AN INAUGURAL DISSERTATION
ON
The signs of pregnancy

SUBMITTED TO THE
PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY
OF THE
University of Nashville,
FOR THE DEGREE OF
DOCTOR OF MEDICINE.

BY
Dr. W. Berry

OF
Tennessee

1856

W. T. BERRY & CO.,
BOOKSELLERS AND STATIONERS,
NASHVILLE, TENN.
While it would be more in accordance with conventional usage to consecrate this to the Prof. of Abstr.
tories, I throw aside all such feel-
ings of partial individuality; and dedicates it, to the Faculty of the
University of Nashville as a slight
token of my profound respect and
esteem for them, as gentlemen and
Professors. And only would that I con-
ould contribute something more im-
perishable, than this disintegrat-
ed essay.
The importance of being able to distinguish correctly between pregnancy and disease is sufficiently obvious. Consider for a moment what an unpleasant position that of the Practitioner—who believing in the existence of ascites, ovarian tumor, or any disease of the uterus—pursues for weeks, perhaps for many daring, painful mental to the patient—an energetic plan of treatment which always fails to give that relief so earnestly desired. Notice him as he watches with breathless anxiety over the last, pale flickerings of the expiring hopes, as he thinks when to! There meets his trembling con
science, suddenly, the sad trophy of his mortified blindness—a dead, mutilated poet— the palpable result of his own unpardonable ignorance; or even by the birth at the full term of a living child, which has most miraculously struggled through its unnoticed existence; while the poor mother, less fortunate, has been cruelly tortured in worse than the inquisitorial fires—by the possessive officiousness of her sympa-thizing doctor. And again the honor; and consequently the hap-\_finesp, of a female; the peace of families and of neighborhoods may depend upon his knowledge, his decision. Then, how important that
every Physician should have in his possession all the signs connected with pregnancy.

Before detailing the signs of pregnancy, it may be necessary to notice briefly the anatomical structures of the uterus. This organ is composed of three tunics: an external or serous coat which is reflected from the peritoneum, on the sides of the organ constituting the broad ligaments, of a middle or muscular coat, which gives thickness to the organ; of an internal, the mucous coat, which covers interiorly its whole extent, and is continued to the Fallopian tubes and vagina. In the unimpregnated state, the muscular coat offers great
resistance owing to its peculiar condensed texture, and appears to be composed of whitish fibres. In the impregnated uterus, the fibres are of a larger size, and more distinctly seen than in the other conditions. This organ is abundantly supplied with blood vessels; but is not known as yet, whether it is supplied as highly with nerves. "When perfectly healthy and quiescent, the uterus measures, in the adult woman—about two inches or two and a half inches, in length, from its lower orifice to the middle of its fimbriae externally; nearly two inches in its greatest breadth between the Fallopian
attachments on each side, and about an inch and a quarter in the anteroposteriorly. Its cavity is triangular in form, and small in dimensions; the walls are in contact, or nearly so; it is smooth and contains nothing but a fine halitus, or vaporous fluid exhaled from the mucous membrane; except at the cervix, which contains under some circumstances, a small quantity of mucus, of a gelatinous consistence; secreted by this portion of the organ.

But as the external part of the neck, and the mouth, are the only parts that can be brought under vascular examination during life; they are, therefore, the only
parts of practical importance, which deserve our attention.

These parts present the appearance of a compressed mammary papilla, projection, the size of a large nipple, thicker above than below, having a truncated extremity with a transverse figure, each end of which is the rings in utero is turned slightly backward, very closely resembling in fact, the aperture from which it derives its name of as fissa. This figure is bounded behind and before by the labia, of which the anterior is considerably thicker and more rounded than the posterior; their opposing surfaces are maintained in close
contact. It presents a linear appearance slightly compressed in the middle, looking transverse, as we have already noticed; while the neck is firm and resisting to the touch.

After successful copulations the uterus begins to manifest those changes which are necessary for the impregnated ovum. From this time the womb begins to enlarge, first in its structure, and then the cavity. This enlargement is slow but uniform until about the fourth month, the womb tells us, but after this time and during the whole progress, the change is much more rapid.

This organ is of a pyriform s-
shape, with its fundus directed upwards, and being retained in situ, by the broad ligaments, while the apex is looking downwards and resting upon the section. During the earlier months of pregnancy it presents to a great degree its characteristic form; but during the latter months of gestation the cervix becomes almost obliterated, and is merged into the general cavity which assumes almost a spherical, or rather, spheroidal form.

According to an accurate observer, the lower part of the uterus will be found, about the third or fourth week of pregnancy, to have descended in the pelvis and to be resting on the section, in the hollow
ow of the sacrum. This phenomenon may be owing to the augmentation of its volume, or its increase in weight might cause it to gravitate to that point. Though the latter supposition is hardly tenable; when we consider that at a much later period, in the progress of internal deflation, and when the organ has increased in weight, progressively, that it ascends in the abdominal cavity. Reasoning, therefore, a fortiori, we are led to the conclusion that this descent is owing to the increase of bulk, which meeting with resistance, from the unyielding condition of the parts is made, so to speak, to rebound.
When the uterus has grown sufficiently large to fill entirely the cavity of the pelvis, its pressure upon the viscera in the immediate proximity is very considerable, so much so, as to interfere materially with their essential functions. The rectum suffers greatly from this cause; the grand organ presenting a mechanical impediment to the passage of feces; thus there may be an enormous accumulation of fecal matter in the intestines. But instead of this constipation, we sometimes have the opposite, such as affections of the bowel simulating dysentery. There is also great irritability of the bladder, occasioning frequent micturitions, or
there may be retention of urine instead of this. There is nausea & vomiting, dependent upon the sympa
thetic relation existing between
this organ and the stomach, and
a host of other symptoms almost
innumerable superadded to these.

The uterus remains in the cavity
of the pelvis until about the fou
rth month; after which time the
fundus may be easily felt, in
thin females, just above the sym
physis pubis; about the fifth m
onth it ascends as high, as midway
between the pubes and umbilici;
and gives a peculiar plumpness
and roundness to the inferior pa
rtn of the abdomen. After the
sixth month it reaches the um
bilious; this which before was marked by a considerable concavity is now protruded, and some instances projects far beyond the abdomen. During the seventh it ascends midway between the umbilicus and scolliculus cordis; at the end of the eighth month it reaches the ensiform cartilage, and fills the abdomen. During the ninth month it is somewhat increased in size, though descends a little.

It is proper to remark here, that at the fourth month of pregnancy; when the fundus of the womb is just above the pubes, there is usually felt some movements of the foetus in utero; this phenomenon is called quick-
This sensation is at first very feeble and though slight, is often accompanied by sickness of stomach and faintishness or even syncope. Though this sensation after a period becomes more manifest, so that the movement of the extremities are distinguishable. These movements of the foetus can be felt by placing the hand, cold, upon the abdomen. At first, this sign is uncertain but at an advanced period, it is one of the unmistakable signs.

We shall next notice the changes the os interacetae undergo. It is stated that during menstruation, the labia uteri are in a state
of high vascular turgescence, and the is linear although elongated, and having its boundaries somewhat relaxed, was nevertheless closed and linear except during the escape of the small menstrual clot. At the time of conception, the parts are thrown into a precisely similar condition; but no fluid escapes to relieve the turgescence; which consequently continues to increase. The linear, spire or linear appearance which characterizes the unimpregnated uterine undergoes a complete metamorphosis. The os now assumes an irregular, or elliptical form, sometimes rounded, or circular, and is dilatable. The labia are firm.
anciently separated; but in the un
impregnated organ, the labia
are in close apposition, and their
margins smooth and unindentat
ed. The cervix uteri, during its
whole length seems to be expa
nded; from an early period of
pregnancy, described as being
about the size of an ordinary
writing quill. It retains this size
until within about one month,
of the completion of the term,
when it merges into the general
uterine cavity. There is another
thing here worthy of notice;
there can be seen from an ear
ly period, after conception, a
gelatinous plug which occupies
the as and seems to distend it.
though this plug is continually being replaced by a new secretion which is going on; while the old plaster descends, and is dissolved in the vaginal mucus. This secretion is so small and insignificant as to be hardly noticeable by the patient. The manipulator may be led astray here, if his examinations be made during the separation of this plug. As we have already stated, the cervix undergoes a great change. The transformation discovered by tactile examination is very obvious; instead of that hardness and resistance of the parts, we have now a somewhat swollen condition of the organ; though it is soft and
elastic to the touch.

Now the only positive proofs of the existence of pregnancy are those afforded by the movements of the foetus in utero, communicated, either by the sense of touch, as before described, or by means of auscultation—the ear applied immediately to the abdomen, or through the intervention of the stethoscope. The information elicited by this means is unequivocal.

The first sound—placental—has been variously designated as the whiff placental, whiff, placental, whiff placental, whiff placental bellows sound &c. This sound can be detected over
the site of the placenta, and is occasioned by the circulating current through the placenta as some authors have maintained—while others attribute it to the uterine sinuses; it is in all probability from both sources.

This sound is synchronous with the systole of the maternal heart, and may be heard about the fourth month of pregnancy through it may be heard at a much earlier period; sometimes it can be detected just before quickening.

When perfectly audible, and unconnected with any disease of the organ, it is an unerring sign of pregnancy.

The next sound that attracts
our attention is called, learnedly
the limit decussus foetal, dou-
be battlements etc. A sound pro-
uced by the diastole and systo-
le of the heart foetal. This
is different from the limit
placentaire; and consists in
a rapid pulsation of the foetal
heart, which has been compared
to the ticking of a clock hung
a little out of equilibrium. The
pulsations are much more freque-
t than that of the mother;
being about 140 to 150 a minute.

The situation in which the
foetal heart is heard most dis-
stinctly, is about the middle,
or inferior, abdominal region; more frequently on the left, than
on the right side. This sound is heard about the middle of the fourth, or beginning of the fifth month; and is a positive sign that the woman is in古怪.

Another valuable, though equivocal sign, is obtained by successions, repercussions, or hallucination. This consists in placing the index finger of one hand on the uterus, it being introduced into the vagina, while the other hand is applied to the abdomen; then slightly jerking upwards the point of the finger; something will have felt to ascend from that point, if the woman be pregnant and will in a few moments descend.
again. By this gentle operation the foetus is made to ascend, and then being heavier than the fluid in which it floats it falls back again.

At a very early period of pregnancy say about two months after conception there is slight, but manifest, ten
gerness of the mammary glands accompanied by lancinating pains of the organ, shooting from its centre to the sphencterium, and also to the axillary region and shoulders. As pregnancy advances this tenderness be comes more obvious and occasionally towards the latter months of gestation on the gland secretes a small quantity of milk. The most important sign connected with this organ
and the one about which Authors have been so clamorous, is the areola which surrounds the nipple at an early period of conception this assumes a dark color; and its intensity is dependent upon the complexion of the female; being very dark in those whose complexions are so, and the converse in them who are fair. It may be proper to remark, that this discoloration is slight at first, but becomes darker as pregnancy advances. The papilla at the same time becomes enlarged and irritable, and the subcutaneous follicles surrounding it are also unusually developed; and secret as Prof. Watson has remarked— it is mistake not a sero-clastigious fluid.
This metamorphosis is an invaluable sign in the primiparas; though looses somewhat, its importance in who bore previous
delivery children; as this characteristic hue remains, after the first
pregnancy, through life; though is
visibly increased, during each suc
ceeding pregnancy.

The changes which the skin
and parenchymatous tissue in
endure, are very marked. The general
tendency is to emaciation; the ad
ipose tissue is absorbed; the eye lab
es are sunken in their sockets; the
cheeks fall, the nose pinched; the
skin which was fair and beautif
ul, has lost its freshness and
elasticity; and the countenance
nears an expression of great anxiety. With the advance of pregnancy, the skin becomes more attenuated, until the superficial veins can be very easily traced. Changes of the fluid products of the body are also deserving of attention. The quantity of the circulating fluid is augmented commensurate with the increased demand. The pulse is consequently accelerated, accompanied with an irregular distribution of animal heat. Blood drawn at this time exhibits a marked increase of fibrin. This may be detected a few weeks after conception.

Suppression of the catamenia is rather an auxiliary sign, though
worthy of some notice. It was once
looked upon and is now with the
ignorant as an unequivocal sign
of pregnancy; but enlightened in-
vestigation has ruled it, of its
unmerited claims. Menstruation, as
a general rule, is absent during
pregnancy and lactation; though
there are exceptions to this rule.

Extraordinary causes, strongly im-
pacting the systems, such as cold,
damp air &c., may suspend this
function, and then we have a
state simulating pregnancy so
far as the suppression of the me-
strual secretion is concerned. Causes
which act within the body, as disease of
the uterine disorders of the chylar
foetid viscera &c. &c. We have some
were cases, where menstruation has never existed, and yet it was unconnected with any disease what-
soever. And there are also other anomalous cases, where menstruation has only existed during the term of
gestation. Though this may be accounted a valuable sign—the suppression of the catamenia—
when it occurs without assignable cause; the female bearing the child leaving a platitude; and
being entirely free from any local or constitutional disease.