Inaugural Dissertation

on the

Nature, Causes, and Treatment

of

Premature Labour and Accidental Haemorrhage.

by

Alexander Struthers

Candidate

for the Degree of M.D.

of

The University of Edinburgh.

1850
It was my original intention to have considered in this dissertation, the subject of uterine hemorrhage generally, but as circumstances have occurred to render this impossible, I have been obliged to conclude with little more than half my object accomplished.
Introductory Remarks.

With the exception of rupture of the uterus & the more serious affections of the puerperal state, uterine haemorrhage, deserving the name of flooding, is perhaps the most frightful accident that can befall a pregnant woman, and in those cases where it does happen may certainly be considered as no small part of the sorrow in which woman is destined to bring forth. Even puerperal convulsions, to the educated mind, are not so fearful to witness as these discharges, for in the former we always enable us to do something towards mitigating their violence, but not unfrequently in the latter, while every moment that is lost carries in its train the grave, we have to stand by helpless spectators of the heart rending scene, the horrors of which are certainly not diminished by the fact that we are but too fully aware not only of the true condition of our patients but of our own state of utter helplessness.

* i.e. a result of the muscular muscular efforts
It is from the very vague and imperfect knowledge which
the older Obstetricians had of the true nature & cause of ut-
terine hemorrhage, that we search in vain these their works
for any rules of treatment founded upon sound principles, ap-
PLICable in the varied circumstances free from empiricism. On the
contrary, we find that the principles of many of these authors
are but fonde theories, built upon a few successful cases with
which fortune has favored them in their practice; which, truly
by chance confirmed, are deemed to be shattered if not ship-
wrecked in the very next case they attempt to apply them.

Upon a case of flooding coming under their notice (unless
the loss was such as to cause imminent danger to the
life of the Mother, & therefore call for immediate delivery) they
seem to have had but very imperfect ideas of the local effects
required therefore what measures to pursue—whether at once to pro-
cceed to the delivery of the woman as directed by Cheyne, or to follow the advice of Mr. Perrot, and wait patiently
for the occurrence of labour pains which according to them

pardon fail to bring the case to a successful termination.

Now these modes of practice are with slight modifications
the two extremes between which we must range. Thus in a
case of accidental haemorrhage we frequently find that simp-
ly rupturing the membranes will induce uterine action and
subsequent stoppage of the flow; while in cases of placental
presentation active interference is practised almost in dispensa-
ble, for every contraction of the uterus is inevitably followed by an-
other gush of blood, a few ounces of which will frequently
turn the scale of life or death; that is what in the former case
saves the life of the Mother, in the latter hurried her on to the grave.

It is evident, therefore, that our treatment, to be successful, must
depend upon a thorough knowledge of the true nature and cause
of the haemorrhage, for by this we can explain why, two cases,
presenting externally the same symptoms, occurring in patients
in parallel circumstances, and where the same treatment has
been adopted, yet give very different results. Why on the one the
flooding yields to simple palliative treatment and the
Patient is safely delivered by the natural efforts, while in the other, independent of the very same means having been adopted, the hemorrhage, so far from being arrested, goes on increasing, and renders the operation of turning, the application of the forceps, or even cannotomy impervious, not only (in the case of the first two) for the sake of the child, but for the safety of the life of the mother.

It is probably to the difficulty of obtaining post-birth examinations - especially in cases of this nature - that we must ascribe the very imperfect acquaintance of the old accoucheurs with the true pathology of uterine hemorrhage, previous to the year 1775. When Dr. Rush of Norwich published his short work on that subject, pointing out the proper line of practice, in each case, as depending entirely upon the nature, and extent of the lesion - a work, as the author of which (with all due deference to the observations of Drs. Isaacks, Hamilton, and Burd) his name will ever be remembered and esteemed by the profession.
Before this, the state of uncertainty and confusion of haemostatic principles, and practice, may be pretty well imagined from the attempted classification of the different uterine haemorrhages adopted by many of the teachers of midwifery, in the beginning of last century, and on which they seem to have founded their practice. 1st. Whether the discharge came from the uterus itself, or from the vagina. 2nd. If from the uterus, whether from the fundus or apex. 3rd. If from the uterus or vagina, whether from rupture of some of the small vessels supplying the organ, or from some injury to the membranes.

When the haemorrhage was supposed to come from the uterine vessels, it must frequently have been treated as arising from some of the uterine vessels (the discharge being sometimes profuse and these vessels much larger than either those of chorion or decidua), this is evident from the fact that the original attachment of the Placenta to this part of the uterus seems to have been unknown to many obstetricians who wrote during the last century (as Dionis 1719, Davos 1734, Giffard 1734, La Motte 1746).
(Rutsh 1751, Mauriciean 1752) Several of these authors mention the circumstance of the blast having been found in the bladder cases of hemorrage, but do not seem to have remarked anything peculiar in the nature of the discharge. Had any idea of its being originally detached, supposing it to have become detached from the fundus, and pushed down, a gravitated per se, to the lower part of the organ; from whence Mauriciean advises its immediate removal as if it were a simple conglobation, or "foreign body". The existence of Placenta Peris appears to have escaped even the notice of Dr. Young. But, that it was known in the early part of the 18th Century, that the placenta was occasionally attached here, and that fatal hemorrage might result from its being so placed, is just beyond all dispute by the report of a case of this nature in the "Annales des Sciences" of Paris in 1723 and Somerville mentions several cases where the same peculiarity was detected.

Any classification of the different uterine hemorrages...
to be practically useful, must be arranged according to the period of their occurrence, in the first place, and according to the nature and source of the discharge, in the second. So in the following short account of the nature, cause, and treatment of uterine haemorrhage, we will adopt the arrangement noticed below, as it is one of great simplicity and self-evident practical importance.

I. Haemorrhage, as it occurs in the earlier months of gestation, or in cases of abortion.

II. Haemorrhage in the latter three months of gestation.

1. Before the birth of the child.
   a. Accidental, or in cases of partial detachment of Placenta.
   b. Unavoidable — or in cases of Placenta Previa.

2. After the Birth of the Child.
   a. Before the expulsion of the Placenta.
   b. After the expulsion of the Placenta.

III. Haemorrhage subsequent to confinement.
Part I.

Abortion.

By the term abortion we mean the separation, and subse-
quent expulsion of the imperfectly developed ovum, from the uterus,
previous to the 6th Month, in any period before which, it can be
supposed capable of supporting an independent existence;
and no fetus born before the 24th Week can be considered as
possessing sufficient strength to ensure its permanent vi-
ability.

The premature expulsion of the ovum has been various-
lzy divided and denominated according to the period of its
occurrence. Continental authors apply the term abortion
In cases happening before the 16th week, miscarriage between the 16th and 23 1/2 weeks and premature labour from this to the completion of gestation; this has been supposed by some to partake somewhat advantageously over the division of Dr. Dornman, who considers all cases as abortion which occur during the first six months, and as premature labour, during the latter three; this arrangement we prefer, as abortion and miscarriage are, practically considered, the same, differing slightly in degree.

Abortions are more liable to occur during some periods than others, the time of their occurrence being generally in an inverse ratio to the danger attending them. The most common period is between the 2nd & 4th months, and just about the 6th & 7th; those happening during the latter period generally depend upon a peculiarity in the situation of the placenta, interfering with the natural obliteration of the cavity, which generally commences at this period. And the frequency of cases from the 2nd to the 4th month is to be explained on the fact, that during this stage the various fetal structures undergo a con-
paratively greater degree of development than they do during any other similar period. The blood therefore is now greatly increased in its determination to the uterus, thereby, as we shall see, rendering it obnoxious to causes which otherwise could have no effect. "The liability (says Dr. Dewes, p. 929) to abortion is greater in the early than in the later periods, for as the union between the ovarian and decidua is not well confirmed, as the attachment of the latter to the uterus is comparatively slight, and as the extent of surface the ovum has present is very small to that which it offers in the more advanced state of pregnancy, as it can of course be affected by small casual, it will be seen that a separation will be more easily induced to prove much more injurious to the well being of the embryo than at a later stage." This ex-
planation comes from high authority, but differs consid-
ernably, in a more immediate point of view, from that I have attempted to give. In August last, I was called to the wife of an Irishman who was in her 4th month, and threat-
end with abortion. Having in the three last pregnancies mis-
carried in all of them in the middle of the 5th month, further a
few days of exactly the same date.

Causes

of abortion may be considered as Direct and Indirect, but
more fully & correctly perhaps as, Proximate, Predisposing & Exciting.
The Proximate, or direct cause, is the contraction of the uterine
fibres, whereby the attachments of the ovum to the uterus are
destroyed, and the ovum expelled; but many accidental circum-
stances, altissi: generally acting only as exciting causes, must
occasionally act by their violence as direct, causing at once the
rupture of the minute vessels by which the ovum is nourish-
ed, before the formation of the placenta, and consequently
its immediate death.

The Predisposing causes may be either general, or local.

General weakness of the patient is often described as a cause
of abortion, but this alone will seldom act as such unless
combined with, or resulting from some disease capable of affect
the child also, either by tampering with its system or interfering with its nutrition, thus a great degree of Pulmonary disease may exist during gestation, but it never causes lodging an amount of phthisis, sufficient to cause death a few days after delivery may be present, without any intermixture of the natural duration of pregnancy. But if the patient arising from abdominal, morning sickness, disease of the liver or any affection of the chyle-sacric viscer, may be easily supposed to affect the fetus, but in reality it is the defective state of the nutrient system of the mother that is at fault, the abortion and debility being collateral effects.

Two states of the system are supposed to act as predisposing agents - Anemia and Phlethora. Some deny that the former can have any effect at all, but according to Leake "women are often miscarry from want of blood as from puerperal disease, which again some consider as deducible from the well known fact, that women are
more liable to abort when they conceive during lactation, the detemination of blood being supposed to become to-
wards the Mammary than the uterine. Dr. J. Smith how-
ever would explain this by attributing it to irritation of
the Mammary nerves in the first place, this effect he
terms the "synergic" action between the Mammary and
uterus in the second. Burns again remarks that there
women who menstruate sparingly, very frequently mis-
carry. But in thy lamenamic state the nervous brittleness is
greatly increased, rendering the uterus accordingly much
more obnoxious to exciting causes, which in the healthy state
might have been attended with impunity. Dr. Inghley con-
siders abortions in these constitutions as depending, not
upon lamenamic directly, but upon the circulation in
the brain, acquiring an activity incompatible with its
connections with the uterus; and not only considers this
the way in which lamenamic irritability may act, but also
the Modus Operandi of Scrofula, Varicula Measles, Pneum-
calmly it. But says Dr. Bewes were a mere increase of this but, in the circulation all that is required what woman would escape abating. Who may labour under high lacteal action. That Plottova acts as a frequent cause of abortion there can be no doubt. Dr. Cruiksh in his Elements of Anatomy explains how, that it is not the premature effect of the uterus to contract that causes abortion (although it is considered the cause by Bewes) but the abnormal congestion of its vessels, which terminates in haemorrhage, the occurrence of which thus excites the uterus to premature contraction. The vessels of the uterus and placenta, naturally full of blood may, from various causes acting upon the mother, become unusually distended with blood, rupture takes place, and it is discharged as in other haemorrhage affected. This by transsection taking place between the uterus and membranes a it may be placenta, detaches the womb from the womb, the supply of blood is thus cut off and the fetus dies in consequence. Dr. Rigby (in the Lib. of Medicine) remarks
That, "a state of general plethora acts by impeding the free return of blood; especially at what in the unimpregnated state would have been a Menstrual period; so, occurring in conjunction with the increased vascular action at these periods, in the uterine system, it produces, as it were, an aphgetic state of the uterine vessels, which form the Maternal Junction of the placenta; blood is extravasated between the membra and uteri; their convulsions are destroyed, and the death of the fetus is inevitable." Constipation, when carried to the utmost which pregnant females occasionally do, must act as a powerful predisposing as well as an exciting cause, interfering, as it does, with the circulation of the pelvic viscéra.

The local predisposing causes are also important. Weakness of the uterus itself is to be enumerated among these. Generally to some degree of the organ, debilitating discharge, previous miscarriages, 

of the different forms of artificial insufflation also act by predisposing the organ to abort.

The exciting causes can be found in part in the mother and
In part to the Facts, those responsible to the Induction may be
either local or Constitutional. Among the local we have acute
Lear's case, inflammation of the uterus, of the ovaries or
of the Vagina, too free sexual intercourse. These may act as
either directly exciting the uterus, or by Reflex action. Indolent
swellings of the uterus have been by some supposed to interfere
with the progressive distention of the organ, thereby causing
great irritation. Subsequent contraction, but I should suppose
this is not the only way in which they may act. Although
of an indolent nature, the increased supply of blood to
the part during pregnancy may suddenly call their active
development into operation, and thus vitiate the whole
process of uterine gestation. The Spasmolic affections of the uterus
described by Dr. Buss and others must also be considered, when they exist, as
exciting causes of as small importance. Pituitaries and other
Malpositions of the uterus frequently cause the premature ex-
pulsion of the placenta. Constitution (also) act injuriously by caus-
ing much local irritation, as also to certain purgative med-

* Madame Bonin.
icines which from their supposed specific action on the uterus have been termed scarmenengosars. But they do so this irritation of the uterus, subsequently of the brain. The incautious use of digital has been suggested by Dr. Rigby as a probable cause of abortion; but its capability of doing so alone is very doubtful. In whatever specific action it may have upon the uterus, the author may be termed a predisposed state for it, its power (as that of all others believed in by the English) of inducing miscarriage sometimes employed in the perpetration of that crime, can never act in such a way without violently the system and bringing life into danger. At least Dr. Wright's experiments on the lower animals go far to prove so. Any injury to the mother, as blows, falls, violent exercise on horseback or foot, whence, vomiting, tight lacing, sudden fright or any violent mental emotion may all be incriminated as exciting, at the same sometimes cause. Some have denied that any mental emotion could have any such effect, but scriptural authority can be advanced in support of it. "And when Elis daughter in law,
Phinehas' wife heard the tidings that the lack of God was taken to
that her father-in-law and her husband were dead; she bowed
herself and travailed: In her pains came upon her "Isom. IV. 19."
the direct cause of death here has been a source of disputes,
but I think the idea of its being from hemorrhage is not at
all unlikely. In she recovered from the immediate shock, she
named the child. "And she," (verse) the mental shock was not
by any means favorable for tonic uterine action; on the contra-
ty acting it might be a very likely consequence. In who
has not felt in cases of this nature the benefit of keeping
up the patient spirit; all the hope; indeed, the whole
chances of life hanging on the expression of the prac-
titioners countenance.

Some of the above causes might perhaps be more correctly or
ordered as Constitutional, but we would include under this
head, more especially, such diseases as are supposed to inter-
fer with the healthy state of the system generally, such as
typhus, Malaria, or "more especially, Mercurio Typhus."

When the maternal system has become fairly tainted with the disease, there can be little doubt that the fetus in utero is very often destroyed, or if she go her full time she unhappy suffers generally struggles on a wretched existence for a few weeks, or it may be months, and then finishes, a too strong evidence of the parents' indiscretion. Where the affection is purely syphilitic the system is entirely ruined. There is much more hope, that, where in an already syphilitic habit, the full action of mercury has been induced, uniting in one irremovable check, and a greater, the fearful effect, of two of the most disquieting (but unfrequently worst treated) diseases to one need but.

But it would also appear that the child may inherit the disease from the maternal side, the mother's system during the first few months being perfectly free, but as pregnancy advanced, the mother's health begins to give way, she in turn having from the close physiological connexion between them, receives the infection from the child. Small pox, measles, fever and especially influenza no long diseases all endanger the life of
The exciting causes referable to the placenta diseases affecting either the fetus itself or its membranes. Of a case of this nature we have a beautiful delineation in Dr. Ramsbottom's work, where the death of the child resulted from thickening of the cot, and adhesion of the fetus, and in plate 89 he gives an illustration of what is termed a palingry of the wound where the amnion and chorion are elevated at intervals by the extravasation of blood below them into what was destined to become the future placenta; between these and the decidua, Dr. Meigs overestimates the importance of these, considering as he does that the small veins of the cases of abortion are referable to affections of the fetus. Occasional and important as these cases may be, they are certainly much less so than those already considered; therefore I cannot agree with Dr. Lee of London that "by far the most frequent cause of abortion is in the product of conception itself viz. a diseased condition of the fetus or its membrane."
Symptoms

of abortion may be considered as premonitory, indicating as it were the first tendency towards interruption of latent gestation, and consequent or those arising from the process having already commenced. Of the premonitory the most important is the arrestment itself of the "heeding symptoms" - as morning sickness, headaches, mastodynia, to the breast cease to have that fulness of feeling which to some women is so characteristic of pregnancy; and if gestation be far enough advanced, the former movement of the child cease to be felt. Of the consequent, the most unfavourable, especially when occurring together, are those produced by separation of the placenta and contraction of the uterus "the first is productive of hemorrhage, the second of pain. In the one is attended with rupture of vessels, the other with contraction of muscular fibres. The first of these may exist without being followed by the second, but the second almost invariably increases and completes the first." (Burns) But the
discharge of a serous fluid from the vagina may take place, without depending upon separation of the utero-fallopian vessels or connexions; the chorion may be ruptured and its fluid escape without causing miscarriage, so long as the sac of the amnion is uninjured; the true fetal water are not discharged, and the secretion of the placenta remains uninjured. When Abortion is threatened, the discharge is generally preceded by irritation of the bowels and urinary bladder, uterine pains, at first slight but generally increasing as they occur; or there is a feeling of fulness weight in the lower part of the abdomen, with frequent pains shooting down the thighs, pains in the back, bones, and over the pubes, accompanied at infrequent, with jet of hydronium symptoms not unlike those of ergotism.

If the accident happens after the 12th week, the uterine process bears a strong analogy to uterine action at the full term; the legs of the fetus, fetus Foetus centra, is expelled one after the other, occasionally the amnion is expelled entire at all periods of gestation.
Treatment

of abortion resolves itself into three divisions according to
the nature of the case and the stage at which it comes
under our notice. 1. Prophylactic or Preventive, where, either
from previous miscarriages or from the prevailing constitu-
tion of the patient, we have reason to apprehend its oc-
currence. 2. The proper means to be adopted when it is al-
ready threatened. 3. Management of the patient when it
cannot be prevented or when the process has already begun.

Prophylactic treatment must be success, and must de-
pend upon a thorough acquaintance with the constitution
and habits of the patient. Indulgence generally harms, since it
often (as general) equally applicable to all cases. And of
these we may just notice the absolute necessity of attention to
proper diet and the regulation of the prime vice, together with
rest and quietude both of body and mind; for if either constipa-
tion, diarrhoea, excessive morning sickness, or any severe affect-
on of the digestive system, be permitted to exist, even for
a few days—and unfortunately those who are most liable to suffer from habitual or early abortion are usually of such habits as are most exposed to these attacks—all our further precautions will be frustrated, and if occurring, at that period when this carriage is particularly apprehended, it will almost certainly be productive of injurious consequences, these are also par- particularly to be avoided, what corresponds to the menstrual period. All the perfect part of mind and body should be enjoined; habits of inclemence should be far from being in- encouraged, for the mind, if not otherwise engaged, naturally resists to the subject which is the present, to be apparently unnecessary, cause of confinement. She knows her fate. This fortune, though its consequences are slight and unmarked, already existing irritability increased, she loses hope and not unlikely confidence in her medical attendant. On the con- trary there can be very little harm, unless the danger be very imminent, in some very gentle and cautious exercise especially of the patient. Besides in the country, but if she remain in
Town, as the noise outside might alarm her, she had better confine herself to the house, turning her attention to some light and agreeable occupation or reading, but never such as to agitate or fatigue her. And on every account to have the usual household duties and domestic arrangements brought to the care of others. Again if she have labored before, and especially if at the same period, he must be more strict in our precautions, and the patient more limited still in her freedom. She must not be allowed to quit her room or at least the flat on which she sleeps, and without imposing upon herself any disagreeable and unwise restraint, she must confine herself as much as possible to the horizontal posture, save at night, using light clothes and a hard matress; and if the constitution of the patient be not otherwise impaired nothing will prove so advantageous as the cold bathing, employed with the precautions directed by Dr. White. I have been convinced says that gentleman of the good effect of cold bathing, as only in preventing miscarriage
When every other method has been likely to fail, but other ob-
sorders once direct to pregnant women, and generally attendant
upon a weak constitution. I do not mean the cold bath in the great-
list of time, but such as Boston &c. Matter, or the bathing, or
bathing in a tub in the patient's house with the water a little
warmer, to begin the process as early as possible even
before conception, as there will be then no danger of surprise &
continue it during the whole period of pregnancy of

This

(Recommended.) Combined with, we would advise the other

Milder Articles of the tonic regimen, more especially chol-
phatic, in which they are inseparable, some of the prepara-
tion of iron, as the Tinct. of the Ferrous V. &c. drip three
times a day in a little wine, or 2 grs. of the hydrcarbonate
Carbonate with some Borac. &c. Stone, &c. Powder
twice or thrice daily; and in the third part there

these Medicines when properly combined, one by the means
contrasted, the new preparation the Balsam of the ischide,
combined with a little compound of Aloes & Hyoscyamus.
will be found of great service, and as a means of opening the bowel which in this state are apt to become Jasperine, few gentle laxative medicines can be more beneficial than the Jill recommended by Dr. Hamilton, the coleynth, hyoscyamus, or the blue Jill, with hyoscyamus, or both, the latter preparations the hyoscyamus may be increased for the latter.

In those cases where we have reason to believe that there is too much local congestion or vascular excitement generally, with headache, sense of fulness in the head and general irritability, one best practice is to have recourse to V.S. followed however by the exhibition of an anodyne—a practice but too often neglected. In V.S. so far from allaying irritability, it is always followed by restlessness in a greater or less degree. For this purpose some of Bartley’s sedative solution may be given along with a full dose of tincture of hyoscyamus; this is less objectionable to the preparations of opium, as the patient is rather improved than otherwise by the frequent exhibition of
aparient Remedies. Digitalis, Aconite, Belladonna, Conium &c. which have been given from their depressing effect on the circulation, thus their supposed action on the heart, are not med-

icines to be trusted to, and better be avoided. Diuretics are generally advisable for which purpose some Spiritus Albumis

saturei, or some of the preparations of potass as the Potassium

bireate or Acetate, may be given, as they may at the same
time be so administered as to form very agreeable cooling

drinks. And lastly, an almost imperative precaution is

total abstinence from sexual intercourse. In all cases, says

Dr. Ramsbotham, when a habit of aborting has been formed

it is absolutely necessary that the patient should separate

herself from her husband's bed from the period of impregna-
tion taking place till after that of quickening has passed. it

is also highly desirable, should abortion ensue, that the same

separation be continued for some months afterwards, that

the uterus may be allowed, as it were, to rest, and its func-
tions be kept free from excitement.”
In cases of threatened abortion all the measures already mentioned under prophylactic treatment must be more fully insisted upon and more rigorously enforced, and this in some of the milder cases will be all that is necessary. The detection of a little blood or the pulse be in any measure full a frequent, or if the patient be not of habit for bidding evacuations, and the subsequent exhibition of an enemal or a full dose of opium, together with a state of absolute rest in the abdomen, often suffice, and in some cases, will often be sufficient to prevent further mischief. It constitutes the most efficacious practice.” (Bums). But if, independent of the adoption of these measures, the uterine and symptoms should still continue, we must have recourse to more active means, and towards the suppression of the hemorrhage. The prevention of uterine action must our treatment be especially directed. Danger-ous hemorrhage during the earlier months of gestation must be owing either to detachment of the placenta in part from the uterine, if the must be already formed, or from
rupture of some of the minute vessels connecting the ovum to the womb may be either venous or arterial; but at this early period no precise distinction can be formed, or at least one from which any practical benefit could result— but from post-mortem examinations it would appear that a large majority of fatal cases are those in which the lesion has occurred towards the hinder part of the body, or fundus uteri, from whence the extravasated blood cannot be discharged without causing further disturbance. Thus acting as a foreign body excites the uterine to contraction—the surest means of bringing the case to speedy termination. According to some however unless the quantity collected be very great it need not prove so very injurious but become absorbed before it could propagate any deleterious influence; the absorbent vessels of the uterus during gestation being with the other structures proportionally enlarged and their activity increased.

Upon the appearance of any dangerous symptoms
Sero-sanguinous discharge from the vagina, we must first assure ourselves that it arises from some accidental circumstance in connexion with the economy of utero-jestion. After which, if the patient be not of a weak, anaemic or chlorotic constitution, if the pulse be not of itself feeble, or if it itself have just lately been already had recourse to, the abstraction of a few ounces of blood, followed by a copious sanguineous purgation, will be found of great service, conjointly at the same time with the internal administration of Alopecys combined with Emetic—a which purpose the gums of acetate of lead will be found admirably adapted, when three or four times a day, till the same is done in the intervals frequent doses of Jallia, and with some dilute sulphuric acid in the form of cooling drinks, with injection of doses of tonics such agreeable and convenient vehicle.

In cases of slight haemorrhage from external causes, it seems recommends injections for vagina and such be had recourse to, they ought to consist of cold water holding some salt in
solution, from the well known fact that minute quantities of most salts favour the occurrence of coagulation as well as loss of blood; cold cloths should also be applied to the external parts. Sacrifice should. The introduction of a small piece of ice or a little snow, wrapped up in a piece of clean, cool linen, into the vagina has often a very speedy effect in retarding the haemorrhage, whilst it never of properly managed does any harm. But the most sure and effectual method of arresting uterine haemorrhage of before the 3rd month is the Tampon or plug; as this however is more employed in unavoidable abortion it will be fully considered under that head. If the means already suggested should not prove sufficient to prevent a arrest uterine action the operator may, if frequently repeated, or what is in some cases as good if not better large operate or more succor tried after the 4th Month. Operate illustrations on the foetus as a last resource after this period is sought by the effect of local anaesthetics. This treatment,
however, notwithstanding its combining the two great indica-
ctions that were to be fulfilled and although founded upon
the true pathological nature of the case is but too often unac-
cepting, in spite of all our endeavours the flooding goes on, per-
haps at first it was a mere chillsing, perhaps not truly con-
quered, but gradually increasing; its real character is no
longer mistakeable, and what seemed at first a mere probability
is now an unavoidable reality; the immediate expulsion of
the blood is at hand and the life of the mother endangered
perhaps beyond the reach of human assistance. But in-
dependent of these symptoms we are not immediately to lose
hope and give up the case. In it is the easy matter to decide
with certainty when we must give up all hope of preserving the
life of the child, for a large quantity of blood may be lost without ex-
trusion being a necessary consequence. Uterine contractions may have
been taken place, and yet by careful management the miscarriage
may be sometimes avoided, and the patient be enabled to go her
full time. Even where they have been of sufficient force and
duration to dilate the 24th uteri, we are not justified in discontinuing remedial measures unless the flooding has seriously affected the patient's strength, and she be actually procting this the 24th uteri (Rigby lib. Med.)

III. If, then, notwithstanding all our previous treatment, or it may be when called first, the patient be much exhausted, the pulse small and jerking, there be frequent attacks of vomiting and syncope, especially if the discharge still continued a increased be accompanied with bearing down pains recurring at regular intervals, indicating that the expulsive action of the uterus had commenced, she had better at once give up all our hopes of rescuing the life of the fetus and direct all our endeavors towards ameliorating the condition of the mother. In all the many cases, particularly those who have frequently miscarried, come thus the different stages of abortion with little loss and sometimes with inconsequence, the patient can be considered as out of immediate danger in whom the process is not already entirely completed. So far now from losing,
U.S. a depressant; we require to cherish the body as well as the mind of the patient; and as we have hitherto failed to prevent uterine action, it is our great object now to check it, and from whence the term to expect; even acting gently, albeit spoken so highly, if by some, we are to be considered as no longer available, that be requisite is, to arrest or diminish the quantity of the discharge and obtain the expelution of the no longer viable fetid, which is only to be accomplished by uterine action in the first place and it may be by the interference of cast in the second.

Upon being called to a case in this condition the symptoms of vomiting or vomiting may be so severe as to cause great apprehension for the immediate safety of the patient, but before we precipitately proceed to arrest these, we should pause and reflect that they are the means by which nature attempts, and that in vain, to guard immediate danger. For the act of vomiting necessarily implies a violent effort to expel or expel the stomach action of the thorax and abdominal walls, the latter is opposed and the separation of the uterine accelerates, a thing
be its expulsion effected, while on the other hand the momentary arrestment of the heart action, jaunous congeulation, and experience has taught us that the dilatation of the os is seldom so easy or speedily produced as by hypochondriacal constitutional state approaching it. After due attention has been paid to the comfort of the patient, our first object ought to be to examine the cloths that have been applied to the vagina, and carefully scrutinize the whole of the discharge in case the ovum be already expelled, if thus save ourselves much useless trouble, unnaisant unnecessary interference; if we are satisfied that it is still retained, we must insist upon obtaining a vaginal examination, as our next proceeding will be greatly influenced by the state of the os later, and if ascertainment the condition of the cervix; but in doing so the greatest care must be taken, not only for doing injury to the already irritable parts, but to avoid the premature rupture of the membranes, an accident before the 6th month is regarded as of very serious nature. Or making the examination...
we ought, instead of rudely attempting to gain the obstetric immedi-
ately, to remove and investigate any coagule found in the
passages, after which a cautious and accurate diagnosis of the
Les and cavity is to be made. If we satisfy ourselves that the os is
still closed or very partially open and rigid, we must use the-
chancy means to moderate the discharge into a degree of fra-
ting to obtained sufficient to admit of the expulsion of the Bump
and this is to be accomplished by plugging the Vagina or using
what is termed the Tampon or Sponge-tent. A remedy first promini-
ently brought forward by Leroy in France, Dewars in America,
and Burns in this country. The propriety of its employment
has long been a source of dispute, but whose its mode of action is
properly understood and when used before the 5th Month (in
agrees to which however its use is not confined) and with proper dis-
mannation, it cannot fail to  from itself the most valuable
preventive means in possess in cases of this nature — for
the earliest months of gestation the size of the uterine cavity
is comparatively small compared with the quantity of that
a woman may lose without immediately endangering her existence, and its structure at this period is so compact and incapable of expansion that no enlargement can take place from the collection of blood in its interior, the utricle thus being completely occupied, the uterine cavity small and its structure indelatable, there can be no outlet, the hemorrhage must of necessity cease or be arrested, and coagulation is the result. Various substances have been used for forming the tampon, with or without styptic applications, but the most useful seems to be small pieces of raw cotton or fine tow introduced so as to entangle the blood and cause it, as it were, to coagulate, by employing several we are thus enabled to remove some of the most elevated and ascertain the degree of the hemorrhage without disturbing the one together with its coagula in the immediate vicinity of the os, and as retention of urine is in many such cases exceedingly probable, how much more gently may this be relieved by removing one or two of the most external
without disturbing the conjunctiva, than one large dose, the abstraction of which might renew the hemorrhage in a serious if not worse degree than when it was introduced — if however a large plug should be prepared, the new hypoosmotic as recommended by Professor Simpson will be found most eligible.

"The plug is peculiarly serviceable," says B. Ingold, "in two conditions of the uterus — first, where the hemorrhage is great and the uterine Yin is depressed, the system as to leave the uterus incapable of acting."

The plug also excites the uterine to contract, but the better to obtain this effect, we should administer the usual dose of ergot and Borax, if necessary give the patient stimulants. This however must be done with caution — in case where the ergot may be objectionable, a purgative inunction will frequently be found of use in housing the action of the uterus — an effect especially to be desired, for after restoring the hemorrhage, complete detachment of the placenta from its walls together with delivery of the placenta can then be executed.
The process, if not prevented, the expulsion of the urine, is, when the uterus contracts, it sends it down into the clotted blood in the upper part of the vagina. The bleeding ceased (Burns) the proper period for removing the tampon from the vagina seems to differ in the opinion of its various advocates. The French accoucheurs seem to remove it at an early period that all its good effects must frequently be destroyed and the hemorrhage renewed. On Burns allows it to remain from 12-14 hours, if the hemorrhage has stopped; the uterus inactive. There be no centrifugal symptoms. On Burns' opinion, considers it safe enough to let it alone for 12-24 hours, and if uterine action be reduced, it may be withdrawn much sooner. On Burns advises it not to be removed within 24 hours, and in cases where the state of the uterus, as the expiration of that period, leads us to think the recurrence of hemorrhage it is improper to extract it before 48 hours; while according to Rigby it may be left till it is expelled by the urine, or, apparently in accordance with the negative opinion of Burns, the period of its extraction.
is to be guided by circumstances and the discretion of the prac-
titioner in attendance.

If after the removal of the tampon the Os be found dilata-
ted, or should it be so when we first examine we must
pursue a different line of treatment. If before the 6th Month
we should in every account avoid rupturing the Membranes,
for if we do, the liquor amnii will escape, and not unlikely
carry the fectus with it, leaving the secundinfert still in its
it may be adherent to the uterus. How the larger the body
in its cavity be, so will it contract the better, and more regular-
ly. If the process goes on gradually detach the whole from
the cavity from its surface, so that it will lie loose in its
cavity like a bale, where it comes on a very short time to act
as a foreign body. Thus keep up a continual degree of irritation
exciting the uterus to contract upon it, and it now proves of
no small value in dilating the Os, for acting as a wedge sup-
plée to the circumstance of the cervix and os, it expands
them slowly and uniformly, as each Janii returns the
Membranes, as in natural labour, are forced further down elevating the orifice more and more till ultimately the whole amnion is thrown off entirely, thus rescuing the mother from the immediate sources of danger. Moreover, this globular mass, being applied to the surface of the contracting uterus, will till the expulsion compress the orifices of the bleeding vessels, the calibre of which has already been greatly diminished by the uterine contractions. If then upon examination we find a soft gelatinous mass at the os uteri, either protruding through it or lying against it, we must assume ourselves of the fact of its being an Osmum, from the history of the case together with the attendant symptoms, this will generally be a matter of the greatest difficulty, but as the mistake may occur, we will mention the chief points of diagnosis (in which we are indebted to the book of Hold on Expulsion). If in the 2nd or 3rd months it may be a cœca gumma from retention of the membranes — to decide therefore keep the figure in contact with it and watch during a pain.
Whether it become tense, descend lower you may use some what in size of; so it is an ovum— but if it be a coagulum it will better become tense, no descent but rather be compressed. The ovum generally feels like a soft bladder and at its base end is a round then pointed; a coagulum is harder, more solid, less compressible. More or less pointed at its base end and broader higher up—if pressed against, the ovum will ooze, a coagulum will not, unless the uterus move with it. In the latter periods of pregnancy we may be able to distinguish the presenting part of the fetus. Having ascertainment that the presenting body is the ovum the examination is carefully to be proceeded with, the forefinger cautiously insinuated up the cervix and gently moved round the body to be expelled. If, as is very likely from the irritation, a pain should occur the hand should be turned round so that the front of the finger be laid flat on the surface of the uterus and not impinge upon the membranes, otherwise they may be ruptured— the finger being now slightly flexed we must can-
obviously and gently try to hook it down, if it offers any resistance we had better withstand for a time and try and excite some powerful detaining action by purgative emetics, or by means of the 24th, 48th, or 72nd hours or following the advice of Leperc to use a copious stream of warm water by means of a vaginal or neus syringe. When we have failed to accomplish the extraction by the finger, some recommend the use of instrument varieties of which have been invented for the purpose, as the abstinence lock of Dwees or the graceful of Dr. 13th ed of New York. But the employment of such is decidedly unadvisable especially such as the first mentioned, if one absolutely necessary that something of the kind should be used. I should suppose a small pair of leaf or toothy grooves fully adequate for the purpose, but as a general rule these are to be avoided, for in minutes to the 5th month there is but of haste in extracting the uterus of still entire, even in that condition it may remain in considerable time on the uterus without causing any bad effect. Naphasme would have be
May even become absorbed. If (say, in 13th week) the pregnancy
be not beyond the 24th month it will be decidedly better to
trust to a small syringe, restraining the hemorrhage
by means of the Jelq - we have thus a greater likelihood
of getting all the uterus off at once, and of the hemorrhage
be still restricted, we must excite the motion of the uterus
by gently dilating the 05, moving the finger round it."
Often however in making an examination in will find
the Jelq was already expelled. Probably part of the membranes
hanging into the passages - upon taking hold of them and
making gentle traction on the Jelq. Again the whole of the
deciduines will come away the case terminate favorably,
but this is by no means always case. In the rudimentary
placentia membranes are very often retained causing
great trouble, anxiety and danger. This retention may be
owing either to irregular (or hyperemic) action of the uterus
or to their own detachment from its surface. The liquor amniæ
having been early discharged and the uniform contraction
When the placenta is retained there is always more or less pain and uterine irritation, frequently leading to consequences of a very serious nature accompanied with a discharge of clots, the colour of which, from the uterus retained, begins to putrefy, is very offensive and continues till the whole contents have been thrown off; the putrid fluids from long retention and absorption into the system frequently lead to flux and fever. "Cette transeuction est bien moins effrayante, mais elle est bien plus longue, j'en suis de mon mieux contente, bien qu'aucun malaise n'ait duré que pendant un instant, ou bien durant soit sejournes, ou bien jusqu'à l'instant d'instant, ou bien on se cesse de vomir, ou bien d'avoir des tourments de fievres menagées de depeche et d'inquietudes."

Moreover as long as the uterus is not cleared from the membranous tissues indications are therefore to be fulfilled, first to obtain uterine action sufficient to dispel the remains of the placenta and secondly to prevent or mitigate the hemorrage. For the latter purpose...
we have again recourse to the plug in the first place; but our chief reliance must be put on utraria action, as this will, if sufficiently persevered, arrest the haemorrhage of itself. The various means for arresting the uterine already mentioned, should again be used. Besides, cool and eperic in-
fusions of warm water will be found of service in washing away the uterine discharge. Besides, when there is the ef-
fusion of matter coming from the uterine and the uter-
sal. If plugged the vagina will also in a short time begin to compose its juice & repeated removal the best efforts therefore must be made towards exciting the con-
tration of the uterus and in cases where the retention has been in some time, the constitution appearing to suffer and all other means failed in vain with close precaution and consideration attempt to remove the mass with the instrument already mentioned. After the uterine secretions have been cleaned away a very offensive discharge generally continues for several days often frequent injections of tepid of water will efforce
great relief. Some also employ styptic lotions with the intemoral administration of astrigents. The process of ablation should now complete the attention of the practitioner must be directed towards proper nursing and attending to the constitution of the patient. On the proper conduct of which the future recovery will in many instances almost entirely depend.

"Cases of premature expulsion of the placenta. Happening after the 5th month require to be treated in a somewhat different manner. The same preliminary measures are, however, to be adopted. When the cervix hemorrhage has already commenced a vaginal examination is indispensable. When the os is sufficiently dilated to admit the finger, the membranes are to be ruptured, if the finger cannot be admitted such in the os a quill slightly pointed will probably answer the purpose, but no steel instrument should be employed. Hunter did so, and on one occasion lost his patient in consequence. The liga.
being thus allowed to escape, the cavity of the uterus is diminished, and the fetus being thus closely applied to its walls generally causes irritation sufficient to induce constriction, when the hemorrhage will either cease or be greatly diminished; a dose of ergot should also be given, and the "bundle" applied, with a hot water application. Stimuli will frequently be found of great advantage and if the patient have suffered much, so as in inexcusable degree to have impaired the tone of the uterus, one or two doses of the tincture of opium in half a glass of brandy will prove a valuable application. In use ergot acts not as sedatives but as excitants, and when the uterus depressed women irritability has been raised by their friends, there is the time to administer ergot. If if the uterus have lost entirely its contractile power, ergot can have no effect. If however the hemorrhage proceed in spite of all our exertions, and if it be inexplicable to physick—which must now be tried because to such great exertions we had better attempt its turn and
lying away the fetuses—prevailing always the administration of chloroform—Which besides saving the patient the shock seems to have an astonishing effect in relaxing the different parts—
as effect the extent of which can only be fully understood and appreciated by those who have impracticably used it—before we think of turning we must always fully carefully consider the degree of force required that has taken place and effect upon the strength of the patient—turning is not to be considered and practiced as a dernier remède—If we resolve to turn we must do so without loss of time and before the patient's strength is undermined—if we attempt it after then, he may lose our former judgement,  imposed by a post mortem examination—At this advanced period of pregnancy the placenta is not liable to part certainly, to be obtained, but if it should, then the ordinary treatment of obtained placenta at the full time will be the proper practice to pursue—

As regards the treatment of the patient after Abortion, much will depend upon what she has suffered during the process.
Many will require nothing more, perhaps even less than the ordinary treatment of women generally after natural labour. But those who have been much debilitated will demand much more care and attention. They must be kept in bed for a much longer time and restricted to light nourishing diet. When able to leave bed they should confine themselves in some claps to their own room or be removed to the adjoining room, where what, by itself, they become ought to be of a cheerful nature and all household duties left to the management of others. What exercise they take must at first be very gentle and that of a passive nature. A short ride in an open carriage will be found most eligible. After some time removal to the country or sea side will prove very beneficial, with gentle exercise in the open air, but on no account cold or fatigue are to be avoided, the other articles of the tone regimen should also be employed, of which cold and with bathing. Such tonics as alumine and iron. Preparations of iron (citrate) will also tend to strengthen the constitution, improve the appetite and...
Sexual intercourse must be interdicted for
six months at least; and
the patient warned of the probable consequences. Whatever skin
affections may result, are to be treated as if of syphilitic
origin.
Part II.

on

Hemorrhage in the latter Months

of

Pregnancy

As soon as incomprehensible abortion must always be consid-
ered, its more immediate consequences will prove for a moment,
bear comparison with those of uterine hemorrhage towards
the close of gestation, an accident more appalling than which
can seldom befall a pregnant woman, seldom to one fright
Jail to witness from no other case can the life of the patient be supposed to depend so completely on the ability, discretion, and decision of the medical attendant. Much as still as the results of some of these cases occasionally are, they are small in proportion to the mortality that must have occurred previous to our acquaintance with their true nature and causes, consequently with their treatment, the most complete exposition of which no unprejudiced mind will hesitate to ascribe to the late Dr. Rigby of Norwich. In his essay on retained hemorrhage published in 1778 he have pointed out to us, for the first time, that hemorrhages during the latter months of pregnancy depend essentially upon two causes, differing however very widely in their nature, to which he distinguishes as accidental and unavoidable. "A distinction," Dr. Hamilton very unjustly remarks, "made without acknowledgement from Lovel". Under accidental he includes all those cases of hemorrhage which depend upon some unnatural occurrence causing
the detachment of the Placenta from its Natural Situation which he defines to be some part of the womb which does not dilate during labour. As uterine pains thus have no effect, the cause must be un designed: therefore accidental. In unavoidable he refers those cases resulting from what in the eyes of some would appear a Lucas nature, viz. the implantation of the Placenta over the cervix or uterine therefore this portion of the organ begins to expand to some part of the general cavity, the mass possessing the little inherent extensibility the connecting vessels must be sup- pressed in proportion to the degree of expansion the cervix has obtained, and the longer the uterine action continues the greater will be the separation and consequently pain insue the hemorrhage. Since then detachment of the Placenta is the result of the Natural action of the uterus and as the fetus can only be expelled by that action, its occurrence is a matter of necessity that is it is unavoidable.

We should not have been surprised had it Hamilton...
while denouncing the practical inferences drawn from this arrangement, also objected to the destruction itself; but that the following argument urged against it, should be found in the latest obstetric publication of the country, is rather a humiliating jest for British Accoucheurs.

Thus says Dr. Smith: "When the placenta is attached to the body or cervix uteri, the hemorrhage which follows the separation of the placenta is called unavoidable; when the placenta is planted at the fundus the hemorrhage attendant on its separation is called Accidental. This is, however, very little, of any meaning in these two terms thus applied; whereas separation of the placenta has taken place, whether at the body or fundus uteri, hemorrhage is inevitable unavoidable, unless the uterus is either contracted, or unless some mechanical pressure is made on the Separated Surface." The above process of reasoning seems so essentially void of a proper knowledge of distinction between cause and effect, that, leaving as it does so strong a sympathy with the other original point of the work.
we trust that "Smith will prosecute the investigation of "Reflex Obstructions, which has become, we have scarcely ever been "absent from his waking thoughts," having the practice of "Dr. Jones" to other of more enlightened and forejudged "minds."

Before proceeding to the consideration of any special forms of bleeding, we will endeavor to give as short a view as possible of the most efficacious agents—natural and artificial. The various means which nature adopts independently of the "syrup, copulation obliterative" most especially connected with the uterine fibro, can only be of permanent advantage in the early months, in cases of a trifling nature, when the placenta has become completely detached. While the various remedial measures which art enabes us to employ are much more numerous, and when properly used of more decided effect.

1. Depletion. The first remedy says to "Burns which upon general "principles offers itself to our attention is blood letting." Having
recourse to V.S. in almost every case of hemorrhage, whatever
might be its cause, was at one time a very common practice.
unless the patient was fortunate for herself of a decided
anemic constitution; but when we consider the true nature
of uterine hemorrhage, we must see that although in some
cases this remedy might have prevented it, in no case do
observing the name of flooding, can it complete or even
accelerate the cure. We might in fine as well employ
V.S. in the case of a ruptured aneurism.

II. Stimuli. A class of remedies directly opposed in action to the

games, and from one to the other do we find such beneficial re-

sults, when given at the proper period and with proper

restrictions. The general symptom from shows symptoms of ef-

tion, the tone of the whole junction becomes impaired

and our efforts must be directed to keeping up the pa-

tient from sinking under the discharge; the uterus from

under the influence of stimuli

only must become preserved and capable of receiving the im-

pression of other remedies by the action of which it is directly.
III. Astringents, although useful in serous or venereal discharges for the unimpregnated uterus or in early abortion, can have no effect in advanced pregnancy, in fact they can only be useful when the hemorrhage is from small vessels, the uterine contractility in the coat of which will be sufficient, without requiring uterine contraction, to close them.

IV. Cold is one of the best remedial agents we possess, when its action is properly understood. General refrigeration is dangerous, as it may bring on convulsions in already exhausted systems. These say "Warms" is to be made not only by applying clothes, dipped in cold water, to the back, but also when the heat of the body is increased by cold wringing over the legs, arms, even trunk. Independent of the high authority from which this comes, I cannot but consider it as carrying it too far, endangering the life of the patient. The extent to which this should be applied is removal of all unnecessary clothing, causing a great
current of fresh air to circulate thro' the apartment, does to keep the patient cool, but not cold. When locally applied it acts in many cases with great certainty; when the patient has not lost much blood it does so by causing it directly to contract, and when by heat or ice has taken place it acts as a powerful stimulant, but to obtain either results it must be judiciously applied and a regular degree of alternation maintained, for a single cold douche, or the sudden application of the chipped ice cold water will prove more efficacious than a continued application of the most intense cold for hours. A fact well illustrated by Goethe.

Y. OPINION. "Is held up by many very great authorities as a most valuable means of lessening hemorrhage. It takes off the muscular contraction by destroying nervous irritability. Viscera remain in their natural action—i.e., are not frozen or frozen."

Does it not then seem preposterous to use these very means for subduing hemorrhage which would take away our only source of safety? (See page 70) Fortunately for many, the vein taken
of the action of opium is but one sided. For those acquainted with the true therapeutic effects of the drug, know well that it is an excitant as well as a sedative; that its administration will elicit either of these effects according to the constitution of the patient. Where the nervous irritability is unimpaired, it will generally in large doses act as a sedative; but even here when its quantity is properly regulated it may, as opium tarsus well know, be made to produce its exciting effect which can be compared to none but that of Indian hemp. But where the nervous irritability is in any degree destroyed, opium always acts as an excitant in the first place, if it come to have a sedative effect influence the uterus but by that time be found incapable. Amenable to other means of treatment. On this subject long experience enables me to speak with decision and to recommend energy instanter (where the hemorrhage does not depend upon fliss) the exhibition of a full dose of Laudanum" (Burns) VI. Ergot. "The action of this substance appears to be specifically upon the uterine fibres, easing them, more or less, to more
a less violent contraction; it is not the alternate contraction alone that is increased; the tone also is powerfully augmented. This is of much more value, since it can in consequence of this form be more adventurously employed in many cases where this effect would be all important " (Dewees on the scale convulsion). There can be no doubt that this valuable agent, but too often disapproved the expectations of the practitioners, but although this is occasionally to be ascribed to the inferior quality of the drug, it is not infrequently owing to their own want of discrimination. For unless the stimulus be in a proper state to receive its impression, it can excite no action whatsoever. It is often given with a specific intention, when that effect is utterly impossible; for when the organ has that peculiar quality called secondary feel, the ceaseless want of irritability it will then act unless in short the stimulus has little or parted with its power with ability or else by proper stimuli. Required, if we only injure the patient by its administration. Ergot of Pepe is quite inefficient in hemorrhe by reason of the stimulus, because so far from
acting as a stimulant, it seems to have a sedative effect (at least upon the heart) while its specific action is obvious at moment that exhaustion is removed. Opium is therefore of the highest value in saving a patient from the consequences of extreme flooding. Ergot of Rye in preventing such hemorrhage from taking place. Both remedies may be used in the same case, but we can never deplore the place of the other' (Murphy).

VII. Speciemen. has been proposed by some as a suitable means in the absence of ergot but how it acts I cannot understand. In less in its usual way by causing vomiting leading to the complete detachment of the placenta (?)

VIII. Electricity seems to be a medical agent of no small interest. Dr. Radford's cases it appears to have been productive of the best results - thus he states that "it had the property of suddenly exciting alternate contractions when applied at intervals." The alternate contraction excited by the agent is analogous to, and as powerful as, that which is observed in normal labour. The tonic contraction great" (Proc. Med. Surg. Journal Dec. 1834)
Professor Simpson has also tried the experiment, but obtained very different results. This is true, however, to be remembered; that the cases were by no means parallel for while those of Simpson were cases of natural or instrumental labour, Dr. Roderick's patient was in a state of extreme exhaustion from haemorrhage. The proper apparatus to be employed is the electric magnetic sponge, dipped in some saline solution, fixed to posts attached giving to the machine, may be applied to the different parts of the uterus, externally, or even internally to the body by introducing one per vagina, so that the current may be made to pass through the uterus in every direction.

IX. Rupture of the Membranes. This process is still opposed by some not only in cases of false labour, but also of accidental haemorrhage; in the latter they are successfully used, by rupturing the membranes and allowing the liquor amnii to escape, the uterus being emptied of part of its contents, contracts upon the body of the uterus, which is hard and resisting, in doing so it diminishes the calibre of the cervix, because the uterus itself
directly to compress the orifices of the bleeding vessels, besides which to contact with the inner surface of the uterine wall as a fruitful source of excitement by which the contraction of the organ is kept up & arrestment or mitigation of the hemorrhage with speedy delivery may be expected.

X. Plug is one of the most valuable & certain hemostatics we possess in cases of hemorrhage in the early months, but in floating before delivery its adoption is considered by many a very hazardous line of practice even in placental presentations, while in accidental & post partum hemorrhages is totally inadmissible.

XI. Compression of Aorta has been highly spoken of by several eminent Obstetricians—especially Dubois & Chevally—but I believe my seldom had recourse to, in this country at least—regarding this proceeding I may quote a rather characteristic passage from the 'Principles of Obstetrics' of Dr. John Smith. 'Several years ago Dr. J. Smith pointed out that the directions of Obstetricians were wrong that we should make pressure upon the inferior Vena Cava instead.'
of the Arteria. The great hemorrhages, those which kill, are from the Veins, not from the Arteries, but from the Veins which are returning blood from the Arteries, but from the Vena Cava and heart itself. The absurdity of this statement few will be inclined to dispute. It might have been all very well in theory had the premises been correct especially had the blood been returned from the superior vena cava by some special channel, that of the Arteria by the large Vena cava trunk. But this has been purported, but we must remember that the Vena Cavae of the Arteria are in number as well as size of that they naturally flow their Prussian blood into the Vena Cavaa through the blood, veins into which flows thro' various ramifications. Now if we compress the Vena Cava (which moreover we cannot do without dying) if we compress the Arteria we must of necessity cause congestion of the uterine veins, consequently of the Placental cords. What will be the effect? Let us suppose that by good fortune the uterine hemorrhage of the ruptured Veins have
been closed—In hemorrhage does not always follow ectoration of the uterus—The venous blood, still returning from the at-
ached portion of the placenta, will greatly disturb these.
Arteries—the degree of resistance offered by the occluded ex-
tricities of the ruptured veins being less than that of the
walls of the other; generally it is less than the force flowing on the
circulation, they are consequently prolated. Upon out the
blood as the only Means of relieving the stagnant circul-
ation—or if their orifices have continued patent—though they will
allow its escape the more abundantly—from the venous con-
verse—must—but what of the placental extravasation of these
vessels—if there can be no return of the placental blood to the
depths from the congested state of the sinuses, and the
mass still continue to receive an arterial supply, the
vain of the placenta will also become distended to discharge
the blood with redoubled force from the already bluding
orifices, for these veins all communicate freely with each
other—The suggestion might be supposed to apply more
particularly in cases of complete detachment of post-
fractum hemorrhages - but there are no values in any-
of the gelatin veins, then what will become of the blood
returned by the external iliacs, if the vena cava be
compressed, it will be forced in the common iliacs as us-
ual, when finding no exit by the intima! cavae, it will
flow backwards through open branches of the intima-
to cap ilium reflux into the uterus.

XII. Transfusion. has been very highly recommended by Dr Blum-
dell-but seems a remedy, which from the extreme danger
attending it—should only be tried where every other means
have failed. This however Dr Blundell argues—apparently
with justice— to be the cause of its so frequently failing,
with other operators. He has on several occasions assisted
at it, & quotes cases, both from his own practice, & that of his
friends, where this plan was adopted & apparently saved
the life of the patient—but as he argues, that so many
cases have had fatal results from the transfusion.
being so long delayed, when the patient had already one- 
coveredly sunk; so on the other hand may it be contended 
that of the patient still possessed that degree of strength 
Necessary for the ensuring of success— the establishment of the 
less dangerous remedies might have been equally efficacious. 
But when everything else has failed— when the hemorrhage 
has stopped, the pulse still perceptible but feeble, and 
the patient gradually sinking, apparently from want 
of vital stimulus to keep up the system, yet the necessity 
seems to set hand to the design to have recourse to a form of it as a "cleaner resect."—

XIII. Direct irritation of uterus is one of the most effectual 
means we employ in cases of slight hemorrhages, and not 
infrequently in more severe cases by applying it to a greater 
extent, the uterus will be found to contract under its in-
tence when perhaps all other measures have failed. It pre-
sentative action is had recourse to in every case of delivery.
for it is than that the uterus or abdominal bandage
event to effect. Firstly it prevents it causes irritation. Circular
section or the fascia liber is one of the first things without
of in a case of flooding. If insufficient, we use friction and
pressure on the different parts of the organ to obtain
of possible, at least a temporary, contraction, so that we may
be enabled to squeeze it like a bale between the hands, an
operation frequently of no little benefit to the patient and
absolutely to the diseased nerve coming very often throu-
gh the fascia and by of the bladder. Irritation however
is liable to a rather serious objection viz. it is apt to cause
irregular contraction of the bladder. And it certainly is very an-
noying to find, that after continuing our pressure friction,
if may have been for hours, the part to which it was applied
again relaxed as the hand is removed. Allaying us perhaps
at last to confess that all our trouble irritation have only
been productive of temporary benefit leaving us when we be-
gan to commence a new mode of treatment. But if we
can only obtain steady contraction in this way for 20-30
Instruct the physician application of the tender & pressed on the uterus will generally keep up a proper tone in the uterus entirely cease. But should the uterus again delay these must all be removed sooner or later means employed. The most powerful but not unhealthful application of direct stimulation is introducing the hand into the uterine cavity, rather causing contraction on the internal surface with the point of the fingers; or else in cases of a desperate nature seizing the relaxed walls & grasping them firmly with the hand. In the latter success of uterine the left hand or that of an assistant is applied externally in direct antagonism with the hand within the uterus so that proper counter pressure is kept up. This however is an operation of the unimportant character the mere pushing the hand any of itself be sufficiently easy but is fraught with danger (with immediate future) to the woman of she have strength sufficient in the shock, she is not unlikely to suffer from inflammation of the uterus, but
if, as is almost necessarily the case, she be much destituted of sense, she may sink at once, or, if not directly from the shock, it may hang on such convulsions or syncope as the already broken constitution is unable to bear. Not unlikely, while the brain is still within the uterus to feel the whole body give one convulsive struggle like that in our hands—a portion by no means enviable either to occupy or to witness.
Accidental Hemorrhage.

Accidental Hemorrhage may arise, as first pointed out by Andrea Pastre*, from rupture of the delicate vessels of the placenta as well as from partial detachment of the placenta from the fundus or body of the uterus; but that following the former can only be of so slight extent as scarcely to demand the attendance of the accoucheur & deserves hence the name of Show's than that of hemorrhage. That resulting from the latter however is of very different nature, the partial separation of the mass causing a proportional rupture of the uterine placental vessels; the detachment extending only to a portion, it cannot be put a stop to by natural means alone. But it is an established fact that total separation of the placenta is almost always followed by abortion of the fetus. Numerous cases, by Professor Simpson, illustrate of this are to be found in the reports of the
Eclampsia. Obstetric Society. It was formerly supposed, and still is maintained by some, that the hemorrhage occurs only at the uterine extremities of the ruptured vessels. The incorrectness of this view was first pointed out by Hamilton, and since established by Dr. Simpson. That the escape of blood occurs as much, if not more so, at the placental than at the uterine surface, is a fact that must be self evident: when the true structure of the placenta is properly understood — as first described by Hunter, but since fully and explicitly demonstrated by the beautiful injection of Weber, and the elaborate dissections of Owen, especially of Dr. Goodall. The various discussion and theories on this subject it is here impossible to consider; but in it is one of great importance relative to illustrate the relations of the maternal and fetal vessels being too accused for making use of a rather long quotation from the observations of Professor Weber;

"The whole placenta, therefore, every individual cotyledon entering into its composition, consist of two distinct parts, the one a continuation of the chorion and vessels of the ovary,
The other a continuation of the Membrana decidua. Vessels of the latter
from the Chorion for instance, dendritic processes arise. Setae are developed
which in small size are but small thronchlift that they are called villi, but which grow by thy int to large tremendously
derived, stems branched. Into each of these dendritic processes
penetrate a branch of the umb. Acting 3vein. Both vessels divide
into branches the same as the processes of the chorion in which
they run. Each particular trunk with its divergences of the
shaggy chorion forms lobules of the placenta which is covered with
the tertiary decidua. It is in the spaces between the divergences
of the chorion that these vessels run which transmit
the blood of the Mother which are prolongations (dilations) of
the uterine arterial veins. They penetrate in this way even to
the most minute lobules of the chorion. The object of this structure
seems to be that the minute, convoluted, greatly elongated, 8xtremely
thin walled vessels capillaries may be brought into the most inte-
mate contact possible with the larger but everywhere excitedly
thin walled canals (Sinuses) in which the maternal blood flows
That the two currents without interfering with each other's motion may pass each other to a great extent as possible with nothing interposed but the delicate parenchyma of the uterine vessels when once they have entered the spongious substance of placenta do not further divide but immediately terminate in canals (sinuses) which are of such too large diameter to permit them to be spoken of as capillaries of which the parenchyma are so thin that they cannot be seen except by the most careful dissection.

Thus then we find that the fetal twins float as it were within the maternal amnuses they are within them exactly as we may say the intestines are within the peritoneum - the maternal blood flowing along the amnuses bathes and washes the fetal capillaries for they are only separated by the extremely thin walls of each others which the nutrient matters (analogy to after milk) pass to nourish the infant either by a process of exchange or of secretion analogous to that of the interstitial villi - a layer of cells belonging to mother's tissue respectively being found between the walls of the vessels.
After supplying the necessary materials to the fetal system the maternal blood returns into the large venous trunks into the uterine sinuses, the arrangement of which is very peculiar (see North-Town. of Med. T. 1846).

Thus then we can understand the correctness of Dr. Hamilton's views promulgated in the face of so much opposition. When the placenta is partially detached, the artery running from the uterine to that portion of the mesos which has been separated, as well as the large veins come, returning it, must be broken across tamponade必不可免; not so much from the arteries, for their caliber becomes spontaneously diminished, as from the veins it has already mentioned, for they communicate with each other and the whole substance of the placenta and the arterios of the undetached portion still continuing to supply their former quantity of maternal blood, it passes from the maternal sinuses into the large returning veins which being ruptured consequently discharge in such quantity as must soon prove fatal. In another the only sources of the
discharge for the uterine veins of immense size all directly communicate with each other. They are closed unless during contraction of the uterine fibres when Dr. Johnson has shown vessels of a temporary nature are formed. Blood therefore being returned naturally by the various trunks that have not been referred to the different venous sinuses of the uterus. These communicating so freely with each other an immense quantity of blood comes to be lost from the open mouths of those originally connected with the separated portion. The nature of the hemorrhage resembling somewhat that of secondary hemorrhage after ligation of the artery. The whole of the blood lost is therefore for material, the life of the fetus being endangered only in a secondary degree.

Causes

of accidental hemorrhage are either direct or exciting. The former are those which by direct violence cause at once the partial or complete detachment of the placenta from the uterine; but these are less common than are generally supposed. Indeed they do frequently cause
Accidental haemorrhage, they do so by other means than by direct concussion. The degree of violence some women will suffer without interrupting utero gestation is sometimes almost incredible. There is a case, I believe, of the case of a woman in her sixth month, who was driven over by a loaded carriage. The liver was ruptured, but upon Caesarean section being performed the fetus was emancipated alive. The whole uterine economy free from accident. A less serious case came more immediately under my own notice, where the patient in the 8th month fell from the 2nd floor of a house at Jamaica. She fell with no other injury than some slight bruise the induction of Spontaneous pains. She went her full time, was delivered of a healthy child. It has been denied by high authority that these causes can ever act for the causing detachment, but from my own observations I believe 1st. that they may do so occasionally independent of the comparatively small influence the placenta has to the uterus. 2. that mental emotion may induce precocious labour, but will never closely cause cle-
attachment of the placenta. 3d that all the placenta possesses but little inherent extensibility or contractility, it has still suffi-
cient to prevent it from receiving any serious injury from
dysmoeia or other special affections of the uterus.

If then these do not act directly, how do they produce such
necessary disturbance as causes the separation of placenta?
They do so by exciting the circulation, and the placental ves-
sels are, as we have already seen, in every way peculiar to
suffer from such a cause. They are numerous, of immense
size, of extreme delicacy: this abnormal action is not gradual
as that produced by strumula, but in the form of shock. The whole
system is affected, the extremely attenuated walls of the uter-
oplacental vessels—which must receive the effect in proportion to
their size—give way in proportion to the extent of the rupture.
The degree of excitement producing it, will the hemorrhage
be. The extravasated blood collects and congeals between the wall
and the uterus, separating them gradually; baldly by baldly, the
greater part of the centre of the mass is easily detached comp-
- and with the portions of its surface near the circumference, and consequently the separation may be arrested here. If it have stopped before any considerable portion have become detached, all may be well - that this is the case we have reason to suspect from the frequent wetting which we find small clots adherent to the maternal surface in natural labour. If however the separation have gone to any great extent - which we will discover by its effect upon the system - we have but too little reason to expect a favorable termination, not only as regards the Mother but the Fetus also - for where the detachment is extensive the fatal circulation cannot be properly carried on - the blood is no longer sufficiently oxygenised to all intents and purposes - the Fetus dies asphyxiated. Fatal therefore as this must be to the life of the Mother. Often it is sometimes not less so to that of the Mother. In cases have occurred where so large a quantity of blood & coagula had collected between the surface of the placenta & the uterus as absolutely proved fatal (Dub. Hosp. Rep. &r. Dr. Hardy of Clitheroe). When the edge of the placenta has given way from the force of the discharge the blood gradually makes its way downwards.
Separating the membranes from the uterus, sufficiently appears externally— a form of hemorrhage much less to fear— than when it collects insensibly in the cavity— at least in the hands of those who, alike, they see, what to experienced practitioners are unequivocal signs of flooding. Still fail to detect it, if they even suspect it, they examine the clothes applied to the vagina, or may even make an examination. When finding anything as they think natural, they conclude, independent of the postpartum toric state of the pulse, that this cannot be the cause of the abnormal symptoms that unlikely treat the case as presenting some of the accidental-kind symptoms of the stage. In the course of time, as consumptive symptoms begin to appear, have recourse to U. S. or the fact of antimony to the patient expires in their hands— or it may be they are at last made aware of their almost criminal practice by a sudden discharge of blood & confusion producing fatal effects. Presenting the unhappy sufferer an innocent victim of their own ignorant presumption. So it may be remarked that no class of men adhering to the
professional, are so ill educated, so ignorant of everything taken
phrenicism, or so totally incapable of comprehending or doing what
they have not already seen or done, as the Quakers, or

or to use in their case a more appropriate term, the Inner Medicines
of the Lower Orders.

As regards the phlegmatic temperament with obdurate ref

of the uterus have all been reckoned among the causes
of Accidental Haemorrhage. They can however have no effect but
as predisposing agents, and the rationale of their action itself
has already been fully considered under the head of Abortion.

Symptoms

of Accidental Haemorrhage will vary much according to the
extent of the lesion, the period of its being called the constitu-
tion of the patient. In this form of Haemorrhage they are not
so necessary for exciting our suspicions of the case, as in enab-
ing us to determine to what extent the lesion has gone, for
the causes are generally so evident of male in their condition
with their attendant, are in general so obvious in Mag.
sufﬁcing & conﬁdentially impartiing to us any trifle that has hap-
pened in this era of domestic history, that any occurrence capable
of producing the required effect will be almost certain to be
the ﬁrst thing our attention is directed to. Upon our sus-
picion being excited the ﬁrst thing we do - the patient of cause
being in bed - is to feel the pulse which in almost every case
affords a true indication of the true extent of the hemorrhage.
All this Dr. Hamilton seems to have dealt with some peculiar
exceptions to this general rule. - If we now examine the
Vaginal clot - we may obtain an idea of the extent of
the bleeding, provided, that is, any blood have externally shed.
This is by no Means always the case - so that probably it will of
found us no information whatever. If there be any external
discharge it will generally be found to have commenced
in a very trivial degree, only attracting the patients notice
from its trickling down the Vagina & thus thus reaching
her
was just removed of the alarming condition by a sudden
A sudden discharge may continue, warming themselves into small streams escaping from the vessels. Upon examination we find that the discharge of warm blood either stops or is regularly diminished with the recurrence of each pain; we may safely decide the case to be one of accidental hemorrhage; but this conclusion is not always so easily arrived at, for if coagula—which by no means necessarily depend upon this—have been lodged in the lower part of the womb or vagina, it is but natural to suppose that it will be during the pains that in the intervals that they will escape. Thus simulating the discharge of puerperal fever, it is the discharge of recent blood not of coagula we must trust to; but the better to satisfy ourselves we should immediately examine the os uteri see whether we can easily detect the membranes or cannot detect the placenta.
If the flooding should arise from placental presentation, she will almost always have suffered on previous occasions, although probably in a minor degree, frequently as early as the 7th month, from the cervix beginning to expand as part of general uterine cavity consequently causing rupture of some of the uteroplacental vessels; it generally comes on suddenly, either disappears for some time, again appears, disappears, it may be several times before we are sure of or perhaps, as is more rarely the case, the has never been attacked till labour has set in. Then we find that the discharge accompanied the uterine contractions. If the placenta present at the Os, we will be unable to feel the front board a head, which presents in a little more than half the cases of this nature. If the Os be not sufficiently dilated to admit of free exploration with the finger, the cervix in front part of uterine will feel more full, soft, and looser than natural, the resisting states cannot be detected thro' the anterior segment. These marks become more distinct when the head is attached to one side more than another and to be diagnosed by carrying one or more fingers.
up the anterior part of cavity, between it, and the bladder, then round the whole of the neck, from the OS to where it is lost in the uterus. Here the cavity involuted is essentially necessary.

Should the OS be open, or after it has become so we ought to be able to detect the true nature of the structures lying against it. if it be the Membranes, of the presenting part be distinguishable, proceeding upon pressure, good sense we may safely conclude that the hemorrhage is accidental. But if the Placenta presents, we shall feel a soft but somewhat fibrous mass resisting the finger, and unless the interlobular spaces are filled up with coagulum we may be able to detect its cotyledonary structure. if we attempt to pass the finger round between it and the OS we shall find it firmly adhering to the inner surface. According to some this is very apt to be mistaken for a large firm coagulum, but if proper care be observed there cannot be much danger. A coagulum presents a uniformly smooth surface, with no fibrous structure distinguishable; but the placenta may also appear in the state of as already observed, its interlobular
No skin be filled with coagula to a thin layer of coagulated blood
be spread over the presenting surface. But a simple coagulum
may resist against the os, it is never adherent; it forgets
easily be passed between it and the uterine surface. Upon a
gentle attempt it will readily give way, break down, while
the placenta will not, unless the examination be made with
such a degree of perspicuity; the circumstances could justify, if
we distinguish the mass to be a coagulum we must contin-
ue our search round the os as far up the cavity as our fingers
can reach in case of there still being a partial placental presen-
tation.

Having then ascertained that we have a case of accidental
haemorrhage to deal with, we look to the constitutional symp-
toms, mostly to decide the degree of injury a change; and all the
these may vary somewhat in different persons, they always pres-
cent some character in common, which, to the experienced, are
of themselves sufficiently pathognomonic.

If the haemorrhage exists to a dangerous extent, the countenance
soon becomes hectic, the pulse, rapid from the first, becomes fickle and jerking, the uterine pains irregular, hemorrhage suddenly cease; from injury to the vascular system, the uterine function become altered, pernecious uterine, the patient gets irritable and restless, struggling violently but not frequently, requiring to be held down in bed. This is generally succeeded by terminal fever, symptoms, with dyspnoea. Syncope from the diminished quantity of blood piercing in the lungs throw the soon revives, if this be the first attack, then vomiting but unspec-


-failure at first slight, but soon becoming severe and
-


-occasionally, (one of the worst symptoms) then a violent attack


-mea, the faint, pallic, speech again, the extremities become
cold, a cold clammy sweat. He clears the whole surface, the pulse fails, at the wrist, his eye stare wildly. The voice


-begin to shake, then to fail, the groans slightly, mutters
-incoherently, till at last a violent attack of dyspnoea
Specific or convulsive closes the scene. General colics these symptoms are, yet there are a few cases in which many of them never appear; or where from the violence of other they are perhaps overlooked. Then says Dr. Hamilton: I believe for the last 20 years I did not see any patient die from hemorrhage in whom delirium or convulsions or convulsive heaving without distinct groaning did not precede the fatal event. But I have now met with many exceptions what I consider the general rule. It has been my misfortune to lose some of these cases where the individual swallowed, spoke with a firm tone of voice, and had a perceptible pulse at the wrist within 2 minutes previous to death, having had neither delirium, nor depressed breathing. In convulsions.

Treatment.

From the various hemostatic remedies having already come under our notice, the treatment of accidental hemorrhage will require but short special consideration.

When the discharge is slight we must if possible repress it,
and if before the completion of the osseous formation we must do everything in
our power to carry the patient on her full time but where the discharge is
profuse, or where, although the danger was last imminent, it is beginning
independent of all our palliative means to affect her system, we must
proceed to more active measures to arrest it, which can only be finally,
accomplished by delivery but as this can seldom be effected immedia-
tely we must employ other means of attaining this as soon as possible
viz. such as are best calculated to excite the uterus to action.

The first step to be taken is to introduce the fingers if necessary the
hand — but this if possible is to be avoided — and rupture the Mem-
branes — if this cannot be done with the finger we may use a slightly
pointed quilt but on no account a steel instrument as some
have recommended — the uterus now emptied of its contents is found
to contract upon the fetus which is sundered in the first instance
and pressed the placenta against the uterus thus close the bleeding
surface, and secondly its various points of contact acting as so
many sources of irritation keep up a regular tone contraction of
the uterus leading in a short period to the expulsion of the child.
and under proper management the cessation of the hemorrhage.

This is the manner in which puncturing the Membranes is at least supposed to act, although various plausible objections have been raised to prove that this cannot be the case, be this as it may. If the Modus Operandi be involved in mystery, the effect certainly is not, be the explanation bad theoretically or correct; the result is good and practically correct, and will generally prove successful in about 80 to 90 per cent. of cases of this nature. Merriman employed it with complete success in 80 cases running. Dr. Hamilton opposed it in very strong language, considering it almost criminal to resort to it unless the OS titui were excessively rigid, thinking it needed im-

possible, and not permitted of by the friends or the patient herself. Yet we find the very same author telling us that "Since 1794 he

never had any difficulty (after the water had escaped) in bringing
down the feet of the infants; a fact quite notorious in this city"—an

statement made long before the days of Anaesthesia so

therefore more applicable now. By turning even in those days as

a matter of so very little difficulty after puncturing the Membranes,
Why object to sternly, to letting the locust escape by giving the patient the chance, why not examine first, and afterwards if it should be necessary. On the other hand, we find Dr. W. Davis speaking thus highly in favour of the practice. It is a fact that the artificial discharge of the liquor Amnii may in a certain proportion of cases be relied upon as a means of suspending perhaps uterine haemorrhage, and it will never be made to appear, as it has indeed already been seen, that the discharge of the liquor Amnii thus promted may be depended upon as a means calculated to induce the action of parturition."

After, or perhaps better before, the membranes are ruptured a dose of ergot should be given. The better to ensure that object, and renewed every 15 or 20 Minutes until it produces a satisfactory effect, if the patient be at all exhausted, this may safely be combined with a little solution of quinia, the dose of the latter being regulated by the degree of exhaustion produced. The abdomen-inal bandage should now be applied with a slight compress over the uterus or the organ so treated by pressure forthwith.
but it will generally be found the more efficient practice to apply
the tender & introduce one or more fingers intro the ut, or which
will prove more efficacious still when the patient can bear it's
pressure on the floor of the vagina.

If proper assistants and the necessary means be within our reach we may try Dr. Radford's treatment by galvanism, as it seems to
have been in cases of this description that that agent proved so success-
ful in his hands - this however is not to be employed to the neglect of
other means. Upon its individually rest the responsibility of the
case - confide this therefore to the charge of our assistants, while
we leave no means untried - as far as the action of the one does not
interfere with the action of the other. Stimuli, as before noticed are
of great effect when employed with proper discrimination; they
may now become necessary to support the action of the heart and
vascular system to prevent syncope which occurring at this per-
iod might at once prove fatal - What stimuli are to be given
ought to be undiluted - half a wine glassful of pure brandy and
its more good than a whole tablespoonful mixed with water.
Table-spoonful doses of brandy with some tincture of opium will be found very efficacious administered properly. As
powderful as these sometimes are, they become dangerous remedies in the hands of those who are ignorant of their prope
ration. Therefore cannot distinguish when they have been car
ried their proper length, and continued after this, they are as injurious as they were formerly beneficial. We must
exhibit them ourselves that trust them to others, the proper
quantity the remedy of their exhibition being equally guided
by our own judgement.

Plugging the vagina in cases of this sort has been highly re-
commended by some, but its adoption is certainly to be den-
ounced as most hazardous. For if the means of escape be
taken away, false accumulation will go on in the uterine
cavity without at all diminishing the quantity lost. If the
pelvis have already suffered much too may not be able to form
a correct judgment of what is taking place inside, nor may
even flatter ourselves we have stopped it, but the walls of the
relaxed uterus gradually becoming more and more distended till some
pints of blood are collected in its interior, the organ being thus
stimulated to action contracts, we rush down the plug deceived
ourselves into the idea that we have caused uterine action (which
in doubt we have) that all will go well, the hand is perhaps not
more than half drawn from the passages when such a torrent
of blood is discharged that at one unseasonable placed our
patient in extremis. What more can the plug do than cause
congestion at the os uteri, what effect can a congestion
there have upon a partially detached placenta at the fundus
uteri—Altho' I cannot agree with Dr. Burns regarding the
rupture of the Membranes, but I do so perfectly regarding the
use of the plug in Accidental Hemorrhage (or what is the
same thing in an analogous hemorrhage--if not called Accidental)
that independent of the numerous extracts that have been
given in certain books on Midwifery deceiving the reader into
the belief that Dr. Burns recommended that practice. He
certainly speaks very highly in its favour and is invaluable,
very precise in defining the proper cases in which it should be used, but if he does not point out distinctly when we are to use it, he tells us plainly when we are not. But whilst I so highly commend the strongly urge the use of the plug, I do not wish to recommend it to the neglect of other means, in every situation. In the early attacks of hemorrhage when the uterine is firm and manual interference improper, I know of no method more safe or more efficient for restraining the hemorrhage and preserving the patient. But when the hemorrhage has been profuse, the circumstances of the patient demand more active practice. Point out the necessity of delivery, then the use of the plug cannot be proper; if treated to it may be attended with dreadful fatal effects; we can indeed restrain the hemorrhage from appearing outwardly, but have been cases where the blood has collected within the uterus which having lost all power has become delayed and been slowly enlarged with corpuscles, the strength thus decreased, the bowels become inflected, the belly swelled beyond its size at the 9th month unless the womb has been that period, while an inattentive practitioner has concluded that all was
well with regard to the hemorrhage, the patient has expired." p. 313.

The pupil independent of the high authority of Rugey & Donnann cannot but be justic. When there is not a train of unusually fortiteral cir-
cumstances attending its use, for the only good it can ever possibly

"do here of itself is to regulate the vitæ vegetation, the tend to death

as well as reflex iterins action, an effect induced, perhaps at the

risk of rendering certain what was before doubtful in death in

90 cases of the 100. "The Blood" (says Dr. Negga) "which continues to

flow into the loops after the Hæmorrha has been closed by the tampum,

may be compared to a river dammed across its channel whose

waters in consequence overflows their banks, crowning the adja-
cent country."

In cases of severe exhaustion where the apparatus has been pre-

viously prepared the hemorrhage stopped, the pulse still distinct

althe it may be weak & flatterting, the whole case apparently re-

quiring but little vital stimulus to carry it thro' transfusion

may be adopted with some hope of success if there be proper assist-

ance near, the operator, the help, and a healthy subject gen-

eral.
ally the unlucky husband) be at hand from whom a good supply of blood may be obtained.

The best most efficient remedy when it is applicable is acting on the umbilical cord and drawing the child straining it violently, followed of necessity by the artificial detachment of placenta.

Suppose when we are called to a case of the passage covered with mucus or fluid lubricated with their natural secretion, the size of half a crown or a crown-piece. Is it not easy to detach? What practice as we to pursue? If rupturing the membranes, it may be with the addition of to go be sufficient in about 3 cases of every 6, will we not rather trust to this than undertake to turn an operation which is ever formidable. 3 years ago, most would have unhesitatingly answered in the affirmative. But since the danger of the operation consisting in a great measure in the shock to the system, is now greatly obviated by the exhibition of chloroform, besides every thing else being rendered doubly favorable. Many would be inclined to proceed at once to turn empty the uterus by the new method of arresting the hemorrhage. But it may be argued on the other side that if
rupturing the Membranes be so often successful why not trust to this in the first place. Often after a search. Why always expose the patient to so severe an operation, before milder means have been tried? If they fail, then by the influence of Anaesthesia the old objection, that to turn after escape of waters is dangerous and difficult is done away with in the same degree that the argument in favour of turning at in utero is strengthened.

As a general rule then we would in case of Accidental haemorrhage where Applicable Means are unavailing the Membranes still entire advise rupturing the Membranes at once, promising a good close of rust if necessary for the life of the patient. Then after-ward under the influence of Chloroform.

When we have been called to a case of Accidental haemorrhage the true nature of which we have been already made aware of therefore have the means in our power ready for us to consider the following as a general Summary of our treatment.

In all cases where the Os Perinwage are not dilated or dilatable enough to admit the hand, the Membranes and the
Flooding sores at once rupture the Membranes, give ergot and apply cold to begin as it was theuterine action, after this apply the Binder. Or we may after rupturing the Membranes employ galsonism. When there is any degree of exhaustion give opiates, with or without ergot. If much exhaustion give diffusible stimulants as brandy combined with decoction, half a dram twice a day according to the urgency of the case. The latter to be done cautiously under an oxim immediate superintendence. When the haemorrhage is arrested but the patient exhausted, then Gota sulphur to try transfusion.

If the Os mammae should be dilated or sufficiently delatable (some would tum it once) still pursue the same practice unless the patient have already lost so much blood as to render further delay dangerous, when this is the case proceed at once. Again if rupturing the Membranes be unsuccessful, if the water have already escaped, the flooding continue unabated, give chloroform steam if possible, otherwise try the breech of unsuccessful then Caesarean or Excision.
In the foregoing pages I have successively considered, as fully as time and circumstances would permit, the nature of Accidental Labour, its causes, its symptoms and treatment; and under the latter I have endeavoured to lay down as clear, short, practical, and practical, views, as possible, of the various opinions maintained or practices pursued. But when reading the works of the late Dr. Hamilton, my attention has frequently been attracted by one particular passage; it the possibility of the prac-
tice mentioned in which viz. turning with the Os Sezgo and the Membranes entire. There I vain attempted to convince myself, either by reading or by study at the bedside. As this, however, may arise from imperfect observation, was it would be, if confirmed, an acquisition of no small value; since now conclude with a quotation from the passage in question. "Refute the bugbear which seems to have haunted the minds of practitioners on the treatment of these cases, is the supposed difficulty a danger of dilating the Os Sezgo. But if it be prac-
ticable when the Membranes are entire, to hook down a term
Extremity of the infant without carrying the hand. Thro' the 6th litre, which the author most positively affirms that he has done innumerable times, & when a lower extremity of the infant is chosen Thro' the uterine, the cervix 6th litre did not readily pass (being duly supported) which, according to this experience invariably happens, all objections founded upon this difficulty, a danger of turning must be held to be fruitful.

N. 13. I beg to be understood that the above remarks do not apply to the method of turning by external manipulation recommended in certain cases by Drs. Allan, Burns &c. but to that as specified by Hamilton; the possibility of which Incadly admit in cases of premature labour, or even of well marked hydramnios at the full time, but certainly not in the ordinary cases that come under our practice.
Contents

Introductory Remarks  page 1.

Part I.
Abortion

Period of its Occurrence  1"
Causes  2"
Symptoms  4"
Treatment  14.

- Prophylactic  18
- when threatened  22
- when Unavoidable  27
- after 5th Month  41
- during convalescence.  43

Part II.

Hemorrhage during the latter Months.  45.

Division of into Accidental & Unavoidable.  46
General view of uterine Hemostatics.  49
- - of utero-placental circulation  66

Accidental Hemorrhage  65

Causes.  66
Symptoms  70
Diagnosis between & Unavoidable  78
Treatment  82