James T. Reid

Laborious Labour.
Before entering upon the special subject of this Essay, I propose first to say a word or two regarding the classifications which have been adopted by some of the best known writers on Obstetric Science.

The following is the classification of Dr. Burns an able writer on the subject.

Class I. Natural Labour, which he defines to be, labour taking place at the end of the ninth month of pregnancy; the child at first presenting, the upper and lateral part of the frontal bone, and the forehead being directed; at first, toward the back part of the lineae-ileocecutinea, and the exit, toward
the opposite or left acetabulum; a due proportion existing between the size of the head and the capacity of the pelvis; the pains being regular and effective; the process not continuing beyond twenty-four hours, seldom above twelve, and very often, not for less; no morbid affection supervening, capable of preventing delivery or endangering the life of the woman.

This comprehends only one Order.

Class II. Premature Labour, or labour taking place considerably before the completion of the usual period of antemortem gestation, but, yet, not so early as necessarily to prevent the child from surviving.

Class III. Incomplete Labour, or those in which the presentation or position of the child is different from that which occurs in natural labour; or in which the uterus contains a pleurality of children or monsters.

This comprehends several Orders.

Order 1. Presentation of the head.

Order 2. Presentation of the inferior extremities.

Order 3. Presentation of the superior extremities.

Order 4. Presentation of the back, belly, or sides of the child.

Order 5. Malposition of the head.
Oder 6. Rrrentation of the Fetus
Oder 7. Deformity of children or monsters.

Class IV. Obstetrical Labour, or labour protracted beyond the usual duration; the delay not caused by the malposition of the child, and the forceps capable of being finished safely without the use of exhausting instruments.

This comprehends two Rules.

Rule 1. Where the delay proceeds from some imperfection or irregularity of the muscular action.

Rule 2. Where it is dependent principally on some mechanical impediment.

Class V. Laboured or Instrumental Labour, labour which cannot be completed without the use of exhausting instruments, or altering the proportions, between the size of the child and the capacity of the pelvis.

This comprehends two orders.

Rule 1. The case admitted the use of such instruments, as do not, necessarily, destroy the child.

Rule 2. The obstacle to delivery being so great, as to require that the life of the child should be sacrificed, for the safety of the mother.

Class VI. Impracticable Labour; labour in which the child, even when reduced in size, cannot pass through the pelvis.
This comprehends only one order.

Class VII. Complicated Labour, labour attended with
some dangerous or troublesome accident or disease,
connected in substance with the process of partu-
rition.

This comprehends three orders.

Order 1. Labour complicated with uterine haemorrhage.

Order 2. Labour complicated with haemorrhage from
other organs.

Order 3. Labour complicated with dysmesis.

Order 4. Labour complicated with convulsions.

Order 5. Labour complicated with rupture of the uterine
portion, or rupture of the bladder.

According to Dr. Aisby's classifications

there are only two orders, namely, Lutricia and Dy-
toria, the former signifying natural labour while
follows a favourable course both for the mother and
her child; the latter signifying faulty or irregu-
lar labour, the course of which is unfavourable.

Dr. Aisby says, we may define Lutricia to
be the safe expulsion of the mature fetus and
its succeeding by the natural powers destined
for that purpose. By Dyntoria or abnormal
labours, we understand those labours which
either cannot be completed by the natural
powers destined for that purpose, or at least not
without injury to the mother or her child.
This division consists of the two following Clases.
Clase I. Labours which are difficult or impossible to be
completed by the natural powers.
Clase II. Labours which are rendered faulty without
obstruction to their progress.
Simpson's admirable classification of labours is the following—
First. Natural labour in which the head presents,
and the labour is terminated within twenty-
four hours, no special assistance being re-
quired from the Practitioner.
Second. Laborious Labour in which the head
presents, but the labour is not terminated
within twenty-four hours—being simply
simply lingering or instrumental or impracticable.
Third. Pretatural Labour in which any
part of the body presents except the head.
Fourth. Complex Labour in which some compli-
ations either on the part of the mother or on
the part of the child render labour unusually
dangerous. Repture of the uterus, Plas-
ta Praecox, and convulsions are some of the
most prominent of the complications on the
part of the mother, whilst fibrin presentations
and plural births are the most important complications on the part of the child.

I might have given other classifications, namely those of Smellie, Cullen, Rambbotham and several others, but it would occupy too much time.

We find some difference of opinion expressed by the Authors of the five classifications now given—thus Dr. Bellby considers presentations of the vertex and brow extemity as most frequent, simply because in presentation of the pelvic extemity the long axis of the child, corresponds with that of the uterus—and we are aware that other obstetricians such as Dr. Simpson place these cases among pre-

natal presentations—and, again, face cases are considered by some as having their proper place among difficult labours.

That it is difficult to suggest a classification which would be free from objection, must be clear to every one.

For example the term 'difficult' really would apply to all cases in which labour is pro-

tracted or undesired classified to either one.

thin or child, and yet according to this idea of the word difficult, some presentations of the upper extemity which are
acknowledged to be most dangerous would in some cases be included—simply because there is often no difficulty whatever, at least so far as the mother is concerned; for a child may easily be delivered by spontaneous evolution, and again the operation of turning would render delivery easy in all other cases of arm presentations, if proper assistance were obtained early enough.

The class of cases on which I propose making a few remarks corresponds with the second division of Professor Simper's classification, namely laboured labour.

The expression laboured refers here not only to the protraction of labour, but also to the positive difficulty in the transit of the child through the passage of the mother.

No matter how this difficulty is caused—whether by contraction and rigidity of the passage, or by diminution of the same calibre in some other way, or again, by excessive size, or unusual incompressibility of the child's head—still it is a difficulty, which requires the most earnest attention of the practitioners engaged in midwifery practice. But labour may be protracted otherwise
than by positive difficulty in the transit of the child.

Whatever cause indeed, would from its very nature delay the progress of labour, must be comprehended among the causes of laboured labour.

The following classification of laboured labour corresponds exactly or nearly so with that taught by Professor Simpson — it being clearly understood that in all labours simply laboured, the head is the presenting part.

First. Inquiring labour, in which delivery is obstructed beyond the twenty-fourth hour, reckoning from the commencement of uterine pains and contractions. The cause of the mother and the aid of the practitioner being sufficient to effect delivery.

Second. Instrumental labour in which instruments safe in principle to both mother and child are required — or if instruments are not used, the valuable alternative of Zuing must be substituted as recommended by Professor Simpson.

Third. Impracticable labour, that is labour, which is difficult on account of uterine
diminution of the pelvic passages, or excessive size of the child's head, that transit of the child's head becomes impossible; and therefore some operation must be performed either to reduce the size of the child's head, or to remove the child by an incision made through the abdominal parietes.

Lingerling labour. It has been customary to divide labour into three distinct stages—the first extending from the termination of the praenatal symptoms to the full dilatation of the Os Uteri; the second stage terminating with the expulsion of the child; and the third stage terminating with the complete expulsion of the Placenta and membranes.

Now, each of these stages may be protracted from several causes—whatever cause would tend to delay or prevent the opening up of the Os Uteri would necessarily delay the first stage of labour. It is not however so serious a matter that the first stage of labour should be delayed, as that delay should take place in the second stage of labour; and therefore in many cases of lingering labour there is no positive danger, although there is often a good deal of suffring.
Moreover, the kind of assistance required from the Practitioner is never such as to endanger the life of either mother or child.

It will be observed also that where the first stage of labour has been unusually prolonged, the second stage is in general rapid. The most important causes delaying the first stage are—

1. Eclampsia of the Cervix.
2. Impaction of the anterior lip of the Cervix between the child's head and pubis.
4. Pretumoral rigidity and contraction of the Os and Cervix Utter.
5. Pretumoral toughness of the membranes.
7. Premature rupture of the membranes.
8. Obliquity in the position of the Uterus.
9. Unusual relaxation of the soft parts.
10. Unusually large size of the fetus.

Causes delaying the second stage are—

1. All such as tend to paralyse the uterus or the accessory expulsive powers.
2. Such as serve to diminish the size of the passages through which the child is to be expelled.
3. Those which increase the size or diminish the compressibility of the child's head.
Causes delaying the third stage are:
1°. Intrauterine adhesions of the Placenta.
2°. Hour-glass contractions of the uterus.
3°. Excessive size of the placenta.
4°. Atony of the Uterus.

Oclusion of the Os Uteri. This sometimes occurs during the process of gestation, and is probably due in all cases to some chronic inflammatory action. I must scarcely observe, that it is absolutely impossible for impregnation to take place unless the Os Uteri be open; otherwise the terminal fluid could not come in contact with the ovum. It is therefore after impregnation has taken place that such a degree of contraction does occur as is sufficient to close up the Os Uteri.

It is not impossible that the plug of lymph which always occupies the canal of the cervix a short time after impregnation may perhaps undergo a peculiar organization and thus give rise to an apparent closure. There is in general in such cases a little depression corresponding in position with that of the Os Uteri; and it is of course
at that thin portion that any incision ought to be made. It would obviously be improper to leave such cases to mature, and the judicious use of operative means is likely to save the patient from danger.

Infraction of the anterior lip of the Os Uteri between the child's head and pubis.

The effect of this is to render the anterior lip edematous and at the same time to prevent the efficient pressure of the bag of membranes upon the margin of the Os Uteri, and until the impacted lip is altered in position, proper dilatation of the Os Uteri cannot take place in the usual way. Now, this is one of the cases in which authorities have recommended the artificial dilatation of the posterior lip, and when this has been properly effected the edematous anterior lip may be pressed upwards over the child's head, and thus the difficulty got over.

For development of a band of circular fibres in the substance of the Cervix Uteri. In this case the proper substance of the uterus has not become so closely developed into fibrous tissue as it ought to be in the lower part of the
Levity of the uterus, and accordingly the uterine substance of that part does not dilate with the usual facility. If under ordinary circumstances the fibres surrounding the os uteri become unlocked as it were from each other, it is difficult to see why dilatation should take place at all in the class of cases most mentioned; but it is certain that dilatation is quite possible even in such cases, because artificial dilatation by the finger is generally sufficient. I must say, that I do not think that the explanations commonly received appear to me to be satisfactory.

Rigidity of the Os and Curvature of the Posterior Pelvis: The most frequent cause delaying the first stage of labour, is simple rigidity and undilatability of the Os uteri. Every obstetrician is well acquainted with this, and at the same time pretty well furnished with the means of treating it.

It does seem a remarkable thing that the margin of the os uteri which in favourable cases is so soft and dilatable, should in a considerable number remain hard and undilatable; it is perhaps
equally strange that such a rigid or ctitiv
should after proper treatment become soft
and relaxed.

Most experts of the muscular fibres sur-
rrounding the or could barely account for
this condition, and therefore on this point
also, I believe we still need better knowledge
than we yet have.

Vital dilatability is a power spoken of
by some obstetricians, as possessed by the
uterine substance—a power as if were of
dilating independently of muscular action;
this, whatever it may be, is certainly awar-
ing in the condition now described.

Bleeding is in most cases unnecessary,
as the use of Paracentetic internally so
to produce nausea coupled with the
introduction of the vapour of hot water
into the vagina will in general be found
sufficient.

Pertinent toughness of the
membranes and excisive accumulation
of the Liquor Amnii seem to act very
much in the same way, namely, by
hindering greatly the formation of a pro-
pene bag of membranes.
It must be kept in view, that the Oesophagus is opened up in a great measure by the mechanical pressure which the protruding membranes exert upon the margin of the os, and when this protrusion does not take place, dilatation is greatly retarded. Moreover, in cases of disproportion of the liquor Amnii, the uterus is so much distended that its fibres act at a great disadvantage.

If on the other hand the membranes should rupture early, again we have dilatation retarded by the absence of pressure upon the margin of the Os Leucii, as well as by the removal of the proper stimulus to the utrine contractions furnished by the pressure of the liquor Amnii. In cases of excessive toughness of the membranes or disproportion of the liquor Amnii, it is necessary that the membranes should be ruptured; but in premature rupture of the membranes it is sometimes needful to dilate the Os Leucii artificially. Perhaps delay in the first stage of labour occurs fully often from premature rupture, than
from unusual toughness of the membranes.

Obliquity in position of the uterus—
from unusual relaxation of the abdominal
parietes; unusual relaxation of the
vaginal walls, allowing the uterus to de-
cend somewhat as yet the os uteri is undila-
ted; and unusually large size of the
pelvic cavity allowing even prolapse of
the uterine to take place, may all
be considered as preventing dilatation
in very much the same way.

In fact there are various condi-
tions requisite in order that the os uteri
shall dilate in the proper manner—
not only must the longitudinal fibres
act upon the circular fibres surround-
ing the os; not only must the bag of
membranes have a proper shape and
exert a due degree of pressure upon the
margin of the os uteri; but the uterus it-
self must have a due degree of support
whilst contracting.

It is from the absence of this
requisite support, that the three last-
mentioned causes delay the first stage
of labour.
I now come to the causes delaying the second stage of Labour.

Within the limits of an essay like this it would evidently be impossible to consider at length the causes which delay this stage; and it is therefore especially to the mode in which these may occasion delay that I must confine myself.

Now, although there are many morbid conditions which may diminish the size of the canal through which the child must pass, there are some much more serious in nature than others. Some indeed may be very much modified by operative interference, whilst others are entirely beyond the reach of surgical skill. I take it for granted that distension of the colon and rectum and distension of the bladder should not be met with as a cause of delay in the second stage — for with ordinary care and attention these conditions may be wholly prevented. I speak now of the causes which do not admit of prevention. It is not so much the depri...
as the kind of obstruction, that renders a case dangerous. For example a tumour of no great size may grow from one part of the pelvic wall or be imbedded in one part of the pelvic cavity and yet may be so placed as to render transit of the child's head quite impossible; and again obliquity in the form of the pelvis may render labour absolutely impracticable.

There has been so much said of late years in regard to turning as a substitute for craniotomy, that it becomes necessary to guard oneself against the idea that if there is no great degree of contraction delivery may be effected in this way in nearly all those cases which would otherwise require the use of operative interference destructive to the child and often highly dangerous to the mother.

Without therefore enumerating and describing the various kinds of pelvic tumours and deformities, I wish merely to say, that it is only when the general direction of the maternal passages is not decidedly altered, that contraction of the pelvic cavity can be considered at the
present day any less dangerous than it was before the operation of turning had become so generally practiced as it now is.

Obliquity in form or irregularity in direction of the pelvic cavity might render delivery quite impossible in many cases in which the space appeared to be, according to the ordinary calculations quite sufficient.

Supporting the pelvis quite well formed and free in direction, but at the same time considerably smaller than usual, there would be delay; and such a case would be quite practicable for the operation of turning—the great difficulty of course would be to ascertain with accuracy how much contraction really does exist; and on this point, it is scarcely to be wondered at that such mistakes are apt to occur. It appears to me next to impossible to determine the existence of very slight contraction at the bim, and even a diminution of one-sixth of an inch in the antero-posterior diameter might very seriously delay the progress of labour. But there may be the appearance of great diminution in the size of the canal through which
The child is to be delivered, and yet this may result altogether from a highly edematous condition of the soft mucous tissue.

In a case described by a very distinguished obstetrician, the vaginal canal was said to be so much diminished that only a pencil could be introduced and yet a full-grown foetus subsequently passed; and, making a little allowance for exaggeration, cases such as this seem at all events possible. If in former labours inflammation and sloughing of the mucous membrane had followed upon long continued pressure of the child's head upon the soft parts, during the second stage of labour then we may find such a degree not only of contraction but also of rigidity as may again cause great delay.

It seems likely that if Caesarian section were more frequently performed than is the custom in this country, the statistics of this operation would not prove so unfavourable as has been the case in times past; for the mischief lately to be done to the soft parts of the mother during the removal of the foetus in cases of great
contraction of the pelvic cavity, is very much greater perhaps than is commonly supposed.

As regards excessive size of the child's head, or incompressibility from hypertrophy of the cranial bones, it is difficult to say how far protraction of labour may be accounted to these. It seems likely, however, that the inability of the head as it pene to accommodate itself to the pelvic passages has much to do with the delay.

Probably the operation of turning would be less generally useful here than in simple cases of contraction of the pelvis.

With regard to hydrocephalus, there can be but one opinion that if at all still marked delivery becomes impossible without the use of the forceps.

The second stage of labour is very like the first stage in one respect, namely, in absolutely requiring either expulsive or resistile force for its accomplishment. The first stage of labour indeed may go on even when contractions are absent for a considerable length of time, as for example whilst the patient is asleep, but if the
uterine or accrescent expulsive powers be wanting or deficient, it is impossible for the second stage to go on unless some means be used to pull the child through the natural passages.

Whatever causes may have produced suspension of the uterine and accrescent expulsive powers during the birth of the child's head, it becomes of the utmost importance in one way or other to avoid the long continuance of this pressure, and if the uterus cannot be aroused to proper activity then it becomes necessary to use the forceps.

The third stage of labour. As it seems doubtful whether more enlargement of the placenta could really delay the third stage of labour, I shall not remark upon it here.

The morbid adhesion not infrequently met with is perhaps always due to inflammatory action, which has existed during pregnancy, and the adhesion must be very firm, for active contraction of the uterus such as easily separates the remainder of the placenta does
not separate the adherent part.

There can be no doubt that the proper way to deal with a case of this kind is to separate the placenta with the hand and thus avoid the occurrence of further injury to the uterine substance.

Nour-build contractions and Artery of the Uterus are the remaining causes which are considered to delay the third stage of labour, and as to the former of these it is worthy of remark that the contraction which serves to retain the placenta would seem also to prevent that part of the Uterus to which the placenta is attached from contracting so as to expel it.

Is it not always the case that abnormally intense contraction of one part of a hollow muscular organ is associated with a condition not far removed from paralysis of the remainder?

J. L. Gerard Reid.
It is fortunate in high notices to work