserved by the Cæsarean operation.

TABLE V.

An Abstract of the Registry kept in the Lying-in-Hospital of Dublin; from the 1st of January, 1787, till the 1st of October, 1793, being a period of Six Years and Nine Months. By Joseph Clarke, M. D.

Of 10,387 Women delivered, 10,199 were Uniparous—184 had Twins—3 had 3 Children—and one had 4.

By the terms Natural Labour, we mean all those in which the head of the fœtus presents at the os uteri. By Preternatural, we mean all those in which any other part of the fœtus than the head presents.

By *Ordinary* Natural Labour, we mean all those which terminate within 24 hours after the os uteri begins to dilate freely.

By *Tedious* Natural Labour, we mean such as exceed 24 hours in duration, but where there is no such disproportion between the head of the fœtus and the mother's pelvis, as to render destructive instruments necessary.

By *Laborious* Natural Labour, we mean such as are protracted beyond 24 hours, and where the disproportion between the head of the fœtus and the pelvis is so great, that it becomes necessary to diminish the bulk of the former to save the life of the latter.

The terms Footling, Breech, and Cross, we use in the common acceptation.

LABOURS OF UNIPAROUS.

	NATURAL.						PRETERNATURAL.							
	Ordinary.		Tedious.		Laborious		Footling.		Breech.		Cross.		TOTALS.	
No. of women	9748		134		49		184		61		48		10,199	
dead.	71		21		16		1		4		6		199 or nearly one in 86	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Children still born.	170	170	26	15	32	16	36	21	8	10	20	13	538	293 245 one to 19
Ditto dead.	186	164	5	3			5	0	0	3	2	0	368	198 170 one to 28
	Forceps 2		Forceps. 12											

Tedious Labours.	1 to 70
Forceps used 14 times,	1 to 728
Laborious Labours, . . .	1 to 208
Preternatural ditto, . . .	1 to 40
Tedious, Laborious, and Preternarural, to the whole.	1 to 23

COMPLICATIONS OF LABOUR.

24 Cases of uterine hemorrhage. 14 before, 10 after delivery.—In four cases, some portion of placenta presented—One of these only died.

5 Mothers died.

10 Children still born. Some of them premature.

21 Cases of retention of placenta, requiring manual extraction—Seven accompanied with uterine hemorrhage.

4 Died.

19 Cases of convulsions. 17 before delivery. 16 were cases of first pregnancy. 3 were delivered by forceps, and six by crotchet.

6 Mothers died.

10 Children still born.

5 Cases of laceration or gangrene of urethra and neck of bladder, with involuntary discharge of urine.

None of the mothers died.

One child was born living by the aid of forceps.

5 Cases of laceration of vagina, by efforts of Nature.

3 Ditto ditto ditto Art.

One only survived.

66 Cases of umbilical cord prolapsed before the presenti part.

17 Infants were born living.

Varieties of Natural Labour, i. e. where any other part than the vertex of head presents.

17 Fontanelle presentations recorded.

2 Of which were tedious.

1 Laborious.

44 Face presentations.

2 Of which proved laborious.

LABOURS OF THOSE WHO BORE TWINS.

			STILL BORN.		DEAD.	
Women.	Males.	Females.	Males.	Females.	Males.	Females.
184	168	200	21	22	10	15

Women having twins, 1 to 56 1 half.
Women dead, - - - 6 1 to 30.
Children still born, - - 43 1 to 8 1 half.
Ditto dead, - - 25 nearly 1 to 15.

N.B. 47 had two males.
66 had two females.
71 had male and female.

Presentations of some of these Cases.

Head and feet.	Both natural.	Feet and head
25	16	10
Breech and head.	Both footling.	Both breech.
6	3	2

Breech and feet.
1

Forceps used once.

TABLE VI.

Calculations of the Number of Accidents or Deaths which happen in consequence of Parturition; taken from the Midwifery Reports of the Westminster General Dispensary. By Robert Bland, M. D. (1781.)

Of 1897 women delivered under the care of the Dispensary,

63 (or 1 in 30) had unnatural labours: in
18 of these (or 1 in 105) the children presented by their feet; in
36 (or 1 in 52) the breech presented; in
8 the arms presented: and in
1 the funis.
} 9* (or 1 in 210.)

63

17 women (or 1 in 111) had laborious labours; in
†8 of these (or 1 in 236) the heads of the children were lessened; in
4 a single blade of a forceps was used; and in the remaining
5 in which the faces of the children were turned to the pubes, the delivery was at length accomplished by the pains.

17

1 woman had convulsions about the seventh month of her pregnancy, and was delivered a month after of a dead child, and recovered.
1 woman had convulsions during labour, brought forth a live child, and recovered.

82

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* In all these nine cases the children were turned.

† Two of these women have since been delivered of full-sized healthy children. A third bore a very small and weakly child, who died in two or three days. A fourth was delivered of a seven-months' child, without mutilating it, which died in its passage. The number of women, therefore, who from error in their conformation were incapable of bearing live children, appears to be very inconsiderable. Of the remaining four I have not been able to get any intelligence.

82

*9 women (or 1 in 210) had uterine hemorrhage before and during labour.

Of these 1 died undelivered;
1 died in a few hours, and
1 ten days, after delivery; and
6 recovered.

9

5 women had the puerperal fever, of whom four died. In one of these the placenta was undelivered, and continued so to her death.

2 women were seized with mania, but recovered in about three months. In

1 woman a suppuration took place, soon after labour, from the vagina into the bladder and rectum. This patient recovered, but the urine and stools continue to pass through the wounds. Of

1 woman the perinæum was lacerated to the sphincter ani. A suture was attempted, but without effect; she recovered, but is troubled with prolapsus uteri.

5 had large and painful swellings of the legs and thighs, but recovered.

105 therefore of these (or 1 in 18) had preternatural or laborious births, or suffered in consequence of labour. Of this number of cases 43 (or 1 in 44) were attended with particular difficulty or danger; and 7 only (or 1 in 270) died. The remaining

105

* In these nine cases, only one child was saved.

105

62 were delivered, and recovered with little more than the common assistance; and

1792 had natural labours, not attended with any particular accidents.

1897

TABLE VII.

Statement of the Presentations of the Child in 2947 Cases of Parturition, in private Practice; with the Accidents, Deaths, &c. which happened in the whole Number.

2947 labours produced 2988 children—1518 boys, 1470 girls.

In 2810 cases, the head presented, viz.

2735 times in the most natural and convenient posture.

44 or 1 in 67 with the forehead turned towards the pubes.

10 or 1 in 294 with the face foremost.

13 or 1 in 227 with the hand by the side of the head.

8 or 1 in 368 with the funis.

In 19 instances, or 1 in 155, the superior extremities presented, viz.

14 times, one hand or arm.

2 —— both hands.

3 —— one hand, and one or both feet.

In 78 instances, or 1 in 38, the nates or one hip presented, viz. 72 times not complicated with any other part.

5 —— together with one foot.

1 ———— the navel string.

In 40 instances, or 1 in 76, the lower extremities presented, viz. 37 times one or both feet.

1 —— the knee.

2 —— the feet and funis.

In 128 cases, or 1 in 22, of natural presentations, the labour lasted more than 24 hours.

21 or 1 in 140 there was accidental hemorrhage.

7 or 1 in 421 there was unavoidable hemorrhage.

4 or 1 in 210 there was hemorrhage after delivery.

5 or 1 in 588 there were convulsions.

39 women, or 1 in 76, were delivered of twins.

1 woman had triplets

1 ———— the hymen unruptured.—(Case i. p. 216.)

1 ———— extreme constriction of the vagina, in consequence of inflammation subsequent to a former labour.

1 ———— excessive induration of the os uteri which in a few months terminated in carcinoma, and proved fatal.

In 9 cases, or 1 in 328, the perforator was employed.

*7 times on account of distortion of the pelvis.

2 —— in very lingering labour, when the want of pulsation in the presenting funis had fully proved the death of the children.

In 21 cases, or 1 in 140, the forceps or vectis were found necessary, viz.

twice in consequence of convulsions.

twice from wrong position of the head.

twice from repeated syncope.

15 times from want of expulsive power in the uterus.

In 16 cases it was the patient's first child.

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* In four cases, where, on account of deformity of the pelvis, it had been found necessary to use the perforator, premature labour was afterwards induced, by which means two children were preserved.

Of the children brought into the world by the forceps,

15 were born alive.

6 ——— dead.

viz. in 1 case of wrong position of the head, the child was putrid.

2 cases the mothers were convulsed.

3 —— no other cause could be assigned than the length or difficulty of the labour.

Of all the children born, 149, including the above 6, were dead.

Of these 83 were premature births, and most were dead before the occurrence of the labour.

66 appeared to die from the severity of the labour.

viz. 9 in nates case.

6 — feet ditto.

2 — arm ditto.

4 — funis ditto.

9 — accidental hemorrhage ditto.

5 — unavoidable ditto ditto.

5 — convulsion ditto.

1 — rupture of the uterus.

1 when the mother died suddenly undelivered.

24 from the long duration of the labour—this includes the 6 forceps and 9 perforator cases.

14 of the mothers, or 1 in 210, died during the month of childbed, viz.

2 of peritonitis, or puerperal fever.

1 in convulsions, (Case iv. p. 274.)

1 broke a large blood-vessel, and suddenly died undelivered.

1 of rupture of the uterus—(this was a narrow pelvis).

1 suddenly on the fifth day after delivery, without any known cause.

1 who had vaginal stricture.—(See note p. 57.)
1 of hemorrhage in a placenta presentation.
1 of peripneumonia notha, which brought on premature labour.
4 of phthisis pulmonalis.

TABLE VIII.

Shewing the Number of Deaths during the Month of Childbed, in the practice of "a Physician of eminence;" between the Years 1786 *and* 1800, *among* 2982 *Patients.—(From Willan's Reports of the Diseases in London, &c.* 1801, p. 320.)

Of puerperal fever	5
Of hemorrhage	6
Of enteritis	1
Of premature labour	1
Of apoplexy	1
Of convulsions	4
Of rupture of the uterus	1
Suddenly, without any previous complaint	2
Of lumbar abscess	1
Of scarlet fever	4
Of pneumonia	1
Of pulmonary consumption	3
	30

TABLE IX.

Shewing the Number of Deaths during the Month of Childbed in the Practice of a Physician, between the Years 1760 *and* 1810, *among* 10,190 *Patients.*

Of puerperal fever, peritonitis, or metritis	68
Of hemorrhage from placenta presentation	3
Of accidental hemorrhage	1
In consequence of retained placenta, (see p. 145)...	2
Of enteritis terminating in premature labour, the consequence, as was believed, of medicines clandestinely taken to procure abortion	2
Of puerperal mania.....	3
Of apoplexy.....	2
Of puerperal convulsions	2
Suddenly, a few days after delivery, without any known cause.....	3
Suffocated with hartshorn*.....	1
Carried forward.....	87

* The aged mother of this patient, contrary to the advice of her friends, was determined to be present at the labour, and was very much agitated aud terrified by her daughter's outcries, though the labour was perfectly natural and unaccompanied by any alarming symptoms. Soon after the accoucheur had left his patient, quite safe as he supposed, she complained of being faint; aud begged to have some hartshorn to smell. The trembling mother hastened to the bedside with a phialful in her hand, and, in her hurry and perturbation, poured the contents into her daughter's mouth and throat, as she lay on her back, and instantly suffocated her. Before the physician, who lived but in the adjoining street, could reach the house, she was quite dead; and though means of recovery were diligently used, they failed of success.—*Watts* in his *Reflections on slow and painful Labours*, p. 69, mentions two similar accidents, from one of which the patient recovered.

Brought forward.....	87
Of locked jaw	1
Of rupture of the uterus.....	1
Of stricture of the œsophagus	1
Of acute rheumatism	1
Of typhus fever terminating in premature labour ..	2
Of scarlatina ditto ditto	1
Of asthma.....	2
Of pneumonia	3
Of phthisis pulmonalis	8
	107

TABLE X.

List of the Diseases which proved fatal to the Patients at the Dublin Lying-in Hospital.—From Dr. Clarke's Abstract.

Of Peritonitis.....	32
Synochus and typhus	21
Hectic fever.....	15
Phthisis pulmonalis.....	6
Pneumonia	3
Hydrothorax	2
Uterine hemorrhage	5
Convulsions	4
Vagina ruptured by efforts of nature	4
Vagina ruptured by efforts of art ...	3
Atrophia	3
Carried forward.....	98

Brought forward.....	98
Grief apparently	3
Hemiplegia	1
Enlarged ovarium containing hair, &c.	1
Ileus	1
Anomalous disease	21
	125

TABLE XI.

Extracts from some Calculations on the Fertility and Mortality of Petersburg: in Storck's Picture of Petersburgh.

From 100 marriages, 408 children are produced.

105 boys are born to 100 girls.

In 1000 births of boys 9 are dead born.

In 1000 births of girls 5 are dead born.

Average 7 dead born children in 1000.

Of 1000 Russian women no more than 7 die in child-bed —among the same number of foreign women 15 die.

In the first year of life of 1000 children, 279 die.

TABLE XII.

Average Number of Deaths in Child-bed in London, taken from the Bills of Mortality.

For	4 years ending in	1660—1	in 36.
	10 . .	1670	39.
	10 . .	1680	49.
	10 . .	1690	47.
	10 . .	1700	65.
	10 . .	1710	67.
	10 . .	1720	72.
	10 . .	1730	73.
	10 . .	1740	70.
	10 . .	1750	74.
	10 . .	1760	81.
	10 . .	1770	72.
	10 . .	1780	92.
	10 . .	1790	107.
	10 . .	1800	113.
	10 . .	1810	106.
	9 . .	1819	107.

In forming this table, the articles, *christenings*, and *abortive or still born*, were added together, and averaged with the *deaths in child-bed*. In this way a tolerably accurate idea may be formed of the diminution of puerperal mortality in London: but we by no means obtain an exact statement of deaths in child-bed in London: for few, if any, dissenters have their children baptized by the clergy of the establishment; but all the deaths within the bills of mortality, whether of dissenters or members of the Church of England, are registered by the parish *searchers*.

EXPLANATION OF THE PLATES.

PLATE I.

Represents an enlarged ovarium, filling up the cavity of the pelvis, and preventing the descent of the head.—For the references see page 61.

PLATE II.

Represents the cause of unavoidable hemorrhage, page 119. The placenta attached to the cervix uteri, becomes separated by the dilatation of the parts, and necessarily produces flooding.

Copied from Hunter's XIIth plate.

PLATE III.

Represents a distorted pelvis, opposing an insuperable obstacle to the delivery of the child, page 159. The head, though compressed to only three inches diameter, from one parietal protuberance to the other, is still too bulky to pass through the pelvis, whose conjugate diameter is only 2½ inches.

Copied from Smellie's XXVIIIth plate.

PLATE IV.

Represents a fœtus, in the eighth month, passing with some difficulty, through a pelvis of 2½ inches diameter.

Copied from Smellie's XXVIIth plate.

PLATE V.

Represents an inversion of the uterus of several years duration; it was extirpated by Mr. Chevalier.—For the references see page 288.

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FINIS.

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