On External Abdominal Examination of Manipulation, as an aid to the Diagnosis and Treatment of Obstetric Cases.
On External Abdominal Examination and Manipulation as an aid to the Diagnosis and Treatment of Obstetric Cases.

At the termination of my appointment in the Western Infirmary, Glasgow in November of last year, I made up my mind to at once proceed to the Rotunda Hospitals, Dublin. This was, being alive to the fact of the great importance of a thorough knowledge of Midwifery to one about to enter into General Practice.

During my residence for three months for observation, I was fortunate enough to be appointed Interim Assistant-Doctor at the Rotunda Hospitals, Dublin Street. Nearly two years there had extended opportunities of studying cases of Midwifery, including diseases of pregnancy and the perinatal state, in almost all their various stages.

On my arrival at the Rotunda Hospitals, the first thing which struck me in the Ward...
was the method of discovering the position of the uterus in utero by external abdomi-
nal palpation; indeed it was the first thing I was taught to do by the Master of the Hospital after of course the few preliminary inquiries usual in a case of pregnancy. Not having previously had much opportunity of studying this particular method of examination I de-
termined to take up the subject as far as it lay in my power. Accordingly never miss an opportunity of having recourse to this method of examination, in fact in the Rotunda Hospital every student is taught to practice this method before being trained for making a vaginal examination. The great benefit to be gained by an ex-
amination of this kind will only enter more fully at a later advanced period in this paper, but in the first place I intend to give a short account of the History of this subject.

This method has been practised I under-
stand in Vienna for.ten years for many
years, the reason of this may be plain, that the Austrian & German students have
much more varied opportunities of practically
studying this subject, owing to the greater size
of their Maternity Hospitals, as compared with
those in this country. Nowhere in England
or Scotland are there facilities for acquiring
a perfect knowledge of this subject; these
opportunities are I understand even less in
America.

Every good book was published a few years
ago on this subject by a French Obstetrician,
A. Plancart of Paris entitled "Traité du palper
abdominal au point de vue obstétrical, et
de la version par examen externe". In
this book he says "at present Abdominal
Palpation is practiced by a small number of
obstetricians, but how rare is the number
of practitioners who simply recognize
its importance."

Before proceeding to the historical sketch I
wish to clearly to be understood that it is not
the superficial manual examination of the
Abdomen, practiced under the clothes, etc.
ascertain the size of the uterus, the possible existence of a foetus which is as a rule briefly described in all text books to which I intend to refer; but the systematic, scientific, accurate manipulation by which as a rule we ascertain the existence of pregnancy, the position of the uterus, approximate size of general condition of the uterus, the relations of the uterus by which aural position can be rectified, the expulsion of the placenta facilitated, post-partum haemorrhage prevented or arrested, any abnormalities in form and structure of the upper portion of the uterus, its appendages, or the abdomen, detected.

For an historical sketch of the subject I prefer to commence with a review of medical science after the middle ages, when midwifery was in popular esteem removed from the bands of midwife midwifery to the scientifically educated medical physicians. In the 16th century Encherius Rosselin (1573) and A. Bueff Zerich (1534) in their manuals of midwifery first give
an account of version by the contraction
of internal & external manipulations which
Ruey gives the following description:

"The parturient woman shall be ordered
to her bed by the midwife, shall be placed on
her back with her head lower than her heels.
Then a decentous woman is to kneel at the
head of the patient, shall seize the woman
with both hands at left, pull, direct it
gently towards herself; the midwife 2[sic]
the patient 2[sic] wait, 2nd, leaning down shall
give aid by pushing & directing the child so
as to bring it with both thighs of the breech
backwards or forwards towards the back of the
mother, also 2 turn the child so that it can
be born naturally, with the head below, etc.

By another authority Dr John Bechly 100 years
later we find the same advice given. One
can at once see from the above that the
rules given for both internal & external
examination & manipulation bore a
most simple & imperfect kind; would
lay no claim to scientific value much less
perfection."
Pazos in his "Traite des Accouchements," seems to be the first who called attention to the fact that pregnancy could be recognized as early as the third month by the combined method of External Abdominal Palpation and Examination of the Papipons, which seems to correspond to what is now always known as the Bimanual method of Examination. In the latter method, the diagnosis of pregnancy by the last mentioned method, or rather by the Internal method only, is generally attended with very little difficulty, but Roederer says that it is only during the last half century that this External method has become a well known commonly practiced method. *Schroeder* says in the third edition of his *Handwerk* published in 1872 "that the importance of External Extension for the diagnosis of pregnancy in the later months has not been properly precised until quite recently."

The first account, by which I mean the first scientific account of Chedid, refers to the Internal Palpation of Manipulation. 
that described by Wippard of Hanbury in
1807. He placed the woman on her back,
with one hand pressed up the breast of
the child towards the fundus uterus while
with the other he pressed the head down-
ward toward the Pelvis. This method of
Wippard's although practised throughout un-
derstood by the Germans was not known
to the professional world until A. Mattei,
a Corsican Physician published a book
entitled, "Essai sur l'acooncheement physi-
ologique Paris Chez lecaen" 1855 in which
he very strongly advocated palpation, "la
pelle", "la palpation", as a therapeutic &
diagnostic spell in obstetrics. He advocated
practically cephalic version in all Breach
& Shoulder Presentations. He considers Breach
presentations as not physiological & advised
practiser their conversion into head present-
ations by Internal manipulation; after
turning in those cases he frequently inverts
the membranes when he found it necessary
to pull the head in the Brim.

The above mentioned views viz. those of
Preparations were endorsed by a physician named Herff of Ch beesburg. 
Estelle of Trent, from statistics which she carefully took proved that Herff had 
overestimated the value of early version, 
shows that out of 570 women examined 
during the 8th + 9th months there were 
22 Transverse Presentations, 9 of which 
rectified themselves, 10 were turned by the 
Internal Method, 12 by the Combination 
Internal + External + in 1-three, External 
version necessary. From what I myself have 
been it seems that External version is only 
of benefit during the latter third of the 
Ninth month, the most certain time of all 
being just at the commencement of labor. 

Two methods of Bimanual Cephalic Version 
were described by Busch + O’Rutepoint, it 
recommended by them. Busch advises, 
"introducing the hand corresponding to the 
side on which the head is situated, seizing 
the latter with the palm + driving it down 
towards the Pelvic inlet, while the Sternal 
hand elevates the chest". O’Rutepoint
Introducing the opposite hand into the uterus seizes the base of the child between the fingers + thumbs, lifts it up, turns it head downwards, while the internal hand pushes down the head. From the results of these methods it appears that the former is the least severe the latter the most efficient.

Now wish to bring before you two other well known methods viz: those of Dr. Braxton Hicks + Wright. For a length of time these were considered to be the same whereas they are essentially different. Dr. Wright's method consists in passing the hand corresponding to the side where the head is into the vagina, the fingers + thumbs through the cervix, with the internal hand he pushes up the Breech with the external he pushes up the Shoulder at the same time pushing it laterally towards the point from where he has entered the Breech; the head is thus brought down into the Bicorn of firm there by suitable means.

Dr. Braxton Hicks's method differs from the
in that he only introduces one or two fingers into the DS, with which he pushes up the presenting part, with the external hand he pushes down the head towards the Brim. 
Wright thus uses the external hand to push up the Brach & Branch, Hicks to push down the head.

Hicks's method is perhaps the preferable of the two as being less severe, but from what I have seen, not so effectual as that of Wright.

With regard to External Palpation, little is said in almost any of the recent works on Midwifery on the detection of the foetal position by External Abdominal Palpation; 
Lamb I think gives the best account of any one, but of course looks particularly on this subject, such as that by Piers of Paris. The great advantages of this method no one can question, I think it ought al-
ways to be adopted before making a vaginal examination. There seems to be some objection among the upper classes in this country to this method of examination, as supposing the
person unnecessarily, but I think that when the necessity of the examination or the amount of information to be gained by it is fully explained, one will find that no objection would be made to it; instead, as some would say, of bowing the medical attendant in the estimation of his patient, it would rather increase his own confidence to convince him that he thoroughly knows his business. Take for example the simplest case of all, a Transverse Presentation, one has so a rule only to look at the abdomen to say what it is, whereas if we only make a vaginal examination in the case when labour has just commenced, we may not feel or be able to reach any presenting part by the ordinary methods of vaginal examination. I myself while in Dublin met with just such a case as I mention above, proceeding to palpate the abdomen as I always did before making a vaginal examination found the head in one side fossa of the Breech in the other, its presenting part could be felt for I pronounced Breech being just
commenced.

If the method of examination was adopted generally throughout the country, instead of by the older physicians, I think it would soon become an understood thing, and cure a great boon to the obstetrician.

It would also be a great benefit, I think, if we could accustom our patients to consult us before the termination of the ninth month, or certainly some days before the expected confinement, so that any mal-position might be rectified by internal manipulations.

In my opinion, one ought also to turn Breed Presentations into Head Presentations when this is practicable, thus doing away with the great risk there always is to the life of the child in such cases.

I understand that in Germany the Physician would think of giving his opinion about a case until he had made a thorough external as well as an internal examination; I think it is only doing our duty to physicians to our patients, at the cost perhaps of some slight personal inconvenience or both sides, to
Examining every case in the most thorough scientific manner possible. The head position, or various parts of the face, can be so easily surely marked out after some experience at this method, that one is accustomed when we first it is not universally adopted. As Resident Intern, for 3 months, and Assistant-Master for 3½ months at the Rotunda Hospital, Dublin, I examined by this method between 400 + 500 cases. I must say that I am fully convinced of the great practical utility of this proceeding.

I shall now proceed to give a short account of the rules laid down for examining cases by External Abdominal Manipulation, according as the procedure is used for the purpose of (2) Diagnosis or (II.) Treatment.

I. Diagnosis.

For purposes of diagnosis we must consider several subdivisions of the procedure there are (a) Inspection, (b) Palpation, (c) Percussion, and (d) Auscultation.

The proper time for making the examination is during the last month of pregnancy. For that
Any existing misdirections may be corrected or at any rate precautions made to meet any difficulty, as we have already mentioned one should always practice the Internal Examination before proceeding to the external one.

**Position of the Patient.** The woman to be examined should lie in a recumbent position on her back, her head should be slightly elevated, and the legs straightened and drawn up on the bed so that the thighs, bent down, lie as is recommended by some authors on this subject, still her, to keep the mouth open to breathe freely. Drawers, corsets, or any constraining bands around the waist must be removed, so the abdomen thoroughly exposed. The most important point before beginning palpation is to see that the bladder is empty; although it is away from any point here, it is extraordinary the ease with which one can diagnose a full bladder by palpation in the pregnant woman.

1. **Inspection.** By looking at the abdomen.
Of a pregnant woman various diagnostic signs may be made out. In the first place the size and shape of the abdomen, by some experience one is able to estimate approximately the probable stage of pregnancy. Sometimes also the position of the foetus in the uterus. One however must not be too rash in judging the stage of pregnancy by the size of the abdomen, as it varies much in different individuals, according as the foetus is large or small, the quantity of liquor amnii, and the amount of adipose tissue on the abdomen.

I have seen more than one case in which the abdomen was very large apparently distended, this distension being due to an unusually large amount of liquor amnii, the child being of small size and very difficult to palpate.

The shape of the abdomen is also very characteristic in some cases, for example in transverse presentations it is very much broadened out and usually a groove or hollow above the umbilicus.

In twins also it is as a rule much broader out, more especially so where they are lying transversely with sometimes a groove between them.
In Breech Presentations also, from what I have seen, the fundus appears much smaller than when the head presents. As I have already mentioned in a former part of this paper, a full bladder may be very often diagnosed simply by inspection.

The Abdomen as a rule is marked with red, or white lines, or both, which are due to the rupture of the deeper layer of the peri-dermis, the subcutaneous. In Multiparae, only the red lines are seen, these being of recent origin; this may be looked upon as a fairly good diagnostic sign in first cases, although it must be taken with caution, as one may have them produced by Ascites, or Tumours which obstruct the Bladder greatly. In Multigravidae you have as a rule both red and white lines, the red being of recent origin, the white being traces of old ruptures pointing in all probability to a former pregnancy. The Linea Alba as a rule in first pregnancy assume a dark colour, this segmentation remains throughout life, whilst this sign is only of use in
first cases.

The movements of the child are as a rule very characteristic on inspection, for one notices carefully you can in almost every case see twitches over the surface of the abdomen, + in their persons. One can recognize the distinct protrusion of the feet, through the head in Transverse Presentation. One must be careful to note that these twitchings are really due to parts of the foetus being protruded, not muscular contractions.

During again one can distinctly see the position of the back of the child down one side of the uterus in 1st or 2nd Cranial positions, or Duo-Cephalic positions, or breech.

The shape of the bones is also of some use, being flatter + less depressed during the last four months, + often protruding towards the end of pregnancy. This however is not by any means a certain sign as we may have it in ascites, or anything which causes distension of the abdomen.

There is another fact in connection with inspection of considerable practical importance.
A doubt will here arise, that is a distinct transverse furrow, or groove which appears on the abdomen midway between the umbilicus and the pubis in cases of contracted pelvis, where there is some obstruction to the passage of the child. This furrow corresponds to the junction of the body of the os ilium with the ribs; and is due to the widening down of the os ilium into the contracted form of the continua or contraction of the ribs, which latter however is unable to force down the presenting part. This groove would ultimately lead to the furrow, or "Ring of Bandel" as it is called, having been first described by Dr. Bandel of Vienna, should be of valuable indication as showing when operative interference would be necessary. During my residence in the Rotunda Hospital, Dublin, I had the good fortune to see this "Ring of Bandel." The case was one of generally contracted pelvis in which Craniotomy was ultimately performed.

2. Palpation. We now come to describe the method of palpation itself by which we
can tell the size, shape of the uterus, the position, life, approximate size of the fetus, the quantity of liquor amnii, the different members of the child, whether there is more than one fetus, the fullness of the Bladder, & any tumors that may be present within the Abdomen.

The woman being placed in the proper position as mentioned in a former part of this paper, the Physician, having warmed his hands so as to bring them as near as possible to the temperature of his patient's body, (this is an important point) stands on her right side looking first of all towards her head, then applying the palmar surface of the fingers, palmar of the hands to the Abdominal surface, he gently presses them over the surface, gradually his arms are passed out the uterus, which is recognized as a rounded elastic body pressing down into the Pelvis. The next step carefully rest your tips of the fingers only, but the palmar surface of the fingers, & the palmar of the hands, also be careful not to press too much.
pressure in palpating so as at once cease contradicting of the Abdominal Muscles of the uterus, frustrates any attempt to distinguish the various parts of the foetus. We must commence with a slow, pressing, rocking motion, rotating the fingers over the various regions of the abdomen, removing the hands as little as possible, that is, by rotating the fingers you turn from one part to another, without really removing the hands, ready to regain them. The essential point is that the woman must not be subjected to any pain or discomfort. Then using gradual and equal pressure the physician applies his hands to the fundus sinking the clear borders of the hands into the sides of the abdomen. It is not to be expected that always made it a rule to commence by palpating the fundus. After gradually rotating the fingers (let us say, for example, a 1/4 position of the torso) we make out the breech, which is diagnosed as being larger, firmer, more irregular than the head, when pressed away from the succumbing fingers returns slowly against
the fingers as compared with the head (ballottement). Then following the Breech down one can at once make out the Track recognized by the firmness of the amount of resistance offered by the palpating fingers, in the position just described, viz. the 7th to the 10th, the Track is found down the left side of the uterus. The feet and legs are most palpated rarely found on the right side near the tendons, they are found the very movable as a rule, small or irregular in touch. The feet are sometimes protruded right into the palpating hands. On several occasions where the Abdominal Walls were thin plan was the most distinctly touched about in my hand while palpating. A knee can also sometimes be distinctly made out.

There are two methods of palpating the heart. The first method is by placing the fingers of one hand flat over the heart, with the thumb towards one groin, the four fingers towards the other. Then using the thumb on one side of the middle finger on the other. Pressing gradually inward towards
the middle line, using the fingers, like a pair of calipers, we can grasp the head between them, and move it about freely, being felt as a hard, round, suddenly movable body, giving a distinct sensation of ballottement. This method is chiefly of use before labour has commenced, or just at the commencement of labour.

The other method which can be used either before or after labour has commenced, is performed in the following manner: Place yourself on the right side of the woman with your back towards her head, then placing a hand in each vaginal region with the tips of the fingers directed downward beforehand, then attempting to make the fingers meet in the median line the head can as a rule be forcibly pressed between them, distinctly made out by its character, as mentioned above. The clinia can very often be distinctly made out, from the experience which I have had in using the above mentioned methods for lifting the head. I think the clinia is made out as
a rule, much more easily than the Oecophyl.
The arm is laid flat to the palpation from
their flexed position over the ilium, thus
I think to a certain extent is correct; but
never more than one occasion been able
to make out the arm, very frequently, the
elbow. Writers on the subject say little on
nothing about the palpation of the Shoulder,
but I think by careful palpation it can be
made out in almost every case.

Sometimes the Round Ligament can be
distinctly felt on palpation. There particular-
ly on the left side than on the right, but
why this should be cannot exactly explain.
Except that the i left leg is most frequent
position, the back of the child retaining
the iliacus brings the round ligament of the
left side nearer the surface than the right.
I think it is needless to enter into a de-
scription of the position of the various parts
in each presentation felt on palpation, as
when the principal points have been de-
scribed one can only learn the rest from
practical experience. Breach Presentation
are as a rule very easily made out by palpation, as are also Transverse Presentations.

In Breech Cases you have the firm, hard, rounded head at the Fundus with distinct characteristic ballottement; the soft, irregular mass of the Breech in the Pelvis.

In Transverse Presentations you have the upper segment of the Mets simply as it were, with the head palpable at one side and the Breech at the other.

Footling Cases are distinguished with great difficulty, if at all, from Breech Cases by External Palpation. Rarely, very rarely, I had real opportunity of palpating a footling case, but must say that if at all possible the diagnosis must be a difficult and very uncertain one.

Face Presentations can be made out by palpation, the firm smooth rounded brow being felt on one side, & the chin, neck, & thorax on the other, but they will enter into more fully when speaking of the treatment of such cases by Internal Palpation.

The Face can seldom be diagnosed by Palp
futation before the end of the 5th month, but
the time that palpation becomes of most
importance is about the 7th month,
because previous to this the disproportion
between the foetus and the Lagen Acrii is so
great that palpation is consequently of little
use.

I may here mention that there are two
distinct voluntary movements of the child
which are noticed on palpation, viz.: the short,
shaking, rotating movements of the whole child
this one can frequently notice with the
naked eye, + the sharp, quick, jerking
movements of the child's limbs.

Some have gone so far as to say that they
can diagnose the weight and height of the child
by a combination of external and internal exa-
mination, but this I think is going to too great
an extreme. The weight of the child from
its apparent size on palpation may be ap-
proximated, but that, I think is as far as
one can go.

As regards the Diagnosis of Time by Pal-
patation, this is certainly a difficult point.
Some authors say that you can only do so by a combination of Internal Palpation + Internal Examination; but I think in some cases they can be diagnosed by the Internal method alone. There are certainly many difficulties in the way, such as great distension of the Abdomen due to the presence of two fetuses, & sometimes a large amount of Ligan Accunii as well. The farrow that is spoken of between the two fetuses is stuck to a great extent theoretical. Out of three cases of twins which I had the immediate charge of while in Dublin, in one only was I able with certainty to diagnose the presence of two fetuses from Internal Palpation. In this case the woman had very lax abdominal walls, the children were small, & a small amount of Ligan Accunii; the head, breech, &lower extremities of each child could be distinctly made out as well as two distinct & separate foetal-hearts; this case may say I examined some hours before labour commenced.
There is only one occasion on record I understand where Triflets were diagnosed by Palpation, that was by Dr. Pinard of Paris. This was however three months before they were delivered.

I will now mention shortly after of the complications of pregnancy which may be discovered by Palpation. 1st. The presence of a dead Foetus. The palpation of a dead child is exceedingly characteristic. The Abdomen in these cases presents a flat broadened out appearance, the Thoress & Abdomen on palpation are soft & flabby, & you can only with great difficulty, if at all feel the legs of the Foetus, & when you come to the particular part of the Thoress the Foetus remains there. These signs along with the absence of the Foetal Heart (after several careful examinations) make I think, the matter quite certain.

2nd. The size of the Foetal Head can be approximated by determiners, this is very important as you can certainly in some cases diagnose whether instrumental delivery will be necessary, or not.
Hydrocephalus can sometimes be diagnosed by the large size of the head, the yielding nature of the bones, or in some cases, distinct fluctuation.

Abdominal tumors are frequently discovered by palpation better before or after delivery, which were never before thought of.

In the diagnosis of intra-uterine foetation, I think that internal palpation would be of great value, although I have never had the good fortune to see a case of this kind. In the same way in rupture of the uterus where abortion, or the whole of the foetus passed through the rupture, palpation must be agreed upon, there being in both cases such a small portion of interment between the foetus and the perforating bodies.

I will now before finishing this subject mention a few of the obstacles to palpation. Tenderness of the abdomen is one of them, and more particularly tenderness of certain spots in the abdomen, and this I think to be persistent and continuous blow by the foetus at one particular place. There need not
these tender spots frequently in palpation. Sometimes they were so painful that the slightest touch made the woman cry out, so that in these cases one must palpate very gently.

Lesion of the Abdominal Walls due to contractions of the Recti muscles is sometimes very troublesome, but this can usually be remedied by making the woman lie in the proper position (mentioned formerly), then for several minutes breathe freely.

Uterine contractions are sometimes very terrible, so one can only palpate between the pains. When the contractions become too severe, palpation is useless.

Excess of Lagan Amnion, or Hydramnion, is also a great barrier to palpation. Twins are difficult of palpation as mentioned formerly. At the presence of a large quantity of adipose tissue in the Abdominal Walls is also an obstacle.

3. Percussion. Percussion is the next method taking them in their order, but I think little need be said of it as it is of very little use,
Except as some authorities say in percussing out the Uterus during the early months, when it is just rising above the Pubis, even for this purpose I see little use of it, for if one performs a Bi-manual during the early months of gestation much more can be made out by it, than by percussion, as by this method you can pass each part of the Uterus between your fingers. Some people think it is of use in percussing out the Bladder, but really the note over the Bladder that over the Uterus is so much alike that I cannot see how it can be of much service, besides a full Bladder may be so much more easily diagnosed by Palpation + Percussion.

4. Auscultation.

Next to Palpation Auscultation gives us the most reliable information concerning the existence of Pregnancy, We may divide it into three heads.

1st. Auscultation of the Fetal Heart.

2nd. The Murmurs in the Umbilical Cord, or Umbilical Murmurs.

3rd. The Uterine, or Placental Murmurs.

The first + third of these Auscultation Signs are
hearts in almost every case of pregnancy. The
second rarely heard.

1st Palpating the Fetal Heart. When the fetal
heart is clearly distinctly heard it not only
indicates the presence of pregnancy, but leaves
no doubt on the mind of the physician of the
presence of a living healthy foetus. With regard
to the date at which it may first be heard various
conflicting statements are made, but apparently
the usual time is from the 16th to the 20th week.
Some authorities have heard it as early as the
14th week, but this is very rare. Indeed,

In auscultating the fetal heart, two methods
may be used, either applying the ear directly to
the abdomen, or by the Stethoscope. From the
small experience which have had I think Steth-
oscopic auscultation seems the most preferable,
by may be allowed to suspect; one thinks I
think always used the Binocular Stethoscope
in obstetrics for two reasons, first it prevents you
straining twisting yourself as you have to do
with the ordinary instrument and 2nd the sounds
are very much intensified by it. Always used
the Binocular while in Dublin, now do
very highly, in its praise. Some patients may prefer the direct aural method, as they can listen through a towel thus prevent the exposure of the abdomen, but this is a small point which Schamberg thinks would be easily got over. In another class of cases again one would think for the sake of cleanliness always use the Stethoscope.

The Fetal Cardiac pulsations usually range from about 120 to 160 per minute.

A most remarkable thing, with regard to the fetal pulsations was first advocated by Frankenthaler of Dura, in 1859, which is the following: "that the sea of the foetal matter can be determined as soon as the foetal heart is audible by the relative frequency of the pulsations, those of the male children being less frequent than those of the females."

The amount of literature that has been written on this subject is enormous, the evidence from statistics so conflicting that it would be out of my province entirely to enter into a discussion of the point here, suffice it to say that in my opinion it is as much a matter of chance by the practitioner happens to be right he is considered..."
to have made against. Again if one were to judge by the pulsations, still the patient that she
would have a male child, the reverse was the
result; it would place the physician especially
in private practice in a very awkward position.
While in Dublin I took statistics of nearly 100
cases, but the results were so disappointing that
they entirely shook my belief in this theory. Take
one case for example in which the foetal heart
was 120 per minute, a male child was diagnosed
at birth was found to be a large female child, &c.
With regard to diagnosing the position of the child
by the foetal heart alone, this is not at all certain,
but along with palpation one can do so fairly well.
In most cases if all four of the sounds of the foetal
heart, that is, the Systole & Diastole, can be heard
easily done with the Binaural Stethoscope. In
the first position of the uterus it is usual for
the heart sounds to be midway between the umbilicus & the pubis,
slightly to the left of the middle line.
In the second position, just on the middle line, or
a little to the right of it. In the 3rd position it is
on the right side close to the Anterior Superior
Spine of the Illeum, in the 4th position on the
Left side side, will sound in the loin near the back, but sometimes not audible at all. In Breech cases, the Thorea of the child is situated higher in the uterus than when the head presents. The Foetal heart is heard on either side of the median line, but usually on a level with or a little above the umbilicus.

In Face Presentations (mento-venter) the Thorea of the child being brought close up against the abdominal walls of the mother, the Foetal heart is usually heard with great distinctness, on the same side as the feet.

In Transverse Presentations, the Foetal heart is heard below the level of the umbilicus, but usually a little towards the side where the head is situated.

The Foetal Heart I think ought to be carefully examined at repeated intervals during every labour; as it affords one a valuable indication as to whether interference is necessary, or not. For example in Tonic contraction of the uterus, in Pro- lapse of the Tresses, in long tedious labours, the foetal heart is a very valuable guide indeed as to the time when operative interference is necessary.

2. The Umbilical, or Foenic Examen is - Single
blowing, systolicMurineur sylphonos with the
toal heart, when audibly heard at or
near the same point as the foetal heart. It is
distinctly distinguishable from the uterine Murineurs,
which is a soft, blowing Murineur, sylphonos with
the uterine pulse, of much greater intensity.

While most authorities are in agreement on
occurs at or near the stellaeclies by some person
of the cow there. Some say that it is produced
by disease of the valves of the foetal heart.

This first pointer of uterine slit was found by Dr. Kennedy in 1833, reported by him to be caused
by compression of the cord. Other authorities say
that it is produced by well developed Murineurs,
or diaphragmatic valves either in the vein or
artery, or both together. Have heard it in
several cases, but not always in close proximity
to the foetal heart. Remember one case in par-
ticular in which heard the foetal heart in the
middle line, the uterine Murineurs well over on
the left side, the uterine Murineurs on the right
side. Was so much struck with the clearness
with which each sound was heard, that I asked
The Master of the Rotunda Hospital to check my
Examination, which he kindly did, proved it correct. As far as I can see the rule for operative interference in cases of uterine hemorrhage during labour must be very limited.

3. The Uterine Murmurs. The murmurs is usually heard as early as the 25. week of pregnancy. It is a single, blowing, or wheezing sound synchronous with the uterine pulse, in the early months heard all over the uterus. It increases in intensity as pregnancy advances. Sometimes entirely draws the Fetal Heart. In many cases where the uterine Suffle was very loud, the fetal heart could not be heard at first, but on listening carefully over the site of the uterine Suffle the fetal heart could be heard distinctly through it, as it were.

One must be careful to note that a sound just like the uterine Suffle is frequently heard in large fibroids, or Diastasis Recti. At any of the time of the Fetus there runs the uterine Murmur & its value as it is heard after the death of the Fetus.

The causation of the uterine Suffle is almost discussed point & I think it will be unnecessary
to enter into it here.

A physician named Botté of Erlangen discovered accidentally that the uterine sphygmograph could be perfected so that, while palpating he felt a distinct thrill at one part of the uterus, on examining this with the stethoscope he heard a loud uterine rumour. This observation he verified in 11 cases out of 20; he thus found that the rumor of the uterus could be heard. This must certainly be a difficult point to prove, but I think of what great value it can be after all.

II. Treatment.

The point which enters into the treatment fully under the head of Internal Biting, that is for various reasons to which none the deeper than the introduction of the head into the uterus.

The purposes for which Internal Manipulations are used in Obstetrics are these in number: 3.

1. Manipulation for the purpose of correcting malpositions, converting them into more desirable presentations, such as Transverse into Head, or Breech; Breech into Head, or Face into Breech.

2. The Expression of the Foetus.

3. The Expression of the Placenta.
Under the first heading I shall take up Internal
Version. Before attempting Internal Version the
physician must be well up in the various
methods of palpation, the able to distinguish
the various parts of the foetus with great accuracy
as this is the key to the whole matter. Another
point which deserves before is the necessity of
the physician being called in early enough; I
think if one could assure their patients of the
necessity of an early examination, accustom
them to send for their Medical attendant one
week before the expectant confinement it would
be a great boon to both patient & physician.

In example if one arrives at a case of Face-up
Presentation, finds the membranes ruptured &
the child pressed firmly by the uterus, all efforts
at Internal Version are necessarily useless.

May note here however that cases have been turno
externally after the waters have come away, but
only in cases where the Abdominal walls were
especially lax, while uterine Contraction test Con-
tractions in character; one should always abey
rule by the Internal method before resuming to
Internal or Double Version. Until patient has
ever got into the habit of sending early in every case, the mother will be very much lost.

I believe a large number of the practitioners of the present day consider Internal version merely a theoretical operation, would much rather wait until the 8th or sufficiently dilated to perform Postural version.

It is well known that the fetus in utero is very movable up till the commencement of labor, especially so in multiparae, if the latter are just the cases in which it is so crude, have abnormal presentations.

Internal version is an operation which either be performed only during labor, naturally during the post-stage, before the membranes have ruptured. When performed some time before the end of pregnancy, it is of little use, as the foetus almost invariably resumes its abnormal position.

Some advocate its employment early, then join the presenting part by means of方方面面 of pacts, but as a rule those mechanical means are of little, or no avail, the foetus returning to its abnormal position.
External version is indicated in cases of Transverse presentation the OS just commencing to dilate, if the membranes are ruptured, turning it into a Head, or Breech, preferably the former.

Even although the membranes are ruptured the child only slightly grasped by the thighs it clings to them, because done in a skilful manner it can do harm, you may thus succeed some time after the "waters" have been evacuated.

The majority of authorities will agree I think that it is best if possible to convert Breech cases into Head presentations, thus avoiding the danger to the child one always has in these cases.

In cases of Contracted Pelvis it is as well to convert abnormal presentations into Breech presentation, as we know that the after coming head shaped like a wedge will usually pass more easily through a contracted beam than when the vertex presents.

The chief obstacles to External version are: Discharge of the Lig. Curvatum, position of the presenting part, & tenderness or tension of the Abdominal Walls.
Of course when it is found necessary to deliver rapidly we must have recourse to Pelvic Forceps. I will now shortly describe the operation. First of all an accurate knowledge of the position of the child must be obtained by Palpation & Auscultation. Let us take a case of Transverse Presentation, & at the correct time for performing External Version we may be unable to find a presenting part for extraction. Say from Palpation we find the head in the Left Iliac fossa of the Breech on the Right side, the case being one of the Dorso-Anterior variety. The woman being placed in the same position as that used for palpation, the Physician stands on the Right side of the patient & applies the left hand to the Breech, & the right hand to the Head of the fetus firmly the two foetal extremities, pressing the hands well down into the Abdomino-Merine tissue, he then endeavors by a sliding, pushing motion to direct the parts to their proper position, pushing up the Breech with the left hand, & pushing down the Head with the right until the head reaches the Pelvic Brim. The Breech then the Fundus Uteri, Shoulder Jaws come on after the
Rectification has commenced. They sometimes exist materially in completing it, but during again we should abstain from our operation, except that we should still keep the hands applied to the two salivaries until the pain ceases then proceed again. We think's continue our manipulation until we have effected our purpose, or until we have demonstrated satisfactorily its impracticability.

When the position has been rectified we should at once instruct an assistant to finally hold the head in position, then confirm it by a special examination. If the OS is dilated sufficiently to rupture the membranes do so, with slight friction over the fundus the head will soon become firm in the brain. If it is too soon to rupture the membranes we must make the patient lie on the side where the head originally was situated (the right side until the head is set in the brain) with a fellow place over the breech to prevent it slipping back again, at the same time directing the nurse, or some intelligent person towards the head in position until we can rupture the membranes to free the head in the brain. Some authorities have recommended bandages of various kinds to hold
the foetus in position after rectification, but their
efficacy I think is questionable.
In converting Breech cases into Head cases it is
usually necessary to lift the Breech out of the Pelvis
before one can proceed with the manipulation
necessary to turn.
While in Dublin I saw several cases of External
Turning by the Master of the Rotunda Hospital, and I
myself was fortunate enough to get a Breech case in the
Stage when turning was possible, and successfully turned it
into a head.
Conversion of Face into Vertex Presentation. Most
authors speak of rectifying these cases by internal
manoeuvres, but according to Schatz the only sure way
of rectifying them is by external manipulation, and
I cannot do better here than refer to what he says:
"Above all the operator must be proficient in External
Obstetric Examination, he able to diagnose easily and
positively every projecting part of the child; recognize
the Face Presentation by its protruding hard prehens
on one side, the broad resistance of breast or post
projection of shoulder on the other. In the interval between
the joints the operator seizes the shoulder breast of
the child with one hand, and with the other prehens of the
the side where the back lies: (the same side towards which the brow points) as soon as the Breast & Shoulder have been brought into the long axis of the Fetus, the pressure is directed no longer upward, but towards the back of the child; at the same time the other hand firmly grasps the Fœtus while with the Breast it forces it towards the side to which the Fœtus points. Then the pressure of the second hand should be directed laterally & downward, or directly downward in order to reverse the Fœtus & Shoulder as far as possible from the long axis to the side where the back lies."
The advantage of this method is that it can be undertaken when the face is still in the Breech, before the membranes are ruptured. Schatz gives one case which succeeded perfectly by this plan, Fritsch reports another, & Wellman assistant to Prof. Carl Braun another. These are the only three on record.

2. Depression of the Fœtus. This method of expression was known to the Ancient Romans & Greeks, & Funderstadt that even at the present day it constitutes the chief active interference displayed among the Chinese, Japanese, & American Indians, & some tribes Oceania, even for the lengths of letters
in the abdomen, or treadling on it with the latter feet. Some authorities argue, argue rightly to I
think, that we ought to push out the Foetal Basset
than drag it out. Emersion is supplying the
vis a tergo which is the natural means of delivery,
while the forceps is a vis a tergo contrary to
nature. Great deal may be said in favour
of this operation as it in many cases does away
with the necessity of using the forceps, thus
reduces the risk of Septic Infection. Statistics show
that its results are much better than in simple
uncomplicated forceps cases.

The method of Emersion acts in two ways:-
(a) By Compression the uterine cavity, (b) By
Exciting uterine Contractions. Its most useful
of all other in those cases where the pains are
very slight + feeble. It can only be used in cases
in which the Head or Breast are in the Pelvic cavity.
The cases in which Emersion is most useful are
the following: - 1. Weak or Deficient Labour pains.
2. As an aid to Extraction of the Head in Head-
last cases (breast or after podalic version). 3. As
an aid to Delivery of the Head in Forceps cases.

In weak + deficient labour pains steady pressure
In the female, when the O is fully dilated, the head engages in the Brim, advances the head towards the floor of the Pelvis, & there remain cases of this kind in which the foetus is depressed into the necessity of applying the foreps. This I think is an advantage especially in Hospital Practice. In several cases I tried this method in Dublin & was much pleased with the results.

In head-last cases it is very useful, occurs as a rule, & necessity to apply foreps soon after coming head, which in my opinion is by no means an easy matter.

In foreps cases we also find great benefits from expression. In almost all works on Labour we are told to make traction with the foreps only during again, but when the uterus is firmly fixed, it is clear if done with the hands as extraction advances can be so serious they the rule should be adhered to. I recollect asking Mr. Crichton of the Indian Hospital about only making traction during again, his answer was: "There is no reason why one should not make traction at any time".
between the pains) as long as the Uterus is properly compressed & followed down during traction.

Expression of the Fœtus requires strength on the part of the Physician, & a good deal of endurance on the patient's part. It is described by H. Stellier as follows: - "The patient being in the Dorsal position, the operator grasps one of the Fœtus & turns it into the axis of the Pelvic brim if it shows care de-
voted to one or other side. He then grasps the
Uterus with both hands on the same plane, with
their ulnar borders directed towards the Pelvis,
the pelvis pressing on the structure of the sides
near by, the thumbs pointed towards the median
cline, the fingers striving to encompass the
Uterus as much as possible. First the Abdominal
walls are gently rubbed against the Uterus, then
the hands retaining their position, slight gradually
increasing downwards pressure is made, which is
kept up for a time at its acme, then gradually
diminished. The pressure should last from five
to eight seconds, the repeated at intervals of one-
half, one, or three minutes according to the stage
of labour, & the sensiteness of the patient. The
limit of pressure should be changed alternating
between the Fundus rose of the womb of the mother.

In head-last cases the hands may be easily applied to the head above the Pubis; pressure made backwards and downwards in the axis of the brain.

3. Expression of the Placenta. I don't intend here to discuss the various methods described for expression of the Placenta, but merely to give a short account of the method myself have had experience in, & practiced in the Dublin Rotunda, known as the Dublin Method.

The method known as Créde's Method was not originated by him, but merely an old practice revived by that physician.

In Dublin, immediately the head is born, the head is placed over the Fundus of the uterus followed down, slight pressure downwards being made until the uterus is fully, the hand then immediately (without removing it) rests the uterus; the placenta, pressed in deeply behind it, the Fundus in the pelvis, the thorax in the anterior portion; constant steady, but gentle friction is kept up & this is invariably continued without intermission until 15 or 20 minutes.
have elapsed from the birth of the child, immedi-
ately after the birth of the child the woman is
placed somewhat on her back to prevent an enter-
ing the vagina the consequent risks of Septic Infection.
The uterine contractions of the uterus thus kept
up produce detachment of the Placenta, after
20 minutes or so, it can be easily pressed out of
the uterus, if it has not already passed into
the vagina. This then will so much its increasin,
this detachment, which is the main point about
the Dublin methods of managing the Placenta.

As a rule in Dublin but a finger is kept near
the woman's genitals after the child is born,
which thing is pulling on the cord prepared;
Specially in cases in which the Placenta is known
by Palpation to be in the Vagina, slight traction
drop into pressure from above usually having
the desired effort.

Palpation here again is very useful in telling as
whether the Placenta has left the uterine cavity,
from. In Dublin students were frequently tried
for assistance to remove retained Placenta, as
this thought, which were in the vagina, whereas
by careful palpation this might have been
When being pressed out, the Placenta should not be suddenly shot out from the uterus, as it may cause a piece of the membranes to tear off. It should be gradually and steadily pressed out of the membranes carefully twisted into a rope. By this means, they usually come away entire without any traction, merely by the twisting action. Occasionally the membranes are caught by the internal os, but as a rule if one waits for a relaxation, they can be removed without the introduction of the fingers. As far as I have been this method of expression suited to a great extent the dangers of the third stage, its great advantage being that one does not require to introduce the fingers, or hands into the vagina, thus it does away with the risk of direct infective infection. No bad results have ever followed its proper employment.

Inflammatory affection, or great obesity in the Abdominal Walls sometimes interferes with the expression of the Placenta; but the greatest obstacle to its expression is pathological adhesion. When expression by the above described method has failed after several attempts, t
the uterus becomes no smaller or may fairly
assume that the Placenta is more, or less ad-
derent. Strange to say however since the intro-
duction of this method there have been fewer cases of Adherent Placenta than for-
merly.

After the Placenta is expelled the uterus
should be felt as a firm, hard ball a few
inches above the Pubis, if after keeping up
gentle friction for about 10 or 15 minutes, the
finder should be firmly applied.

I must apologize for the brevity of this paper,
and as the literature of this subject is not very
extended, it has been my principal object
to advocate the method of Examination by
External Palpation, to point out the advantages
that are to be gained by its more general intro-
duction into practice, in order that perchance
it may be the means of inducing others
who have not as yet employed it to turn
their attention in that direction.

The little experience I have had leads me
to think that it is a subject upon which
a good deal more light might be thrown, and to that end I would advise all practitioners to make themselves conversant with this procedure.