On
Suicide:
its Signs & Legal Relations.

John Somerville.

1856.
"Saepe suos utroque quae nascat, ipse sperit." Ovid.

One sin I know another does provoke,
Murders as near to lust as flame to smoke,
Poison & treason are the hands of sin,
Ay, and the targets, to put off the shame." Shakespeare

Si depuis sa naissance l'enfant est exposé à des dangers continus avant de devenir homme, il n'en a pas couvre de moins grands avant que de naître." Fedéré vol. IV. p. 408.

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**Abortion** is of two kinds, natural or accidental, or provoked.

Accidental or natural abortion may be defined as 'the expulsion of the foetus before its several organs have arrived at that degree of perfection which is requisite to maintain its independent existence.' Thus it is distinguished from 'premature labour' which latter is applicable to delivery after the 6th month when the foetus will live, and from 'false delivery' which is the expulsion of a mole or false germ.

Accidental abortion may arise from a variety of causes, and knowledge of these is absolutely essential to the medical jurist in order that he may be able boldly, and at once, to draw the line of demarcation between this carriage from natural causes, and that induced by art.
Synonyms. Poeticide, Aborticidium, Embryoctonia.
we the consideration of these causes, however, we cannot at present enter. The signs of Accidental Abortion are identical with those physiological phenomena, which, as relating to Parturition, we have described in the sequel, under the head of Medical or Physical Signs derivable from an examination of the person of the mother.

Criminal Abortion, the subject of our Essay, may be defined as the premature expulsion of the fruitus produced by the administration of medicines or by mechanical means. This is a practice which the notices of history lead us to believe, has prevailed in almost all parts of the world. It is one of the bitter fruits of that illegitimate intercourse which strong passions have prompted in every age. Powerful indeed must be the motives which drive woman, in spite of the joy which she naturally feels at the prospect of becoming a mother, or of the affection which she cherishes for the child in her womb, to destroy her innocent babe, ere it has seen the light of day. The motives which cause such a crime, will, no doubt vary according to the situation in life of the unhappy female, or the customs and moral sentiments of the community. In a civilized country they may be said to be such as these: the dreaded loss of reputation; the fear of that infamy with which sin stains the name and character; the anticipated grief of friends; the prospect of being deprived of place and means of support; the inability to maintain the expected offspring. Terrible must be the mental struggles and dreadful the agony of sleepless nights, which a woman, even while victorious, has to bear,
Medecine Legale. vol. IV. p. 386.
before she can make up her mind to act the part of the murderer of her unborn child, or to give herself up into the hands of those dreadful witches who traffic in such horrid practices. But the thoughts of broken-hearted parents and friends, of the contempt of associates, of the perfected respect of the good; of unforeseen poverty and want, combine their terror to hurry the hapless woman into attempts to conceal her coming shame. Vividly and well does Foderé paint this scene in the case of the unfaithful wife. "The woman more liable to err, less susceptible of combinations, troubled at the consequences of her own frailty, terrified at the foreseen return of an outraged husband; fearing the wrath of a justly indignant father; seeing herself on the verge of losing the good name which she has gained by a virtue intact for many years, reproaching herself for having yielded in an unguarded moment to the blandishments of a seducer more culpable than herself; the woman, I say, has terrible mental conflicts to undergo, powerful interests at stake."

In speaking of the Proofs & Legal Relations of Foeticide, I shall divide my subject singly & naturally into the two great heads indicated by its title, treating first of the modes in which criminal abortion may be detected, & secondly of the relations which this crime bears to the bodies of different countries.
Signs of Criminal Abortion

As it is important to be able to state clearly and distinctly whether foeticide has or has not taken place it is incumbent on the medical jurisprudent to make himself acquainted with its signs, in order that he may, by his professional skill and knowledge, on the one hand promote the ends of justice by bringing to merited punishment the guilty, and on the other be a shield and safeguard to the innocent in their day of trouble. But these proofs, of which we are about to speak, are not always so easy of detection and discrimination as may, at first sight, be supposed. They are, many of them, as we shall shew in the sequel, of vague and undefined import from the simple fact that they result from various and in some cases dimihntive causes. They constitute as Laugier says "le véritable miroir de la question," a Gordian knot, on which the most skilful may well try their hand at, by which after numerous attempts they will often find themselves foiled.

The Signs of Criminal Abortion are divisible into two great classes:
1. The Medical or Physical i.e. such as may be discovered by our senses.
2. The Moral or Circumstantial i.e. such references as may be arrived at by inquiries made into the history and symptoms of the woman or the accused person.

The Medical or Physical proofs of abortion having taken place are derivable principally from two sources, from an examination of the
mother whether living or dead, & from an examination of the expelled substance. On each of these points, let us now make a few remarks.

I. Inquiry into the state of the mother. Under this head we must study the evidence reducible.

1. From an examination of the living mother. — It sometimes, the very rarely, happens that, from the anxiety of the woman’s relations & others unacquainted with the fact of criminal attempts at justicidic having been committed, a medical man may be called in while miscarriage is going on. In such circumstances we have what may be termed the concomitant symptoms of Abortion. The whole vulva & vagina feel extremely hot; the labes are enlarged, while the vagina is dilated & relaxed. From the latter, also, is issuing an echorous & bloody discharge, which must be constantly & carefully examined. For if the miscarriage has taken place during the early months of pregnancy, it is quite possible that the ovum may pass out along with the flux & escape observation. The uterus is found relaxing & as the symptoms progress, opens. The patient generally suffers more or less uneasiness, which gradually becomes more & more aggravated, & at length resolves itself into tremors, faintings & pains in the region of the uterus. The mammae are tender & there is an approach to secretion. As labour nears its termination, the abdomen gradually becomes less & less, tho’ of course this symptom will vary according to the term of gestation which has been reached. This is the period when we are most likely to find the product of parturition, by the discovery of which it is evident that all our conclusions as to whether abortion...
has or has not taken place, will be rendered most satisfactory; for after
labour is over we have only traces of the passage of the ovum to guide
us, and all such marks speedily disappear, the greater will then be
our difficulty in uttering a positive dictum.

In general circumstances, however, the medical jurisprudence of
making any operation still

After Abortion has taken place. At this period all the symptoms are
much the same as those resulting from ordinary delivery: all inferences
must be derived chiefly from two sources; viz. from an inquiring both into
the general and into the generative systems of the woman.

1. Her General System. The appearance of the female is weak & pale; her
eyes are surrounded by a dark colored areola, & she seems generally
out of health. The breasts are of considerable size, tender, painful, &
feel lumpy. Three or four days after delivery or abortion they are full
& tense & exude an aqueous or sero-sanguineous fluid, which last varies
in its character according to the duration of pregnancy. The areola
around the nipple presents all the characters of pregnancy. If delivery has
taken place during the second month we will find great turgescence
of the nipple, & great development of the little vascular follicles around
it. If it has occurred after the 3d or 4th month, we will observe all
these appearances of the perfect areola of pregnancy which have
been so ably described by Dr. Montgomery. At the same time it is to be
remembered that it will act in all circumstances serve as a proof of
recent delivery. For after a first pregnancy it remains to a certain
extent permanent. It is, however, if all the individual signs are most
sensitive, 

to use the words of Dr. Beck, "may be depended upon with
a good deal of confidence, provided the discoloration be very de-
cided, and the female has not borne children previously." The integ-
naments of the abdomen are relaxed, thrown into folds, nide de Flasque
as it is termed by Fodéré, this relaxation being sometimes so great, es-
specially in those who have had many children, that the skin may be
folded around the hand. A dark, dusky, or brownish hue extends from
the umbilicus to the umbilicus, and the general surface of the abdomen is ev-
ery here and there interrupted by broken streaks of a light colour which
gives principally from the groins upwards toward the navel. These lines which
are termed by Beck "lineae alligantes," by the French "vergetures," de-
pend according to Fodéré, upon the fact that when the skin of the ab-
domen is stretched by the enlargement of the uteris during pregnancy,
the cutis vera cracks in several places, whereas the epidermis being
much more elastic, does not do so, thus serves to cover these rents in
the true skin which seen thro' its medium are of a lighter or colour.
But it is to be remembered that these lines cannot be taken as a sign
of recent delivery, because they are permanent, and usually remain during
life, yet if it has been the female's first pregnancy, they will be of some
importance. The patient generally suffers from pretty severe pain in the
sterne region, and the whole general system is pervaded by a lascitude
which gives rise to numerous anomalous sensations such as felt only by
recently delivered females. The inferior extremities have, to a certain
extent, lost their power, and if the female attempts to walk she will stagger from side to side, having considerable difficulty in balancing herself. Any veins, also, which on account of the pressure of the uterine tumors were formerly prominent upon hollow limbs will now that that is removed gradually recov.

ern their pristine state, the circulation will be entirely restored to its original character.

2. The local signs, or those derived from the state of the organs of generation. In treating of these we will take them in succession as they appear on making an examination.

1. The lochia or cleansing, as it is popularly termed. This as is well known to all accouchers, is a discharge which commences immediately after delivery and continues for a variable period. Its origin is partly in the blood which issues from the torn uterine placental vessels, partly in the discharges from the uterine wound left by the detachment of the placenta. Lastly, also, in its latter stage from the restored mucous membrane of the same spot. This secretion tends along with the process of vascular absorption to remove that enormous thickness of uterine tissue which was necessary to protection & partitioning, & as the uterine wound heals or the new mucous membrane assumes its function the discharge first diminishes & ultimately subsides into the ordinary vaginal secretion. At first it consists of pure blood or a serosanguineous fluid which gradually becomes brown, then of a dirty green, in which state it is termed the green waters. Next, it is yellowish, & finally appears “like boiled waters” (Churchill). The
Medicin Légale p. 114.
duration of the lochia varies very much, sometimes it may last 10 or 12 days, but generally from three weeks to a month. According to Briand, the milk fever when it comes on suspends the lochia, but this flow returns again when the fever ceases, and continues for 5 days, 3 weeks or even a month. Its odor is very peculiar, and may be considered as characteristic, at least all authorities are agreed that it cannot be produced by any other cause. So penetrating is it that the patient's whole person seems to exhalate it, constituting what Prederer has termed the "gravissim odor Jennerii."

Sometimes women will attempt to deceive the medical jurist by saying that the blood which is passing away from them is nothing but the menses which, after having been suppressed for a number of periods, are now returning in large quantity. Generally, however, there can be no difficulty in distinguishing between these discharges. The lochia lasts a considerable time, is very exhausting, and leaves the female in a state of great prostration, but above all, has, as already said, a most peculiar odor, whereas the menses have no such odor; whereas the menses hence no such odor, they increase the tone of all the bodily organs, produce what Toderé has well termed "un certain bien-être indéfinissable."

2. The Vulva. Here the changes produced by the passage of the product of parturition are generally easily remarked. The labia are swollen, tumid, and often inflamed, the last condition giving them a dark red color which does not naturally exist. They have also an erosive feel from the secretion which their glands are pouring out. The
* On applying one hand upon the hypogastric region & pressing this viscous (i.e. the uterus) from below upwards with the index finger of the other hand, placed in the vagina, we feel the uterus raising itself above the point of Brissaud, p. 143.
The anterior verge of the perineum or posterior fornix, is ruptured or lacerated in the greater number of instances, although not invariably. These changes will evidently depend on their distinctness and duration on the size of the body which has passed through them.

3. The Vagina is found relaxed, dilated, and discharging in greater or less quantity, the ichor or flux which we have already described under the term 'lochia'. The commissurae mniiformes have disappeared, and the walls of the tube feel smooth and elastic to the finger.

4. The Os + Cervix Uteri. The os uteri is found open, and after labour at the full time, is scarcely distinguishable from the wall of the vagina. Its edges are loose, flabby, and yield easily to the finger, differing most remarkably from that comparatively hard and firm substance with which we have to do before or even parturition, or even in its first stages. The cervix has so to speak disappeared, and the part of the organ corresponding to it has become flattened out, inclined to a certain extent downwards. The os + canal of the cervix will admit two fingers in some time afterwards, but according to various views, never or rarely, close to the same extent as in the virgin state.

5. The Uterus. On examining this organ thru' the abdominal Peritoneum, sometime after delivery, it is felt as a firm hard ball about the size of a child's head. About the 14th or 15th day, it is small enough to descend into the pelvis, previous to which time it may be examined thru' the relaxed abdominal Peritoneum. A tolerably accurate knowledge obtained of its condition, but subsequently we can only reach the firm
One of the best means of determining the degree of diminution at which the uterine cervix has arrived, is measuring the cavity of the organ by means of a Simpson's sound. The importance of this latter method of diagnosis is seen in the following case of suspected infanticide. Some time ago a woman at Falkirk was accused of being the mother of a child which had been found dead in the neighbourhood. On making a vaginal examination Dr. Simpson (who had been called in to decide the question of pregnancy & parturition) found the cervix uteri almost normal; & in consequence of the prisoner being rather stout, but little could be made out by an abdominal examination, in these circumstances Dr. Simpson introduced the uterine sound & found that the organ was 5 inches long, being nearly double its natural size. This however was no criterion, as it might have resulted from disease, but the following fact was a criterion viz. that two weeks subsequently the uterus had diminished nearly two inches, & at the 4th week it had come back to the natural size of between 2½ & 3 inches long. (Notes of Simpson's Lectures on Obstetrics).

# Montgomery, Cyclopaedia of Practical Medicine vol. III p. 503.

Medicine Legale
due at the brim of the pelvis. The uterus does not reach its natural size for a month or 2 weeks. It is questionable if it ever entirely returns to its virgin dimensions.

It must always be remembered in drawing our conclusions from the living mother, that these signs are most evanescent in their character and that after a certain time they all disappear. Ten days is the period fixed upon by medical jurisprudence generally as the limit in which these signs can be observed with any degree of certainty.

II. From an examination of the mother when dead. An inquiry into the state of the internal generative organs adds greatly to any previous proofs which we have gathered from other sources; sometimes on the death of the female such an opportunity is afforded us. In such a postmortem examination the jurist has to direct his attention to the following points: the thickness and capacity of the uterine walls and cavity, the state of its blood vessels, the peculiarities of its inner surface, the marks left by the placenta, the ovaries, the Fallopian tubes, the ligaments of the uterus, the dilatability of the vagina, the exact nature of wounds on the vulva, the state of the woman's system generally. Before proceeding with our postmortem examination it will be necessary to open the body, which will probably be best performed in the manner recommended by Verog.de.

The following is that author's account of the operation: Having penetrated into the visceral cavity by a semicircular incision extending from the
cartilage of the false ribs, we should raise the abdominal wall, carry our knife over the whole circumference of the abdomen till we come to the anterior superior spines of the ilia, & thence to the horizontal branches of the pubis. The intestines should now be laid bare, or it will suffice to push aside the intestines, so as to bring it into view. Note is then to be taken of its size, & its elevation into the abdominal cavity, as compared with its ordinary & proper position in the pelvis. It should be observed whether or not there exists any perforation or going out of the amniotic fluid, or whether or not the product of conception has passed into the abdominal cavity, a thing which sometimes happens. The state of the external genitalia, the smell & other physical qualities of the fluid contained in the vagina, are next to be examined. It is to be noticed whether or not there is any appearance of blood or a mucous sanguineous matter on the skin of the internal part of the thighs. After these several points have been attended to, the dissector should lay bare the horizontal rami of the os pubis, & the ascending rami of the ilium, which having been accomplished, he should proceed to saw through each of these processes of bone in such a manner as to come down into the symphysis ovale of each side, & then let him depress the body of the pubis. The bladder is now to be detached with great care from the vagina, & this latter viscera having been isolated, its walls as also the neck & body of the uterus are to be inspected in order to make sure that there exist no perforations or wounds inflicted by instruments or other means. It must however be remembered that this search is often
attended with the greatest difficulty on account of the small size of the instruments which are used for this nefarious purpose. The examination of the cavity of the uterus is then to be proceeded with. The walls of this organ should be cut through into with very great care, by repeated small incisions made upon a single point, much in the same way that one would operate in laying bare the sac of a hernia; this precaution being necessary in order that the membranes of the ovum may not be injured. If the product of conception is seen, the uterus should, by a single sweep of the knife, be detached from the vagina and placed in water. In this liquid the dissectors? Inquire his examination of the ovum. For by this method of procedure, shall be enabled easily to recognize the different parts which constitute it. The length of the embryo of its different parts, the state of the eyes, ears, nose, mouth, the size of its head, and in short the comparative development of its several portions, together with the condition of the umbilical cord are all to be carefully noted. If the placenta be still in the womb it is to be examined, if it has passed out the internal surface of the uterus should be studied under water so as enable the observer better to recognize the part of the organ at which it was adherent. Thus Jan Deyrugier, having attended to his instructions let us now go on to examine the different organs in detail.

1. The Uterus—Here we have to examine first the external form of this the internal appearances of the viscera. The size & shape of the uterus
Midwifery

Churchill's Midwifery p. 35
vary according to the different periods of gestation. The size of the un-impregnated uterus is according to Burns, length 2 3/4 inches, breadth 3 3/8 to 3 1/2 inches, thickness 1 inch. After impregnation the following are the changes in its size. During the first 4 second months it undergoes but little change. In the 5th month it measures but 11 inches, whilst in the fourth its length is 5 inches. At the end of the 5th month it is midway between the pubes & umbilicus; in the 7th it is at the umbilicus measuring 8 inches; in the 8th it is halfway between the umbilicus & eneiform cartilage; while in the 9th it is at the processus symneus as a general rule 12 inches. Now it is evident that on postmortem examination the size of the uterus found will vary according to the period of pregnancy at which the woman had arrived before her death. If the dead woman has had any other feminine accident the uterus is found after delivery as a large flattened pouch from 9 to 12 inches long, about 7 1/2 to 4 thirds thick, but if any time elapsed, the organ contracts firmly till, as already said, it reaches the size of a child's head. If the examination be made 2 days after delivery, we find the uterus 7 inches long; at the end of a week it is 6 inches long (Burns); about the 10th day it is small enough to descend into the pelvis, while at the end of a fortnight it is down into the pelvis, being then about 5 inches long. The shape of the uterus is also found to vary considerably. In the unimpregnated state it is a hollow viscus in shape somewhat triangular or pyramidal, resembling a flattened pear, but rounder posteriorly than anteriorly. In the first 4 months after conception but few changes are observable
Midwifery p. 376.

Midwifery p. 77.
but in the fifth month, the cervix begins to be developed, so that, according to Burns, by the end of the month, one quarter of its length has become extended and contributed to augment the uterine cavity. In the 6th month one half of the cervix is distended; in the 8th, it is nearly as large as in the 9th; the uterus is "oviform, the longer end uppermost, a size in foetal position than the lower end" (Churchill). Now, if after delivery, death comes on before contraction has taken place, the shape of the organ will be ovoid, if contracting have occurred it will be globular, and if many clamps have clapped it will be "tubiform. At the same time it is to be remembered that the uterus contracts more rapidly in some females than in others, therefore our inferences from the size and shape of the organ are to a certain extent liable to fallacy. The thickness of the uterine wall during pregnancy is very differently stated by different authors. Most, however, are agreed that at the full time this is much the same as it is in the natural state before impregnation, while in some instances it seems even to be thinner. Hunter gives the uterine thickness during gestation as from 3 to ½ of an inch in all parts of the organ except the fundus, the part where the placenta is attached, in which latter situation he says it is two inches thick. After delivery when the uterus is contracted, the thickness of the uterine wall becomes enormously increased on account of the collapse of the organ, of the compression of all the material composing it into a comparatively small space; we have not been able to find any definite measurements of the uterine thickness in this condition. The structure of the uterus when cut into is less dense than
Edin. Essays & Observations. vol.1 quoted by Beck.
usual; its sinuses are very evident & at the part where the Placenta is attached are found to be filled with blood. The sinuosity of the organ is very distinct, & even a week after delivery, the fibres around the Fallopian tubes may easily be seen following their ordinary oblique direction. The bloodvessels are much enlarged, more especially the veins at the part where the Placenta is attached. The arteries are found to be about the size of from a crow quill to that of a sparrow quill & often the sinuses of the veins at the Placenta surface are sufficiently large to admit the point of the little finger. — Let us now proceed to notice what is to be found on laying open the interior of the uterus. Here there is generally a collection of clots of blood or at least of a sero-serous fluid together with the remains of the decidua vera. The place of attachment of the Placenta is generally sufficiently evident, & being of a dark colour, it has been mistaken for gangrene. Its surface is unequal & has much resemblance to that of a granulating ulcer, to which it has been likened by Dr. Churchill. — Sometimes the whole internal surface of the uterus looks as if it were gangrened, this appearance depending upon the infiltration of the spongy decidua with the remains of the green waters, giving rise to very much of that is seen after stratification. Upon removing the decidua & scraping the internal surface of the uterus, we come down upon the tender substance of that organ. It is everywhere lined with a dark colored coat formed by the remains of the decidual vessels matted with coagulated blood. If water be injected into the veins it runs out
This substance is almost always more or less oval in form, the following are its dimensions as given by Dr. Montgomery. Its longer axis varies from ¾ to 1½ of an inch, the shorter from ⅔ to ¾. Its thickness is generally less than its breadth, or as Roederer has neatly said "Longus quartus linear, latum tertius linear, oracum duas linear." The corpus luteum is very vascular, its vessels on injection are found to run from its circumference to its centre; its colour is as its name implies, a dull yellow, very similar to that of the buffy coat of the blood, exhibiting generally when recently exposed a slightly reddish tinge, "Glauca rubens" (Haller). Montgomery, when a section is made into it, there is observed a central cavity which is white with some degree of transparency; the rest of the substance has a yellowish cast, is very vascular, tender, and firable like glandular flesh. (Hunter on the Ovaries). We think we cannot do better than quote the description given by Dr. Montgomery of the centre of the corpus luteum. "Its centre exhibits either a cavity or a radiated centric..."
again at large orifices" (Burns). The os & cervix have a congested ecchymosed appearance, & are even sometimes marked with lacerations on their margin. A week after delivery the cervix is still darker than the rest of the body, & its orifices are still very distinct.

2. The Fallopian Tubes. These assume a straighter direction than in the impregnated state, they are also much more vascular than at any other time, & their colour has more or less of a congested hue. It is said that the tube which has carried the ovum will be most enlarged. Burns states that the Fallopian tube retains its vascularity for a very considerable time, he cannot say how long after delivery. 4. The passions of the mind or other causes may produce rupture of the tube & fatal hemorrhage, although no new pregnancy take place.

3. The Ovaries. - The ovaries are also very vascular & have a congested colour like that of the Fallopian tubes, but in the opinion of Burns the spot where the ovum has escaped is more vascular than the rest of the ovarian surface. That ovary from which the vesicle escaped which ultimately was impregnated, is observed to be a little larger than its fellow of the opposite side; it also bulges out at one special point, & on cutting down at the point thus indicated we perceive a yellowish oval body termed corpus luteum, which we shall describe in the note on the opposite page. This said "corpus luteum" has given rise to a great deal of discussion since the views of Dr. Montgomer, below referred to, were published, & of late years there has waged a fierce controversy as to whether a true corpus luteum...
according to the period at which the examination is made, if within the first three or four months after conception, we shall frequently find the cavity still existing. If such a size as the capable of containing a grain of wheat, the cavity is surrounded by a thin white cyst; and as gestation proceeds the opposite parts of this cyst approximate, at length close altogether, by which the cavity is completely obliterated, so in its place there remains a white cicatrix whose form is best expressed by calling it radiated. It is however to be remembered that this cicatrix is not permanent, but, according to the distinguished obstetrician just quoted, seems (for it cannot be predicated with certainty) to disappear about the end of the fifth month. Such, to use the words of Dr. Beck, is the corpus luteum. It is largest 1 or most vascular in the early periods of pregnancy, less so at delivery, & disappears altogether, according to the observation of Dr. Montgomery at about 5 months after delivery.

Taylor's Medical Jurisprudence p. 446.

Hunter on the Gravid Uterus.
(i.e. the remains of a Graafian vesicle, the ovum of which has become
pregnant), can be distinguished from the Graafian corpus luteum
(i.e. one which is left by a Graafian vesicle which has burst, the ovum
of which has perished). Able anatomists have entered the lists on both
sides, & really, as far as can be seen, nothing seems to be inclining to-
wards those who hold opinions opposed to the doctrine of Dr. Montgomery.

But we must avoid this discussion; to enter into it would lead us
far from the subject of this present essay, & might possibly be productive
of but little good in the long run. suffice it to say that in the present
undetermined state of the question we must be extremely cautious in
receiving evidence with reference to corpora lutenea, & should be very
charry of convicting upon it. In the words of a high medico-legal
authority "medical evidence respecting the nature of a corpus luteum
in an unknown case, if received in a court of law at all, should be
received with the greatest caution, & only from an witness of great ex-
perience. The old doctrine on this subject, that the presence of such a
body in the ovary affords certain & undeniable evidence of impregna-
tion may be regarded as completely overturned."

4. The ligaments of the uterus. As may naturally be supposed, these
undergo great & important changes during pregnancy. The round
ligaments, it can easily be understood, become longer, more vascular,
& thicker, becoming according to the researches of Hunter as thick as
one's little finger, although in their natural state, they are only about
the size of a crowquill. They are so vascular that they seem to be
nothing but a bundle of arteries and veins. (Hunter.) The other ligaments of the uterus are also much stretched, so in fact the broad ligaments entirely disappear, and simply serve as a covering for the organ.

5. The characters of the intestine. These have generally, this not always, assumed the same order as usual, but the distended colon is somewhat more prominent than the rest. The iliac veins generally contain nothing more than loosely congealed blood.

Relative value of the preceding signs to the medical jurisprudent in all subjects which involve the happiness of especially the life of a female creature, it is necessary to proceed with the utmost caution, to make ourselves fully acquainted with all circumstances which may modify or rebut evidence laid before us. Especially ought this to be the case with the foregoing signs, for it is now well known, that they may arise not only from abortion or accouchement, but also from a variety of other causes, of which we shall speak in the sequel.

It is very important to keep in mind that all these symptoms are very easily effaced, and even when pregnancy has terminated at the natural period, cannot be depended upon above a few days, some say 10 or 14 (Pirrande) others such as Lavoise 10, while the very rarely they have been known to last for 30 or 40 days. The parts in a short time (if the female lives) all return to their normal state. The uterus regains its original character, and the vagina again contracts. The breasts, full, of the blood which produced the lacteal secretion, now go to feed other portions of the body; the lochial discharge gradually disappears.
Medecine légale
after having undergone the changes previously mentioned; the frame renew its vigour, elasticity & firmness again returns to the limbs; the pale countenance reassumes its healthy hue, all abnormal sensations depart; the eyes recover their pristine brightness; & in short, the cadaverous being of a month, three weeks, a fortnight ago, becomes transformed into a healthy woman, instinct with life, activity, & thoughts.

If abortion occurs within the first two months succeeding conception, we may lay it down as a general rule that it will leave slight, if any, traces behind it. At this period the foetus is of very small size, floating in the amniotic fluid; if therefore miscarriage takes place now, the womb will as it were flow out of the vagina without producing much dilatation of the passages or much constitutional disturbances, constituting in fact, the "effluxus" of the ancients. Calpurnus remarks, that it is most necessary for the medical jurisprudent to be acquainted with this fact, because says he, women whose cunning only equals their depravity, are well aware of it also. Such persons, if they are struck or maltreated in any squabble will, provided they have the slightest sanguineous discharge from the vagina, persist in a statement that they have been made to miscarry, with the double view of obtaining heavy damages from the supposed aggressor, & putting to the supreme & last medicalenen & judges. "D'autre" continues Calpurnus, "plus scélérates, et non moins astucieuses, après s'être rendu entierement fait avouer, assurent par seules, que la partie qui suit leurs criminelles manœuvres n'est que l'effet de la
Midwifery. Campbell does not quote Humboldt correctly. Any text consulted the original.
menstruation... Who after knowing these facts will not come to a like
advice, conclusion with Calpurnia that we ought to take every measure to take
every precaution that we may on the one hand discover the artifices or
tricks of such wretches, or on the other, preserve ourselves from falling
into error & mistake?"

The medical jurisprudent, however, is rarely, if at all, called upon to give
evidence on the point at issue before the end of the second month
for this simple reason that the female at that period being unaware
of her state, is unwilling to run any risk in attempting to preserve the
premature birth of what she does not know actually to exist. Hence
it is that criminal abortion never falls under the cognizance of juris
force till after the second month.

Enlargement of the Mammary secretion of milk occurs from being infallible
signs of delivery, and may take place independent of pregnancy altogether.
Thus says Dr. Campbell Humboldt in his Travels in the Interior of Africa,
mentions that he saw males give suck. Baudeloque in his First Volume
on Midwifery relates the case of a girl 8 years of age, who suckled an ox
joint for a month. In a communication which I (Dr. Campbell) had from
Dr. Stenner of Berlin in 1821, he gives an account of an old woman of
67 who nursed one of her grandchildren for 11 months. It was stated
that menstruation may give rise to milk in the breasts, but that in this
case the latter will be in small quantity & of aqueous quality, while the
mammary will want much of that tenacity & firmness which they
require after pregnancy or abortion. In this case also the characteristic
appearances of the abdomen will be altogether absent. — Relaxation of the abdominal parietes, it is well to know, may be produced by a variety of causes quite distinct from parturition. Thus, if the female have suffered from ascites or ovarian derangement, there will have distended the abdomen, and afterwards, when by surgical operation they have been removed, great laxity of the ventral walls will result. In all such cases, however, we can have no difficulty in coming to a definite conclusion, for generally speaking, our patient in order to avoid all suspicion, will at once relate the real state of the case, and on examination the mark produced by paracentesis abdominis, or other operation which may have been performed will be found. Again, this condition may result from the sudden disappearance of previously existing tumors, as in a case where a patient who has suffered from polyposis has been especially cured, but here also inquiring into the woman's previous history will effectually remove all liability to arrive at false conclusions. Menses, if they have been of any size will commonly by their sudden removal from the uterus cause not only this abdominal relaxation, but also more or less of the linea albae. — But in this instance also, the female if honest will either tell us what has passed away from her, or, if she cannot do so, will at least give such an account of it as will enable the jurist to understand without difficulty what she means. — At the same time, it is to be remembered, that if abortion has taken place when pregnancy is but little advanced, no unusual laxity of the abdominal walls will be perceived, or, in addition to this
The woman has been excised for the first time, hence abscissus will be altogether wanting. Hence the relative value of this condition of the abdomen as a sign of abortion may be shortly stated as follows: that when after careful examination of the woman's history of the period of pregnancy, nothing else can be found which will account for it, this state is to be regarded, when conjoined with other signs, as a most valuable proof of the occurrence of piaculous abortion. The state of the generative organs. Almost all the appearances produced by the passage of a foetus may also be caused by the exit of hydatids or mole, substances of which we shall afterwards speak. The terminus condition of the uterine may be produced in this way, but when such is asserted to be its cause the physician should not be satisfied with mere affirmation, but should insist on being shown what has passed in order that he may judge for himself. The discharge of the lochiae is as already stated must characteristic of delivery, but it is to be kept in mind that it may not always occur. Cadaverus tells us that when the foetus has been destroyed by rupture of the membranes without detachment of the placenta, the amniotic fluid drains away so soon afterwards, the envelopes which contained it gradually not. By so doing they insensibly separate from the internal surface of the uterus at length foetus, placenta, membranes, all are expelled from the matrix without producing much hemorragie. In such a case the lochia very rarely, if indeed ever, is present. The dilatation of the or uteri & vagina may be produced either by false conceptions or by other causes such as the use of nonnaries or the accumulation,
ation of the menstrual discharges. According to Mr. Bates, when the mouth of
the vagina is completely closed by an imperforate hymen, the menses, being
unable to escape, will accumulate in the vagina and dilate it. At length as
they gradually increase in quantity they will pass upwards into the os
uteri and enlarge it so as ultimately to give rise to many of those appear-
ances which are observable after delivery or abortion. From such consider-
ations, Fothergill and Leaferius come to the conclusion that all inferences drawn
from the state of the os uteri are open to great fallacy.

1. Because the os uteri sometimes retains after coitus the regular
form and appearance which it possessed before the occurrence of that event.

2. Because alterations in it may depend upon very different causes from
delivery or abortion, as for instance upon the passage of mumps, hydatids, 

or the changes effected by organic malformation.

3. Because it has happened that some virgins have possessed an os uteri
of much the same form and shape as that of women who have had children.

4. Because the uterine orifice is sometimes actually more contracted after
abortion or delivery than before these events.

Hence the shape and appearance of the os uteri taken as a single sign is not
of much value, but looked at conjointly with others it is of extreme importance.

From our inquiries into these several signs of abortion derivable from an
examination of the mother, we think we are justified in drawing the fol-
lowing inferences, viz. that they are valuable

1. When taken conjointly in certain number, but that any single isolated
proof being apt to lead to false conclusions ought never to be considered.
sufficient to prove an indictment.

2. When they are the result of researches made ascertained time (at most 10 days) after the event.

3. When pregnancy has advanced to such a point, that we can say with certainty that the foetus during its expulsion could have produced these appearances which are seen at the mouth of the uterus.

4. When we are able by the characteristics presently to be pointed out, to trace a correspondence between the development of the foetus and the period of gestation.

II. An inquiry into the nature of the expelled substance, or product of partition.

As to whether we have been operating any of those changes which are observable in the mother, and of the results which may be derived from an examination of the person whether living or dead, let us now notice the nature of the expelled body (in foetus it does not always happen to be). In this investigation we shall speak in the first place of false conceptions, to which we shall particularly go on to examine the characteristics of the true conception, or foetus at the different periods of gestation.

1. Hydatids & Mole. Hydatids generally consist of small bladder or vesicles which are grouped together, in masses sometimes of considerable size. They have been described by Mr. Hunter (in the Lancet for April 18th, 1846), as occurring in clusters like bunches of grapes, some of them being of the size of hot house grapes, while others by far the greater number are of the size of the common blue clusters grape. At other times they are either single, or formed only of one large cyst enclosing in its interior a conglomerate of smaller cysts, a condition which is most likely to occur when they are combined with dysmorphicic or =
Medical Jurisprudence.

Nothing here of any importance for some purposes.
Moles or dysmenorrhoeic organisations are "fleshy or bloody substances contained within the cavity of the uterus" (Burns). Generally speaking, they are of a bloody structure, consisting of a membrane enclosing a serous or a sanguineous fluid. Their size, consistency, and general appearance vary very much in different instances, just as in the case of hydatids. Opinions are held with reference to their mode of formation. Modern histological and pathological observations seem, however, to prove that in the main part, they are nothing more or less than the hypertrophied mucous membrane of the uterus, so that as a general rule they are the result of the formation and separation of a fibrinous

Now the question as to whether hydatids are or are not the result of impregnation has given rise to considerable discussion. Dr. Beck is decidedly of opinion that impregnation is necessary to their formation, while other authors state in an equally positive manner, that they may occur without the presence of an ovum. Cases have been described in which both states have been found. Therefore, from all evidence adduced, it seems that in this point as in many others, the phrase millesim is perhaps the better course. Hydatids may in some cases be covered with a decidua, as already mentioned, may simulate most of the symptoms of delivery.

"Fleshy or bloody substances contained within the cavity of the uterus." (Burns) Generally speaking, they are of a bloody structure, consisting of a membrane enclosing a sanguineous fluid. Their size, consistency, and general appearance vary very much in different instances, just as in the case of hydatids. Opinions are held with reference to their mode of formation. Modern histological and pathological observations seem, however, to prove that in the main part, they are nothing more or less than the hypertrophied mucous membrane of the uterus, so that as a general rule they are the result of the formation and separation of a fibrinous

...
decidua. Poems think that they may form in women who have not borne children, or may succeed a natural delivery, or follow an abortion, or take place as a diseased state of the uterus. They may however exist with pregnancy as is proved by the fact that a mole or ovum may escape together (Taylor).

Now it is often extremely difficult to distinguish between these substances and a true foetus, at certain stages of its growth. Females have themselves been deceived and considered that the passage of moles and hydratides was in reality a true miscarriage. Even after death it is often impossible to say after a most elaborate dissection whether or not the body found in the uterus is a 'false' or 'true' conception, an hydratide or a foetus. The task, however, is comparatively easy when we have a sense of these growths arising spontaneously from one common stem, for in such circumstances no placental mark will be found, but if on the other hand the hydratide has resulted from the transmutation of an embryo, especially if it is attached to the internal uterine surface, by an unchanged portion of the ovum or placenta, we will find the greatest difficulty in determining the distinction between it and the true product of impregnation. Dr. Beck thinks that a very good mark of distinction between a true foetus and hydratide is to be found in the different states of the uterine bloodvessels. In the former state, the uterine bloodvessels, especially those confined to the placental space, undergo a much greater development than in the latter condition. But says Dr. Beck, 'there is not practically so much difficulty in these cases as might have been anticipated. If hydratides are always the
Vide Note A. p. 65.
result of a degenerate conception, then the fact of infanticide is conceded;
this after all is the great point to be established in these cases. If, on the
other hand, hydratids have no connection with conception, then the ques-
tion will be decided by the placental marks, but more especially by the
existence of the corpus luteum. Is there a conclusion? Dr. Beck, a writer in
the British and Foreign Medical Review, says: 'But we do not think justly.*

In a case of criminal abortion says he, the medical evidence must be di-
rected to the proof of actual pregnancy, or delivery if it have followed;
evidence of previous intercourse is neither admitted, nor required. The real
question is, whether a woman was with child or not at the time of the
attempt, not whether she had previously exposed herself to infraction.

Let us imagine then that in a particular case, a mole or hydatid had been
expelled from the uterus, or that the woman was actually pregnant, the
charge of criminal abortion could not be sustained, since the most material
proof was the fact of her being with child.

2. The Fetus & its character at the different periods of pregnancy. In study-
ing this section, we come to look into what may emphatically be termed the
areana of nature, to pass over ground which has given subject of
research to anatomists & physiologists in past times, is doing so at pre-
sent, & will probably continue to do so as long as medical science
exists. Many & varied have been the hypotheses (some of them absurd
or inadmissible) which have been entered into with reference to the
origin & development of the fetus, let us, however, eschew all these, & at
once set ourselves to do with such facts as have been elucidated and
confirmed by the lights of modern science. Here, first of all, we must presume that our statements can be but simple approximations to truth, partly from the difficulty of marking the exact period at which impregnation takes place, & partly from the few opportunities which are afforded of making such observations.

It would serve no good purpose, & indeed would be quite foreign from the subject of our present essay were we to enter into details with reference to the development of the embryo from a very early period. At the same time, it is absolutely necessary to take up the ovum soon after its arrival into the uterus, in order that we may clearly understand those subsequent changes which we are about to describe. Let us therefore, suppose that the impregnated ovum has passed along the Fallopian tube, has been injected with its albumen, & that the decidua having been prepared for it, it has become comfortably settled in the uterus. Soon after it has entered into its new abode, wonderful changes take place. The germinal membrane at one point divides into three layers, one, the serosa which develops the organs of animal life, such as the bones, muscles, & integuments; another, the vascular, from which come the different circulatory organs, while the third or mucous layer forms the viscerial organs or the systems of organic life. We have no time to trace the different steps of this process; suffice it to say that, as these different organs are developing, the embryo assumes a boat-like shape, & that then the amnion comes to be formed in the following manner. The parts of the external or serous layer which are situated on the canals,
lateral, & cephalic extremity of the ovum, continues gradually over the
boatlike body of the embryo, from its abdominal towards its dorsal aspect;
and then these different prolongations unite so as to form one that sac which
envelops the embryo & constitutes the so-called amnion. We have now the
product enclosed in a membranous bag, the wall of which consists of two
distinct layers, the chorion externally & the amnion internally. These two
membranes are at first distinctly separate from one another, & about the
6th week after conception, the embryo surrounded by them is of the size
of a hen's egg. Now, if abortion takes place at this early period, as
sometimes happens, the ovum will issue out in the form of a small mem-
ranous bag. But it may be asked, how can this bag come out unbroken
if the chorion is firmly attached to it, & is the uterine wall? Nothing is
easier than to explain this. For remember that in the early periods of pregnancy
the chorion & amnion are not united as they afterwards become; & hence,
when miscarriage takes place about the 6th week, the chorion breaks, as has
been pointed out by Cazinon, & allows the amnion with its contained em-
bryo to pass out in the form of a membranous egg. In this case the chorion
is not expelled for some considerable time afterwards; & then it is
important as Baudeloque remarks, to examine it with care, in order that
we may not mistake it for a conglomeration of blood, to which it bears
no considerable resemblance.

But to return to our examination of the facts. After sometime the
will of the chorion become incapable of affording nourishment to the
enlarging embryo. They accordingly diminish greatly in number,
at length disappear from all joints, except where they are in contact with the uterine wall. Here, however, they rapidly grow larger, stronger, and ultimately come to be very rich in bloodvessels received from the vascular layers of the ovum. These vessels by enlarging, multiplying, and becoming more and more developed, at length form the great mass of the placenta, by which henceforward the nutrition of the foetus is carried on.

Having thus prepared for the nutrition of the foetus, let us now study its different characteristics at various periods of gestation. The first time at which the embryo can be distinctly seen is towards the middle of the 3rd week, when it is of an oblong form, and bears not a little resemblance both in size and shape to a barley corn, a split pea, or an ant. About the 7th week it is somewhat like a wasp or bee. Its description at this period may be given in the words of Baudez: "J'ai vu un grand nombre de foetuses de la grosseur de ces insectes connus sous le nom de guêpes. Leur tête formait plus de la moitié de leur masse; les yeux et la bouche étaient très marqués; les yeux et les pieds paraissaient attachés immédiatement au trone, les bras, les cuisses et les jambes étaient à peine visibles. Les urs étaient de six semaines, les autres de sept, au rapport des jumeaux que les avoisinaient."

During the second month the extremities become pretty large and project considerably. The head is still out of all proportion to the rest of the body, but indications of nostrils now show themselves, the oral aperture, if
Midwifery p. 94

Feeding a little authority from Churchill or
Taylor, and that they are only introductory to
Mrs. MIDMOUTH's
The urine is clean.
a rounded form; constantly gaping. At the end of the fifth week, the abdominal cavity closes, the viscera undergo rapid formation in it internally. At this period, the whole body is still curved, the sacrococcygeal part from the trunk somewhat like a tail. The forehead is vaulted, because of the development of the hemispheres of the brains, the spinal cord is cylindrical, of nearly uniform thickness, terminating in a blunt extremity; anteriorly it is open. The medulla oblongata makes a bend forwards at the tip of the neck, then ascends perpendicular into the cephalic cranium, where the corpora quadrigemina present themselves as two large spheroidal masses, having behind them a pair of narrow lateral laminae, the rudiments of the cerebellum. The medullary stem or cornu cerebri passes under the corpora quadrigemina, again bending downwards, the corpora striata septi thalami are evolved upon it. (Churchill)

At the commencement of the third month, the foetus is 2 inches long, weighs nearly 2 ounces. Points of ossification begin now to be perceived in various bones of the body. The cartilaginous structure of the clavicle of the lower jaws begins to be supplanted by bone, the ribs appear like little streaks; the vertebral arches are not yet closed in. The heart loses its tubular shape, as well described by Allen Thompson, begins to take something of its future form, the interventricular septum now also appears. The stomach, bladder are forming gradually, beautifully, the intestines generally are becoming perfect; at this an arm has not yet appeared. Towards the end of the twelfth week, the foetus weighs nearly two ounces, measures when stretched out about 5 inches (Burns). At this period, also,
The membranes are of considerable size, being as large as a goose egg, or weighing some ounces. — At the close of the 11th month, the embryo varies in length from 3 to 8 or 9 inches, and its weight is about 1 or 2 ounces. — In the end of the 5th month, the foetus is stated by Dr. Taylor to be about 4 inches long, and its weight from 5 to 7 ounces. — At the 6th month the embryo has become perfect, and measures either from 8 to 10 inches (Taylor) or from 11 to 12 inches (Peck). Dr. Burns makes it weigh at the period 1 lb. 4 oz., and Dr. Beak from 1 to 2 lbs. The placenta and membranes have now enlarged to such an extent as to weigh a pound without taking into account the liquor amnii. The foetus is at this time so strong that all its parts are well formed. That, as Dr. Burns states, instances have been known where children have lived when passed into the world at this period. Dr. Taylor states that he has known a child between the 6th and 7th months live a fortnight. — Between the 6th and 7th months, the child measures from the vertex to the sole of the foot, from 10 to 12 inches, and weighs from 1 to 3 lbs. (Taylor). At this period the head is large in proportion to the trunk, a fact which gives great support to the gravitational theory of the child's position in utero. The membrane funiculare has disappeared; the eyelids are no longer glued together. The skin is still covered by a soft downy hair. The nails have appeared, and are beginning slightly to form. ossification is rapidly going on in different bones of the skeleton more especially in those of the tarsal and sternum. As yet there are no convolutions in the brain or the testes, the formed, have not yet descended out of the abdominal cavity, but are to be found lying on the gluteal muscles immediately.
below the Kidney.

At the close of the 8th month the foetus measured from 14 to 17 inches in length, and has a weight of from 3 to 3 and a half lbs. The skin during the last month has been rapidly developing itself, and is now of a distinctly fibrous texture. The subcutaneous cellular tissue is now in situ, and is rapidly increasing in quantity. The nails have not yet reached the extremities of the fingers, nor indeed, do they do so till the foetus is capable of strong and independent existence. The brain has filled its contained space backwards, is firm, and well coloured. The whole skeleton is becoming filled with osseous deposit. The intestinal mucous membrane has been of late highly developed, and in the small intestines it is now full of vascular convolutions. The liver is secreting meconium in large quantity, this is accumulating in both small and large intestines. Now may be said properly to commence the descent of the testicle. In Mr. Burling's work on the foetus we meet with the following passage descriptive of this descent. In Mr. Burling's 'A treatise on the foetal periods between the 5th and 6th month of foetal existence or sometimes later, the testicle begins to move from its situation near the kidney towards the abdominal ring, which it usually reaches about the 7th month. During the 8th month it generally traverses the inguinal canal, or by the end of the 9th arrives at the bottom of the scrotum, in which situation it is commonly found at birth. This latter statement, however, does not always hold true, for we sometimes find that the testicle has not completed its descent even a considerable time after birth. The medical juris will do well to keep this in mind.
In the end of the 9th month the infant has a length of from 19 to 20 inches, a weight of from 6 to 8 lbs. At this time all imperfections mentioned in the previous paragraph, have for the most part disappeared. The soft down has altogether departed from the skin, the subcutaneous cellular tissue is now sufficiently abundant. The bones of the cranium have become to a considerable extent consolidated, their sutures, however, remaining lax so as to admit of overlapping of the edges in the process of partition. The anterior and posterior fontanelles are well marked. The nails have now reached the extremities of the fingers, the hair of the head is of developed consistence. The nervous system has also undergone great changes. The cerebral convolutions are completely formed, a fact which shows an increase of mental power on the part of the foetus. The laminae of nervous matter constituting the cerebrum has now passed back so far as to cover entirely the cranial ganglia, the anterior part of the cerebellum. The brain being thus in its character essentially human. The gallbladder now shows some traces of bile, the meconium has mostly passed from the small into the large intestine. The testicles are generally at the period found in the foetus, the child is in every respect viable so it has been so, in the legal sense, long before.

The distinctive marks between a mature and an immature foetus have been most carefully studied by Fodéré, Capraro, especially by Liedemann. The gist of their observations is thus given by Dr. Churchill.
* Dr. Hunter has made experiments in different Hospitals, with reference to the weight of infants at the full time; he found it generally from 4 to 11 lbs, which taking the average would give us from 5 to 7 lbs.

In the Dublin Hospital the average weight of a boy was 7 lbs 7 oz.

... a girl 6 lbs 12 oz.

Camus in the French Hospitals found the extreme weight equal to 9 lbs, or francs de marc, 13 lbs, which are equivalent to English avoirdupois measure the first to 9 lbs 11½ ounces, the second to 14 lbs 4½ ounces."

Taken from my notes on Trellice Lectures.
The characteristics of maturity & perfection of the foetus are: its ability to cry as soon as it reaches the atmospheric air; shortly after, to move its limbs with facility; more or less strength; its body being of a clear red colour; the mouth, nostrils, eyelids, ears perfectly closed; the bones of the cranium preserving some solidity; the edges of the fontanelles not far apart; the hair, eyebrows, & nails perfectly developed; the free discharge of the meconium on the 3rd or 4th hours after birth; 

Finally, the power of swallowing & digesting indicated by its seizing the nipple or finger placed within the mouth. The child may be considered immature when its length and volume are much less than those of an infant at the full time; when it does not move its limbs, or makes only feeble motions; when it seems unable to suck; has to be fed artificially; when its skin is of an intense red colour, traversed by numerous bluish vessels; when the head is covered with down; the nails are not formed; when the bones of the head are soft. The fontanelles are widely separated; the eyelids, mouth, & nostrils closed, when it sleeps continually, & an artificial heat is necessary to preserve it; when it discharges its urine & meconium imperfectly.

The weight of a child at the Full Time: This is generally a most useful criterion as to the probable age of the infant: but it is, in most circumstances, to be taken "cum grano salis" for a child comparatively immature may actually outweigh one which has arrived at full maturity. The statement on the opposite page is that submitted by Dr. Leaill to his class of Medical Jurisprudence. Dr. Chaussemier & Lejeux give the average weight of a child at the full time as...
Lecius Contraconsiderationes sur l'Infanticide. p. 12.
6½ lbs, which they say, is very near what Boerhaave has also observed. But the size of a newborn infant is often much larger. Dr. Ball weighed at its birth a child and found it = 14 pounds. Child Mr. Park & Mr. Croft found the weight of a boy = 15 pounds. Dr. M. Duncan lately weighed an infant and found it to be 14 lbs 3 oz.

The following is a table of the comparative length of the Child at the various months of pregnancy:

<table>
<thead>
<tr>
<th>Month</th>
<th>Length (millimeters)</th>
<th>Age (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>255</td>
<td>9½</td>
</tr>
<tr>
<td>6</td>
<td>325</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>380</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>440</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>498</td>
<td>18</td>
</tr>
</tbody>
</table>

Much has been said by different medical jurists with reference to the relative position of the umbilical cord as a sign of the development of the foetus. Chancier, says Taylor, thought that in the mature child, at the ninth month, the point of insertion of the cord exactly corresponded to the centre of the length of its body. Later observations, however, have shown that this is not quite correct. Out of 500 children examined by M. Moreau, at the Maternité in Paris, the umbilical aperture corresponded to the centre of the body in four only. In the majority of these cases, the point of insertion was 8 or 9 lines below the centre; among many cases of mature children which I have had an opportunity of examining, the umbilical aperture has generally been situated from a quarter to half an inch below the centre of the body. M. Moreau found on the other hand, that in some children born about the 6th or 8th month the cord was in
For these conclusions we are indebted principally to Dr. Beck.
selected at the middle point of the length. On the whole, it will be perceived that no value can be attached to the situation of the umbilical opening as a sign of maturity or immaturity.

Having thus enumerated the different marks and characteristics of the fetus at the several periods of pregnancy, let us now see to what circumstances in the examination of the product of parturition, medical jurisprudents ought to turn their attention when called to decide in a case of supposed criminal abortion. The great points to be ascertained are:

1. If the substance expelled is really a fetus. In the later months no difficulty can be found in arriving at a conclusion on this subject, but in the earlier periods, moles and hydatids may sometimes simulate the same very exactly. We have already described the characteristic marks of these substances; it may, however, be stated that in general circumstances, though not in every case, careful examination under water, will ordinarily serve to distinguish them from a true embryo.

2. What is the age of the fetus? In the preceding page we have, as already said, detailed the peculiarities of the fetus at each period of intra-uterine life. By attending to the length of the embryo, its weight, the development of its nails, the state of its skin, etc., there can be but little difficulty in answering the above question with sufficient accuracy.

3. Does the fetus bear any marks of the mode by which foeticide has been accomplished? If abortion has been effected by means of instruments, there will frequently be wounds or bruises on the body of the child, tell of their use, if however, drugs have been the means employed no signs of their action will
Of any author with whom we have met on this subject Leopoldi in his Meditarnean Regale is perhaps the fullest & best.
be observable on the foetus.

We have thus detailed the different signs which the jurist may divine
from medical examination; let us now speak of

II. The Moral Evidence of Criminal Abortion. In a case where
bleeding has been practiced, as shown by wounds on a vein or by the
marks of leeches & scarificators in different parts of the body, much may
be done in the way of moral evidence. What is the history of this evacuator?
Was the woman at the time when it was made suffering from any acute
disease or other ailment which could justify the employment of such a
doubtful remedy as bleeding in pregnancy? How often was bloodletting
practiced? To what extent? Such are the questions which ought to be put
to the patient or her relatives; from their answers to these simple interrogations
and important inferences may be drawn with reference to the innocence or
guilt of accused parties. If any medical man has attended the patient
he should be sought out, an account got from his own lips of the facts
of the case. Of course the circumstances of this individual being a person of
respectability will bear a good point in favour of the suspected party, whereas
if he is found to be a quack or a man of doubtful character this mere fact
will certainly not weigh in favour of the prisoner. If, however, no practitioner
at all has been employed, the case will be very suspicious.

When purgatives, emetics, emmenagogues & other medicines which act on
the general system are suspected to have been used the following is the
course of inquiries which ought to be instituted. Have such medicines
actually been used or if so for what purpose? How large were the doses, &
Medizinische Legale p. 313.
How often were they repeated? At what period of pregnancy was the woman at the time of their administration; was she in the beginning, middle, or end of that state? For as Capurro remarks, "we must not forget that abortion is most easily procured during the first 40 days after conception." It is important to know with certainty if the woman was actually pregnant at the time of their administration, if she was thus aware of her being so. We should also note whether or not she is of strong constitution, a circumstance as already stated, of great moment when connected with the employment of powerful remedies.

Besides more oral examination, however, search should be made with the view of finding in some of the woman’s pockets or other repositories, unused portions of the drug taken. For it is very plain that if we can obtain but a small part of it, we will be enabled to corroborate or contradict its alleged effects. The druggist who sold it should also be sought out, examined with regard to the name of the medicine, its dose, and the mode in which it was obtained, whether by the woman herself or by one of her acquaintances, or medical prescribers, or without it. It is also of consequence to discover whether or not after taking the medicine, the woman acquainted those around her with reference to any pain which she suffered, or if on the contrary she carefully concealed this and did not mention her condition to anyone.

The conclusions to be drawn from a cross-examination of this kind are sufficiently evident. Every attempt at concealment and all clandestine methods of procedure are to be looked upon as very suspicious, while
at the same time, it must be constantly remembered that evidence of
this sort is only corroborative, and in order to be at all conclusive, must
be combined with what we have previously described, viz. the med-
ical signs.

When, again, local or mechanical violence has been employed the
juxtaposition to all concomitant circumstances, & note whether
it took place with the consent of the female or by accident. We
should examine the woman's abdominal or lumbar regions, & ob-
servfe if there are any marks of kicks, blows, or other injuries, & if
he finds such should make inquiries with reference to their history.
If it appear that they were accidental, & that they brought on pre-
mature labour, in that case no crime will exist; but if it be found
that they are the result of wilful injury, they afford strong presumptions
in favour of poisoning.

Instruments & other means of mechanical violence should be sought
for; if found, they will prove heavy weights in the scale of cir-
cumstantial evidence, all the more so if they bear upon them the marks
of recent use.

We have thus followed our inquiries all the investigations into
the different medical & moral proofs of criminal abortion, & it
now only remains to give models of the ways in which reports on this
subject should be drawn up. Of course the circumstances to be men-
tioned must vary in each particular case, but the following reports
which we have translated from M. Briandt will serve very well as
examples of the manner in which such facts should be related.

Report I. In a case where abortion has been procured by means of
an instrument introduced into the Uterus—Death of the Woman.

Me the undersigned Ch. V. B. etc., upon the requisition of M. D. .
commissioner of police for the quarter . . ., went this day, 14th August, 1819,
at 7 in the morning to —— street in this town, 9 to the 17th story of number
9, with the view of examining the body of Mary B., endeavoring to find
out what was the cause of her death...

On our arrival we, together with the aforesaid commissioner of police,
and M. M. T. G. were introduced into the chamber where the deceased girl B
was lying. We found on inquiry that she had miscarried at 7 o'clock, and
died at 7 past 9 on the morning of the previous day. The corpse was laid
out upon a mattress which was covered by a sheet folded several times.

We observed that a bed on the left side of the aforesaid chamber was
stained here and there with blood, and also that a quantity of linen soaked
with blood was deposited in the bottom of a press situated at the head of the
bed. Several objects, a pot, a small vessel were also seen standing on
a table near the window, and were laid aside for future examination.

On proceeding to make the postmortem, the following were the appearances
observed:

The body, which seemed to be that of a woman from 22 to 24 years old,
was strongly formed, but had a general livid hue. Phlegmata, filled
with rose-colored serum, were observable in the axillae, the groins, and
around the genitals.
II. The face was partly pale, partly livid; the jaws firmly locked, from the nose issued a fluid slightly tinged with blood.

III. The mammae on compression yielded some drops of a serous fluid, which could scarcely be called milk.

IV. Red blood flowed from the genitals when pressure was made upon the hypogastric region.

V. The labia majoras were thin and flabby; the labia minoras were slightly prominent; the right mons veneris was divided transversely throughout its whole thickness.

VI. The orifice of the vagina was circular & much dilated.

VII. The fornix of the urethra, the urethra urinaria, the clitoris, the Mons Veneris were covered with partially coagulated blood, but after this was removed there were no marks of injury.

VIII. On opening the cranium the brain was found healthy, its vessels contained but little blood.

IX. Upon examination of the chest the lungs appeared collapsed, but were otherwise healthy; the heart was small, stiff & empty, as also were the great vessels.

X. In the abdomen, the peritoneum & all its different folds, the stomach, the alimentary canal, the biliary & urinary organs were all healthy.

XI. But we found the round ligaments, the Fallopian tubes, the ovaries of a dark colour; while the body of the uterus was a little more spherical than usual & of the size of a child's head.

XII. On examining the uterus after division of the symphysis pubis, its cervix was found thin & not more than 3 lines in length; the os was di-
vided & turned transversely to the extent of 6 lines, a portion of its texture, from 8 to 10 lines long, & from 2 to 3 broad, was detached from its surface on the right side. The cavity of the organ contained portions of a flocculent & parenchymatous tissue which, as far as we could make out, was some remains of the after-birth. On its internal wall were seen, every here & there, threads of a similar tissue & we easily recognised these as portions of the placenta, which seems to have been violently torn away.

XIII. The vagina contained a large quantity of black & coagulated blood, but after this was removed, we found that the walls of the canal were everywhere smooth & uninjured.

XIV. Proceeding next to study those substances which we had reserved up till this time, the following were the articles which we examined, & their appearances.

Three phials which contained, one vinegar; another a calomelative lotion prepared by... (naming the druggist), & a third some drops of balsamic phlegric ether.

A vessel containing an infusion of violets & linden flowers.

A jar holding some soiled linen which appeared from its odour & the blood with which it was stained to have been used for the purposes of applying the vinegar water.

The bed consisted of a mattress & hair quilt both of which were soaked thro' with blood & of a sheet equally saturated; the whole being covered by another sheet & a coverlet upon which large spots of blood were observable.
Two sheets, some towels & some chemises which we drew out of
the press previously mentioned, were stained with dark but pure
blood; the chemises, however, being especially ensanguined at their
lower part.

From these several observations we conclude:

1. That the girl B has died from a severe uterine hemorrhage
which was tried to be stanched by means of acidulated lotions.

2. That although we have in vain sought for the product of concep-
tion amongst the linen clothes, still every thing which we have seen
leads us to think that this has either been put out of the way, or thrown
out inadvertently; that the hemorrhage has been the result of abor-
tion brought on by introducing an instrument into the uterus, piercing
the membranes which contained the foetus.

This latter occurrence appears clearly pointed out by the division
of the symphysis of the right side, by the lacerated condition of the os uteri,
and by the shreds of placenta still remaining in that organ.

3. That death was speedy; a fact which is shown by the healthy state
of the peritoneum, & the viscera contained in the hypogastric region,
for these would most certainly have exhibited signs of inflammation
if the girl B had survived some hours after the performance of those
operations of which she has evidently been the victim.

The above Report is certified conformably to the demands of truth
& the rules of art.

Place ... Date ... (Signed)
Report II. Abortion brought on by a fall & by kicks.

I. The undersigned found the woman A., a person seemingly about 25 or 30 years of age, of good constitution, labouring under a most acute attack of fever, & complaining much of severe pain in the hypogastric region.

On inquiring into the history of her symptoms, she told us that she had on the previous day been cruelly maltreated by a man named X., who threw her violently upon the pavement, & then repeatedly kicked her upon the abdomen. As soon as she received these injuries she began to feel severe pains in the region of the uterine, & about four hours afterwards aborted.

She also informed us that at the time that she was hurt, she had been two months or thereabouts gone with child; that she had already been twice pregnant, & that without any known cause she had aborted on both occasions, the first time at three months, the second at five.

On examination the following appearances were observed:

I. We saw on the left lip, a bruise of 2 or 3 inches in extent, of a most form reddish brown colour, & apparently quite recent. This Mrs. A. told us was caused by her fall.

II. We observed in no other part of the body either contusions or other lesions. The external genitals appeared to be only slightly tumid.

III. Blood partly liquid, partly coagulated, flowed from the vulva.

IV. On introducing a finger into the vagina, we found the os uteri
pliable & dilated, as the volume of the organ generally was much greater
than natural.

V. The product of abortion was shown to us, & was in size somewhat
like an egg. We put this membranous bag into a basin full of water
& removed all blood with the utmost care. In its interior we found
an embryo 2 inches long, & presenting several points of ossification.
The umbilical cord which was very thick & a little longer than the
foetus itself, was attached by a very broad base to the lower part of
the abdomen.

From these observations we conclude,

1. That Mrs. A. ... was in reality at least two months pregnant.

2. That although this woman appeared to have a peculiar tendency to
abortion as shown by what had already happened, still it is not to be
declared that the first-time miscarriage came on it occurred
at the third month, while on the second occasion it did not happen
Ut any till the end of the fifth. This circumstance gives us ground for
believing that pregnancy, in the present case, would have terminated
either at the natural term, or at least at a period so near this that
the child would have been in every respect viable.

3. Finally this abortion has been produced, to all appearance, by the
fall of which Mrs. A. ... still bears the mark, but especially
by the kicks on the abdomen, should it be proved that violence
of this kind has actually been employed.

We certify &c.
Laws relating to Criminal Abortion.

Viewed in reference to the divine law which says 'Thou shalt not kill,' forced abortion is a sin; viewed in reference to man it is a crime. It is in this latter aspect, as an offence committed against society, that the criminal law has to do with it, for it is a maxim of jurisprudence that those acts only are to be regarded as deserving of punishment, which are injurious to society. Now these are three considerations which show that criminal abortion belongs to this class of deeds. The first is, that as one object of law is to protect life and property, so the law is bound to defend the life of the child both before and after birth. The increase of population is necessary to the support and prosperity of a Kingdom, and anything which tends to check the birth of children is therefore to be regarded as a blow aimed at the stability of the state. The second consideration is, the protection that is due to the virtuous and the simple. It is women in the lowly walks of life, those chiefly that are engaged in menial service, that are exposed to the arts of the seducer. Now if the effects of seduction could, by means of successful abortion, be done away, were there no punishment to be feared for such deeds, it is plain that such persons would prove the easy and the frequent prey of the vicious. The law has ever looked upon character as a just object of protection, but chastity is at once the basis and the ornament of all female excellence; therefore
*Beccaria on Crimes and Punishments, chap. XIX*
The law ought by its terrors to interpose a shield between woman and the unprincipled seducer. And the third consideration, nearly allied to the second, is that the existence of vicious habits is essential to the wellbeing of a state. No nation from which virtue has in a great measure disappeared, can long subsist. It soon sinks in the mire of its own polluting. But when we consider the strength of the sexual appetite, the many licentious men that are ever ready to ensnare the unwary, & the havoc which the processes requisite to secure abortion must make in the moral feelings of the mother, as well as the fact that those who have violated the laws of chastity, are exceedingly apt to repeat the offence, it is manifest that were seduction on the one hand & criminal abortion on the other to be permitted or winked at, such things would become fearfully common. The foundations of morality & virtue would soon be undermined & the ruin of the state would not be distant. But to repress the crime - for the proper object of judicial law is to prevent rather than to punish offences, the penalty should, in this as in other cases, be certain, speedy, & such as to secure the moral approbation of the community.

Our object, however, in this part of the Essay is not to state what the punishment for this offence should be, but to point out historically, as far as we have information, what the laws are with regard to it, that have prevailed in various countries.

The Jewish Law. It is an interesting fact, that the Mosaic code does not contemplate either infanticide or the crime of abortion.
Commentaries on the Laws of Moses, Art. CCXXXI.
being intentionally committed on the part either of man or woman. The reason for this may have been the well-known desire that the Hebrews women had for children, in the expectation on the part of each that she might be the honoured mother of the promised Messiah. The only reference which the Laws of Moses make to Abortion is in Exodus Chap. XXI verses 22-25. "If men strike a woman with child, so that her fruit depart from her, & yet no mischief follows, he shall be surely punished, according as the woman's husband will lay upon him, & he shall pay as the judges determine. And if any mischief follow, then shall both give life for life, eye for eye, tooth for tooth, hand for hand, foot for foot, burning for burning, wound for wound, stripe for stripe."

On these words Michaelis says: "If the only consequence was the premature delivery of the woman, the author of the misfortune was obliged to give her husband a recompense in money according to his demands; but in order that his demand might not be unreasonable, if the judges thought it too high, it was determined by the decision of arbitrators. On the other hand, if either the woman or her child was in any great hurt or wounded, the laws of retaliation operated, an eye being given for an eye, a tooth for a tooth, a hand for a hand, a foot for a foot, a burn for a burn, a wound for a wound, a bruise for a bruise. As we have seen in article CCLXXIII, it went the length of even life for life. And the reason which Michaelis assigns and CCLXXIII for such a strict law is, that "pregnant women & the fruit of their wombs do, on a ce
The Spirit of Laws Book 23, Cap. 17.

Quoted by Beck p. 228

Sixth Satire v. 496.
count of their defenseless state 4 because they are left entirely to the
protection of the laws, deserve to experience that protection in a pre-
eminent manner; 4 injuries done to them ought to be punished with
peculiar severity.

The Laws of Greece & Rome. That this unnatural practice was
known in Greece is evident from the words of Aristotle. This cele-
britated author, as stated by Montesquieu, advises in his Polit.
lib VII. cap. 16, that women be made to miscarry before the foetus be
formed, if they have more children than the number prescribed by
law. That the practice of forced abortion, called "misceribus alius
inferre" was fearfully prevalent among the Romans, is manifest
from numerous testimonies. Minucius Felix says, Chap. XXX: "Now,
none of you will not give them liberty to be born, but by cruel
forces procure abortion 4 another the hopeful beginning of what would come
to be a man in his mother's womb." Juvenal declares that the poor
brought forth 4 men 4 reared their children, but that the wealthy caused
themselves by the use of noxious drugs to abort.

"Hae tamen et foetus subveniunt discriminat omnes
Nutricis tolerant, fortuna urgete, laboraes,
In facie aureto in alius puerpera lecto,
Tantum ars laesus, tantum medicamina praebet."

To such a length was this practice carried that it appears that during
the awful corruption of manners which prepared the Roman Empire
for becoming the prey of the Northern Barbarians, it was common for
Consolat ad Helviam matrem. c. 16.

An animal sit quod in utero est?

Pro Euhéntio.
ladies of rank, in order to preserve their shape, to destroy the foetus when small. Hence Seneca represents it as a peculiar glory of Helvia, that she had never like other women, whose chief study is their beauty & shape, destroyed the foetus in her womb.

But whilst the practice was thus known, it is not certain that there was any law forbidding it in those nations, while in their heathen state. In a treatise ascribed to Galen, there is mention made of enactments by the Grecian legislators, Solon & Lycurgus, against this crime; but it is maintained by M. Blaviers that that is a spurious production. In Rome there does not seem to have been any law on the subject before the times of Severus & Antonine. It is true that we find in Greece, an earlier instance of a woman punished for this fact; but it was in Miletus, a country not subject to the Roman laws. (Rees Cyclopaedia, art. Abortion.) The words of Tertullian in his Apology would seem to indicate that it was not till the introduction of Christianity that this practice was looked upon as criminal. "But Christians now are so far from homicides that with them it is utterly unlawful to make away with a child in the womb, when nature is in deliberation about the same." For to kill a child before it is born is to commit murder by way of advance. There is no difference whether you destroy a child in its formation, or after it is formed & delivered. (Homicidio gestative est prohibere nasei, nec res gestae nati quem est nascere damnatur: nec res gestae nati quem est nascere damnatur). For we Christians look upon him as a man who is one in embryos; for he is
Rees Apologies vol. II. p. 190

Viola Appendix A.


Questiones Medico-legales quast. 9.
a being like the fruit in blossom, it in a little time would have been a perfect man had nature met with no disturbance."

The question whether criminal abortion was regarded by the Greeks or Romans as a crime, has been ably discussed by two French authors, MM. Clavière & Boisconuide, the former maintaining that it was not the latter that it was. We give in the Appendix an extract from the Article Abortion in the Seventh Edition of the Encyclopædia Britannica, which contains an outline of the evidence advanced on both sides:

The Law during the Middle Ages. By the decrees of the Canon Law (Part ii. canus. 32. quæst. ii. c. 8) it was declared, "Non est homicida, quæ abortion fœlicum aut senis animas corporis ut inficis.

The Criminal Law of Europe, formed from the decisions of the later Roman Jurists, hence called the Roman Law, embodied the same principle. Zacchias, who wrote when the Canon & Roman Law prevailed, may be regarded as a trustworthy exponent of the statutes applicable to forced abortion in his time. He says that the civil & canon laws agreed in this that he who destroyed the foetus before it was animated, should be punished severely ("iudicium extraordinarium""); but that he who destroyed it when it was animated, should be put to death ("ultima spongii, 

"Pullicio, ejectum.")

The distinction which is here made gave rise to a very mixed curious discussion, namely, when it is that the foetus becomes animated? Zacchias in the chapter to which we have referred
says that the opinion on this subject were, as they might well be supposed, very various, ranging in time from 7 to upwards of 40 days, as that Hippocrates held. That in the case of males it happened within thirty days, and in the case of females within forty-two days after conception... This was in the eye of the law an all important point to determine, because before this the foetus was, in the view of the law, a mere animal, a thing, a part of the mother; but when it was animated, it was "homin," a man, an intelligent creature, the destruction of which was homicide, a crime to be visited with death. Hence it was that Zacchias, in order to make matters sure, advised the judges not to inflict capital punishment on anyone who has procured abortion, unless it has been done at least sixty days after the woman has conceived... This distinction between a non-animated and an animated foetus which has pervaded the legislation on this subject from the days of the Roman Emperors down to our own times, is one which would naturally occur to persons not much acquainted with the science of physiology, but it involves a point which is obviously beyond the reach of human skill. For the question as to the time when the soul enters the foetus is one which man cannot determine. The attempt to do so is therefore very properly precluded by all modern medical writers. Maboe, when speaking on this subject says, "les philosophes ont souvent observé, et toujours avons..."
un nouvel éclaircissement, que les hommes, au lieu de porter leurs recherches vers les objets qu'ils peuvent raisonnablement espérer d'éclaircir, se livrent à des discussions, que ni le raisonnement, ni les expériences, ne doivent jamais terminer. Ce sont même ces sortes de questions, à jamais irresolubles, sur lesquelles ils les ont vus s'acharner, avec le plus d'opiniâreté, et entasser, volumes sur volumes, c'est à dire, le plus souvent erreurs sur erreurs. Ainsi les hommes n'ont jamais pu gagner le mystère de la génération, ils ne connaissent ni la nature de l'âme ni celle du corps, ni le lien qui unit entre elles ces deux substances si différentes et ils ont prétendu, malgré cette profonde obscurité, déterminer l'époque à laquelle elles conviennent à former l'homme par leur réunion.

The Law in France. In France the law with regard to abortion has existed in three forms. 1. The Roman law which we have just described prevailed before the Revolution, & punished with death those who caused young women to abort. (Fodéré vol IV. p. 384). 2. The Code of 1791 imposed a punishment of twenty years in chains. And 3. The Code Penal of Napoleon, adopted in 1810, contains the following enactment. "Whoever by elixirs, beverages, medicines, acts of violence, or by any other means shall procure the abortion of a pregnant woman with or without her consent shall be sentenced to imprisonment. The same punishment shall be inflicted on any woman who..."
shall either procure her own abortion, or consent to make use of any means either prescribed or given to her with that intent, provided always that the attempts to procure it are followed by abortion.

"All physicians, surgeons, & other officers of public health, as well as all apothecaries, who shall prescribe or administer any such means of abortion shall be sentenced, should the crime be perpetrated & abortion take place, to hard labour for a certain period."

The Laws of Austria. The criminal code established in 1787 by Joseph II. substituted for the punishment of death, long imprisonment. "A woman with child, using means to procure abortion shall be punished with imprisonment for not less than fifteen, nor more than thirty years, & condemnation to the public works, augmented when married.

"Accomplices advising & recommending abortion, imprisonment not less than one month, nor more than five years, & condemnation to the public works. The punishment to be increased when the accomplice is the father of the infant."

"The Laws of Germany punish with from two to six years imprisonment a woman (or her aider &c.) who by potions or other means shall have wilfully produced abortion within the first thirty weeks from the time of conception; & the penalty is protracted to eight or at the utmost ten years, when such a crime has been committed within the last month of pregnancy."

The Italian Code is similar, imposing imprisonment upon the
of the penalty shall be from five to ten years' — London Medical & Physical Journal, vol. XLIII, p. 96.

mother of her abettors, enduring from 6 months to ten years according to the nature of the offence. (See Rookp. 314.)

The English Law on this subject seems to have had five stages:

1. The first form was to regard Jaeticide as murder. It was anciently held, says Hawkins (1.9 C. 121), that the causing an abortion by giving a potion to or striking a woman, was murder.

2. The second form was to view it as a leinous misdemeanour. Hence Blackstone says in his Commentaries p. 189. "Life is the immediate gift of God, a right inherent by nature in every individual; it begins in contemplation of law as soon as the infant is able to stir in the mother's womb. For if a woman is quick with child, or by a potion or otherwise killeth it in her womb, or if any one beat her, whereby the child dieth in her womb, she is delivereth of a dead child, this, though not murder, was, by the ancient law, homicide or manslaughter. But the modern law doth not look upon this offence in quite so atrocious a light, but merely as a leinous misdemeanour."

3. The third form was the law passed in 1803 (43 Geo. III. c. 58) commonly called Lord Ellenborough's Act. This statute recognised the distinction between the woman's being quick with child and not quick, and consisted of two parts. The first part imposed death without benefit of clergy upon any person who should cause a woman, quick with child, to miscarry. The words are "if any person shall wilfully, maliciously, & unlawfully adminis-
* Inoted by Paris in a footnote, vol. III. p. 89.

# Paris, p. 86-90.
or cause to be administered to or taken by any of His Majesty's subjects, any deadly poisons or other noxious or destructive substance or thing, with intent thereby to cause or procure the miscarriage of any woman then being quick with child, the offender shall suffer death as in cases of felony without benefit of clergy. A person named Philips was tried according to this part of the statute for giving saving to Hannah Mary Goldsmith, with the view of causing abortion, but as the woman swore that she did not feel the child move within her till after she had received the drug, the judge ruled that she was not quick with child, and directed an acquittal. The second part of this statute, contemplating the deed's being done before the woman was quick with child, imposed a punishment not exceeding transportation for 14 years. If any person or persons shall wilfully and maliciously administer or cause to be administered to or taken by any woman any medicines, drug, or other substance or thing whatsoever, or shall use or employ or cause or procure to be used or employed, any instrument or other means whatsoever, with intent thereby to cause or procure the miscarriage of any woman not being or not being proved to be quick with child at the time of administering such things or using such means, that person or persons in every such case, the person or persons so offending, their counsellors, aids, continuers, knowing or having knowledge of such offence, shall be hereby declared the guilty of felony, and shall be liable to be fined, imprisoned, or in
*Quoted by Paris in a footnote vol. III. pp. 86, 87.
& upon the pillory, publicly or privately whipped; or to suffer one or more of the said punishments, or to be transported beyond the seas for any term not exceeding fourteen years, at the discretion of the Court before which such offender shall be tried & convicted. * A case of conviction under this part of the act is detailed in the third volume of Paris & Sonblanque's Med. Jurisprudence p. p. 88, 9. " At the Wellingford Assizes Aug. 1, 1820, Robin Collins was indicted for administering solid filings & gummy royal water to a woman, with intent to procure abortion. Mr. Baron Wood told the jury, in point of law, that if they were satisfied that the prisoner had administered the drugs with intent to procure miscarriage though they were incapable of producing such effect, & though the young woman had willingly consented to take them, the case was within the statute, & they were bound to find the prisoner guilty. The jury immediately found the prisoner guilty. The learned judge expressed himself perfectly satisfied with the verdict, & animadverted in strong terms on the enormity & cruelty of the prisoner's crime. Public example required the severest visitation of punishment that the law authorized, in order to warn others against committing similar crimes, which unhappily was too prevalent. The sentence of the Court was that the prisoner should be transported for the term of 14 years. * The first part of this law was chargeable with the striking omission that it made no mention of manual or mechanical
Appendix B.
means used in causing abortion. It was on this account that
Perry, whose case we have detailed in the Appendix * escaped.
The fourth form was the statute of Geo. IV. Cap. 31. passed 27th June 1828,
whose chief design was to remedy the omission in the first part of the
law of 1803. We need not quote it, as it had the same distinction
about being quick & not being quick & imposed the same penalties.
The only change was in the clause's "or shall use any instrument
or other means whatsoever with the like intent," being inserted in the
first as well as in the second part of the act.
The fifth form is the statute passed in the first year of our Most
Gracious Queen Victoria. (1 Vict. c. 85 s. 6.) This statute, which is the
English law now in force on the subject, is important as it makes
no mention of the distinction between being quick & not being quick,
& as it abolishes the punishment of death, making the highest pen-
alty banishment for life. It has been doubted, however, whether
according to the language of the statute a woman causing her-
self to abort is punishable. The words are "Whoever, with the
intent to procure the miscarriage of any woman, shall un-
lawfully administer to her, or cause to be taken by her, any poison
or other noxious thing, or shall unlawfully use any instrument or
other means whatsoever with the like intent, shall be guilty of
felony, & being convicted thereof, shall be liable at the discretion
of the court to be transported beyond the seas for the term of his
or her natural life, or for any term not less than 15 years, or to
Taylor's Medical Jurisprudence p. 489.

Rennie's Commentaries on the Laws of Scotland pp. 186–263.
be imprisoned for any term not exceeding three years.

The laws of Scotland—the highest punishment awarded for this offence is imprisonment for a series of years. Indeed, the laws seem originally to have been somewhat indefinite, scarcely to have taken any notice of abortion except in connection with the death of the mother. Mr. Hume says, when speaking of murder: "The slaughter must be of a person or existing human creature. Therein is excluded all procuring of abortion or destruction of a foetus before it be quick, still it is only goes ac corporation, not a separate being; nor can it be said with certainty whether it would have been a quick birth or not." And again he says: "If a man administers a poison to a woman without her knowledge, to procure an abortion, if the dose be of so powerful a nature as plainly to be attended with the risk of the woman's life, especially when she takes it in this unguarded way, if the woman die in consequence, this seems to be nothing less than murder. Because though in a different way, the man shows the same disregard of her life and safety, he exposes her to the same risk, as by doing outward violence to her person." In corroboration of this view, Mr. Hume mentions a trial which took place at Aberdeen on the 10th May 1735, where two men, Robert Dalgry and Robert Joyner were indicted for giving a violent drug to two young women. For the purpose, it was supposed of procuring
The first instance where this offence was brought to trial, was that of John Friend at Bath, in Sept. 1763, before Lord's Miston-Bristowgrange. Mr. McQueen (afterwards Lord Justice Clerk) was Advocate-depute, & stated that however convinced he was of the atrociousness of this crime, yet, as this was the first instance of a trial brought for that species of guilt, he would therefore restrict the label to an arbitrary punishment. (Burnet's Criminal Law p. 6.)

In the Article Abortion in the Supplement to the 5th edit. of the Encyclopaedia Brittanica, the law of Scotland is thus clearly stated. "Our writers indeed agree, that, by the law of Scotland, the forcing of abortion is not homicide, whether the child be quick or not, except where the mother is killed in the process. Imprisonment or transportation may, as in all that case, in any case, be inflicted; & in a recent instance, a surgeon & midwife were upon conviction for the offence, sent to Botany Bay for 14 years."
abortion, but where the libel was laid, without any mention of the supposed object of the potion, as for murder by poison, with an alternative of culpable homicide. So the same effect is the statement of Mr. Alison, who refers to the above mentioned trial in support of it. "If a person give a potion to a woman to produce abortion, & she die in consequence, this will be murder in the person giving, if the potion was of that powerful kind which evidently puts the woman's life in hazard." But it would seem that the decisions which have been made within the last half century, have given greater point & form to the laws on this subject; & that the Scotch laws, as now understood, differ very little from the statute of the first year of Victoria quoted under the head of English laws, with this advantage that it punishes the woman as well as her aiders. Hence Mr. Alison says: "Administering drugs to procure abortion is an offence at common law, punishable with an arbitrary fine, at equal liability whether the desired effects be produced or not." (Alison's Principles, p.628) In support of this view Mr. Alison gives the following illustrations: In the case of Catherine Robertson & George Bachelor, 28th June 1806, it was sustained as a relevant point of ditting, the wilfully causing or procuring a pregnant woman to abort, or part in an untimely manner with the foetus or child in her womb. In that case the nefarious object was accomplished by the application of an instrument to the womb, & it brought on premature labour.
in the fifth or sixth month of pregnancy. They were convicted, and sentenced to seven years transportation, a punishment certainly not too severe when it is recollected that the life of one human being is by such practices seriously endangered, and an incipient existence shifted in another.

This crime is equally committed by the woman who submits to the operation, or the taking noxious medicines, as the man who administers; though her offence is of an inferior degree, she is often the object rather of commiseration than punishment. The surgeon or apothecary who should lend himself to such a transaction, or furnish medicines for the purpose, knowing the end to which they were to be applied, or give advice as to the mode of their commission, would unquestionably render himself liable to as great a part.

The "wilfully causing or procuring a pregnant woman to abort or part in an untimely manner with the foetus or child in her womb," was again sustained as relevant at Perth, September 1823, in the case of Alexander Aitkens, surgeon. He was charged with having, for the sum of 25 shillings, agreed to induce abortion on a pregnant young woman, and actually performed the operation by means of an external instrument. He was convicted, and sentenced to seven years' transportation. So also in the case of Charles Munn, veterinarian, April 20, 1824, the panel, who had administered arsenic to a woman to procure abortion, nearly killed her in consequence, besides producing premature labour, was sentenced to fourteen...
See Appendix C.

* Queen v. Goodall (Nottingham Assizes 1846)
years' transportation" (Alison's Principles p. 628-9.)
Laws of the United States of America. Mr. Beck gives the laws
of the states of New York, Ohio, Connecticut & Missouri, the gen-
eralities imposed by which consist of fines & imprisonment.*

The preceding sketch warrants three deductions:
1. That previously to the introduction of Christianity forced
abortion was scarcely, if at all, regarded in a criminal light.
2. That so long as the distinction between animated & non-animated
foetus prevailed, the punishment for inducing abortion, after it
was supposed animation had taken place, was, in most of the na-
tions of Europe, death. And
3. That modern legislation is not so severe as visits the offence, when
the life of the mother is not taken, with either imprisonment or banis-
ishment.

Note A. The question has been raised whether proof of pregnancy is ne-
cessary for conviction under the English law. This point has been
decided in the negative. On the occasion of a verdict given in a trial
that took place before Judge Bollman, that judge reserved the ques-
tion for the consideration of the Judges. These decided "that a person
believing a female to be pregnant, & perpetrating on her an act which
would amount to an attempt at abortion if the female were really
pregnant, may be equally convicted under the statute." Hence
says Taylor, the words 'procure the miscarriage of any woman
Provincial Medical and Surgical Journal 1852. p. 324.

Ibid. 1852.
do not necessarily imply proof of pregnancy, nor can the terms
"miscarriage" be considered to apply only to a woman in the
pregnant condition. The removal of foetuses, hydatids, &
other morbid growths is to be punished on the same principle,
viz the criminal intention of the perpetrator.

Note B. Medical Responsibility in the induction of Premature
Labour. The laws of America relating to Criminal Abortion
(See Appendix C) especially except cases of Premature labours
brought on by medical men when circumstances seem to de-
mand it, whilst the laws of England, Scotland & of Europe
generally contain no such exception. But surely no one will re-
gard this practice as illegal or even blameable, when it seems
urgently called for by the demands of humanity! Its object is
not to destroy but to preserve, for when the life of the mother is in
danger "it is less culpable to destroy an immature life than to risk
the existence of a responsible & valuable woman by the ultimate
resort to an operation so fatal as that of the Caesarean section."
At a meeting of the Academie de Medecine, held at Paris in 1852,
Mr. Gazeaux read a long & interesting paper upon this subject. The
following are the conclusions at which he arrived.

1. It is only by a false interpretation of divine & human laws, that cri-

minal abortion of abortion induced under medical supervision can
be regarded in the same light.

2. The intention of the law is to punish criminally, it cannot, therefore,
with justice arrange an act dictated by the parents' most humane motives.

3. If, unfortunately, the choice has to be made between the life of a mother and that of her unborn offspring, the former has undoubtedly the stronger claims; the child ought to be sacrificed to the salvation of the mother.

4. As induced abortion is a far less dangerous process in regard to the mother than an embrology at the full term. The abortion ought to give it the preference.

5. Distortions & narrowing of the pelvis beyond a certain point, insurmountable hemorrhages, tumors of various kinds which impede parturition, but do not admit of removal, are the sole indications for the induction of abortion.

6. The operation should never be performed without consultation. The above statement, in our opinion, gives a clear succinct account of this matter, that we deem it perfectly unnecessary to enlarge further.

--We have in the preceding pages pointed out the motives, signs, & legal relations of Criminal Abortion; as far as time & circumstances have permitted. In conclusion, it may be proper to say a word or two with regard to the means which should be employed for putting an end to this immoral & criminal practice. On this subject a writer in the Lancet remarks: The first & most urgent remedy...
is to suffer no one to practice medicine whose qualifications have not been approved by competent means, and whose conduct is not guaranteed by his education, his social position, or the controlling influence of professional and public observation.

The second remedy we have to propose is the extension of the Registration Act to premature and still-born children. This measure would immediately bring under some sort of review the majority of cases of criminal abortion, and in the course of time prevent their occurrence to an enormous extent. No doubt the execution of this measure would be attended with some difficulties, but by wise regulations these may be surmounted.

But together with an extension of the scope of the act, it is imperative necessary that its ordinary administration be directed on sounder principles, with greater vigilance on the part of the district registrars, and in more effective cooperation with the coroner's court and other legal tribunals.

There is much force in these observations; at the same time, it is our conviction that as this practice has its source in the prompting of depraved human nature it can be effectively repressed only by the spread of proper education, and by the prevalence of enlightened moral and religious sentiment.
APPENDIX.

A. (Vide page 53)


"We find, says M. Clavius, that in one of Plato's dialogues (Theaetetus) Socrates is made to speak of artificial abortion as a practice not only common, but allowable, and Plato himself authorizes it in his Republic (Lib. V). Aristotle (Politics, Lib. VII, c. 14) gives it as his opinion that no child ought to be suffered to come into the world, the mother being above forty, or the father above fifty-five years of age. Sercius maintained, in one of his pleadings quoted by Harpocration, that forced abortion could not be considered homicide, because a child in utero was not an animal, or separate existence. M. Clavius admits that, in a treatise ascribed to Galen (An animal sit quod in "interrocat") there is mention made of enactments by Solon & Lycurgus against this crime; but he maintains that this is a spurious production & that at any rate his testimony cannot be opposed to that of so many writers, who lived long before his age. Among the Romans, Ovid (Amor Lib. II) Juvenal (Sat. VI. v. 594), and Seneca (Consol. ad. Helv. 16), though they lament in strong terms the frequency of this enormity, yet they never allude to any laws by which it might be suppressed. Various other writers, it is said, preserve the same silence on this point, whilst joining in general reprehension of the crime."
On the other hand, M. Boissoneau appeals not only to the authority of Galen, but of Cicero (Pro Balbina) as placing it beyond a doubt, that, so far from being allowed to pass with impunity, the offence in question was sometimes punished with death. With regard to the authority of Celsus, he states, that the pleading referred to is quoted by Harpocrates himself as of dubious authenticity; and, as to Plato and Aristotle, he observes, that their speculative reasonings, in matters of legislation, ought not to be confounded with the actual state of the laws. And he adds, that Aspasiaus (seem. 73) has preserved a passage from Musonius, in which that philosopher expressly states that the ancient lawgivers inflicted punishments on females who caused themselves to abort.

B (Vide page 60.)

The Remarkable Trial of Mr. Pitt's and Mary Coale, at the Assizes held on St. Edmund's, on Thursday, August 11, 1808, for feloniously administering a certain noxious and destructive sub- stance to Ann Cheney, with intent to produce a miscarriage.”

We shall take the history of the facts of this case from the examinations before the justices of peace, as being more connected than the evidence given in the course of the trial, from which it does not differ in any essential particular. The only evidence which it will be here necessary to quote is that of Ann Cheney, the girl upon whom the crime was committed. She saith, that she is about the age of 27 years, that she has lived as
servant with Mr. Simon Godd, of Haughley, about 13 years last past. That she is an unmarried woman and was so in the month of February 1806. That in the said month of February 1806, she was delivered of a female bastard child, that she was alone when she was delivered, but that she called out for assistance, but no one came for some minutes, the child was born dead, she never saw it move, or heard it make a noise. That soon after she found herself with child, she acknowledged it to her mistress Godd, and told her who was the father of the child. Her mistress said, if she would take that which she was got for her, she thought it could order it better than letting any body know it. Soon after that, she saw Mr. Pidgey of Middleway, the farrier, she told him what was the matter with her; he then gave her some more medicines, told her that they were to make her miscarry. They had not that effect; that she continued to take medicines from him during her whole remaining time of pregnancy; she sometimes received them from her mistress, and sometimes from Pidgey, that her mistress knew what they were for, because she (her mistress) had told her what they were for, that the medicines did not answer the intended purpose. That about a week, or two days before she was delivered, Mr. Pidgey came, and upon her informing him that his medicines had not answered the purpose, he said she must go upstairs with him, which she did; they were alone, he laid her on the floor, on a great coat, upon her back, she put the coat over her head, so that she could not see; she then felt him put some instrument up into her body, which was very cold like
ew, but she did not see it, that, in consequence, she lost some blood, not very much nor very little, suppose about half a pint: did not feel much pain. Pizzi told her it was for the purpose of making her miscarry. Her mistress was at home, did not know for what purpose they went upstairs, but was not present. Pizzi came again the day before she was brought to bed. Examinant told him she had not miscarried; he then said he must try something further; her mistress was present and heard this. Pizzi and examinant went upstairs again, but her mistress was not present. Pizzi laid her down, as he did before, on her back, and passed his hand three times up into her body, half-way of his arm which was naked, which gave her a great deal of pain, after this examinant felt herself very wet, & never felt the child move afterwards. Examinant thinks she had not gone her time by six or seven weeks. She felt the child move after she was first treated by Pizzi, and till within a day or two before the second time. She thinks she did not go her full time from the treatment she received from Pizzi.

**After the evidence was concluded the jury retired for about twenty minutes, and acquitted both prisoners, expressing themselves not fully satisfied with the sufficiency of the evidence to convict.**

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C (Vide page 64.)

Laws of America relative to Criminal Abortion (Vide Week).

In the state of New York the following are at present the laws. The
The unlawful killing of an unborn quick child, by any injury to the mother of such child, which would be murder if it resulted in the death of such mother, shall be deemed manslaughter in the first degree.

The punishment for manslaughter, first degree, is imprisonment in the state prison for a term not less than ten years, for the second degree, not less than four, and not more than seven years.

Every person who shall administer to any pregnant woman, any medicine, drug, substance, or thing whatever, or shall use or employ any instrument or other means whatever with intent thereby to procure the miscarriage of such woman, unless the same shall have been necessary to preserve or save the life of such woman, or shall have been advised by two physicians, or deemed necessary for that purpose, shall, on conviction, be punished by imprisonment in a county jail, not more than one year, or a fine not more than five hundred dollars, or both.
In the state of Ohio, the law against abortion is the following: "If any physician or other person shall administer to any pregnant woman any drug, or shall use any instrument or other means whatever, with intent thereby to procure the miscarriage of such woman, unless the same shall have been necessary to preserve the life of such woman, or shall have been advised by two physicians to be necessary for that purpose, he shall, on conviction, be punished by imprisonment for not more than one year, or by fine not exceeding five hundred dollars, or by both. If the woman be pregnant with a quick child, such person shall, in case of the death of the child or the mother by such means, be imprisoned in the Penitentiary, not more than seven years, or less than one year."

In the state of Connecticut, the law enacted that for administering any noxious or destructive substance for the purpose of procuring the miscarriage of a woman quick with child, the punishment on conviction, shall be imprisonment in Newgate Prison during his or her natural life, or for such other terms as the court having cognizance of the offence shall determine.

In Missouri the administration of poison with an intent to procure abortion is punished by imprisonment for a term not exceeding seven years, and a fine not exceeding three thousand dollars."