

Thesis.
on "Feticide."
R. J. B. ^{by} Cuyngame.

March 1832.

The Subject of Fœticide or Criminal Abortion, is one of the greatest importance to both the Medical and Legal professions, and no less so to the morale of the Community at large. This crime viz. that of destroying the life of a child yet unborn, is one at the same time both heinous and diabolical and is held to be such by the legislature of most Nations.

Dr Percival says: "to extinguish the first spark of life is a crime of the same nature both"

"against our Maker and Society, as
"to destroy an infant & child or a
"man; these regular and successive
"stages of existence being the ordinances
"of God, and subject alone to his
"divine will."

The arrangement which I propose
to adopt is as follows.

- I. History
- II. Laws.
- III. Signs of Pregnancy
- IV. Causes of Abortion
 - 1. Spontaneously or Natural
 - 2. Artificial
 - A. Local
 - B. Constitutional
- V. Signs of Abortion
 - 1. From exam. of Female
 - A. If alive
 - B. If dead
 - 2. Object expelled.
- VI. Conclusion.

I. History.

It is not likely that the Crime of Sueticide or Criminal Abortion existed during the Mosaic Dispensation, as among the Jews at that time, it was considered one of the greatest misfortunes which could befall a woman if she was barren; and each hoped that the Messiah might arise from his descendants. Also among them, if, after the Consummation of Marriage blood, was not found, the woman was stoned by her tribe as not having been a virgin. This must have prevented much illegitimate intercourse, and so the wish to get rid of the unborn proof of their sin. They may also have been deterred from it by the severe punishments which were denounced against murderers. †

Among the Grecians the destruction

† Campbell's Midwifery.

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of unborn children, was in some
cases law. Thus Aristotle says, "if the"
"parents transgress the law let the"
"ordained that the mother shall destroy"
"the fruit of her body, before it shall"
"have received the principles of life"
"and sensation." ||

The practice was also in
vogue among the Romans. Juvenal
thus speaks of the practice.

"Hæc tamen et partus subeunt discernendæ et omnes"
"Artificis tolerant fortuna irquente labores";
"Sed jacet curato dixit alla puerpera lecto";
"Santum artes hujus, tantum medicamina postant." §

Minucius Felix describes this
Roman custom to say - "by cruel potion"
"you procure abortion, and smother the"
"hopeful beginning of what would come"
"to be a man, to his mother's womb." +

The procuring abortion was
common among the Goths, Chin.

|| Travels of Anacharisis Vol. 5.

§ Juvenal Sat. VI.

+ Relat. Minucii Felicis Chap. XXX.

Law describes the procuring of abortion.⁹

In the island of Formosa no woman is allowed to carry a child to the full time, till she arrives at the age of 35.*

In New South Wales, abortion is procured as a matter of course by what is called the Ince-bra, i.e. bidault compressing the abdomen of the female.¹¹

Among the Drahomedans it is no uncommon thing the procuring of abortion. Some of their Ince of rank encourage their wives to produce miscarriage after having had 2 or 3 children.[§] In Turkey, according to Dr. Bryce, there are female, nominally midwives; but whose chief practice consists in procuring abortion for those who consult them.

⁹ Ryan. Medical Jurisprudence

* Edinburgh Encyclopaedia.

¹¹ Account of the English Colony of N.S. Wales by Lieut Col. Collins

[§] Letters from the Mediterranean by S. Blacquiere Esq.

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In Egypt this has been a custom
for time immemorial, and it is said
that the women in that Country do so
with ease and safety. 0

In the Northern Hemisphere the
same practice is followed by the inhabi-
tants of Anderson Bay. 9

From what has been said
under this head it will be seen that
this crime is now practised lawfully
so in some parts of the world. That
such is the case among Savage Nations
we need not be so greatly astonished; but
to find the Custom prevalent in Egypt,
Turkey &c. Civilized Nations, we may
well feel both astounded & disgusted.

0 Annales de Hygiene Publique vol X.

9 Ellis voyage to Anderson Bay.

II Laws.

I shall first just mention the acts of our own Country concerning this offence. The 1st., was that of Lord Ellenboroughs (43 Geo III. c58) 1803.

Then came that of Lord Mansfield in 1828 (9 Geo IV. c31.) I need not quote the words of these acts, suffice it to say that in both there was a difference made between the time of quickening, i.e. the 4th. month, and all the period of utero gestation before it, - that it was not such a heinous crime if abortion was procured before that time, as between it and the full period of utero gestation. "British law denouncing" "Capital punishment for procuring" "abortion after quickening, although" "before that period intentionally procur-
-ing abortion is only a misdemeanour." §

This Distaste originated in the fact that the old writers considered the foetus not to be quick with life, it alive, previous to its quickening.

§ Traill's Medical Jurisprudence p.28.

to no and evident fallacy, and now happily done away with as any obstruction.

Then came the act of Victoria (Vic.) and which as hinted at. Cancelled the above.

According to the French Code the procuring of abortion is punished in females by imprisonment: & if perpetrated by a medical man he is condemned to hard labour for a certain time.

The laws of the United States are very lax as regards this offence. Some as New Hampshire considering it trifling, unless as affecting the person of the mother; others requiring the proof of death of the child or foetus to make it a criminal offence, felony or manslaughter. And in fact an attempt to procure abortion would almost seem beyond indictment, unless the foetus could be proved to be killed whether expelled or not from the mother.

Terullian when he wrote

expresses himself in the following most
 fervent style. "Christians know too so far"
 "from homicide that with them it is"
 "utterly unlawful to snuff away with a"
 "child in the womb, when nature is in"
 "deliberation about the man; for to"
 "kill a child before it is born is to com-"
 "mit murder by way of advance; and"
 "there is no difference whether you destroy"
 "a child in its formation or after it is"
 "formed and delivered; for we Christians"
 "look upon him as a man who is one"
 "in embryo; for he is a being like"
 "the fruit in blossom and in a little time"
 "would have been a perfect man, had"
 "nature met with no disturbance." ||

III Signs of Pregnancy.

In such a paper as this it is quite necessary to mention some of the leading symptoms of pregnancy which are usually present when any female is in that condition. Among these are

1. Changes in the Mammas. These are a deposit of dark pigment in the areolæ surrounding the nipples, and forming a broad ring of a brownish colour; hardening of the breasts; and latterly the presence of milk in them.
 2. Cessation of Menstruation. A very important symptom in most females, though it must be remembered that in a few cases on record, this flow, or one similar to it has continued for at least part of the period of utero-gestation; and still rarer are those cases where menstruation has only occurred during the same period.
 3. Morning Sickness. This when combined with some of the others is important, without, almost useless.
- We must however be very careful

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not to confound this vomiting with that occasioned with criminal intent by means of emetics &c. which will be noticed hereafter.

4. Enlargement of the Abdomen. After the 4th month, at which time the uterus rises from the pelvis, the abdomen begins to enlarge. We must be sure that this enlargement is really that of pregnancy, as by administering chloroform, when, if spurious the abdomen will subside.

5. Quickening. This is occasioned by the movements of the child; but is not so infallible a sign as some would have us believe; for some pregnancies have gone through their whole normal course without the mother feeling any of the foetal movements.

6. Auscultation. The best and in my opinion the infallible test, is that of hearing the sounds of the foetal heart, through the abdominal walls of the mother. The sound of the "placental souffle" need not prove that the child

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is alive, for although it dies the Decidua, membranes, placenta &c. may go on growing, and so we may still have this second sound.

7. The formation of Pistine in the urine.

By a few, the fact that a pellicle of fatty matter is formed on the surface of the maternal urine is held to be conclusive as to the presence of pregnancy; but according to some later researches this has been negatived. However it is well to bear the fact in mind that such does frequently occur.

This alone I believe to be the most conclusive and now currently received diagnostic signs of the pregnant state, and when several of them are found together in one female we may feel pretty certain as to her real condition, whether she may deny the fact or no.

IV Causes of Abortion.

These are divided into Involuntary and Artificial Causes, i.e. as occasioned quite independent of the Mother or other, or, as induced by some Cause Criminally applied.

1. Involuntary Causes of Abortion.

The Medical Jurist when called upon to unfold his Knowledge concerning a case of suspected Criminal abortion, must bear many things in mind, as to the character of the female, her calling for assistance at the time of the passage of the foetus, or not, concealed pregnancy, the fact of the child being illegitimate &c.

Moreover he must be well aware of the numerous causes which are sufficient to occasion abortion, a few of which may I think be mentioned with advantage. Among these are, the effects of accidental blows, running, dancing, jumping, any derangement of the function of the uterus or of the organs of her body; the gynecic

diseases, as Small-pox; Syphilis in the father, † Any strong action of the abdominal muscles as Straining at Stool, Seasickness, excessive Venery, and these especially in females naturally of plethoric or lymphatic temperaments, or of a highly nervous disposition.

There is a case mentioned, where at the top of a ship at sea, a female who had been pregnant was drowned, and on her body being picked up, the child partly born was found between her thighs. In this case she must have aborted from fright (dreadful emotion) or from asphyxia. †

Railway travelling has curiously enough been found sufficient to cause it, at least there are three cases, where there was nothing else to account for the miscarriage. †

Another most important fact is, that

† Medical Times & Gazette Vol. 36.

‡ Lancet 1848.

† Ibid 1844.

any female who has once aborted is very apt to do so again, and even although the greatest possible care be taken to prevent it. Abernethy mentions one case where a female aborted 35 times. §

There are doubtless many others, but the jurist must exercise his own common sense and discretion for finding them out, and determining their sufficiency to cause the premature expulsion of the uterine contents.

2. Artificial or Criminal Causes of Abortion.

Abortion may be criminally induced in two ways. (A) by acting on the uterine system directly & locally or (B) by acting upon it through the system i.e. constitutionally.

However the procuring of abortion may be attempted, all authors are agreed as to the fact, that it is both the greatest peril to the life of the impotinate

small herself. Let me quote one or two writers as to this. Bartley says.

"Every woman who attempts to procure
"abortion does it at the risk of her life*"

"Drake writes as follows. "There is no
"drug which will procure miscarriage
"in women who are not predisposed to
"it, without acting violently on their
"system and probably endangering
"their lives."†

According to Smith
"Abortion is in general injurious to
"health and is seldom unaccompanied
"with suffering."‡

There will be many cases to bear
out these statements mentioned in the
after part of this paper.

A By acting upon the uterine system
locally.

To procure abortion in this
way the presence of a second party

* Bartley, Lecture on Forensic Medicine.

† Drake's Epitome of Juridical Medicine in Cooper's Facts.

‡ Smith's Principles of Forensic Medicine.

is generally required, though there is at least one case where the female caused dis- carriage by introducing an instrument into her own womb. || This method

of inducing abortion is perhaps more fatal to the mother than any other, because the operation itself of passing an instrument into the womb, is one of the greatest diffi- - culty, and one which has failed in the hands of some most skilful surgeons, and if so how can it be supposed that those unlearned in the anatomy of the parts will succeed.

As an example of the accidents which have happened in operating Dr. J. B. Jackson reports an instance in which the internal iliac artery was opened, and there is another where the common iliac was punctured.

There are a good many cases on record where abortion has been, or tried to be produced by various me- -chanical applications. From among those I shall quote one or two of the

|| New York Journal of Medicine vol. 7.

9 Dublin Medical Press. 1848.

now interesting.

First there is the case of our Archer a "herb doctor", who introduced his hand and arm into the vagina of a female and kept them there for about 10 minutes, do with - standing the frightful agony occasioned.

The unfortunate woman expired in less than a week after the above operation.

On examination there was found an opening in the posterior wall of the bladder, and another in the uterus corresponding to it, and through these lacerations the child had escaped into the bladder where it was found. Beside these there were contusions of other parts.

Then there is a case where Dr. Siebler inserted pieces of wood into the womb of Starkinsow, resulting in the expulsion of a sixth month child, and the death of the mother 13 days after. Upon examination two holes were found in her uterus one inflamed and the other gangrenous.†

Again Dr. Pizzy and Dr. Codd were

† East's Crown Law vol I. and Smith's Jurisprudence.

indicted "for feloniously administering a certain noxious and destructive substance to A Cheney, with intent to procure abortion". And the medicines administered internally having failed, an instrument was introduced into her vagina causing premature delivery, but not in this case death of the mother. The prisoners were now acquitted.

Soder and Ristelheider relate a case where the nozzle of a syringe was used, and which caused rupture of the uterus and death of the mother. The foetus was in this case found in the abdominal cavity. †

That these attempts do sometimes fail is proved by the two following cases. The first happened in the practice of Dr. Wagner of Berlin, where a young woman just had recourse to drugs, these failing she had a strap tightly bound round her waist, then she was smelt and trampled upon by her paramour.

† Medico Chirurgical Review vol 6.

And lastly, he perforated her uterus through the walls of the vagina, causing much pain and hemorrhage, but no abortion. She bore a living and healthy child at her full time *

The other happened in New York. A Catheter was used, the membranes were ruptured and the os tinea wounded, but failed to procure miscarriage. †

Liquids had been injected into the vagina to cause miscarriage.

Thus Sulphuric acid was so employed, causing great inflammation and occlusion of the vagina, so that Caesarian section had to be ^{had} recourse to before the child could be extracted. The mother died. §

The injection of warm water has been recommended (in the hands of medical men) for inducing premature delivery. How this must be borne in mind, for it might be employed

* Guy's Medical Jurisprudence.

† Medical Recorder vol 8.

§ Lancet. vol. 8.

Criminally, and if we were to find the passages much relaxed, enquire if this had been done?, and if so whether at the lawful instigation of a medical man? and for what reason?.

Premature delivery may also be occasioned by the action of the female herself, as running, jumping, beating her abdomen, rolling about &c.

If the abortion has been caused by blows there will probably be ecchymosis, bruises, and other marks of force having been used, & be seen upon the integument of the abdomen or loins. If such be present we must try to find out whether the woman herself or a second party inflicted them. If the first then unless she can give some very good reason for so doing, and which I imagine would be rather difficult she must be regarded with suspicion.

If another has given the blows, we should enquire whether the mother has done anything to occasion them, if she has been quarrelling &c. if not

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It will be suspicious, and will require further investigation.

In cases where running or jumping has been the exciting cause, there will probably be no external marks, and in such it might be difficult to find proof that she intentionally had recourse to such means to procure abortion.

A great point in the patient's favour would be her endeavouring to prevent the separation of the foetus after the application of any such causes.

Belloe mentions two cases: one, where after receiving the Ricks's Salts upon her abdomen, the female went to bed and took other precautions, notwithstanding which she aborted. Belloe said the Ricks &c. caused the miscarriage here. In the other the patient took no preventive measures and she likewise aborted. Here Belloe declared that the abortion would probably not have taken place had she taken the necessary precautions. †

† Cours de Médecine légale.

There are other cases where severe injuries have been received by pregnant females and yet no abortion followed.

Mrs. La Chapelle mentions one, where a young midwife who to escape Caesarian Section threw herself out of a window and sustained such injuries, that she died but did not abort.

Mauriceau mentions another where a female 7 months gone with child, in escaping from a fire fell 3 stories & broke her arm, but without any mis carriage being produced.

B. By acting on the uterine system through the Constitution.

By Hemorrhage. Formerly, even from the time of the Hippocratic writings this was thought to be a sure way of causing abortion, and all the more so if the blood was drawn from the foot.

We are now satisfied as to the error of this idea from the fact that in many

Cases, and for many diseases pregnant
 females have been bled, and to no small
 amount, without detriment to the
 child within them. Thus Mauriceau
 bled one woman 90 times and another
 148. || Dr. Rush bled many during an
 epidemic of yellow fever, and the Cases
 of neither of these gentlemen suffered.
 But were all delivered as usual of
 living children. † There is no Scar-
 city of such Cases but the above will
 suffice.

Although this plan has generally
 failed, yet there are Cases where it has
 succeeded and especially if the patient
 is of an irritable disposition, & she bled
 to syncope. Dr. Depaul mentions
 his bleeding a female in two pregnan-
 cies for something, and in both she
 aborted. Might we not in
 such Cases account for the expulsion
 by the supposition, that the quality of

|| Capuron.

+ Medical Observation & Inquiries vol III.

the maternal blood is rendered so inferior, that the foetus not being fully nourished perishes, & having so died and being then a foreign body in the uterus sets up contractions.?

We must remember that a female wishing to abort may cause a much greater loss of blood than the practitioner wished, by undoing his bandage and plunging the limb into warm water on his retiring.

In cases of suspected Criminal abortion examine the arms &c. for recent cicatrices which if present may enable you to discover that blood has been lost.

By Emetics - There is considerable difference of opinion among authors as to the question whether emetics will cause abortion?

For my own part I believe they may. Those who hold the opinion that emetics do not cause abortion reason from the fact, that morning sickness

does not usually cause abortion, But this generally, only occurs during the early months, and each attack does not last long, while the vomiting caused by emetics is much more severe and so it remembered, is as it were superadded, — that the one may not cause it, yet both together may surely be supposed to have greater effect. And also the Constitution of a pregnant woman may be shaken by what would cause no inconvenience if she were not in that Condition.

It is in the latter months of utero gestation that most danger is to be apprehended, because the uterus being then larger, is more apt to be disturbed by the Contractions of the abdominal muscles and diaphragm.

Burns Says, "that abortion is seldom but is apt to be produced by emetics."

When we suspect that an emetic has been taken for this purpose, enquire why it was taken, what was.

taken, and how if in a concealed
Dropper, or at the order of a Medical
Man? As a deduction from the
above, be very careful in giving emet-
-ics to a pregnant female, and if pos-
-sible avoid them.

By Cathartics In small doses
they do no harm; but in large, and if
those be used which act especially on
the rectum, there is great danger to be
feared on account of the peculiar Sympathy
existing between that part of the alimen-
-tary Canal and the uterus.

Dr. Rush however mentions num-
-bers of cases when in an epidemic
of Yellow fever he gave large doses of
Calomel and Salap without bad Con-
-sequences ensuing. + Campbell on
the other hand tells us that he might-
-ly caused abortion, by giving Calomel
& Salap to females labouring under ic-
-terus. ||

+ Medical observations & enquiries

|| Campbell's Midwifery.

When we suspect that abortion has been criminally produced by Cathartics make the same enquiries as mentioned under emetics.

By Diuretics. They are said by some to cause miscarriage, but I think they are not so powerful in this action as the two previously mentioned, because their effects on the Constitution are not so severe, and the sympathy between the Kidneys and the uterus is not so strong.

D^r Burns however mentions one case where the female aborted after taking ʒij of L. Digitalis for dropsy.

D^r Paris mentions another where the female took "a handful of ditie" by mistake; she aborted in half an hour.

But it is to be remembered that in the last case the ditie would probably act as a drastic purge, which would be quite sufficient to cause

§ Burns's Midwifery

|| Paris & Goulonque. Medical Jurisprudence.

premature expulsion of the foetus.

By Oxytocics and Emmenagogues.

There are several articles in the Materia Medica which are said to have a special action on the uterus; but that such is the case except in that of ergot of rye, I very much doubt.

Secale Cornutum - Ergot of Rye.

Spurred rye.

This drug is certainly at the top of the list of oxytocics, and that it has the property of exciting uterine action, very few now doubt. It has been much and successfully used to produce premature labor, there being a table of 55 such successful cases in the Medical Times & Gazette for Jan. 1854 and Hoffmann has collected 47 others.*

Dr. Churchill says "Ergot of rye is now pretty generally supposed to have the power of originating uterine contractions." †

* Neue Zeitschrift für Geburtshilfe und Gynäkologie.

† Churchill's Midwifery.

This drug acts by passing into the blood, and affects chiefly those areas of the Spinal Cord which are in relation with the uterus.

It has been found to produce abortion in the lower animals at any period of utero gestation,† and Dr. Charard mentions one case where it was successful in a woman at the 6th month.‡

Dr. Whitehead mentions one case where it was three successful but in the fourth pregnancy failed.† Dr. Condie mentions several cases where it completely failed although several drachms were taken daily.

From the above facts it will be seen that it does occasionally fail, but that it is not to be despised as an abortive is plainly proved from the number of cases where it was successful in producing premature labour. And again, in labour when uterine action is failing the administration of a dose

‡ Philadelphia Journal of Medical & Physical Sciences

† New York Medical Repository.

† On the Causes & Treatment of Abortion & Sterility.

of ergot often increases the strength of the pains, and may so prevent bad consequences to the mother, though it is almost always proved fatal to the child.

Emiperus Salina, Savine.

This is perhaps the drug most popularly used for Criminal purposes.

It is exceedingly poisonous as is shown by Dr. Orfila from experiments on the lower animals, and also from cases where it has been taken, frequently causing the death of the mother.

Galen declares that it is sufficient to destroy the foetus.

I am of opinion that its oxytoxic action depends almost solely on its action as an irritant-poison.

"It cannot act in such a way (as oxytoxic) without violently affecting the stomach and bowels, and so bringing life into extreme danger." (Christina)

There are many cases on record where it has been used to procure abortion. Dr. Lee mentions one where the foetus was expelled at the 6th month, and the

mother died on the third day after.

Dr. Taylor mentions two cases in one of which, abortion and death of the mother followed. || Dr. Christison mentions the

case of a girl who aborted & died from the use of Savine. §

Dr. Compbell relates the case of a woman who could procure abortion at will and without any bad consequences. A case

happened on the Continent where the drug did not cause abortion, probably owing to the treatment - the girl milder. what, when it was found out that her seducer had administered Savine.

It caused hiccup and vomiting with violent pain in the abdomen. †

If you be called to a case where Savine is suspected to have been taken, the most rigid inquiries must be made and if discovered that she has, or has had the drug ascertain why, because I know of no condition in the pregnant

Medical Times & Gazette 1857.

Christison on Poisons.

Fodere vol. IV.

female which would require its use.

Oil of Sassafras - This is in its action precisely similar to that of Savine.

There are two cases on record where it was used and both happened in America. There was no abortion, but death of the mother in one case in two hours, and in the other in three & one half after taking the dose which was $\frac{3}{4}$.

Mercury - It was formerly supposed that metallic Mercury had great power as an exciter of uterine action, but we are now well enough aware that such an idea is fallacious.

Calomel was afterwards used with the same view and with such the same results. Thus Dr. B. Bell informs us that it may be taken by a pregnant female without any bad result whatever, it is as concerns the premature expulsion of the foetus. §

Bartholin and Mauriceau give cases where it was largely used in Lymphitis, & yet labor ensued as the § Bell on the venereal.

Normal period. † Dr. Campbell
 mentions one case where a girl was sal-
 vated to procure abortion, so much so
 that her tongue was like a honey comb;
 but notwithstanding she went on to the
 full term.* Dr. Burns however

thinks that Mercurials might cause
 abortion, and are to be avoided during
 pregnancy. † I do not think

that the preparations of this metal are
 very likely to be had recourse to for pro-
 curing miscarriage, as the evil effects
 of Mercury on the Constitution are now
 so well known to both the profession and
 the public. If however such a

case were happening it might be a
 very difficult point to decide positively
 that the drug was taken to procure ab-
 ortion, because it is, or was, so often given
 and in so many complaints that the fe-
 male or others concerned might declare that
 it was given to cure some one of them.

† Fodere bot. T.

* Campbell's Midwifery.

‡ Burns' Midwifery.

Rue. This drug which has been pretty frequently taken with the same intent as others mentioned, acts solely from its irritant properties, which are much the same as those of laud.

D'Arcet who has devoted considerable attention to this subject; mentions the following as the symptoms occasioned by the use of Rue.

1. A quickly inflamed Stomach and Duodenum, characterized by violent and obstinate vomiting, thirst, and pain in the epigastrium, whilst there is little irritation in the small intestines, and the large seems to be altogether exempt.
2. A stimulation of the uterus followed by energetic contractions of its fibres.
3. A serious affection of the nervous centres, partly by narcotism and partly of excitement manifesting itself by the following phenomena; sleep, vertigo, a condition like intoxication, dreams, want of intelligence, difficulty of speaking,

Impairment of vision, Contraction of the pupil, Continual movements of the head and arms, Contracting with the almost total immobility of the trunk."

4th Depression of the heart's action characterized by the diminution and feebleness of the pulse, decrease of the heat of the skin below the normal state."

5th Among the symptoms of a less importance, enormous swelling of the tongue, inflammation of this organ, accompanied by abundant salivation, passing away only at the end of several days."

6th At last towards the 10th day we see a sort of reaction, which manifests itself by a kind of febrile attack, feeble and uncertain which establishes itself with difficulty, and the symptoms of poisoning disappear by degrees and are transformed into a sort of typhoid affection." §

These symptoms it will be seen are similar to those caused by narcotico-acrid poisons.

From among the cases in which this drug has been used the following as typical examples may be cited. The first that of a young woman about 4 months gone with child, who took a decoction of rice, which was speedily followed by great pain in the abdomen, giddiness, vomiting, and a short time after passing a few clots of blood the foetus was expelled. The second is that of a servant who had such the same symptoms as in the first case, with in addition suppression of urine. She also aborted & recovered. † [Heilic].

There are several others on record, but the symptoms and results being much the same, as in the above, need not be quoted.

† Annales d'Hygiène Publique.

Snake Root. Frequently used to produce Miscarriage in America, and Dr. Hartsorn mentions its power in this way. ||

According to some authors "it does not appear that it is very efficacious" in causing Miscarriage, and has evidently not been much employed in this Country for that purpose, at least I have been unable to find any such Case mentioned.

Pennyroyal. This is said to be an energetic abortive agent; but I think without sufficient reason. Dr. Brattin relates a case where the smell of it, he says, caused abortion; but I must confess I cannot but think there must have been some other cause in action.

Paris and Lombard, quote a case in which a druggist was indicted for administering, steel filings and pennyroyal to a female with the intent to procure abortion.

|| Selectic Repertory.

+ Cases Medical Museum. vol II.

Aceta Ramea. This plant which is found in the United States is said to have much the same action as cast, and might therefore be used to procure miscarriage, although I am not aware of any case where it has been employed for that purpose.

Fern. root. and Iodine. have both been used for the same end, and coincidently with success.

Arsenic. There is one case mentioned where arsenic was given for this purpose. The female took gr. ij twice daily for three months, it did not however produce the desired effect.*

Stira-piera and Seeds of Paradise. There are mentioned two cases in the above journal where each of these were taken, but in both without effect.

* Associated Medical Journal. 1858.

V. Signs of Abortion.

The Signs of Abortion may be Considered under 2 heads.

- 1. From an examination of the Mother.
- 2. From an examination of the Object expelled.

1. From examination of the Mother - when alive.

If abortion takes place during the early months of pregnancy, as may be supposed it will be very difficult to establish the fact from an examination. The Ovary during the first two months especially is very small, and not so firmly attached to the womb as it afterwards is, so that any solution of continuity between the two is not attended with any great violence, and leaves but slight and evanescent traces of its having occurred. The hemorrhage attending the separation may not be profuse, because the vessels are still small and are soon brought under the influence of nature's hemostatics. All that is visible may be

a slight relaxation of the parts, with blood upon them; but not more than might be accounted for by menstruation.

Dr. Montgomery in his paper on the Signs of pregnancy and delivery, relates the case of a lady to whom he was called, who miscarried at the end of the 2nd month.

In 24 hours afterwards he found the os & cervix uteri almost completely restored to their natural state, the vagina and external parts hardly if at all dilated, and very slightly relaxed, and the breasts exhibited very imperfectly the appearances which accompany pregnancy, the ordinary sympathetic symptoms of which had been almost absent.

The signs of abortion having taken place in the latter months, are much the same as those which follow natural delivery, though generally speaking not so well marked on account of the smaller size of the child.

Among those are tumefaction and

Relaxed state of the labia & vagina,
 rupture of the perineum. Often gets mucous
 surface alone, and especially in pri-
 maparous cases. The os and cervix
 soft and open, and the uterus may
 be felt like a cricket ball above the
 pubes, through the lax abdominal
 walls. The breasts are enlarged and
 full of milk, and the lochial discharge
 flows away for some days.

As these signs are fleeting, they
 to be of use must be noted within a
 few days after delivery; before the
 8th. or 10th. is the time fixed by medical
 jurists generally. They must
 also be seen several together, because
 other causes than delivery may occ-
 -asion them singly, as menstruation
 which causes relaxed vagina - disap-
 -pearance of ascites which may cause
 relaxation of the abdominal walls &c.

2. From examination of the Prother when dead.

Uterus. This organ will vary considerably

if it had contained a foetus. any other body or not.

If the body be examined and the child found unexpelled then all will be clear; but if it has been expelled we expect to find the following. Its walls considerably thickened, its shape more or less round or oval, its blood-vessels large and tortuous, and on its interior surface, we may see the ends of the ducts, which were contained in the decidua, remaining between the muscular fibres, and also the spot where the placenta was attached is darker than the surrounding parts.

Ovaries. From the examination of these bodies I think we can gain no reliable information so that they may be passed over without further notice. We may also be able to make out several of the signs mentioned under the last head, as relaxed state of the passages. ruptured perineum &c.

2. From examination of the object expelled.

We have three objects in view here.

1st To ascertain whether it be a foetus which is expelled.

2nd. If it is a foetus to consider its age.

3rd. To ascertain the cause of its expulsion.

The thread has been considered in a former part of this paper so that it need not be taken up here.

1st. To ascertain whether it be a foetus which is expelled.

This is quite easily done after about the second month, before which period Beck says "that probably no medico-legal investigation could ever be instituted with any satisfactory result."

The bodies sometimes expelled and which are apt to be mistaken for the foetus, at least inasmuch as regards the state in which the passages are left, are Hydatis and Moles, and the only way to solve the difficulty

‡ Beck's Medical Jurisprudence -

is to examine carefully and see what really has passed from the uterus.

That such bodies have been mistaken for ovi there can be no doubt, for A. Paré mentions one case where a female bore 315 foetuses at once, evidently mistaking, or not knowing about them.

Aydatids or Dots are small vesicles, varying from the size of a pins head to that of a grape, and of an oval shape, filled with a watery fluid and generally occurring in clusters. According to Beest

their origin is not well understood, although Acad. Boivin asserts that they are always the product of a degenerated conception, and that no virgin can have them.

For my own part, I believe them to result from the villi of the Chorion continuing to grow and enlarge, instead of as usually happens disappearing after a certain period, and therefore the result of impregnation.

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Following of course sexual intercourse,
which might be a most important
fact in some medico legal cases.

Females with these in their
uteri have fancied themselves pregnant
when in fact they were not so, the im-
pregnated ovum having become a
blighted conception.

"In such cases" Gooch says, "It is
impossible to come nearer the truth
than this, that the abdomen owes its
enlargement to a distended uterus,
but what this organ contains is un-
certain." §

For the first few
months such may be the case, but
in the latter we will not have
some of those pathognomonic signs
of pregnancy before mentioned.

2nd. If it is a fetus to ascertain its
age.

This is accomplished by

§ Gooch on Diseases peculiar to Women.

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ascertaining its weight, length and the relative situation of the centre of its body.

It is impossible to declare with positive accuracy the various dimensions weight &c. which appertain to a fetus of any particular age, because it generally is impossible to learn with exactitude the time of Conception; and besides these will vary according to individual peculiarities, just as in infants and men in general.

However it is important to ascertain the age as nearly as possible, for it may help us inasmuch, that, if it did not agree with the state of the female under examination, it would aid us in ascertaining any imposture which might be attempted.

The period usually fixed for the impregnated ovum becoming visible is from the 19th. to the 21st. day after Conception, when it is hardly as large as a barley corn, though

Sir J. Storo saw one on the 8th day.†

For using the centre of the body as a criterion for the age of the foetus, we are indebted to Chaussier.

In the child at birth i.e. the 9th. month, the centre of its body is just at the umbilicus; between the 7th and 8th. it is between the umbilicus and xiphoid cartilage, and at the 6th. just at the lower part of the Sternum.‡

The best way to find the centre of the body, is as shown by Prof. Traill to lay the child upon its back, with a block of wood just touching the head and feet, then take a tape measure, and measure the distance between these objects and on doubling it you have its centre at once.

It may happen that a child at the 6th. or 7th. month is as large as one at the full time, but then it

† Philosophical Transactions 1817.

‡ Considerations Medico Legales Sur le Supplice de Por Recieny.

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is evidently immature, the bones of its
head being soft. and the fontanelles
much more open than they ought to
be. The nails will be either wanting
or very soft. its movements will be
feeble. &c.

In Conclusion too may
well be amazed at the preval-
ance of this most infamous cus-
tom, the destroying the life of a
human embryo, which still ex-
ists in some countries to this day
and especially in America
although there literature, science
morality and Christianity are
supposed to have such influence.
There females to hide
their shame, or to save themselves
sometimes it seems astonishingly

enough the trouble of bearing their
 offspring and willing to place
 their lives and reputation in the
 hands of miserable Charlatans
 who are by the laws of most
 nations when detected condemned
 to the severest penalties. Not only
 this but they themselves are authors
 to the deed and in my opinion
 quite as culpable, perhaps more so
 than those employed.

In Philadelphia I under-
 stand there is an Institution where
 pregnant females are wont to go
 and be relieved in some of the
 ways already mentioned of the
 kind being within them.

In this Country I do
 not think the practice is so com-
 mon, although occasionally we
 do see cases published in the
 columns of our Medical jour-
 nals.

"Perhaps" says an
 American writer "no physician

in extensive practice, has not been
at some time or other requested by
pregnant females married or
unmarried to rid them of their
burden, that they may escape
public shame and preserve
their reputation:

If such did come, it
does assuredly would be our
duty to point out to them the great
 enormity of the crime which they
are about to perpetrate, to show
them that the life of the child
is one for which they will have
to answer, to do all in our
power to prevent them carrying
the intention into effect, and certainly
must we refuse to gratify their
wishes. But what is to be done.

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