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PRESCRIPTIONS

—AND—

HOW TO USE THEM.

AN ANATOMICAL AND PHYSIOLOGICAL TREATISE

—ON THE—

HUMAN · BODY

WITH A PRACTICAL DESCRIPTION OF ITS

DISEASES

THEIR SYMPTOMS AND TREATMENT.

"For life is not to live, but to be well."—MARTIAL.

ANATOMY AND PHYSIOLOGY
BY PROF. GEORGE HENCKEL.

DISEASES AND THEIR TREATMENT
BY ORVILLE JUNE PERKINS, M. D.

VOLUME II.

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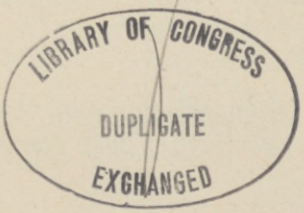

PREFACE.

Medical works, for home use, have hitherto, in a measure, been handicapped by the attempt to describe and treat the diseases of the *genital organs* in the same volume with the general diseases.

We have obviated this disadvantage by placing all subjects of a private nature, in a volume by themselves, thus anticipating any objection to the introduction of the work into the home, for fear that children of immature age will read and become wise before their time.

We are also able to introduce many topics never before touched upon in works of this character, and write of others in a more practical manner than we should, had the work been confined to one volume.

The necessary additional cost of making three volumes in place of two, has been great, but by doing our own publishing and taking advantage of the unusual advantages at hand for procuring materials, we are able to offer the work in three volumes at a price much less than usually asked for a single volume.

THE PUBLISHERS.

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PART FIRST

ANATOMY AND PHYSIOLOGY

OF THE

MALE AND FEMALE GENERATIVE ORGANS.

BY

PROF. GEORGE HENCKEL.

"Ignorance is the curse of God,
Knowledge, the wings wherewith we fly to Heaven."
—SHAKESPEARE.

VOL. II.

INTRODUCTION.

Of all the sayings of that wise Athenian philosopher, Socrates, none carry so much real advice as the old adage,

"*Know Thyself.*"

To accomplish this the human family must interest itself more, and at least endeavor to know how the act of life is accomplished and perpetuated through its progeny.

The organized parts of the animal body are undergoing constant molecular destruction and repair.

There seems to be a certain limit to this, so far, at least, as the vital properties of the tissues which involve self-generation are concerned.

Nutritive substances cannot be introduced into the system in such quantities as to produce growth beyond a certain point. We may limit, however, growth and development by a deficient supply.

Why such development takes place is perhaps beyond human comprehension, unless we assert that the parts formed are endowed with vital functions, on which life is directly dependent.

Just as well as we know that we cannot force development, we are also aware that we cannot arrest the gradual enfeeblement of the assimilative process of the tissues occurring in old age. Therefore we cannot conceive of a living tissue without decay and regeneration of its substance. Hence it is impossible for the organism to last for an indefinite time.

An invariable and inevitable consequence of individual life is death. The regular molecular destruction or transformation of living into effete matter of every tissue in the body is always, when life is on the down grade, and especially toward the end, superior to the power of repair.

While death is a due process of nature and the body after dissolution is merged into other elements, it being mostly appropriated by the vegetable kingdom, there are at a certain period of adult life, anatomical elements formed in the human subject, which, when they come together under proper and auspicious conditions, cause development of new life. Thus we have offspring, which in turn pass through the same course as parents.

CHAPTER I.

REPRODUCTION.

Through the concourse of male and female, at the proper period and under normal conditions, the human and all other species having life, are perpetuated and preserved, notwithstanding the limited existence of each individual.

These perpetuating functions are called reproduction or generation. As this part of the work is only intended for the developed mind, or at the farthest for those who are approaching that period, it is perhaps hardly necessary to remark that in the reproduction of the species, the young organism are produced from the bodies of the elder, the relations being that of parent and progeny, hence the latter owns its existence to an act of generation, and the new organisms thus produced, become in turn the parents of others which succeed them.

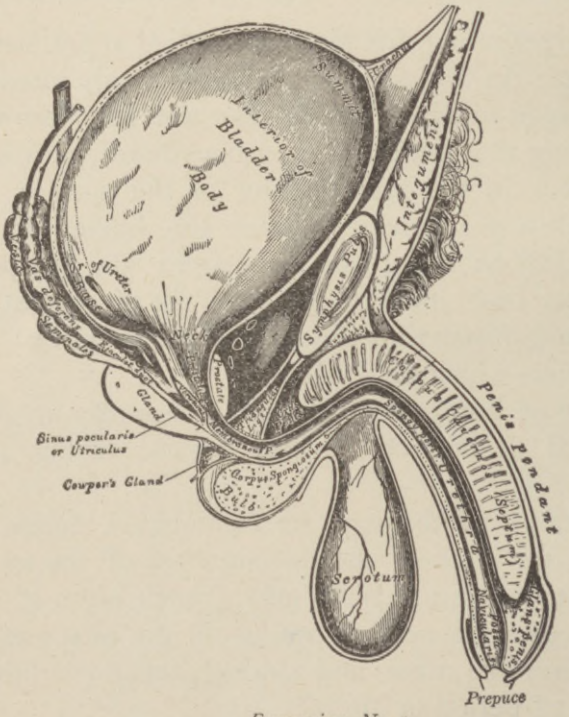
The study of human reproduction necessarily involves an anatomical description of the organs taking part therein.

The discharge of the egg, its fecundation during or immediately after coition ; the development of the fecundated egg into a fœtus, birth and growth after it, are physiological consequences, if union of the sexes takes place at a favorable time and under proper conditions during a limited period of life.

CHAPTER II.

MALE ORGANS OF GENERATION.

The Penis is the organ of copulation. In its interior it contains the larger portion of the urethra, through which the contents of the bladder are discharged.



Engraving No. 1.

Male Organs of Generation.

As will be noticed from above engraving, the corpus carvernosus forms the bulk of the penis. It consists of a

sponge-like tissue, freely intermeated by bloodvessels and highly elastic fibers.

During the phenomenon of erection it is this portion of the penis which is so extremely hard and apparently void of elasticity.

The Prostate Gland is a pale, firm, glandulous body, surrounding the neck of the bladder and commencement of the urethra. In shape and size it resembles a chestnut. This gland secretes a fluid which forms a part of the ejaculated semen. It is probably only given off at moment of ejaculation. Professor Kraus claims that it maintains the vitality of the spermatozoids.

The Glands of the Urethra or Cowper's Glands as these are also called, are two small rounded bodies of yellow color and about the size of peas. These little organs also secrete a fluid which is discharged with the semen, but to what purpose science has so far failed to demonstrate.

The Testicles or Testes are two diametrical organs situated in the scrotum, being suspended by the spermatic cord. The *Scrotum* is a pouch-like process of skin with a lateral division, forming two compartments, one for each testicle. Its external aspect varies under different circumstances. Under the influence of warmth, and in cold and debilitated persons it becomes elongated and flabby, but under the influence of cold and in the young and robust, it is short, corrugated and closely applied to the testicles.

The testes are ovoid in shape, varying in length from one and one-half to two inches, and are about from one to one and a quarter of an inch in diameter. The left testicle is often the larger of the two.

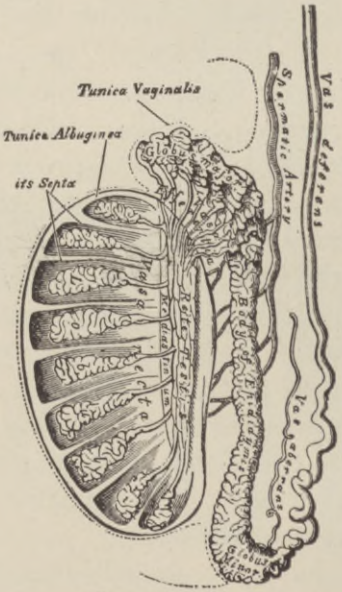
The testicles have a dense fibrous membrane of a bluish white color for a covering, which is called the "*Tunica Albuginea.*"

Beneath this membrane is another one called the "*Tunica Vasculosa,*" and is as its name indicates, the vas-

cular layer of the testicles, consisting of a plexus of blood-vessels, held together by a delicate tissue.

Lodged within the cavities formed by the above described membranes, are the seminiferous tubes, in which the male elements of generation are developed. These little tubes exist to the number of about 800 in each testicle and constitute almost the entire substance of the tubes. Each tube presents a convoluted mass, which under certain treatment can be unraveled and measures about thirty inches; its diameter varies between $\frac{1}{200}$ to $\frac{1}{150}$ of an inch. Interwoven with this tube are numerous blood-vessels and their ramifications.

To better understand the complicated structure of the testicles, we show their internal anatomy together with its excretory duct, in a graphic illustration.



Engraving No. 2.

Vertical Section of Testicles Dissected to Show Arrangement of Ducts.

The testicles are the glands in which that part of the semen is secreted which is known as the spermatozoids.

As the tubes pass out from the testicles proper, they unite in a convoluted mass, called the *epididymis*.

Vas Deferens.—This is the excretory duct of the testicles, formed by a single tube, and being a combination of the epididymis. At its origin it is somewhat tortuous, but enlarges and straightens out as it nears the bladder. Just before the junction with the neck of the bladder it is joined by the duct of the seminal vesicles. The course of the Vas Deferens (or semen-carrying vessel) is in the spermatic cord to the external abdominal ring, where it leaves, passes beneath the peritoneum of the bladder, by the inner side of the seminal vesicles, finally joining the duct of the seminal vesicles, and forms the ejaculatory duct, which opens into the prostatic portion of the urethra. The entire length of the vas deferens differs in different individuals, but two feet may be considered an average.

Seminal Vesicles.—Attached to the base of the bladder, externally of the vas deferens and above the rectum are two lobulated membraneous pouches, which bear the above name. They serve as reservoirs for the semen, and also secrete a fluid to be added to the secretions of the testicles. This fluid has no fecundating qualities, and its specific offices are shrouded in mystery.

As said before, the ejaculatory duct is formed from the various avenues carrying fluid from the various glands, the collection of which constitutes the semen, which passes into the urethra by which it is finally discharged during the process of coitus.

Semen, as eliminated from the male, is a thickish, white fluid of a peculiar odor, and consists of two parts, the semen liquor and solid particles or spermatozoids.

The liquor is transparent and colorless; it holds in suspense the solid particles, which are about at the ratio of 10 to 12 to 100 parts of the liquor.

The *spermatozoids* are the essential male elements, and

are solely produced within the substance of the testicles. They become mixed with the fluids of the other described glands in their passage toward the ejaculatory duct.

If the testicles be absent the fecundating power is lost; none of the other fluids secreted by the accessory organs of generation are able to perform the functions of the fecundating elements.

From the foregoing remarks it will be seen that the only interesting substances in the human semen, are the spermatozoids, the other secretions which have been mentioned and described, serve simply as a vehicle for the introduction of the spermatozoids into the generative passage of the female.

The spermatozoids, in their character of male germ cells, fecundate the female egg.

Engraving No. 3.

Spermatozoids Magnified 800 Times.

As will be noticed from the above engraving, spermatozoids consists of a head and tail. During the life of this germ, the tail is in active motion and the spermatozoids move about with considerable force and rapidity, pushing aside little particles with which they may come in contact, indicating their great vitality. Under favorable circumstances, especially in the generative passage of the female,

the movements continue for days, a fact of much importance. When these little spermatozoids of which the head measures only $\frac{1}{3000}$ inch long by $\frac{1}{8000}$ inch in breadth, the length of the tail being $\frac{1}{300}$ inch, come in contact with water their movements are speedily arrested, and life is destroyed in them.

Before man arrives at puberty, which is between the ages of fourteen and seventeen years, the semen does not possess fecundating powers.

These are the organs and their product with which the male is supplied by nature for the purpose of perpetuating his kind.

CHAPTER III.

THE MALE IN CHILDHOOD.

The child in its helplessness is entirely dependent for its welfare on the parents. The latter are surely the natural guardians, and in that capacity they watch the progressive unfolding of the senses of the infant—of his will, his reason, his passions and his virtues. While doing this, their progeny is moulded in accordance with their understanding, and so it has been for thousands of years that children have been born and received the loving care of the parents.

It is the duty of mothers and fathers to study the earliest mental growth of their children, for it will be useful to them as a bearing upon the future training. Only certain faculties are inborn in every man. If parents watch they will find from day to day in the first years of life of their child, that something occurs worthy of their observation, and having ultimately a great bearing upon mental and physical development. The study must begin with the observation of the sensations and movements of the child. There can be no mental activity without sensation to excite it by giving impressions and affording a basis for remembrances and comparisons. The sensations are preceded by the movements which begin, even before the child is born. The reciprocal action of sensation and movement lead us a step farther to the beginning of the development of the will. As soon as the will becomes effective, the intellect reveals itself, and at last the point is reached when inclination becomes a controlling influ-

ence ; the feelings assume a real form and the child begins to communicate its own purposes through muscular action and speech.

Therefore in the gradual stage of development mothers should watch their children, for every movement, every expression, and all the actions the little ones are capable of, are due to some impression.

The child is nursed. Why? Because if the appetite is not appeased the impression of hunger manifests itself, and is expressed in very plain though inarticulate language.

The child is usually bathed with the utmost regularity. Why? If the accumulations of excrement are not removed the child would soon receive an impression of discomfort, and its tender skin would soon become inflamed.

The child is clothed, always to the extent of the ability of the parents. Ask why? To aid the little one to maintain a proper temperature of the body. Leave the clothes off or supply them insufficiently, the impression of cold is given to the child.

The impressions causing children discomfort are numerous and might be extended indefinitely, but the three foregoing are deemed sufficient for the sake of illustration. They are usually removed when within the power of the parents, but how often are those giving the child a sensation of pleasure attended to?

In this connection we earnestly desire to draw the attention of mothers to a duty they owe their little boys. That is, in bathing or washing them special care should be taken to thoroughly cleanse their genital organs, and should they notice that the prepuce or foreskin protrudes beyond the head of the penis, or is apparently fastened to it, a reliable surgeon should be consulted with a view to removing a part of the foreskin. The hygienic laws, as promulgated by Moses, made circumcision compulsory and this command is still obeyed to this day by the Jews, for they know from practice that the removal of a part of the

foreskin prevents in a measure the accumulation between its folds of a whitish, grumous matter of a cheesy consistency. In cases where the foreskin prolapses and cannot be laid back without pain, the removal of the substance which is called "*Smegma*," cannot be accomplished. If it is allowed to accumulate, it causes the child an itching sensation. The child cannot express its displeasure, but as soon as its little muscles are sufficiently developed and the little fingers can be guided to the genitals, it endeavors to alleviate the itching sensation by scratching. The latter irritates the nerves located so abundantly in that region, the ever present blood is increased in volume. The sensation of itching is removed for the time being, and replaced by a sensation of pleasure. The child becomes tranquilized and perhaps under the influence of substituting gratification for discomfort falls asleep only to awake and find out that it still possesses a sensation of itching at the head of the penis. If not watched, corrected or ameliorated at least, the little boy will again resort to his own remedy and try to find relief in a procedure, which if unchecked, will surely lead in later years to the baneful practice of masturbation or self-pollution.

It is to be regretted that the first stages of self-pollution can already be detected in children of such tender years, and caused by a process of nature. Others again, where every safeguard has been employed, are initiated into the practice by unscrupulous servants and nurses. It is a well known fact that the last mentioned functionaries have their own comfort more at heart than the welfare of their charges. When the little ones cry and do not behave during the night, many servants will finger and tickle the genitals of the children, and thus quiet the youngsters by causing a sensation of pleasure, through the ecstasy of which sleep will be brought about.

If parents want children, which is but a natural desire, they should raise them without the pollution which

follows disobedience to the hygienic laws of washing, bathing, etc., or by putting them in charge of servants who have no conscience.

If you allow a child to pass from infancy to youth without observing and correcting this evil, rest assured that during the period preceding manhood the mental and physical constitution of the boy will be greatly injured if not ruined.

It is a recognizable fact that the foundation of manhood can be solidified or undermined during youth. It is to be regretted that the latter happens a great deal oftener than the former.

In exceptional cases we find a young man passing through the period preceding his majority, in accordance with the laws of nature, hygiene, morality and education.

Manhood is easily ruined during the period preceding it; by the prevalent practice of masturbation. Others call this secret vice "self-pollution," and in Biblical history it is called "Onanism." How a boy can be led innocently to this degrading practice has been described in the preceding lines. If a child has been so fortunate as to escape instruction in it during its earlier years, he must be further guarded, as plenty of opportunities will offer themselves to him to witness and perform upon himself this moral crime.

This secret vice can be traced to the earliest time, and even in the oldest history of events we find mention of it. (*Vide* Genesis xxxviii:8, 9.) It is practiced by persons in the lowest and by those in the highest grade of society. It commences already when humanity is yet in swaddling clothes, and ends only when self-pollution has accomplished its work, and landed the poor, miserable subject in an insane asylum, and from there to an early grave. No society can truthfully claim that it is free from this vice.

We hope that there are many of our readers who will

ask the question, what masturbation, self-pollution or onanism is, and what is meant by the names. Let it suffice, if we only state that it is but a miserable substitute for a gratification of the sexual passion, and usually performed by the hand. The word masturbation means literally translated, to commit "adultery by the hand."

The moral crime when once checked in youth is again resorted to if the child is allowed to pass hour after hour in reverie, or is thrown into the society of other boys who are addicted to the habit, and where through their sensualism his animal passions are aroused, he feels that his cravings must be satisfied, and for him the easiest and only way, is self pollution. Through the oft repeated indulgence it soon becomes from an occasional practice, a daily habit. The habit grows to such extent that in order to satisfy his constantly increasing desire, self pollution is resorted to as often as his already perverted mind demands.

The child if not corrected and firmly checked, when once caught at the practice of the vice (the earlier the better) will soon show the evil consequences. The bright eyes, the mirrors of the soul, become dull and sunken ; the once rosy cheeks look faded and ghastly ; the lips assume a waxy hue ; the mind becomes inactive. Memory is lost, appetite depraved, cerebral and spinal functions interfered with, the young disturber of his organs of generation loses all power, mental and physical, and his responsibility for the acts has ceased. The mind which God gave him has become diseased through habits of a partly self-engendered nature, causing ultimately death, not even envied by the rogue who feels the halter draw around his neck.

The father of medical science, Hippocrates, told to the old Greeks, when they imitated the vice taught by Mercury to Pan, that the male semen partook of all fluids of the body, and that it was of the most precious nature. Other sages of ancient times, whose physiology

is even to-day regarded as incontestable, express themselves that the semen is the quintescence of the body; nay, more, the substance in which body and soul commingle. The Creator destined male semen for the perpetuation of the species, and not to be spilled upon the ground.

The practice of onanism is surely a most loathsome vice, and one to which a sane person will not resort, to satisfy a sexual passion. It is beyond the comprehension of many how young men (for they never reach old age if they practice it) can choose such an abhorrent substitute for a purely physiological act.

Parents are happy in the possession of children, but with it goes the moral responsibility to inform them, as soon as their mind is sufficiently developed to comprehend, of everything which appertains to sexual matters.

Many mothers or fathers deem such advice perhaps as awful, and not in harmony with "their" sense of modesty; but would it not be better to lay this false modesty aside, and save the child from certain doom?

An ounce of prevention is better than a pound of cure, a saying as old as it is good. Hence see to it when your little ones scratch or finger their genitals that the cause of irritation is removed. Do not allow them to sleep with untrustworthy servants; wash their private parts at least once a day with cold water; remember what was said about the prepuce; allow them pure childish play; do not pen them up without giving them some occupation of body or mind; when they are able to read, see to it that they do not get hold of immoral literature; allow your boys to participate in legitimate sports; it will tire them, and drive mischief out of their heads.

Vice thrives and lives by concealment, therefore do not tire of giving your boys to understand that you are aware of their wrong doing. Kindness makes the child pliable, but rough bodily punishment leads to stubbornness.

When vice has been conquered, virtue reigns supreme, and rejoices in temptation.

"Those who pass their youth in vice, are justly condemned to pass their age in folly."—*Rambler.*

As the twig is bent the tree will grow, just so with the youth. Raise your child in simplicity and have a careful eye on him, especially as to the vice described in this chapter. Correct it by whatever mode you may deem expedient, as it matters not as long as you obtain the result desired.

Vice practiced in youth means decay during the period of manhood, as is so beautifully contrasted by Shakespeare:

"My way of life
Is fall'n into the sere, the yellow leaf:
And that which should accompany old age
As honor, love, obedience, troops of friends,
I must not look to have, but in their stead
Curses, not loud, but deep."

—*Macbeth, Act V, Scene III.*

"Though I look old, yet am I strong and lusty·
For in my youth I never did apply
Hot and rebellious liquors in my blood,
Nor did not, with unbashful forehead woo
The means of weakness and debility,
Therefore my age is as a lusty winter,
Frosty, but kindly."

—*As You Like It, Act II, Scene III.*

Any one practicing masturbation or fornication during youth, cannot expect anything but dotage during the period of manhood; but if virtue retains its supremacy till full development has taken place, you will enjoy the incidents to a happy married life unto a ripe age. Young man, leave the forbidden fruit alone until you are morally entitled to it; be assured that then it will taste ever so much better, and the enjoyment thereof will last longer.

There is no danger from continued abstinence of sexual

intercourse; no fear need be entertained that the life-giving fluid becomes excessive—nature regulates itself.

No young man would think of marrying a girl who has had carnal knowledge of others; therefore, why should men be more privileged and commit fornication? Young men are liable to argue with themselves and come to the conclusion, that, because they are men, such liberties may be taken by them. This, however, is poor logic, and when cogitating about wedlock and pleading for love in its purity, it should be an equal exchange on the part of man. Hence, if the latter cannot give what he does not possess, he commences a life partnership by cheating.

It is not our aim in these columns to lay down a moral code, or even describe it; we have only endeavored to draw attention to some salient facts in the life of the child, the youth and the young man. When the male has arrived at the age of manhood, it is not good for him to be alone, as the good book says, hence, if he can he should take unto himself a helpmeet, and in that mood we will leave him, till we have described the female organs of generation.

CHAPTER IV.

FEMALE ORGANS OF GENERATION.

For the better understanding of the situation and relation of the different organs to be described under this head, an engraving showing a bisection of the female pelvis is herewith incorporated. The careful study of it in connection with the text will greatly aid in a more perfect comprehension.

The Vulva—This name is applied to all the external parts, and include the following:

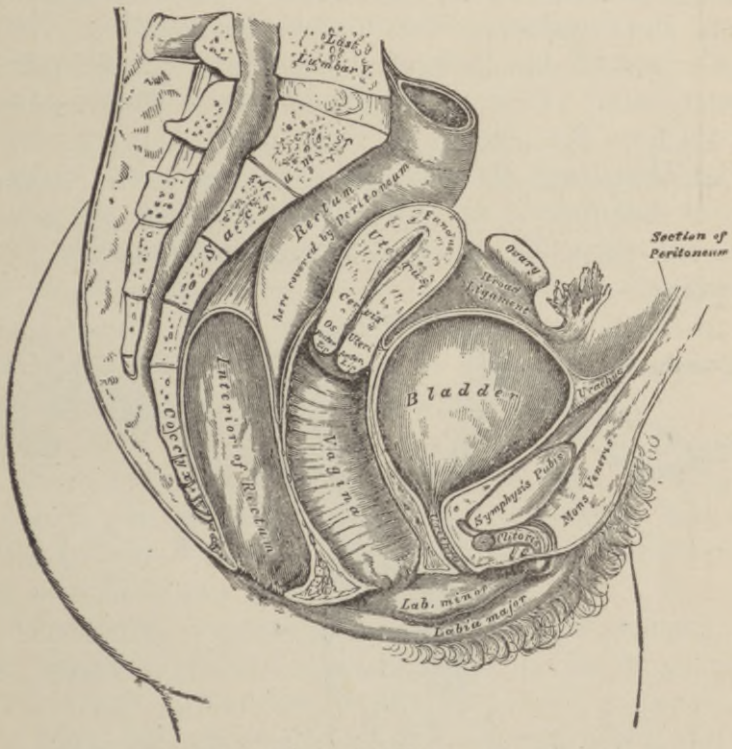
The *Mons Veneris*, or the rounded eminence in front of the pubes. It is formed by a collection of fatty tissues beneath the skin. It is covered with hair at the time of puberty.

The *Labia majora*, or large lips, are the two longitudinal folds, extending downward from the mons veneris to the anterior boundary of the perineum, and inclose an elliptical fissure—the common urino-sexual opening. The external part of the labia is formed by integument, while the interior is lined with a mucous membrane, which is continuous on its inward tract.

The *Labia minora*, or minor lips, are small folds of mucous membrane, situated within the labia majora.

The *Clitoris* is an erectile structure, analogous to the corpora cavernosa of the penis. It is situated between the upper folds of the labia minora. The clitoris corresponds to the penis of the male, and possesses true erectile tissue, which plays during sexual intercourse a somewhat prominent part.

The Hymen is a thin fold of mucous membrane across the orifice of the vagina. Occasionally this membrane forms a complete partition across the opening of the vagina. At other times it is perforated in the center, or its free margin forms a membranous fringe. It is not unusual that it is entirely absent. Then, cases have been



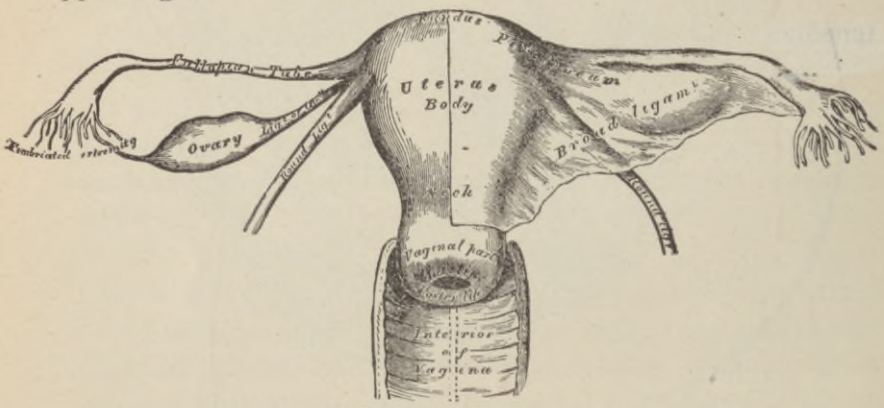
Engraving No. 4.

Female Organs of Generation.

observed where it existed after copulation. The hymen cannot be consistently considered as a test of virginity. It may have been ruptured through strain, lifting, climbing ladders or other physical exertions, and if found in such condition the absence or perforation of it should under no circumstances be regarded as evidence that the young woman had been guilty of an indiscretion.

The Vagina is a membranous canal, extending from the vulva to the womb. The reader should, however, bear in mind that although in the diagram the vagina is represented for clearness as an open tube or canal, it is not so in its normal condition, but its walls are in contact with each other. The canal is about 4 to 4½ inches in length. At its commencement it is constricted, but becomes wider toward the womb. The vagina surrounds the neck of the uterus and makes attachment to it. It is quite extensile, as it during parturition allows the passage of the child.

The Uterus is the organ of gestation, and in order to better comprehend its anatomy and functions, we give below an engraving of the same, together with its appendages.



Engraving No. 5.

The Uterus and its Appendages.

The uterus or womb as it is commonly called, is a pear shaped body, presenting a fundus, body and neck. At its lower extremity is an opening into the vagina, which is known as the mouth of the womb, or *os uteri.*

In structure the womb is composed of three coats; the external or serous, the middle or muscular, and the internal or mucous. It is permeated by numerous blood-vessels, which during gestation become greatly enlarged.

The cavity of the womb is small in comparison with the size of the organ, but in its character of elasticity it conforms during gestation to the gradual growth of the fœtus.

The Ovaries are appendages of the womb, and oval shaped elongated bodies, situated on each side thereof in the posterior part of the broad ligament, and behind and below the Fallopian tubes. The engraving No. 5 shows on the left side the ligament just mentioned, and on the right side where it is dissected away. The ovaries are of a whitish color, and present either a smooth or puckered surface. They are held in place by the ligaments as shown in engraving No. 5.

The ovaries are analogous to the testes of the male. In structure the ovaries are very simple, consisting of [illegible]ive tissue of several layers, in the substance of [illegible] are embedded the *ova* or *eggs*, which again are inclosed in sacs, called the *Graafian follicles.*

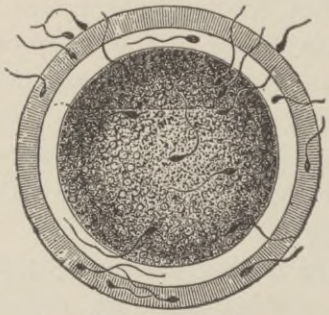
An adult female doubtless possesses several thousand of these follicles. The exact number varies greatly in different persons, and it is hard to determine. Many of these follicles never become fully developed, while others are atrophied and are thus made useless.

The most interesting stage in the development of the Graafian follicle is observed at the period of puberty. At this time a great number of them (usually between ten and forty) enlarge, so that all sizes are noticeable, varying in size from $\frac{1}{125}$ to $\frac{2}{5}$ of an inch in diameter.

When fully matured these follicles present several coats with an albuminous liquid, and project just beneath the surface.

Contained within the Graafian follicles lies the *ovum* or *egg*, the size of a ripe one in the human subject being about $\frac{1}{125}$ of an inch. This small germ has a membrane covering the granular mass called the "*vitellus*" or *yolk.* The vitelline membrane of the ovum is clear, quite strong

and resisting, measuring a hardly conceivable thickness of $\frac{1}{2500}$ of an inch. It is perforated freely, and there is no doubt that these little holes are the openings through which the spermatozoid or fecundating part of the male semen passes, thus accomplishing its purpose.



Engraving No. 6.

Penetration of Spermatozoids into Ovum, Magnified 500 Times.

The Vitellus or internal part of the egg contains the elements which undergo development toward the first rudiments of new life.

Absence of ovaries in the female, caused by operation or otherwise, precludes the possibility of becoming pregnant.

The Fallopian Tubes or Oviducts are two in number, one on each side of the womb, and are situated in the free upper margin of the broad ligament. Each tube is about four inches in length; its canal is exceedingly minute. They commence at the upper part of the uterus by a small orifice, continuing narrow along the inner half, and gradually widen out in funnel shaped extremities. The margins are surrounded by fringe-like processes, one of which connects with the outer end of the ovary. The fringed process is called the *fimbriated extremity.*

The offices of the Fallopian tubes is the conduction of the egg from the ovaries to the cavity of the womb.

Discharge of the Egg. The Graafian vesicles, after gradually approaching the surface of the ovary, burst. The egg and the fluid contents of the vesicle are liberated, and escape on the exterior of the ovary, passing thence into the oviduct, the fimbriated process of which is supposed to grasp the ovary; the aperture of the tube being applied to the part where the matured vessel bursted.

In the human female the discharge of the egg occurs at regular periods only, and is indicated by the phenomena of menstruation.

Among the neighboring organs of those of generation are the *bladder*, which is shown on engraving No. 4, lying in front of the vagina; its excretory duct is the *urethra*, which terminates between the two labia minora. The rectum is situated posteriorly to the vagina.

The Mammary Glands or Breasts.—These are accessory organs of generation, and secrete the milk for the nourishment for the new born.

These glands exist in the males as well as in the females, but in the former only in a rudimentary form. The human mammary glands are surely the most remarkable organs in the economy, a sort of kitchen, carefully superintended by nature, as if the human mind was incapable to prepare the food for the sustenance of the young child. Its anatomy is surely known to those interested. The mechanism of secretion of the milk is of much importance, but little understood, and belongs, strictly speaking, to the phenomena in life. It is known, however, that milk is a secretion from the blood, but many of its constituents, such as sugar of milk, caseine and fatty particles are formed from substances given off by the blood in the glands themselves. During the period of secretion the confluence of blood to the glands is increased. The secreting portions of the glands are usually increased during pregnancy, preparing, in fact, the accessory organs

for the functions to be performed in due course of time. As long as it is positively known that milk is a secretion from the blood, it must be evident that the child nourished by the mother partakes in a measure from her blood, as modified in the transformation from blood into milk.

It is a well-known fact that the secretion of the milk is much affected by mental emotions, similar to the secretions of the digestive fluids.

A case of this kind is mentioned by Sir Astley Cooper, that the secretion of milk was instantly and permanently arrested by terror.

In regard to the quantity of milk secreted, no reliable estimate of the amount given off during twenty-four hours can be given, it being variable to a great extent in different persons. A French scientist made observations on sixty-seven persons, and found that the average quantity discharged during twenty-four hours amounted to forty-four and one-half fluid ounces, or two and three-fourths pints. Thus it may be fairly assumed by taking into consideration the evident variations in the quantity of milk secreted by different women, that the daily production is from two to three pints.

Human milk does not differ in general appearance from that of the cow, only that it is not so white and opaque as the latter. On a close examination it will be found to have a slightly bluish tinge (even this differs in different women); is nearly inodorous, and of a peculiar sweet, soft taste.

For comparison's sake we give the average analysis of human and cow's milk, which will about denote the difference in their constituents as to quantity of ingredients:

IN 1,000 PARTS.

	HUMAN.	COWS.
1. Water	885	864
2. Albuminous matter, such as caseine, etc	34	43

3.	Sugar of milk.....	43	52
4.	Fat (butter).....	31	37
5.	Mineral salts.....	7	4
		1,000	1,000

From the above analysis it will be noticed that human milk contains twenty-one more parts of water; nine parts less of albumen formers; nine parts less of sugar of milk; six parts less of fat, and three more of the different mineral salts. It is for this reason that the milk of the cow is deficient in some ingredients and rich in others, which of course cannot be ameliorated by the simple addition of water and sugar. Water added would equalize in a measure the parts marked two to four, but would make the deficiency of mineral salts still greater, and deprive the child of the bone building substances.

CHAPTER V.

PUBERTY.

When a female arrives at a certain period of life, usually between the ages of thirteen and sixteen, a remarkable change takes place within her. This period is called the age of puberty, and is the beginning of that stage of life where the capability of conception and the bearing of children is established.

The young girl shows this change by a development of the body generally, but especially is it noticeable by the more rounded form of her limbs; hair grows about her generative organs, and the breasts increase in size. The period is further evidenced by changes in the moral and physical attributes of the female, developing the instinctive consciousness of a capacity for new functions, and which is usually accompanied by an indescribable feeling for the opposite sex.

The age of puberty varies somewhat in different climes, thus in the tropical regions young girls arrive at this period considerably earlier than those in temperate or cold latitudes.

It is at this time that females begin to menstruate, and the first appearance of this function can be considered as the definite arrival of the age of puberty.

Menstruation.—The generative apparatus of the human female is marked by a group of phenomena usually known as *menstruation*, by which is understood the periodic flow of blood and bloody fluid from the womb. The flow commences at puberty and recurs regularly every

lunar month, unless checked by ill health or interferences of an unnatural kind. The menses are also absent during pregnancy, and continue so usually till the end of lactation, after which they make their regular monthly appearance till entirely checked. The complete cessation of the monthly flow occurs at about the 45th year. In some women it occurs at an earlier stage of life, whilst in others menstruation is regularly carried on till twoscore and ten has been passed. The time when the menses become irregular and finally stop entirely, is usually termed the change of life, or critical period.

The blood discharged from the womb during menstruation, is a collection of that incident to the breaking up of the Graafian follicles and excretions of the mucous membrane of the uterus. The elimination of blood and mucus might be termed a periodical cleansing of these accumulations at regular recurring intervals, except under circumstances as noted.

When the menstrual flow is about to commence, females are usually affected with some degree of lassitude, a heavy feeling in the pelvis, and very little inclination to society. In some persons these symptoms are but slight, while in others they are more aggravated, bordering nearly the pathological state.

The matter first discharged is yellowish, then soon becomes a rusty brown color from the admixture of blood. In the course of a day or two, the discharged mass is nearly pure blood. The unpleasant sensations at first manifested subside, when the flow is once well established, and continues in smaller quantities for two or three days longer, and finally disappears entirely. When the process has come to an end, no disturbances take place till the next menstruation takes place.

Physiologists are not united in their opinions whether the Graafian follicle becomes ruptured and the egg freed therefrom prior, during, or immediately after the men-

strual flow ; it is assumed, however, and that with a good assurance, that it does take place during one of these stages mentioned, and incident thereto the egg finds its way into the Fallopian duct. The escape of the egg is regulated beyond a doubt by the condition of the female, as well as by that of the membranes covering the follicles. The passage of the egg into the oviduct constitutes the most important part in reproduction of the human species.

It would be utter folly to deny the existence of the God-given instinct in regard to obeying the laws of nature in reference to the multiplying of the species, and so noticeable in the lower animals. In human females this feeling is suppressed, and their sentiments toward the male are subordinated to the artificial conditions of society and civilization. Incongruous would be a mild expression were we to gainsay that a female immediately after her courses has not a desire to have her sexual temperament tranquilized. Exceptions to this rule are of course to be found, inasmuch as some women rarely experience sexual excitement, and are even void of feeling of satisfaction during intercourse with the male.

The natural modesty with which the pure woman is so richly imbued, precludes the determination whether the sexual desire and ardor is at any time so marked as in the male.

CHAPTER VI.

THE FEMALE DURING CHILDHOOD AND YOUTH.

The advice given in regard to boys, under a similar chapter, is applicable to the female.

Boys, during a period of childhood, are usually allowed a wider range than girls, in their play and childish sport. It being the time when the foundation for a robust constitution is laid, one can plainly see the consequences in the two sexes; one strong and healthy, the other peevish and delicate. These results are best illustrated by comparing the hardy flowers raised in an open garden, where wind, rain and sunshine harden them, and those raised in a conservatory, beautiful to behold, fragrant, but how easily withered when surrounded by another atmosphere than that in which they were raised.

The faulty rearing of little girls can be daily evidenced by the many dwarfed and sickly looking women. There is no good reason why young girls should not be made robust, and be brought up in a manner which will enable them to weather the storms they are bound to encounter during life.

During the period of youth the minds of the future wives and mothers are being moulded by means of education. It is well that it is so, for education has brought about the eminent spheres women nowadays occupy in nearly all walks of life. Education sharpens their intelligence, and enables them to make the dark side of life luminous.

The matter of education is not exactly one of a physiological nature, but as it modifies in a certain degree a strictly physiological life, it is but proper to incorporate in this work a few remarks on the system of education in this country.

The education furnished in the free and public schools will prepare men or women for the ordinary walks of life. This is especially the case, when parents take sufficient interest in their children, and see to it that their girls and boys take advantage of all the benefits the public schools bestow. Many sectarians decry the system, alleging as one of the reasons, the mixed classes of males and females. They claim that it arouses sexual feelings in the youngsters, and sends them on a down grade. If this plea were made with pure motives, and could be substantiated by facts, it should surely receive proper consideration with a view to separating the sexes in school.

Nothing can be conceived which is freer from moral defilement, than a newborn child, and surely the little mite, as it reaches the world, is purity in the fullest sense of the word.

Our hands become soiled by contact with dirt, so will the pure mind of the child if it is contaminated by its first surroundings. Let parents therefore be careful in making their impressions upon the minds of their children, as the ideas inculcated into them during childhood, become fastened and are hard to eradicate.

Hence, if the children are born in purity, it rests entirely with the parents to keep them in that state and if so preserved up to schooling age, the little girls and boys will not be harmed by the interchange of the childish glances of affection.

That class of so-called moralists, who insist, when a boy looks at a young girl or vice versa, that sexual feelings are aroused in either of them, are simply judging others by themselves. From the experience of their

earlier days, during which their own animal proclivities were neither guided or checked by their parents, they cannot imagine purity in others. These "professional" moralists are either afflicted with aberration of their own minds, or are so defiled, that they cannot understand the old but true adage, "To the pure there is nothing impure."

That sexual desire is born in the human being as well as the lower animal can be evidenced daily. It is likewise true, that nature does not assert itself till maturity is reached, provided a purely physiological life is led. When they appear before this period, they are unnatural and result from a perverted mind. The latter can only be caused from contagion, and it is just as easy for parents to guard their charges against a moral pest as contagious diseases of the body.

Therefore, care should be taken by parents or guardians in the selection of the surroundings or places where the young girls have to pass their earlier days.

Young girls, with their immature judgment cannot discriminate, when thrown in contact with others practicing a secret vice, and are liable to follow and thereby become defiled. It is only the moral atmosphere which prepares a young girl for her destiny. It is unwise in parents or guardians to allow their daughters or charges to dream away their time, read "yellow" covered literature, or to grow up without suitable mental and physical occupation.

It is with regret that we feel obliged to call attention to the fact, that masturbation is also practiced by girls and that even to an alarming extent.

Masturbation is in a certain sense a contagious evil. Many young girls have been led into it by those older in vice, just for the novelty of the thing at first and it is then continued inasmuch as in the operation a bodily pleasure is felt, only however to an already depraved mind.

When young girls show symptoms of leucorrhœa (whites) or inflammation of the vulva and vagina, you are safe in becoming suspicious, as medical statistics show that many of such diseases if occurring during childhood or youth are the consequences of masturbation.

When the mucous membrane of any part of the body is irritated, there is an increased secretion, and this is specially the case in the membranes of the female organs. The waste of these before maturity under habitual irritation, is equal to drawing the sap from a young tree. It may live, when the practice is discontinued, but surely its growth has been interfered with and its majestic beauty is absent when further advanced.

The phenomenal change at the age of puberty and the cessation of the menses, are the most important epochs in a woman's life, for during the period embraced between them, females are capable of fulfilling the mandates of nature.

A want of knowledge in reference to this subject, or a sense of false modesty often prevents mothers from informing their daughters of the important change about to take place within them as they approach toward womanhood.

We know of many sensible mothers who have promptly instructed their daughters prior to the event of everything which is to take place, and have thereby guided their children through a dangerous period.

On the other hand, there are many mothers who have girls in whom puberty is about to be established and who from an over nicety of breeding, deem it not the proper thing to speak to their own flesh and blood on the subject. To these mothers we fervently hope a little plain common sense advice will not be amiss.

From their own experience they must know and surely are enabled to observe, when a child nears her transition,

and at this time, the mother being the natural confidant of her daughter, should give her a very plain talk of what is about to occur and that she need not feel in any way anxious at the emission of mucus and blood; that these things are in the due course of nature; she had herself passed through the same experience, as well as all other women when arriving at that period of life. The mother should also advise her daughter, not to resort to cold baths about the time of the first menses, or subject herself to unnecessary danger in catching cold; as such things are liable to suppress the menses, and lay the seed for wearisome disease.

CHAPTER VII.

MAN AND WOMAN.

The God-ordained law, that it is not good for man and woman to live alone, is perhaps more readily complied with than any other command, and when the proper time arrives consummation of the union of the sexes, under proper auspices is usually the course of human events.

To fix the proper age at which marriage should take place is not easy, for some young ladies at seventeen or eighteen years of age are better developed mentally and physically than others are at twenty-five years. It will entirely depend whether education is completed, the body physically developed and the mind in a condition to withstand the strain incident to matrimony.

Man is seldom developed till he has reached his twenty-fifth or thirtieth year, and when physically and mentally capable to support a life partner, he should not seek happiness alone.

Men and women are not drawn to each other simply for the purpose of gratifying their passions, but the purpose of union is one brought about pre-eminently by a feeling of attachment, induced by that which commands respect and admiration. These indescribable feelings can be expressed in one word, "Love," and without it, married life is a failure.

It therefore behooves the contracting parties, before they launch upon the sea of matrimony to cogitate whether their hearts, the source of all passions and sentiments, are compatible.

While fair minded people must acknowledge the existence of grounds which justify the separation of man and wife, many of the disgraceful scenes incident to the sundering of wedded ties might be avoided, had the principals in the drama, allowed their ardor to cool, and reflected before the union for better or worse had been consummated.

CHAPTER VIII.

SEXUAL INTERCOURSE.

The physiological acts performed in due course of married life, need no description at our hands. The desire is instinctive and coition can take place between the sexes under normal conditions.

The generative act, as far as the male is concerned, is accomplished as soon as the seminal fluid has been ejaculated during intercourse.

It is different however, with the females, as the true generative act only begins when the spermatozoids of the male fecundate the egg, which usually takes place in the oviducts; during the passage of the egg toward the womb. (See engraving No. 6).

In the latter organ, the fecundated egg finds a temporary abode, and is nourished by the female.

It often happens however, that the egg does not come in contact with the spermatozoids and then the former after being received into the womb is lost or decomposed.

EMBRYONIC AND FŒTAL DEVELOPMENT.

After the impregnated egg is lodged in the womb, a wonderful change takes place therein, inasmuch as it is prepared and properly fitted for the protection of the egg and its development during the time of gestation.

As the development of the egg advances, the womb is enlarged, and its walls are thickened. The form of the organ also gradually changes, as well as its position.

It must be evident, on account of the progressive increase in the size of the womb during pregnancy, that it cannot remain in the cavity of the pelvis at the latter months. During the first three months, however, when it is not too large for the pelvis, it sinks back into the hollow of the sacrum, the fundus being directed somewhat backward. After this time however, the increased size of the organ causes it to extend into the abdominal cavity, so that its fundus reaches the epigastric regions (below the ribs).

The wonderful growth from a fecundated egg during the period of gestation, which in round figures is reckoned at nine calendar or ten lunar months, presents many interesting features. It is for this reason that we mention the progressive life of the fœtus.

At the end of the *first* month the body is elongated, straight, attached at its lower extremity by a very short cord to the membrane; head but slightly distinguishable; no appearance of arms and legs; bladder and liver very large; the mouth is represented by a cleft; the eyes shown by two dark spots, and the average length is about one-half inch.

During the *second month* the body is curved, head very large, but the neck is scarcely defined; face with its opening perceptible; extremities quite distinct; navel cord quite noticeable; the heart and genitals visible; average length about one and one-half inches at the end of second month. At this period the placenta (after-birth) commences to form.

At the end of *three months* the extremities are divided in their parts; fingers and toes webbed; genitals quite distinct; lungs, spleen and kidneys distinct; cerebro-spinal axis divisible into its leading parts, and nervous structure apparent, though its consistency is very soft; ventricles of heart separate; eyelids joined together;

mouth and anus closed; nose and ears present. Average length about two and one-half inches.

At the end of *four months* the sexes are distinguishable; mouth and anus open; nails appearing. Average length about five and one-half inches, and weight three ounces.

At the end of the *fifth month* the skin is tolerably dense; nails and hair traceable; head, heart and kidneys large; gall-bladder formed; white matter of brain present. Average length, six inches; weight, six ounces. At this time the movements are usually plainly felt by the mother.

At the *sixth month* the liver is large and red; the gall bladder contains some fluid; testes near the kidneys; hair distinct; eyelids closed; pupillary membrane still present; skin fibrous and covered with fatty matter. Weight about one pound, and usually nine inches long.

At the end of *seventh month* the brain presents greater firmness; eyelids open; pupillary membrane ruptured; skin much firmer, and red; nails more distinct; testicles descending. Weight about three pounds; length thirteen inches.

At the end of *eight months* convolutions of brain appear; pupillary membrane gone; skin covered with fatty matter; nails at end of fingers; testicles in the inguinal canal. Average weight four and one-half pounds; length fifteen inches.

At *full term of gestation* the white and gray matter of the brain are distinct; convolutions well marked; nails horny and reaching beyond the fingers; those of the toes are not quite so long; the skin is deep red; hair more or less abundant; testes in the scrotum; meconium in the rectum; the navel is situated just midway between the head and feet. The usual weight is from six to eight pounds; length from eighteen to twenty inches.

In the above account no mention is made of the ossification or formation of bones. The first formation of

bone occurs in the shoulder-bone, at about the sixth week; next comes the lower jawbone; then the vertebræ, humerus, femur, ribs, and occipital bones. At the beginning of the third month ossification commences at the shoulder-blade, frontal bone, radius, ulna, tibia, fibula and upper jawbone. At the end of the same month it may be seen in the metatarsal, metacarpal, and phalanges of hand and feet, together with most of the cranial bones. During fourth month the hip-bones, bones of the ear and the sacrum begin to ossify. The remainder of the bones are formed during the balance of the fœtal life; but it often happens that the hyoid or tongue bone is not completely ossified at full term.

FŒTAL CIRCULATION.

The arteries of the womb (being branches of the two internal iliac arteries) of a pregnant female enlarge correspondingly with the womb, which receives the arterial blood by that source. The placenta forms at the time mentioned, by means of irregular intermeating dovetails. Through this the venous vascular system of the placenta imbibes in the arterial blood of the mother's womb, and carries it by way of the umbilical vein to the body of the fœtus. Therefore the mother's blood sustains fœtal life and growth of the same. The arterial blood of the mother also furnishes to the fœtus the required quantity of oxygen. When the arterial blood thus furnished to the fœtus has become vitiated, and fulfilled its functions, it is returned by way of the right and left hypogastric arteries to the placenta, where in turn the venous system of the womb takes up the returned blood, for the purpose of ultimate reoxygenation and use throughout the system.

The umbilical vein and two hypogastric arteries, after they leave the body of the fœtus, form the umbilical cord or navel string.

DURATION OF PREGNANCY.

The duration of pregnancy is a matter of much interest to those concerned, and in some cases it is a question of great moment in its medico-legal relations. While the time can be pretty accurately established, there are isolated cases where the course of nature did not adhere to ten lunar months or 280 days (equal to nine calendar months and one week).

For the convenience of our readers we reproduce herewith a table for estimating the probable duration of pregnancy, and hope that it will be found useful as a kind of ready reckoner in estimating the probable date of delivery in any given case. Two hundred and eighty days, forty weeks, ten lunar months or nine calendar months and a week, are the basis of estimate for the ordinary duration of pregnancy in the human female. In using the table, the day named in first column is supposed to be the day when conception has taken place, quickening on that in the middle column, being about the middle of the ordinary duration of pregnancy. Delivery may be anticipated on or about the day fixed in the third column. Of course it may vary within two or three days; but if carefully calculated either from day of conception or from that of quickening, the date given in last column may be considered reliable, and delivery expected thereon:

TABLE FOR ESTIMATING THE PROBABLE DURATION OF PREGNANCY.

JANUARY.			FEBRUARY.			MARCH.		
CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.
Jan. 1	May 20	Oct. 8	Feb. 1	June 20	Nov. 8	Mar. 1	July 18	Dec. 6
2	21	9	2	21	9	2	19	7
3	22	10	3	22	10	3	20	8
4	23	11	4	23	11	4	21	9
5	24	12	5	24	12	5	22	10
6	25	13	6	25	13	6	23	11
7	26	14	7	26	14	7	24	12
8	27	15	8	27	15	8	25	13
9	28	16	9	28	16	9	26	14
10	29	17	10	29	17	10	27	15
11	30	18	11	30	18	11	28	16
12	31	19	12	July 1	19	12	29	17
13	June 1	20	13	2	20	13	30	18
14	2	21	14	3	21	14	31	19
15	3	22	15	4	22	15	Aug. 1	20
16	4	23	16	5	23	16	2	21
17	5	24	17	6	24	17	3	22
18	6	25	18	7	25	18	4	23
19	7	26	19	8	26	19	5	24
20	8	27	20	9	27	20	6	25
21	9	28	21	10	28	21	7	26
22	10	29	22	11	29	22	8	27
23	11	30	23	12	30	23	9	28
24	12	31	24	13	Dec. 1	24	10	29
25	13	Nov. 1	25	14	2	25	11	30
26	14	2	26	15	3	26	12	31
27	15	3	27	16	4	27	13	Jan. 1
28	16	4	28	17	5	28	14	2
29	17	5				29	15	3
30	18	6				30	16	4
31	19	7				31	17	5

PREGNANCY TABLE—CONTINUED.

APRIL.			MAY.			JUNE.		
CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.
April 1	Aug. 18	Jan. 6	May 1	Sept. 17	Feb. 5	June 1	Oct. 18	Mar. 8
2	19	7	2	18	6	2	19	9
3	20	8	3	19	7	3	20	10
4	21	9	4	20	8	4	21	11
5	22	10	5	21	9	5	22	12
6	23	11	6	22	10	6	23	13
7	24	12	7	23	11	7	24	14
8	25	13	8	24	12	8	25	15
9	26	14	9	25	13	9	26	16
10	27	15	10	26	14	10	27	17
11	28	16	11	27	15	11	28	18
12	29	17	12	28	16	12	29	19
13	30	18	13	29	17	13	30	20
14	31	19	14	30	18	14	31	21
15	Sept. 1	20	15	Oct. 1	19	15	Nov. 1	22
16	2	21	16	2	20	16	2	23
17	3	22	17	3	21	17	3	24
18	4	23	18	4	22	18	4	25
19	5	24	19	5	23	19	5	26
20	6	25	20	6	24	20	6	27
21	7	26	21	7	25	21	7	28
22	8	27	22	8	26	22	8	29
23	9	28	23	9	27	23	9	30
24	10	29	24	10	28	24	10	31
25	11	30	25	11	Mar. 1	25	11	Apr. 1
26	12	31	26	12	2	26	12	2
27	13	Feb. 1	27	13	3	27	13	3
28	14	2	28	14	4	28	14	4
29	15	3	29	15	5	29	15	5
30	16	4	30	16	6	30	16	6
			31	17	7			

PREGNANCY TABLE—CONTINUED.

JULY.			AUGUST.			SEPTEMBER.		
CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.
July 1	Nov. 17	April 7	Aug. 1	Dec. 18	May 8	Sept. 1	Jan. 18	June 8
2	18	8	2	19	9	2	19	9
3	19	9	3	20	10	3	20	10
4	20	10	4	21	11	4	21	11
5	21	11	5	22	12	5	22	12
6	22	12	6	23	13	6	23	13
7	23	13	7	24	14	7	24	14
8	24	14	8	25	15	8	25	15
9	25	15	9	26	16	9	26	16
10	26	16	10	27	17	10	27	17
11	27	17	11	28	18	11	28	18
12	28	18	12	29	19	12	29	19
13	29	19	13	30	20	13	30	20
14	30	20	14	31	21	14	31	21
15	Dec. 1	21	15	Jan. 1	22	15	Feb. 1	22
16	2	22	16	2	23	16	2	23
17	3	23	17	3	24	17	3	24
18	4	24	18	4	25	18	4	25
19	5	25	19	5	26	19	5	26
20	6	26	20	6	27	20	6	27
21	7	27	21	7	28	21	7	28
22	8	28	22	8	29	22	8	29
23	9	29	23	9	30	23	9	30
24	10	30	24	10	31	24	10	July 1
25	11	May 1	25	11	June 1	25	11	2
26	12	2	26	12	2	26	12	3
27	13	3	27	13	3	27	13	4
28	14	4	28	14	4	28	14	5
29	15	5	29	15	5	29	15	6
30	16	6	30	16	6	30	16	7
31	17	7	31	17	7			

PREGNANCY TABLE—CONTINUED.

OCTOBER.			NOVEMBER.			DECEMBER.		
CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.	CONCEPTION.	QUICKENING.	LABOR.
Oct. 1	Feb. 17	July 8	Nov. 1	Mar. 20	Aug. 8	Dec. 1	April 19	Sept. 7
2	18	9	2	21	9	2	20	8
3	19	10	3	22	10	3	21	9
4	20	11	4	23	11	4	22	10
5	21	12	5	24	12	5	23	11
6	22	13	6	25	13	6	24	12
7	23	14	7	26	14	7	25	13
8	24	15	8	27	15	8	26	14
9	25	16	9	28	16	9	27	15
10	26	17	10	29	17	10	28	16
11	27	18	11	30	18	11	29	17
12	28	19	12	31	19	12	30	18
13	Mar. 1	20	13	April 1	20	13	31	19
14	2	21	14	2	21	14	May 1	20
15	3	22	15	3	22	15	2	21
16	4	23	16	4	23	16	3	22
17	5	24	17	5	24	17	4	23
18	6	25	18	6	25	18	5	24
19	7	26	19	7	26	19	6	25
20	8	27	20	8	27	20	7	26
21	9	28	21	9	28	21	8	27
22	10	29	22	10	29	22	9	28
23	11	30	23	11	20	23	10	29
24	12	31	24	12	31	24	11	30
25	13	Aug. 1	25	13	Sept 1	25	12	Oct. 1
26	14	2	26	14	2	26	13	2
27	15	3	27	15	3	27	14	3
28	16	4	28	16	4	28	15	4
29	17	5	29	17	5	29	16	5
30	18	6	30	18	6	30	17	6
31	19	7				31	18	7

CHAPTER IX.

DEVELOPMENT OF THE BODY AFTER BIRTH.

The newly-born infant is still far from a condition of complete development. The changes through which it has passed in fœtal life are followed by others during infancy, childhood and adolescence. The anatomy of the organs, their physiological functions, and even the morbid derangement to which they are subject, continue to undergo progressive alteration throughout the whole course of subsequent life. The history of development extends from the earliest organization of the embryonic tissues to the complete formation of the adult body. The period of birth is only a single epoch in a long series of changes, some of which have preceded, while many others are to follow. The weight of the newly-born infant is, as said before, between six and eight pounds. The middle point of the body is nearly at the navel, the head and upper limbs being still large in proportion to the lower limbs and pelvis. The abdomen is larger, and the chest smaller in proportion than in the adult. The lower limbs are still partially curved inward, so that the soles of the feet look obliquely toward each other, instead of being directed horizontally downward, as at a subsequent period. The arms and legs are curled forward over the chest and abdomen, and all the joints are in a semi-flexed position.

The process of inspiration is imperfectly performed for some time after birth. The expansion of the air cells and the accompanying changes in the circulation at birth, far from being instantaneous, are more or less gradual, requiring an interval of several days for their completion. Respiration seems to be accomplished during this period

to a considerable extent through the skin, which is soft, vascular and ruddy. The animal heat is less actively generated than in the adult, and requires to be sustained by careful protection and by contact with the body of the mother. The young infant sleeps during the greater part of the time, and when awake exhibits but few manifestations of intelligence or perception. The special senses are comparatively inexcitable, and even consciousness seems present only to a limited extent. Voluntary motion and sensation are utterly absent, and the almost constant irregular movements of the limbs, observable at this time, are mainly automatic. Nearly all the nervous phenomena presented by the newly born infant are of a similar nature. The motions of its hands and feet, the act of suckling, and even its cries and the contortions of its face, are reflex in origin, and do not indicate any active volition or distinct perception of external objects. There is but little nervous connection with the external world, and the system is occupied almost exclusively with the functions of nutrition and respiration.

The remains of the navel cord begin to wither within twenty-four hours after birth, and become completely desiccated by about the third day. A superficial ulceration then takes place at its point of attachment, and it is thrown off within the first week. After separation of the cord, the umbilicus becomes completely healed up by the tenth or twelfth day.

An exfoliation and renovation of the cuticle takes place over the whole body soon after birth. The eyelashes, and probably all the hairs of the body and head, are thrown off and replaced by others within the first year.

The teeth of the newly born infant are but partly developed, being still inclosed in their follicles and concealed beneath the gums.

The development of the human species after this period has been heretofore described.

PART SECOND

DISEASES

OF THE

MALE AND FEMALE GENERATIVE ORGANS.

BY

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"A suppression of the truth is the suggestion of a falsehood."

INTRODUCTION.

The subjects and diseases considered in the following pages are of the greatest importance to every individual, inasmuch as many of them have a direct bearing not only upon the present generation, but others yet unborn. In writing of these subjects we shall, as in the preceding volume, endeavor to be practical, using such terms as can be comprehended by our readers. And we sincerely desire that every one into whose hands these volumes are put, may feel the same as if seeking advice from their family physician. If we shall say or advise some things that are not in accordance with your established ideas, or which seemingly interfere with the pleasures of life, we ask that you give them a fair consideration—or better, a trial—before rejecting them, remembering that it is our friends who tell us of our faults. The surgeon has often to inflict a cruel wound in order to remove an irritating substance or get rid of disintegrating poisonous tissue, that a healthy action may follow and life be preserved; so if the occasion demands, we shall not hesitate to plunge the lance into the putrescent customs and habits which are undermining the health and destroying the happiness of a large number of both sexes, hoping thereby to prevent much disease and consequent suffering, grief and unrest. The family physician, unless affluent, is often restrained from giving the advice necessary, knowing that in many—not all—instances, it would result in the loss of future patronage. To say to a patron and patient, "You are drinking too much alcoholic stimulants," or, "You must give up smoking," is more than many physicians dare say,

and it can hardly be expected that they will disapprove of the excesses which pertain more particularly to the generative acts and functions, inasmuch as the masses, through a lack of knowledge in reference to these subjects, are inclined to resent any interference with their established habits. The writer well remembers telling a lady, during his first year in practice, that marriage would remedy her numerous complaints, and with what unfeigned indignation she received the advice, and with what studied politeness asked, "Your charges, please?" Years after, when happily married, with health restored, and the mother of (as she expressed it) the "sweetest baby in the world," she magnanimously acknowledged that "it was the best advice a doctor ever gave her," and regretted she had not followed it five years earlier.

If in the following pages we shall be able to present these subjects to our readers in a manner which shall result in a better, purer physical life, we feel certain that disease will not only diminish, but spiritual attributes will multiply.

CHAPTER I.

MARRIAGE.

My collaborator, in Part First, after pointing out the evil habits to which youth of both sexes are prone, has wisely advised marriage as the sphere promising greater physical possibilities than any other.

The union of the sexes by the bond of marriage, is unquestionably the divine plan as intended in the beginning when God created man, and then created for him a helpmeet, because it is not good for him to be alone.

Marriage, in a large majority of instances, leads to the establishment of a home, upon the virtues of which rests the stability of the Nation. Church and government had their origin in the home. Here began the first school, which has continued through all the ages, preparing the foundation—character—to receive the superstructures Religion and Patriotism.

Marriage lessens the disease of both sexes, prolongs life, fosters chastity and engenders morality. Jeremy Taylor says: "Marriage hath in it less of beauty, but more of safety than single life; it hath more care, but less danger; it is more merry and more sad; it is fuller of sorrows and fuller of joys; it lies under more burdens, but is supported by all the strength of love and charity, and those burdens are delightful."

BRIDAL TOURS.

These are a cause of disease that can consistently be classed with the controllable. The harm arising from this

custom often continues through after life. The excitement attending the getting ready for this important event, results in the expenditure of as much vital force as the ordinarily healthy female can well endure, and when to this is added the fatigue and excitement of traveling, it is no wonder that nature gives way. At this time, of all others, she needs rest. The uterus and its appendages are congested, and an unusual demand is made upon the constitution, not only to stand the excitement of love, but passion as well, and instead of the needed quiet and rest, she starts off with the young man of her choice and jaunts about the country, in jolting railroad cars, sight seeing, deprived of the very things she needs most. This is essentially wrong, and is done only because it is the custom for the happy couple to do so. There is no question that the foundation for many uterine and nervous diseases are thus laid. We have no doubt, young man, that you love your intended wife devotedly, and would risk even your life to save her misery or pain, and it is evident that your love is reciprocated or she would not leave father, mother and past associates for one untried though trusted. Can you not, with all the anticipated happiness, use a little judgment and conclude to spend the honeymoon under your own "vine and fig tree," as it were, even though it be but two very plainly furnished rooms?

We suggest that a clause be inserted within all marriage certificates, binding the contracting parties to take the bridal trip five years from date of ceremony. If they did, there would be less uterine diseases than at present.

SEXUAL INSTINCTS AND HYGIENE.

This is a subject of great delicacy, but unusual interest, inasmuch as it has a direct influence, not only upon the health of those concerned, but the happiness as well. The sexual function is, without exception, the most important

of the body, as it has a direct bearing upon the continuance of the species as well as whether the *genus homo* shall be physically and mentally of the highest type. At the age of puberty, in both sexes, there come sentiments and feelings which are new. Each takes a delight in the other's company beyond what has previously been experienced. The young man, while not losing any regard for mother or sister, prefers the society of other females. Father and brother are just as dear to the young woman, still, if she follow her own inclinations, she will most always be found boating, skating, or playing tennis with her male friend. This indiscribable change in feeling for the opposite sex is due to the first development of the sexual instincts. It is purely physiological, and we believe it should receive the thought and consideration proportionate to its importance. At this period, when the young man or woman is ignorant of the cause of these new feelings, the closest observer will fail to notice any difference in the sexes. There may be a wide difference in individuals of the same sex in this respect, but the sexual attributes in the male and female are equal. In further proof of this equality of the sexual instincts, we give a report from the supervising nurse of an asylum for weak-minded children:

"About two-thirds of the children, girls and boys in the same proportion, show evidence of practicing in some way, or attempting to practice, self-abuse. The only difference I notice among them is, that the girls seem to begin one or two years earlier than the boys. We find it in the boys from about ten—seldom earlier—while girls are detected in efforts to excite the sexual feeling at eight and nine years of age. I have made diligent inquiries of the parents of the children as they were brought in, and have observed myself, and had the nurses under me on the watch, and I believe that very few of these feeble-minded

children are taught the habit by precept or example. It seems to be in them; they take it up of themselves."

In the instances cited, repressive influences are eliminated, so that natural desire must be considered responsible for the facts, and seems to us to prove conclusively, that *when natural*, the sexual passion in the sexes is equal. We use the phrase "when natural," intentionally, as the sexual instinct is oftener in an unnatural condition than otherwise. Among animals this instinct is purely physical, controlled rather by instinct than reason. Thus the male in many species is attracted to the female only at certain periods, these periods corresponding to the time nature has conditioned for procreation. During the interval of these fixed periods in which animals cohabit, they seem to lose all sexual passion, endeavoring only to satisfy their desire for food and drink. Unlike the lower animals, man presents no distinctive periodicity in the exercise of his genital function, but on the contrary exercises it at his will, provided there are no morbid conditions to prevent. We have shown that *normal* passion is equal in the two sexes. We have further stated that this passion is directly controlled by the will. The last, we think, will be admitted by every reader who has reached adult age. In the face of these two facts, there must be some decided cause for the difference in the sexual passion of the two sexes, as age advances. If the statements of women are correct, nearly one-half those married take no pleasure in the sexual act, and to many it is positively distasteful. In many instances this is due to the perverted belief that erotic sensations in women are immoral, degrading, and to be suppressed by all the powers of the will. We have known mothers who were constantly endeavoring to impress this unphysiological conclusion upon their daughters, and with varying success. In the majority of cases it diminishes the natural sexual sense; in a certain number it practically destroys it; and in others the very effort to

overcome, by directing the attention to the subject, stimulates and increases the feeling, sometimes inordinately. The result of these false teachings is that few women are natural in their sexual lives. The repression of the sexual instincts results in lowering the vital tone in every other function, producing females who are ill-developed, and should they marry, receive little satisfaction from the sexual relations, and give less. To deny that these ill-regulated sexual functions are the source of much domestic unhappiness, would be denying a fact known to every medical man of any experience. As a remedy for these unnatural conditions, we advise that an effort be made by parents to so rear and educate their daughters that they shall be *natural. The greatest peril that girlhood has to encounter is the ultra-artificial life of her sex as taught and practiced at the present time.* Girls are learning music, painting, ceramics and the fine arts generally, at an age when they should be dressed in pantalets and be playing with their dolls. These accomplishments are all good, but if secured at the expense of a neglected physical development, it is building upon the sands, and the winds and waves of future marital relations and maternal duties are sure to engulf the ill-founded structure. Girls should be taught everything pertaining to their delicate organization, but with a view to making them physically strong. The longer girls *are* girls, the better. Do nothing, or a low nothing that will in any way hurry nature in her process of unfolding the intensely interesting bud—girlhood, with its unknown future, but rather wait the pleasing development, resting assured that the flower—womanhood, will be all the more perfect, and its attributes, love and beauty, will withstand longer the inevitable cares of the divine destiny—motherhood.

We do not wish to be understood as blaming "the woman" for all marital infelicity,—*far from it.* While the sexual instinct is artificially suppressed in many females,

just the opposite occurs in a majority of males; their dress, habits, associations, all tend to intensify the sexual appetite, which is often so greatly in excess of nature as to nearly approach that of the lower animals. We say it with regret and shame for the sex, but it is none the less true, that many males seek marriage only as a means of gratifying their passions. No doubt we shall be confronted with the question, "Is not this preferable to fornication?" We reply, there is no necessity for either. If the will power is exercised, and there is a fixed determination to control the passions, it can be done. Muscular activity, a line of thought that takes the mind entirely from sensuality, abstinence from food and drink which excite and stimulate, and above all, getting in line with Christian morality is the treatment par excellence for lasciviousness, and the earlier in life it is begun the better the results. We have now noticed the inequality of the sexual instincts as present at the time when marriage should properly occur, and have noticed the cause and treatment; we have only to consider briefly the sexual relations of married life.

No absolute or even approximate rule can be laid down with regard to the frequency with which intercourse may take place within physiological limits; however, if there is no undue amount of lassitude follows coition, after a period of repose, and no marked diminution of sexual desire, except that which may be accounted for by age, we may assume that the limit has not been greatly exceeded. Intercourse, to be physiological, must be mutual. Unfortunately, this is not always the case, and is a prolific cause of disease on the part of the wife.

The generative organs, both male and female, are unduly filled with blood during coition. If the act is satisfactorily completed, this congestion subsides with the stimulus which occasioned it. This seldom fails to occur as far as the husband is concerned, but very frequently the act is not terminated with the wife, which leaves her organs

in a congested condition, which persists to a considerable extent, and if often occurring, there results at first what is termed engorgement, then inflammation, followed by ulceration, etc., attended with a long series of nervous disorders that make woman's life miserable. Unfortunately, this very undesirable condition is frequently present before the honeymoon is over, and is the fruits of ignorance, or worse, false education of the sexes in reference to the passions which God implanted within their breasts when He bade them "multiply and replenish the earth." If the sexes were reared and educated so they were natural —physiological—this cause of disease and consequent unhappiness would be removed, but they are not, and we must accept—until knowledge is more universal—the existing conditions, and deal with them accordingly. We repeat here in reference to this subject, what we have often advised, and that is, *the husband should be guided always in his marital relations by the wishes of his wife.* This is an extremely safe rule to adopt, and should apply to the consummation of marriage as well as through after life. A quotation given in a recent publication, is so nearly in accord with our ideas and past teachings in regard to this ungracious subject that we cannot refrain from quoting it also, and have italicised some sentences which are particularly important. The words are addressed to the husband after entering the bridal chamber:

"Hold! In your keeping are now placed the destinies of that shrinking woman, for wedded happiness or wedded woe; your own tranquility and peace of mind, perhaps your honor as a husband and father, hang upon your decision now. Be cautious how you thread the mysterious path before you. You have need of all the fortitude and self-control you can possibly summon to your aid in this great emergency. You may talk of the instincts of nature, *but in you these instincts are brutalized; in her they are artificially suppressed. You have the double task of curb-*

ing the former, and of developing the latter. Undoubtedly the instincts of nature would make the marriage consummation a very awkward proceeding, sufficiently protracted for all practical purposes; but society has gotten these instincts sadly out of tune for both of you. By proper caution and delicacy on your part they may yet be harmonized, and perfect accord be secured. Your first words should be those of re-assurance and sympathy. Assure her most positively that her apprehensions are groundless, and *that no consummation shall occur this night, or indeed at all, until on that, as you trust on all subjects, your wishes and hers shall exactly harmonize;* above all, inform her that whenever your happy marriage shall be consummated, neither violence nor suffering shall attend it, but perfect and reciprocal happiness shall crown the act. You should know that gentleness, moderation, but more than all, due and reasonable *cultivation* of her womanly passion will enable you to fulfill your pledge to the very letter. You should know that in rare cases days or even weeks must elapse before *entire* consummation can be effected, but that when it does occur the slight pain she will suffer will be of such a character as shall increase, rather than diminish her pleasure. You will also discover, by experience, that with due deliberation and prudence, nature will co-operate in your favor to relieve you of nearly all the trouble you anticipate."

CHAPTER II.

DISEASES OF THE MALE ORGANS OF GENERATION.

The penis is a genital organ, its urinary functions being secondary. An anatomical description has already been given of it in Part First of this volume, and need not be repeated here, neither do we deem it necessary to enter into a description of the anomalies of this organ, such as double penis, absence of penis, etc. This organ is subject to injury the same as other parts of the body, such as *contusion*, *cuts*, etc. These should be treated as in other locations. If they are of any great extent, a surgeon must be called. The same advice applies to fracture of the penis, which occurs in rare instances. Practically, the deformities of the foreskin are the only conditions of this organ that need be noticed. This, sometimes, is so much elongated as to require an operation, which is called *circumcision*. The Jews make a religious ceremony of this operation, which, owing to the prejudices existing against this *thrifty sect*, has done much to create a feeling of unreasonable bias against it. We believe if it were generally performed, it would at least, result in greater cleanliness and less of the pernicious habit of self-abuse. Whenever the foreskin protrudes much beyond the gland, it is advisable that the child be taken to a surgeon for examination. The foreskin sometimes firmly adheres to the gland, and by a reflex nervous action causes various disorders; in such instances the surgeon, of course, must be consulted. An accident, which sometimes happens with young boys, who in retracting the prepuce, perhaps for the first time, find themselves unable to replace it. This acts in the same manner as

placing a tight cord about the finger. The glands of the penis become turgid, and if not relieved, inflamed, and very painful. As soon as this condition is discovered, the head of the penis should be taken between the thumb and finger, and firmly pressed for a little time, which will reduce the turgidity, when the foreskin can be returned, after which cold water dressing should be applied. If this treatment does not succeed after a half hour's thorough application, the boy will have to be taken to your physician.

VENEREAL DISEASES.

While preparing the manuscript for this work, the question often arose in the writer's mind as to whether to describe and treat the diseases generally known and spoken of as "private diseases," or not. The preponderance of argument, as we view it, seems to favor a short description of these loathsome maladies. Many individuals have escaped disaster by the timely warning given by friends. We have personally known of numerous instances, when even a limited knowledge of the evils resulting from this disease would have prevented the taking of any risks, as to their contraction. Many instances might be given when these diseases have been contracted and the person knowing nothing of their nature, has ignorantly allowed the disorder to go unchecked until the most serious results followed.

The writer saw at Charity Hospital, Blackwell Island, N. Y., a most unfortunate case of this kind: A female patient, aged only twenty, was brought to the hospital from the New York police court, for being a common vagrant. She was approaching motherhood, and was covered over the entire body—not excepting the soles of the feet or palms of the hands—with sores, caused by syphilis. She gave as the history of her misfortune, the oft repeated story of woman's confidence and man's perfidy. Said the trusted lover, and the father of her unborn

babe, had communicated to her the disease; she stoutly maintained that her whole trouble resulted from this one —and only one impropriety. Driven from home by the parents who had had her taught all the accomplishments necessary to her position in life (which doubtless had been one of refinement), told her of the sunshine, but who had given her *no* opportunity to know ought of herself or the "shadows" of real life. Believing in her ignorance that this disease was only a result of her condition, she consulted no physician, sought no charitable dispensary. As the terrible disease became more noticeable, she was driven from one situation to another till no door was open to her save that of the police station.

"Oh! it was pitiful;
Near a whole city full;
Friends she had none."

As the terrible truth in reference to her loathsome disease was explained to her by the surgeon, with the utmost tenderness, she wept piteously, and regretted her disgrace and ignorance of these things, in equally emphatic terms. As the youth of our land are better informed as to the long list of destructive results following these diseases, we believe that the number suffering from their effects will greatly decrease.

The venereal diseases are three in number, viz., Gonorrhœa, chancroid and syphilis.

GONORRHŒA. (*Clap.*)

Gonorrhœa in the male is an intense inflammation of the lining membrane of the urethra. Like all specific diseases, it is characterized by a period of incubation; this is usually from five to eight days.

Symptoms.—The first symptom is usually noticed on the seventh or eighth day, which consists of a tickling, itching feeling at the mouth of the urethra. The opening

is found slightly glued together by a bluish, sticky discharge. A stinging sensation is felt on passing water. The symptoms increase, and by the fifth day the disease is well established; the discharge is pus-like, and sometimes of a greenish color.

Cause.—There is only one cause of gonorrhœa, namely, contact of the affected person with gonorrhœal pus from another person. This is a *local* affection, and is followed by no constitutional disease, but has numerous complications, such as inflammation of the bladder; of the glands and testes, rheumatism and sore eyes, and is very liable to be followed by stricture of the urethra.

Treatment.—We would willingly deceive ourselves with the thought that this and the other venereal disease were never present in the home, and therefore no prescriptions were necessary, but during fifteen years' practice we have so often found it our painful duty to prescribe for this disease where least expected, and under such distressing circumstances, that we cannot be indifferent to the ungracious task, however much we may desire to be.

Gonorrhœa, or as it is vulgarly known, clap, requires both local and internal treatment. No. 123, used about milk-warm, twice a day with a No. 1. A American Hard-Rubber Syringe, is the most effectual local treatment we have ever used. The organ should be drawn out to its full length when the injection is made.

No. 123.

℞

Hydrarg. Bichlor..... gr. ½.
Aquae dist..... ℥ viij.

M. Sig.—Use locally as directed.

The injection should be made after urinating. As an internal remedy, No. 124, known as Bunstead's Modification of the New York Hospital Formula, should be taken in connection with the local treatment. The two should be continued until all discharge has disappeared.

No. 124.

℞

Bals. Copabiae .... } *Spts. Nitrici dulcis* ..... }	aa. ℥ j.
Liq. Potass	ʒ ij.
Pulv. Ext. Glycyrrhiza (P. D. & Co.).	℥ ss.
Oil Gaultheriae	gtt. xvj.
Syrup Acaciae	℥ vj.

Mix the copabiæ, liq. potass., sweet spts. nitre and glycyrrhiza first, separately, and then add the other ingredients. Sig.—℥ iv three times a day after eating.

During the continuance of the disease, every article of food or drink, which stimulates, must be relinquished. Daily sitz bath of a few minutes' duration, the water being at 100 to 120 degrees, will be a useful adjunct to the other treatment.

GLEET.

This is practically a stage of gonorrhœa, as the discharge in that disease assumes a gleety character toward the end. If it does not continue beyond a week or ten days, it will not be necessary to give it special treatment. If, however, it goes beyond this period, we advise that No. 125 be used warm, following the same directions as in gonorrhœa. And as an internal treatment, take No. 92, two teaspoonfuls three times a day before or after meals, as preferred.

No. 125.

℞

Hydrarg. Bichlor	gr. ¼.
Ext. Hydrast. can ..... (Non-alcoholic. P. D. & Co.)	fl. ℥ ss.
Aquae dist. q. s. ad	℥ iv.

M. Sig.—Use locally as directed.

CHANCROID.

Chancroid, or soft chancre, is a venereal sore, which secretes pus of a specific nature, capable, when brought in contact with an abraded surface, in whatever portion of the body, of producing a sore identical with that from

which it is taken. It is a malady exclusively local, never giving rise to symptoms which can be referred to as constitutional. The virus of chancroid is extremely virulent, and of all specific poisons the most contagious. A sore from this poison may be inoculated upon any part of the body. It never gets well, but continues to spread. The least possible amount of the poison gives rise to an ulcer.

The diagnosis and treatment of this malady belong to the experienced practitioner, and to such we leave it.

SYPHILIS.

"Syphilis is a general blood disease caused by the absorption of a peculiar virus into the circulation, manifesting itself primarily by the appearance of a poisonous sore at the point where the virus entered, and afterward by a succession of morbid manifestations occurring at longer or shorter intervals." (Van Buren.)

The local sore in syphilis, unlike that of the last noticed disease, is of very little account as compared with the constitutional effect. There is no organ, tissue or fluid, either internal or external, appertaining to the human body, but may be more or less affected by the virus of this disease if introduced within the system. During the secondary and tertiary stages of this malady, there may occur ulcers within and without the body, and of infinite variety. Various disorders of the liver, lungs, kidneys, heart, spleen, bladder, are frequent. The brain and spinal cord become diseased, the bones, joints, eyes, ears, nose, throat, skin and its appendages, all suffer in time if this fearful disease is left to pursue its course.

Syphilis is *generally* transmitted by means of impure sexual intercourse. It may be, however, by other means. The surgeon and accoucheur may become inoculated while in the exercise of their professional duties. The disease has been transmitted by kissing. Children acquire

the disease from the wet nurse, her nipple being affected and the child gets chancre of the lips, or the reverse may occur; a child born with the disease, having patches upon the lips, gives it to the nurse. Smokers of a pipe sometimes get chancre of the lips, the virus being deposited upon the mouth-piece of the pipe by some previous smoker. Glass blowers get syphilis in the same manner, by passing the same tube from mouth to mouth. By the use of the same spoon or cup the disease has been transmitted to an entire family. As regards the duration of syphilis, Van Buren and Keyes, after quoting a case from Fournier, where the disease continued for fifty-two years, say:

"Syphilis, once acquired, stamps its impress upon the individuality of the patient, and becomes a part of him, and no power on earth in a given case can say when that impress disappears. A half century may pass away and the trail of the serpent be still visible. This is a fact, and as such must be recognized. It is of vast practical importance, and to shut our eyes to it would be folly. That we do not so shut our eyes, even those of us who believe in an early and radical cure of syphilis is sufficiently shown by the avidity with which, in doubtful cases of skin or bone disease, the history of the patient is carefully inquired into for a record of pre-existing syphilis, which, if found, no matter how distant, makes the diagnosis, establishes the treatment, and often leads to a cure."

As to whether syphilis can be cured, the same authors say:

"The necessary conclusion, then, is this: That while symptoms which can depend upon no other disease than syphilis may crop out at any period during the life of a patient who has once had syphilitic chancre, yet the virulence of the disease and its contagious properties do die away in time, what are left being more properly sequelæ in the received acceptation of that term."

Further on in the same article, we find the following question asked and answered:

"If a patient presents himself with syphilitic chancre, at what period may he safely marry? Roughly, and on the average, this question may be answered by saying, after about two and a half years; or to be safe regarding marriage, one year after the disappearance of the last syphilitic symptom, treatment having been continuously kept up, and being continued until after the birth of the first child. This may be said, because well managed syphilis usually ceases to relapse in about that time."

The heredity of syphilis is beyond a doubt. It may be inherited by the child from either parent. The disease may be present at birth, or become developed in after years. In the latter case, the lesion will be of a bone, a joint, a gland, the eye, or perhaps there will be a patch upon the mucous membrane of the mouth. Inherited syphilis is attended with all the formidable results of the disease when arising from inoculation. In a large number of instances the germ is blighted, abortion taking place, but in the majority of cases, the child is born apparently healthy but develops symptoms of the loathsome malady, and dies before the first year. How many of the premature births, and the deaths which occur during the first year of infancy, are due to this insidious, unrelenting and deceptive disease, is known only by Him who has declared that the sins of the father shall be visited upon the child, even unto the fourth generation.

Treatment. — Fortunately for mankind, syphilis is amenable to treatment; and if means could be found for the prevention of the development of new cases, the time would come when its vitality would have ceased.

The first stages or primary syphilis, No. 126 should be taken, a teaspoonful three times a day for three to four weeks.

No. 126.

℞

Hydrarg. Bichlor..... gr. j.
Syrup Trifolium Co. (P. D. & Co.).. ℥ viij.

M. Sig.—℥ j three times a day.

After constitutional symptoms are established, No. 127 should be taken for six to eighteen months.

No. 127.

℞

Calcium Sulphide..... grs. xvj.
Potass. Iodid..... ℥ j
Syrup Trifolium Co. (P. D. & Co.) ℥ viij.

M. Sig.—℥ j in a tumblerful of water three times a day.

It may be necessary to leave this off for a short time; if such is the case, we advise that No. 92 be taken, two teaspoonfuls at a time three times a day. No. 127 should not be left off more than three weeks at a time. The hygienic treatment consists in the practice of absolute cleanliness of the patient, abstinence from the use of stimulants and tobacco, attention to the secretions of the skin and bowels, and the cultivation of a cheerful disposition. The diet should be plain, but nutritious. In case a patient has been long addicted to artificial stimulus, it may not be proper to prohibit its use entirely, yet in every case it should be restricted.

BUBO.

Bubo is an inflammatory enlargement of a lymphatic gland of the groin. It occurs in both chancroid and syphilis. It is always present in the latter disease, but may be absent in the former. It makes its appearance during the first or second week in syphilis; in chancroid there is no fixed period of appearance. In syphilis the gland is slightly enlarged, and very hard; in chancroid greatly enlarged and not hard. Syphilitic bubo never inflames, that of chancroid frequently.

POLLUTION.

This is a term applied to involuntary ejaculations of semen, attended with more or less sexual feeling.

When occurring during the night, it is called *nocturnal;* when in the day time, *diurnal. Nocturnal pollutions* are of common occurrence. They are usually accompanied by an erotic dream, and the patient awakes to find his linen soiled. When sleep is profound the patient may not awake, and in such case is likely to forget his dream. There is nothing unnatural in emissions of this kind, and it does not point to any disease, but contrary shows sexual vigor and chastity. A man happily married who is separated from his wife for several weeks, is very apt to have nocturnal pollutions. The same thing often occurs with those who have practiced masturbation, and relinquish the habit. It is not uncommon among young men who enjoy good health.

Treatment.—When the emissions do not exceed two or three times a week, nothing should be done except to purify the thoughts. If occurring nightly, or oftener, No. 128 should be taken three times a day.

No. 128.

℞

Fl. Ext. Hydras. can. (non-alc.) (P. D. & Co.)	ʒ j.
Fl. Ext. Nucis Vom. (P. D. & Co.)	aa. ʒ ss.
Fl. Ext. Belladonnae " "	
Syrup Simp. q. s. ad	ʒ iv.

M. Sig.—ʒ j three times a day.

The patient should endeavor to sleep soundly by tiring himself out during the day by some kind of muscular exercise. Dry friction baths should be taken, also cold baths.

He should sleep on a hard bed. lightly covered. Never go to bed with a full stomach. Sleeping upon the back should be avoided. This can be accomplished by tying a

towel around the waist in which is a hard knot in the back over the spine.

Diurnal pollution is rare. If it occurs, it should be treated by a surgeon.

SPERMATORRHŒA.

Spermatorrhœa differs from pollution inasmuch as there is no erotic feeling accompanying the escape of the seminal fluid. It occurs usually at stool, or with the urine.

Symptoms.—In spermatorrhœa the spermatic fluid passes from the meatus in small quantities usually at the time of defacation, especially if the patient is constipated, or a certain amount of the same fluid may be passed with the urine. Occasionally jolting or riding causes a little oozing from the meatus of a bluish fluid.

Causes.—This disease may follow excessive masturbation, but more generally nervous prostration, either from overwork or acute disease.

Treatment.—The system should be toned up by taking No. 128, three times a day before eating. The diet should be nutritious, but not stimulating. The patient need have no fear of insanity, or that he will lose his "*manhood*" or become demented, impotent, or that any serious result will follow.

PRIAPISM.

This consists in a continuous erection without desire. Erection with desire at times, amounts almost to a morbid condition. Cases of the former are on record as having continued for three years.

Treatment.—Use No. 129, as directed.

No. 129.

℞

Camphor Monobrom..... grs. xxx.

Lupulin..... " c.

M. et divide into pulv. No. x. Sig.—One at bedtime, and one through the night if necessary.—*Medical Summary.*

Priapism in children is often due to worms in the rectum, a tight prepuce, or stone in the bladder. These should receive their appropriate treatment. For worms see Volume First. Tight prepuce is noticed in this volume. Stone in the bladder will require the services of a surgeon.

THE TESTICLES.

These organs have been fully described in Part I of this volume, They are suspended in the scrotum, each by its spermatic cord and surrounded by connective tissue. The left is usually the larger, and hangs a little lower in the scrotum. During coition these organs are firmly drawn up to the base of the penis. They are subject to injury, the same as other parts of the body, and should be treated the same. There are many diseases of the testicles that in the main properly belong to surgery.

IMPOTENCE AND STERILITY.

An individual who cannot perform the sexual act, from whatever cause, is said to be *impotent.*

One who cannot beget children is said to be *sterile.*

A man may be impotent but not sterile and vice versa. Thus the absence of the testicles and penis would render a man both impotent and sterile. Absence of the testicles, sterile, but not necessarily impotent.

Causes of impotence are absence of the penis, too small or too large penis, or this organ may be so deformed as to preclude the act of copulation. These causes—unless it be the latter which might be remedied by the surgeon—should prevent the individual from marrying. Fortunately these deformities are of rare occurrence. A form of impotence of more frequent occurrence, is that which arises from an unexplainable condition of the nervous system. A young man of perfect health gets married and upon retiring to the nuptial chamber is surprised and chagrined to learn that his organs will not respond, however much he

may desire. This condition leads him to seek medical advice, fearing that it may continue indefinitely, and as a result, loss of affection and respect from his wife.

In case this unfortunate circumstance should occur with any one of our readers, we advise that he be frank and honest with his wife—who will more than equal him in timidity and be ready to sympathize with him and he can feel assured that the world will never know of his condition—that he procures No. 130, and take as directed.

No. 130.

℞

Acid Phos. dil.	aa. ʒ ij.
Tr. Nucis Vom.	
Tr. Cannab. Ind.	ʒ j.
Elix. Calisaya q. s. ad	ʒ iv.

M. Sig.—ʒ j every three hours during the daytime.—*Med. Herald.*

Until the prescription is finished, we advise that no attempt be made to perform the sexual act. If at that time the sexual function is not properly restored a second bottle full should be procured and taken as before. This prescription has *never failed* in any case, where we have had occasion to prescribe it.

We wish to repeat, that no attempt should be made to perform the sexual act until the first bottle is taken—*this is imperative*, and then if there is any probability of a failure it should be delayed until the second one is used.

Another form of impotence, occurring in married men, who have hitherto been able to cohabit without any difficulty, is that in which they find themselves gradually losing power in this direction. This class of patients as soon as the first symptom is noticed, should occupy a bed by themselves for two to six months, and a week before returning to his wife's chamber, take No. 130, three times a day. During the time of sleeping by themselves, they should give their condition no thought, but rest assured that abstinence and No. 130 will fully restore them.

STERILITY.

This term has been defined. It is due usually to some imperfection of the seminal fluid. Absence of the testicles or degeneration of these organs result in sterility. An individual may be normal as to the sexual act and still be sterile from a defect of the seminal fluid. It is always proper, that the husband should first submit himself to the physician for examination, before condemning his wife, for failure to bear him children.

IRRITATION OF THE BLADDER.

This is an affection of quite common occurrence amongst males as well as females. As a disease of the latter it will be treated in the department pertaining to their diseases.

Symptoms.—Frequent desire to pass water, coming on suddenly, sometimes gradually, without any appreciable cause. Usually there is more or less burning when the urine is voided. The bladder sometimes contracts with force and in other cases just the opposite, the stream being small. Sometimes it stops suddenly, and after a little begins to flow again. On damp, cold, or rainy days the calls to urinate are more frequent.

Treatment.—Sitz baths of fifteen to twenty minutes' duration, the water being at a temperature of 100 degrees to 120 degrees F., should be taken twice a week. The diet should be nourishing, but non-stimulating; the use of tobacco and alcoholic drinks should be restricted. No. 131 should be taken, two teaspoonfuls every four hours during the day. Care should be taken by the patient that the bladder is thoroughly emptied each time that nature calls, as urine remaining in the bladder only acts as an irritant to the inflamed surface. Boys should be taught early in life to give sufficient time to this function and not hurriedly contract the bladder, or in after years they may

suffer the consequences. Seven out of ten of the so called kidney diseases are nothing but irritation of the bladder. Remember this before investing your money in "kidney cures," and try No. 131 first.

No. 131.

℞

Uvae Ursae	℥ j.
Lupulin	ʒ ss.
Aquae bullient	o j.
Dein., adde.	
Sodii Bicarb	ʒ ij.
Tinct. Opii. camph	fl. ℥ ij.

M. Sig.—ʒ ij every four hours.

CHAPTER III.

DISEASES OF THE FEMALE GENERATIVE ORGANS.

The female organs of generation, like those of the male, have been thoroughly described by my collaborator in Part I, of this volume, and if the reader has not done so already, we advise that a thorough study be made of the same. The health of womankind is a matter of vital interest to every person. When we consider the important part which she bears in the reproduction of the species; how a large proportion of her time is taken in carrying, nursing and rearing the young; how during gestation and lactation the very blood is changed in its course; and how her thoughts and feelings are moulded to accord with her relation, we are able to comprehend, in a measure, the extra amount of vital force required by her in the performance of these functions, and that her reserve force must be ample, otherwise she is unable to endure the physical and mental strain incident to her manifold destinies. The wider diffusion of physiological knowledge is bearing fruit, and as the pseudo-modesty which prevailed a few years ago in reference to these important subjects, wears away and woman realizes more of the sublime mysteries and phenomena of her physical and spiritual existence, she will come up to full womanhood with the endowment of her generative capacities as an ever-present influence, controlling her growth in mind and body. In ripe womanhood her sex will be over-shadowing; and when her fruitage shall have past, its influence will still surround her like a glory to her latest day.

MENSTRUATION.

The two most important epochs in woman's life are, (1) commencement, and (2) the close of menstruation. Each is attended with more or less danger, and unless carefully guarded against, many diseases are liable to follow. Menstruation—known also as the "monthly sickness," catamenia, "menses," "periods," etc.—is the most important era in a girl's life; it is the threshold, so to speak, of womanhood, the boundary line which separates the girl from the woman, and most beautifully described by Longfellow in the following lines:

> "Standing with reluctant feet
> Where the brook and river meet,
> Womanhood and childhood fleet!"

The physiology of menstruation requires no further notice than it has already received in Part I, and it remains for us to speak of it only so far as it deviates from health.

Menstruation usually occurs once every lunar month with most females, to the day, or even hour. In some instances, instead of coming on every four weeks, it occurs every three, and if the lady is "regular," it should not be interfered with. Three to five days is the time that the flow usually continues. This, however, varies with different individuals; in some it continues for a week, and in others even longer. As a rule, a woman conceives only during the time she is "regular," although there are cases on record where women became pregnant who had never menstruated, as there are also recorded cases where a discharge resembling the menses, occurred regularly every month during gestation; it is doubtful, however, if this discharge were a true menstrual flow. However early in life menstruation occurs, conception may take place, and when a woman ceases to "be unwell," she ceases to bear children. There are cases on record where girls living in warm climates, at the age of nine to eleven years, became

mothers, as there are also instances where women have given birth to healthy children at fifty and upwards. One extreme case is published by Dr. John Kennedy of Edinburg, of a woman at the age of sixty-two, who gave birth to a healthy child and at the time was the mother of twenty children. Such cases as the above are rare, and is noted only as a matter of interest. When a lady is "regular," it is understood that her flow appears on time, and is of the usual "quality" and "quantity." If she be only natural as to time, and the flow be either scanty or the opposite, or too pale or too dark, it indicates that something is wrong and she should immediately have prescription No. 149 prepared, and take as directed.

No. 149.

℞

Fl. Ext. Hydras. can. (non=alc.) (P. D. & Co.)	aa. ℥ ss.
Fl. Ext Mitchella Repens (P. D. & Co.)	
Fl. Ext. Cimici. Rac (P. D. & Co.)	
Fl. Ext. Chamae. lut. (false unicorn) (P. D. & Co.)	
Simp. Elix	℥ ij.

M. Sig.—Teaspoonful three times a day.

The "discharge," when natural, is of a bright red color, resembling very nearly blood which would escape if the finger were cut. As it escapes upon the napkin it is more or less mixed with the secretions from the vagina, which changes the appearance somewhat. The origin of the blood in menstruation is from the lining membrane of the uterus. The object of menstruation is without doubt the relieving of the congestion of the ovaries, which occurs at the time of the ripening of the ova (eggs). When we consider that during the natural years of menstruation, upward of one hundred pounds of blood are thus discharged from the body, we cannot help concluding that it is for a wise purpose.

RETARDATION OF MENSTRUATION.

It often occurs that menstruation is delayed a few months, or a year or two, beyond what is the natural age for its appearance. If the patient does not seem to suffer, no medicine need be given more than to regulate the appetite, bowels, etc., and see to it that all hygienic measures are complied with, as proper clothing, a nutritious diet, such as milk, lean meats, eggs, etc., and above all, an abundance of exercise in the open air and sunshine. If there is any nervousness, denoted by an irritable temper, peevishness, etc., or pain in the region of the pelvis, headache, or pain in the limbs, it will be advisable to give No. 149 for about four to six weeks, and then in its place give No. 144 until the prescription has been filled four times. If this does not establish the flow, it will be advisable to have the family physician see the patient, as sometimes the cause of delay is the result of mechanical obstruction, such as an imperforate hymen, closure of the vagina, or absence of the womb. These conditions occur very rarely. The first named is the most frequent, and when present will require treatment of a surgical nature.

CONCEPTION AND ITS PREVENTION.

It has now been learned that every lunar month (28 days), a discharge of mucus and blood takes place from the female genital organs, and by turning to pages 32 to 35 of this volume, it will be learned that at this time, or just before, a Graafian follicle of the ovary bursts and discharges into the finbriated opening of the Fallopian tube, an ovum (egg). This egg resembles in structure very nearly that of the yolk of the hen's egg; it, however, has no part surrounding it corresponding to the "white" of the fowl's egg. It is from the white of the egg that the young bird receives its material for growth during incu-

bation. The human egg being nourished within the body receives its material for growth from the mother, hence there is no necessity for an external part or "white." The human ovum, or egg, is very small, requiring 125 of them laid side by side to reach one inch. At every month during the period a woman menstruates, an ovum is discharged into the Fallopian tube as above described, and passes through it to the uterus, and if unimpregnated, finally loses its vitality, and is discharged from the body via the vagina. The male elements (spermatozoids), which are deposited within the vagina during coition, have the power of locomotion and pass into the uterus, and from there into the Fallopian tube. If in their passage they come in contact with the ovum, they immediately penetrate its surrounding membrane (see engraving No. 6), and impregnation or conception has taken place, and from this union of the two elements a new one is formed, endowed with the power of developing into an individual, capable of thought, possessing a will, and almost innumerable passions. This successive development from the union of two elements, the combined weight of which is less than the one hundredth part of a grain, and which are so minute that the unaided human eye cannot perceive them, is the most wonderful of all of nature's incomprehensible processes. Mystery of mysteries! Unknown! Inconceivable! Divine!

The ovum, after impregnation, attaches itself to the interior of the uterus and by a process known as *segmentation*, gradually develops into a fœtus, as described on pages 48 to 51.

Can conception be prevented at all times? is a question often asked. During the last decade or two almost innumerable books and pamphlets have been written upon this subject, many of them claiming to have discovered an infallible means for preventing conception. The real purport of these works is to make money by selling an inert

compound for a good round price. There are very few journals of the present day but contain advertisements of this character, and we wish to say to our readers, and emphatically, *there is no known drug or combination of the same, taken internally, capable of preventing conception*, and any person who claims to the contrary should be set down as a *fraud* and an *impostor*. Conception is prevented, but the only way which does not directly interfere with nature's laws, is abstinence from sexual intercourse. The menstrual period usually occupies about five days, and if to this is added fourteen—the time the ovum is passing through the Fallopian tube—a period is reached in which conception is not likely to take place once in five hundred times. The number of days covered by this period of immunity is really but seven, as it is possible for conception to occur, if intercourse takes place within forty-eight hours previous to the appearance of the monthly sickness. Numerous remedies and devices have been originated for the prevention of conception, but as before stated, they are *all* in direct opposition to physiological laws, and entail upon the user more or less disease; they are all to a greater or less degree failures, and we advise our readers not to employ them.

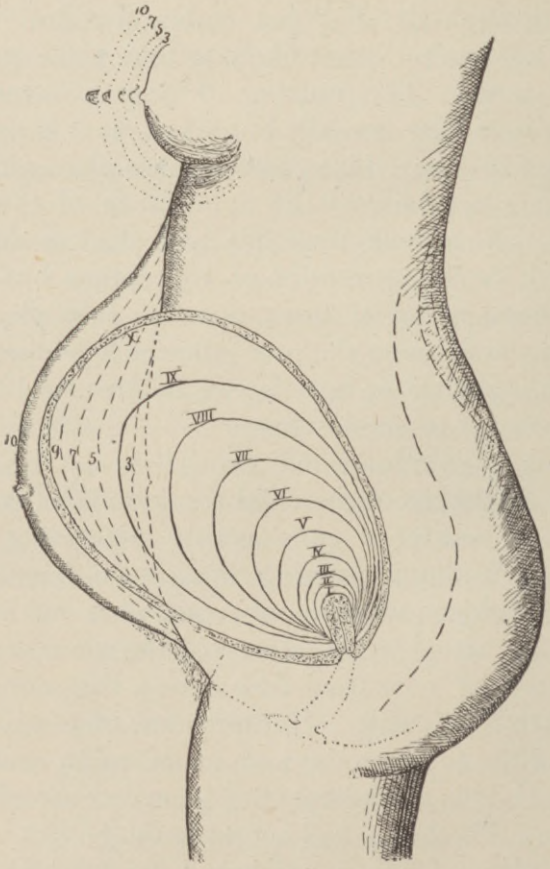
In this connection it may be well to say something in reference to the sex of the child resulting from conception, as this is a matter of considerable importance in many instances. Without entering into the different theories upon this subject, we will only state what has been best borne out by actual facts. As a rule, the sooner conception occurs after the menstrual flow ceases, the more likely is the child to be a female. If intercourse takes place toward the end of the fourteen days, and conception results therefrom, the child is more likely to be a male. Stockbreeders understand this theory and act accordingly.

If in place of one ovum being discharged as before described, there are two, and impregnation occurs, twins

are the result; if three, triplets. In the case of twins, it is more likely that an ovum is discharged from each ovary rather than two from one.

DEVELOPMENT OF THE UTERUS AFTER CONCEPTION.

The changes taking place in the uterus after conception are, perhaps, as remarkable as any of the wonderful physiological occurrences incident to regeneration. In the virgin this organ measures about two and one-half to three



Engraving No. 7.

Progressive Enlargement of Womb, Abdomen and Breasts during Pregnancy.

inches in length, and one and one-half inches in breadth, its weight being about one and one-half ounces.

At the full period of gestation it measures about twelve inches in length, and nine inches in breadth, and would weigh empty, two to two and one-half pounds. The engraving (No. 7), as indicated by the Roman numerals, will give a good idea of this unparalleled change. At the end of the first lunar month the size is unchanged, and at the fifth is not larger than a pint bowl; after that period it increases very rapidly. It must be remembered, that this engraving is not to show the position, only the size. At about the fifth month the uterus rise into the abdominal cavity, where it remains until just previous to labor, when it sinks as far into the pelvic cavity as its size will permit.

The dotted lines show the size of the abdomen and breast at the months corresponding to the figures given; the lines at the back also show the inward curvature at this locality caused by the increased weight in front.

SIGNS AND SYMPTOMS OF PREGNANCY.

The first thing that leads a woman to suspect that conception has taken place is her *ceasing to be unwell.* If she has previously been *regular*, and there is no pain or unusual ill-feeling to which she can attribute the stoppage, it is of more consequence than if she had previously been irregular with her sickness, and is a strong symptom of pregnancy.

The second symptom is *morning sickness.* This, when present, occurs usually not later than fourteen days after conception, and continues for a variable time; with some it continues through the entire period of gestation, while some never have it. The writer has known several ladies who claimed that the last symptom commenced within a few minutes of conception. It usually disappears after the third or fourth month.

Morning sickness, in most instances, occurs as soon as the patient gets upon her feet, or assumes the upright position. The sickness is peculiar, resembling that of sea-sickness with some; others describe it as a deadening or sinking sensation. It does not always occur in the morning. If the mouth of the womb be touched at this time, it will feel soft, about as firm as the upper lip; if pregnancy is not present, it will be about as hard as the end of the nose.

The third symptom, occurring about the second month, is a change in the breasts. They enlarge somewhat, the veins showing plainly; there is throbbing in the breast, and soreness of the nipple. The areola becomes darker, which increases to the end of pregnancy.

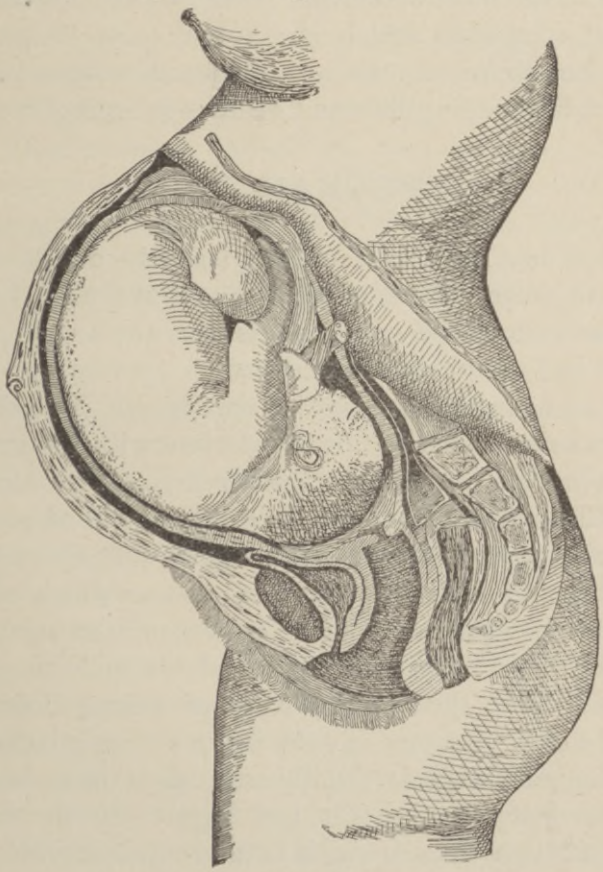
These changes occurring in a first pregnancy are valuable, and can be relied upon, especially if with the other change there is milk or fluid in the nipple. At the end of the third month there is slight enlargement of the abdomen; this increases gradually from this time till near the end of the 280 days. (See Fig. 7.)

In the fourth calendar month (16 to 18 weeks), "quickening" occurs. Quickening is caused by the ascent of the womb from within the pelvic cavity into the abdomen. It can now be felt just above the pubic bone, about the size of a pint bowl. From this period a movement is felt, which is described by some as a "fluttering;" by others as a beating or rearing sensation. This feeling is caused by the movements of the child, and may occur a half dozen or more times a day, or it may be days that it is not felt at all. The idea has been, and is still so with many, that the life of the fœtus begins with quickening, and that previous to it there was no harm in promoting abortion. This is entirely wrong, as life is present from the very moment that the spermatozoa penetrates the ovum (see Part I) and an attempt to procure an abortion is as much a crime as at full time, or even if the child were actually born.

The fifth symptom, occurring in the fifth month, is increased size and hardness of the abdomen. Movement will also be felt quite distinctly at this time.

Sixth symptom is continued increase of the abdomen, the umbilical depression beginning to protrude.

Seventh month the other symptoms are all continued, excepting, possibly, morning sickness has ceased. The



Engraving No. 8.

Natural Position of Child at Full Term

face shows more or less emaciation, and in many cases "moth patches." The umbilical depression is nearly, if not quite obliterated, or there may be protrusions in place of depressions. The womb at this time has increased, and

is felt above the navel. it must be remembered that the seventh calendar month (31 weeks) corresponds nearly to the eighth lunar month.

The eighth and ninth months show a continuation of the symptoms as noticed above. The abdomen continues to enlarge, as do the breasts. There is also a noticeable widening of the hips, and entire pelvic region. There are occasional symptoms which may or may not be present, such as heartburn, toothache, increased flow of saliva, change in disposition, likes and dislikes in eating, etc., etc.

PREGNANCY.

As soon as a lady becomes pregnant, she ought, on no account, to wear tight dresses. The term used by the French to indicate this condition, is *enciente* from *incincta*, unbound, and could well be adopted as the key note for a lady's attire during this interesting condition. The clothes should be so arranged as not to interfere with the gradual development of either abdomen or breasts. The corset, if worn at all, should have the steels removed. The practice of "dressing down" the enlargement of the abdomen in the early months of pregnancy is a custom which should receive severe censure. It often causes miscarriage, cross births, etc. If a miscarriage occurs from such cause, the mother will have the consciousness of having destroyed her own child. Garters should *never* be worn tight, but during pregnancy this is doubly true, as it increases the natural tendency of the feet and legs to swell. If the swelling of these does occur it is advised that your physician be consulted.

BATHS.

A sitz or sponge bath is the best for a pregnant woman. The warm bath is too relaxing, and the shower bath is liable to produce too much of a shock. The sponge bath should be taken daily, and quite cool.

AIR AND EXERCISE.

As soon as there is a suspicion that conception has occurred, long walks should be avoided, as it may cause flooding or miscarriage. We do not wish our readers to get the idea that walking must not be indulged in during this time, but on the other hand we wish to impress upon them, *that nothing is of greater benefit than taking of short, frequent walks during the whole period of pregnancy;* indeed, the more a lady who is *enciente* is out-of-doors the better; the exercise and air will prevent many of the unpleasant symptoms attendant on that state; it further aids in keeping the bowels regular, which is very essential. If occupation is conjoined with the exercise and fresh air, it will be so much better. While impressing the importance of gentle, agreeable exercise, we wish to caution our readers against over-reaching, lifting, running or dancing. Horseback riding should not be taken during pregnancy. The principal reason why the laboring women have easy and quick labors, is that they are obliged to exercise, many of them having to go into the field to work. The rich lady should turn this to her benefit and instead of spending her time on the sofa or easy chair, should have work to do, and attend to it. She should remember that the hardest work in the world is *doing nothing.* Idleness is most injurious in pregnancy. Robert Burton, in his "Anatomy of Melancholy," thus writes of idleness: "Idleness is the badge of gentry, the bane of body and mind, the nurse of Naughtiness, the stepmother of discipline, the chief author of all Mischief, one of the seven deadly sins, the cushion upon which the Devil chiefly reposes, and a great cause not only of Melancholy, but of many other diseases, for the mind is naturally active; and if it be not occupied about some honest business, it rushes into Mischief, or sinks into melancholy."

VENTILATION.

We have endeavored at every given opportunity to impress upon our readers the great necessity of pure air and sunshine. In no condition is it more essential than in pregnancy; not only should the lady who is *enciente* be in the air during the day, but she should see to it that an abundance is admitted to her sleeping apartment at all times. No doubt some will protest against the "night air," and to these we wish to say, better "night air" than no air. Donbtless, reader, you think your sleeping chamber is well ventilated; here is a test: After dressing in the morning take a walk of a few blocks, leaving your room just as you slept in it; upon entering it when you return if there is no unpleasant smell discernible, the ventilation is perfect; very likely the sentinel—nose—will discern an enemy in the camp in the form of exhaled carbonic acid gas or the evaporation from the body, which is constantly being given off in the form of insensible perspiration.

REST.

A lady who is *enciente* should endeavor to lie down for a short rest every day. If she gets in the habit of having a "nap" after lunch it will be all the better, but she should lie down once or twice each day, even though she does not sleep. In the early months of pregnancy it will do much to prevent miscarriage, and in the latter months it rests the ligaments and muscles, which are overtaxed by the increased weight of the womb.

There is, in the latter months, occasionally a feeling of faintness or of suffocation on lying down; to avoid this the head and shoulders should be bolstered up for a while, and the pillows removed one at a time, till the horizontal position is reached.

FOOD.

A pregnant woman ought to exercise care as to her diet; during the early months it should be restricted, non-

stimulating, but nourishing. Stimulants of all kinds should be strictly avoided; it will be better for her and her baby. After she is further advanced her appetite, as a rule, will improve and she can then eat in quantities to supply the increased demand. Her food should continue plain, but must be frequently varied. Fruits of all kinds, poultry, game, fish, etc., in fact, most anything she likes, provided it is not "rich" or highly seasoned.

SLEEP.

If the preceding advice as to dress, bathing, air, exercise, etc., is followed, we think that sleep will be natural and refreshing, as the cause of restlessness in pregnancy can usually be traced to some hygienic error or neglect.

MEDICINE.

A pregnant woman should take very little medicine; there are, however, some trifling ailments that require attention. Constipation is quite frequent during pregnancy. Nothing but the mildest aperient should be used. With a proper diet there will seldom be an occasion for opening medicine. Honey, stewed prunes, baked apples, stewed rhubarb, figs, grapes, brown bread, should all be tried before resorting to medicine; if these do not produce the desired effect, Nos. 56 and 57 may be taken as directed under treatment of constipation, in Vol. I.

If diarrhœa occurs, enough Turkish rhubarb, either in powder, tincture or fluid extract, should be taken to gently act upon the bowels. The spice plaster, recommended on page 447, Vol. I, applied over the bowels will often afford great relief. Don't check the diarrhœa too quickly, as it is probable that nature is trying to relieve the system of something which it ought to be rid of.

HEARTBURN.

Heartburn is a frequent and often very annoying condition of pregnancy. Limewater taken in milk is of great

benefit, and is easily procured. Ten to twenty drops of the *aromatic spirits of ammonia* in a couple of tablespoonfuls of water taken a half-hour after eating, will relieve this trouble. This last remedy is excellent in case any faintness or feeling of suffocation is present upon lying down.

Waterbrash, piles, toothache, chafing, occurring during pregnancy, should be treated as directed in Vol. I.

MORNING SICKNESS.

Morning sickness is often a distressing, though not dangerous complaint. A very excellent remedy for this is Wine of Ipecac, taken one drop in a teaspoonful of water every hour until relieved. A cup of coffee or black tea taken in the morning before assuming the upright position, will often prevent the sickness coming on, or if it occur, it will be less. A woman who has much morning sickness or other stomach trouble during pregnancy has this to comfort her, that labor will be easier for it.

NIPPLES AND BREASTS.

It is sometimes quite necessary to use means to harden the nipples and prevent their cracking. A little *cologne water*, or equal parts of alcohol and water can be used for this purpose. Whichever is used should be applied by wetting the nipple thoroughly, night and morning, for six weeks before confinement. In first pregnancy this should not be neglected, otherwise there may be great suffering from sore nipples. This liniment should be kept in a well-stoppered bottle, and only as much poured into a cup each time as is used, and in this way it may be kept fresh. The breasts sometimes swell and are very painful; this need give the patient no alarm as it will subside without any unpleasant results. If the pain is severe, a piece of soft linen, large enough to cover the breast, wet with equal parts of cologne water and olive oil should be applied, and over this place a piece of new flannel.

KIDNEYS AND BLADDER.

The condition of the kidneys and bladder during pregnancy is important. If there seems to be a deficiency of urine, the patient should endeavor to remedy it by drinking a quantity of pure water, and at regular intervals. If there is any irritation of the bladder, take of best gum Arabic and pearl barley, each one ounce, and boil for a quarter of an hour in one pint and a half of water, strain, and sweeten with either granulated or loaf sugar; this should be taken freely for a week or ten days. Another not infrequent condition is, the patient is unable to hold her water. In this case, about all that can be done is the wearing of a rubber napkin holder filled with absorbent cotton, and put into a tumbler of water ten drops of *tincture of cantharides*, and take of it a teaspoonful every half hour during the daytime. If fainting occurs it should be treated as though the lady were not *enciente*. (See Vol. I.)

CRAMPS.

During the latter months of gestation, and especially at night, cramps of the legs and thighs are likely to occur. A bandage tied firmly about the limb for a few minutes, just above the point where the cramp occurs, will generally relieve. Rubbing the limb with No. 26 night and morning for ten minutes will also afford relief.

Leucorrhœa is likely to occur in pregnancy. This is particularly true if a woman has had many children. It is more frequent during the latter months. It usually disappears after confinement; if not, it should be treated as directed in another part of this volume. Irritation of the external parts should be treated as directed further on. (See Genitals, Itching of.)

ALLEVIATION OF PAIN IN LABOR.

The question is often asked by ladies approaching motherhood, "Is there nothing I can take to lessen the

pain of labor, and which will not injure me or my baby?" We answer, *yes!* The suffering of confinement is diminished very greatly by strict observance of the hygienic rules relating to this condition, and in addition taking No. 132 for three or four months prior to confinement; it will also insure a better and quicker recovery.

No. 132.

℞

Fl. Ext. Cimici. rac. (P. D. & Co.)
Fl. Ext. Cramp. bark " " } aa. ʒ j.
Simp. Elixir q. s. ad..... ʒ ij.

M. Sig.—ʒj upon retiring.

MISCARRIAGE AND ABORTION.

Premature expulsion of the embryo may occur at almost any time during the nine months of gestation. If occurring before the fourth month, it is termed *abortion;* after that period and before the seventh month, it is called *miscarriage;* and when it takes place after the seventh month, but before full time, the term *premature labor* is applied to it. An abortion or miscarriage should be considered as a serious calamity, as it is not only a serious injury to the wife's health, but one accident of this nature is likely to be followed by others, and thus she may be deprived of her greatest earthly privilege, the inestimable pleasure and delight of being a mother.

Miscarriage can, in a large majority of instances, be prevented. Hence the value of a work of this kind, that wives may know and avoid these dangers. It is very common for a physician to be called to care for a woman suffering from abortion or miscarriage, and discovers the cause to be something that might have been easily avoided if the patient had known. Prevention is not only better than cure in this case, but it is a woman's only hope if she desires to be well and happy. We have already noticed

some of the causes of miscarrige, but wish to rename them in order that our fair readers may find them convenient for perusal, and suggest that they read them once a week during the first half of pregnancy: Taking long walks, horseback riding, jolting in wagon, carriage, or railway coach, over-exertion, late hours, dancing, excitement due to attending balls and parties, falls, violent emotions, as in anger or fright, etc., over-reaching, sudden shocks from any cause, active cathartic medicine, constipation, debility from lack of exercise or bathing, etc., tight lacing, too frequent sexual intercourse.

Symptoms.—The symptoms pointing to a possible abortion are more or less feelings of lassitude, depression of spirits, and a feeling similar to that which accompanies the monthly sickness. As soon as symptons of this nature are noticed, a lady should lie down in a cool, well-ventilated room, remaining in the recumbent position most of the time for three or four days. The diet should be restricted for a few days. All drinks should be non-stimulating, and better taken cold. We need hardly add, that sexual intercourse should be avoided at this time. No. 148 should be taken as directed, if there be any show of blood. A more decided symptom of abortion or miscarriage is a discharge of blood with the feelings as above noticed. If there is no pain it is still possible to prevent the misfortune, and the physician should be sent for. If with the flow of blood there is pain, it is more than likely that the embryo will be expelled.

Until the physician arrives, the patient should remain quietly in bed, lightly covered. If flooding should occur, cold water or even ice may be applied to the inside of the thighs and lower part of the abdomen for a few minutes at a time. If the application of cold be immediately followed by a *hot* flannel to these parts, there need be no fear of bad results. We have used cold in this manner in scores of cases, and never saw a single bad effect.

The same care is required after miscarriage as if labor

had occurred at full time. "Getting up" too soon after abortion and miscarriage, as well as childbirth, is one of the most prolific causes of uterine diseases. It should be remembered, that the womb at this time is very much larger and heavier, and also that the muscles and ligaments which hold it in place are greatly weakened. A result of getting about before nature has had time to reduce the size of the womb and strengthen the appendages, is displacement of this organ either backward, forward or downward, and following any one of these accidents, is a long series of extremely undesirable disorders. The rule should be to "make haste slowly" by remaining in bed at least three weeks, and if one or two more intervene before walking is allowed, it will do no harm.

CROSS BIRTHS AND MALFORMATIONS.

We have very little to say in reference to these subjects. It cannot be denied that they sometimes occur, *but so seldom* that no lady who is pregnant should give them serious thought, much less study. A recent publication purporting to be a "guide" for ladies, devotes thirty-two pages—with numerous illustrations—to malformations, and only twenty-five to natural pregnancy. This requires no comment. Mental impressions are the principal causes of malformations, and a lady who is enciente should endeavor to keep the system in the *best possible tone.* If this be done, the nervous system will be less easily affected by any sudden shocks. It is through the senses—which are a part of the nervous system—that mental impressions occur. Nature seldom makes a mistake, and if the advice given in these pages is followed, the patient will have no reason to regret that any act or neglect on her part has caused the unfortunate accident, if it occur. Above all, she should be comforted by the thought that the heavenly Father, who takes notice even of the sparrow's fall, careth more surely for the unborn formed in His image, and of which the Christ said, Of such is the Kingdom of Heaven.

PREPARATION FOR LABOR.

It is not wise to put off till to-morrow the things which should be done to-day. A lady who is expecting to be confined, had better make some preparations for the important event. She should, early in her pregnancy, inform her family physician as to her condition. She should have in a convenient place a pair of good scissors, two strong silk or linen cords about six inches in length—these can be made by twisting and doubling the ordinary sewing silk —a jar of vaseline. Everything for herself and baby should be properly aired and in a convenient place. "The bandage" should be so made that a piece can be buttoned on at the back and then brought through between the thighs and buttoned at the front; this piece will hold the napkin in place, and if soiled can be removed and a clean one put in its place, which will obviate changing the bandage so often.

The bed should be protected by placing next the mattress a piece of waterproof or oilcloth a yard and a half square; over this a sheet four double, and over the whole another sheet.

Over her flannel vest the patient should have a clean nightdress, which should be folded up and fastened about the waist; this will keep it from getting soiled. A flannel skirt should next be put on, and over the whole she should have her wrapper, or if she prefer, another nightdress. After the baby is born and the patient rests a time, the outside wrapper and the flannel skirt with the soiled sheets can be slipped down and out of the bed, and her clean gown brought down without worrying her but very little.

As soon as the patient is satisfied that labor is coming on (see Natural Labor), she should take an enema of water and soap, in order that the lower bowel is well cleared of any accumulation. This will make her labor easier, and possibly save her the mortification of hav-

ing her bowels move during the last stages of labor, when she is unable to prevent them.

NATURAL LABOR.

The symptoms that indicate approaching labor begin about the middle of the last month of gestation. The patient notices that she feels lighter and more comfortable; that her breathing is easier, that she can move about more freely, her dress is looser, and she is conscious that the child has sunk lower in the pelvis. There is generally irritability of the bladder at this time, the calls to pass water being much more frequent; the same also happens as to the bowels, and she should exercise care that the evacuations are sufficient; if only a small quantity of fluid fæces is passed, she should use an enema of warm water and soap, or glycerine soap suppository, in order that the bowels act every morning. Accompanying the irregularity of the bowels during the last week or two there is sometimes pains of a spasmodic character; these are called "spurious pains." But what is called a "show" is of more certain value as a sign of approaching labor than any of the others. This consists of a slight discharge of mucus from the vagina. It is at first colorless, and gets darker as labor approaches, from admixture with blood; it generally commences about twenty-four hours before labor begins. A "show" of blood accompanied by pains resembling those of menstruation, increasing in severity, occurring any time during what the patient supposes to be her last month, is very reliable evidence that the medical attendant should be sent for.

If it is the first pregnancy, the patient experiences a good deal of anxiety. This she should strive to overcome as much as possible. There is very little danger to the mother in a natural labor—and 99 per cent. are natural. Thousands pass through the same, annually, without serious results. Every woman should feel that she can

endure as much as her mother before her. At the longest, it continues but a few hours—"Heaviness may endure for a night, but joy cometh in the morning." She should be encouraged by the knowledge that the greatest pleasure a woman ever experiences in this world is when her baby is first born, and as if by magic, she forgets all the sorrowing and suffering she has endured.

Twenty-four hours is the time allotted for natural labor; this, of course, varies greatly. The "pains" are at first slight, and may have an interval of one-quarter to one-half hour. They are felt mostly in the back and loins; in a very little time the pains extend round to the abdomen, and are of a "cutting" or "grinding" character, but do not cause any *bearing down* effort. These pains are shorter, more painful, and less easily borne than those of the next stage. Nausea and vomiting often occur in this stage, and is a good sign, as indicating dilation of the mouth of the uterus. As the labor advances, there is frequently severe rigors, the teeth chatter, though the surface may be hot all the while; this is due to the condition of the nervous system, and denotes nothing alarming.

These symptoms occur during the dilation of the mouth of the womb (os uteri), and is generally termed the *first stage of labor*. As soon as the second stage commences, a marked change takes place in the character of the pains; the patient speaking of them as "harder, but more easily borne." Usually at this time the membranes rupture, and the "water" escapes. The patient feels relieved; she breathes more easily, and this is frequently followed by a short period of rest; soon, however, the uterus seems to redouble its efforts; the pains are longer, the intervals between them are shorter, and they are now of a *bearing down character*, attended by involuntary expulsive efforts on the part of the patient; pain now follows pain in rapid succession, the patient straining to her utmost to effect the expulsion. The climax at length arrives—a

sharp pain, a scream, a violent and prolonged effort, and the head of the child is born; usually a short repose, followed by another pain, and the second stage of labor is completed, and with it another soul is ushered into the world.

"The hour arrives, the moment wish'd and fear'd;
The child is born, by many a pang endeared!
And now the mother's ear has caught his cry—
Oh! grant the cherub to her asking eye!
He comes—she clasps him; to her bosom pressed,
He drinks the balm of life, and drops to rest."—*Rogers.*

WHAT TO DO IF THE DOCTOR BE UNAVOIDABLY ABSENT.

It is not infrequent that labor is so rapid that the child is born before the doctor arrives, and it seems highly proper that a few directions should be given as to how to care for such cases. In the first place we wish to assure the patient and attendants that there is no great cause for alarm; it is the lingering labors that are dangerous. Thousands of children are born annually in this country without the slightest aid from a physician.

Two attendants are sufficient, or three at the outside. They should be cheerful, quiet, and possess presence of mind. As labor nears the close, one of the attendants, standing at the side of the bed with her back to the patient's head, should place both hands over the abdomen and press gently but firmly downward and backward. As the child passes out of the pelvic cavity, the enlargement will of course, become less, and the pressure should be increased until delivery is accomplished and the contracted womb is felt low down in the abdomen, about the size of a pint bowl. This pressure over the abdomen need not be commenced until just as the head of the child is born, but from this time until labor is completed and the placenta (afterbirth) expelled, it should be *continuous* and *uninterrupted.* If this be done thoroughly, there will be but little

chance for hemorrhage to occur, and the placenta will very likely be expelled in a few minutes. The attendant, who "takes the baby," should see, as soon as the head is born, that the cord is not around the neck; if so, it should be slipped over the head, otherwise the child may die before the labor is completed. A child ought to cry as soon as it comes into the world. If he does not, the attendant should give it a sharp slap upon the buttocks; she should also clear from its mouth any mucus, and if the slap does not cause a cry, dash a little cold water into the face and over the chest. When the baby cries he will then be safe, and the cord can be divided. This is a simple matter. A string should be tied firmly about the cord about one and a half or two inches from the child's body, and about two inches further from the child a second, then with the scissors divide the cord between the two. If the placenta does not come away in a few minutes, slight traction should be made on the cord, and if there should be hemorrhage the attendant should introduce the hand into the vagina (using the projecting cord as a guide) until the placenta is felt, and then remove it, and apply cold as directed for controlling hemorrhage under miscarriage. If the pressure over the abdomen is attended to as directed above, it will not be one case in fifty which will require more than traction upon the cord to secure the placenta. As soon as the baby is born, all but one pillow should be taken from under the mother's head. A *hot* flannel should be placed over the pubis, and down between the thighs. She should be allowed to rest for one hour in nearly the same position, then the soiled sheet can be slipped out and a dry one placed under the thighs and buttocks, and the bandage put on. After two or three hours more the bed may be more thoroughly cared for, and her nightdress can be unpinned from around her waist, and brought down. While these things are being done the patient should remain passive, making no effort, but allowing herself to

be turned and moved by the attendants. A cup of tea or some light gruel may be taken as soon after labor as the patient may desire, or if she feel very much exhausted, some very hot milk may be taken in tablespoonful quantities, about every fifteen minutes. The patient should not talk; in fact, should do nothing but *rest* and anticipate the pleasure she will take with her baby. It is not infrequent that considerable joy is manifested by those present as soon as the baby is born, sometimes amounting almost to hilarity; this is wrong, as it is very likely to excite the mother, and result badly. Feel as happy and thankful as you can—and certainly the occasion is one to call forth thankfulness—but rather express your joy in looks, and your thankfulness in silent praise, than to do or say anything to harm the happy mother.

THE BABY.

As soon as the cord is divided, the baby should be wrapped in a flannel blanket, thoroughly warmed, and placed upon its right side in some warm place. Care should be taken that the air has an opportunity to get through the blanket to his face. After the mother is comfortable, one attendant can remain by her side and the other wash, dress and make welcome the little stranger, who should rest upon his right side most of the time for the first ten days, and be allowed to *eat*, *sleep* and *grow*, which he is sure to do if healthy. In reference to the time the mother should get up, see remarks under miscarriage.

AFTER CARE OF THE MOTHER.

If the bowels of the mother do not act by the second morning after confinement, an enema should be used composed of one pint of water, Castile soap to make a moderate suds, and one tablespoonful of glycerine. This should be given warm, and if it does not cause an evacuation within a half hour's time, it should be repeated. The

bowels should act at least every second morning, and if necessary the enema can be used to cause them to. If the patient object to the enema, a dessertspoonful of No. 56 may be given, or the same amount of castor oil. After thirty-six hours a bedpan should be placed under the patient's hips, and two quarts of water to which has been added a teaspoonful of *glycerine* and *carbaolic acid* mixture, should be injcctcd into the vagina and allowed to run back into the pan. The glycerine and acid is prepared by shaking together in a bottle three parts of glycerine to one of carbolic acid. This injection should be taken as warm as the patient can bear it, and repeated every day for a week, and every other day during the second week.

DIET.

The diet for the first day or two after confinement should be light. Some well boiled cornmeal gruel, milk with lime water, a piece of dry toast, or plain bread and butter. After the second day the amount can be increased, and other articles added. Common sense is the best guide. A delicate woman would require entirely different food from one who is robust. In the first few days the food had better be taken at shorter intervals and a less quantity; in this way overloading of the stomach will be avoided. Cold water can be given before, during and after labor in reasonable quantities. This is the best beverage we know of for the lying-in-woman.

THE BREAST.

In the first confinement the milk does not appear in the breast until the third day; in after cases, sooner. Much care should be given the breast after a first labor, as there is more danger attending it than in subsequent confinements. The breasts should be covered with a piece of soft flannel, and not irritated by closely fitting wraps, or by handling them. If they become hard, knotty and

painful, procure an ounce each of best *sweet oil* and best *cologne water* in the same bottle, shake and apply by wetting a linen cloth and spreading over the breast, and outside of this put the flannel. If the breast be much distended and there appears to be more milk than the babe can nurse, it should be drawn as soon as he is done. If the breast be very painful, instead of the olive oil and cologne, get the same amount of *chloroform* and *glycerine*, shake and apply the same as directed for the former. This is particularly good if there seems to be any tendency toward a gathered breast. We wish to repeat that the principal thing in first and succeeding confinements is to keep the breasts warm, and neither rub, press, squeeze, or finger them in any way.

If for any reason the mother cannot nurse her baby, and wishes to dry up the milk, she had better get the plaster named in No. 136 and apply one to each breast. The druggist should be told that the plaster is wanted for the breast. He will then furnish a properly shaped one, which should be circular, with an opening in the center for the nipple. If this be applied soon after confinement and the breast covered with flannel, and not handled, there will be no other treatment required.

No. 136.

℞

Emp. Bella. et Phytolac. dec.

SORE NIPPLE.

If the nipples are cared for as described on page 100 of this work, there will be very little probability of a cracked and fissured nipple during nursing.

A sore nipple is often produced by allowing the child to have the nipple almost constantly in the mouth. This is bad practice. The child should be placed to the breast at regular intervals, every hour during the first month, every two hours during the second and third, and after

that the intervals should be gradually lengthened. If the baby has sore mouth it will likely cause a sore nipple, and will have to be cured before there will be any hope of curing the nipple. (See pages 295 and 296, Vol. I.) As a remedy for sore or cracked nipple, No. 135 will be found well adapted to all cases. After the child is through nursing the nipple should be washed thoroughly with tepid water and dried with a soft cloth, and the medicine applied with a camel's hair brush. It should be applied each time the child nurses, the nipple being washed off before putting the child to the breast.

No. 135.

℞

Balsam Peru .....
Tr. Arnicae ..... } aa ʒ ss.

Olei Amygdal. dulcis .....
Aquae Calcis ..... } aa ℥ ss.

M. Sig.—Shake well and apply with a camel's hair brush.—*Dr. Scarff, Md. Medical Journal.*

NURSING SORE MOUTH.

This is an affection to which nursing women are very liable, and often proves very obstinate. If treatment is commenced as soon as it is first noticed, it will be much more satisfactory. No. 134 should be procured as soon as any tenderness is noticed, and continued until two or three bottles have been taken.

No. 134.

℞

Tr. Eupatorii. aromat. .....
Fl. Ext. Hydras. can. (non-alc.) .. } aa. ʒ ij.
(P. D. & Co.)

Aquae q. s. ad ..... ℥ iv.

M. Sig.—ʒ j every hour during the daytime.

PRURITUS OR ITCHING OF THE GENITALS.

This is an extremely annoying affection. It consists in an irritability of the nerves supplying the parts, which gives rise to the most intense itching and a desire to scratch and rub the parts. This is so great at times as to make the patient's life almost unendurable. It is only by the greatest effort that she resists the desire to scratch the parts when in society. The itching sometimes extends up the vagina, to the anus, and down the thighs. *It occurs in pregnancy* as well as in the no pregnant state.

This is an affection which does not always yield readily to treatment, and for this reason, and the great aversion ladies have to seeking treatment for it, we have appended three prescriptions, Nos. 133, 137 and 138, and would advise that they be tried, one after the other, and we feel positive that the patient will find relief in one of the three. Apply by wetting the parts, first washing with tepid water. A sitz bath of a *few minutes'* duration—the water being as hot as the patient can bear it—should be taken two or three times a week. The general health should be improved by outdoor exercise, bathing, ventilation, etc. The patient should sleep with as little covering as possible.

No. 133.

℞

Plumbi Diacetas	grs. xvj.
Alcohol	ʒ ij.
Glycerine	℥ ij.
Aquae. rosae q. s. ad	o j.

M. Sig.—To be used externally three or four times a day as directed.

No. 137.

℞

Hydrarg. Bichlor	ʒ ss.
Tr. Opii	℥ j.
Aquae	℥ vij.

M. Sig.—For external use only as directed.

No. 138.

℞

Acid. Hydrocyan. dil..... ʒ ij.
Plumbi. Diacetati..... ℈ j.
Olei. cacao..... ʒ ij.

M. Sig.—Apply after washing with cold water.

If it seems necessary that an internal remedy should be taken to allay the irritation in this complaint, and quiet the nervousness sometimes attending it, No. 139 should be procured, and taken every two to four hours as required. After taking two or three doses it should then be left off till again wanted, and do not take it if the pain can be controlled by the external remedies.

No. 139.

℞

Chlor. Anodyne (*P. D. & Co.*)..... ʒ ij.
Syrup Simp..... } aa ʒ ij.
Aquae..... }

M. Sig.—ʒ j every two to four hours as directed.

VAGINITIS.

This is an inflammation of the membrane lining the vagina. There are two forms of the disease, *simple* and *specific*. The specific is known as female gonorrhea.

Symptoms.—The symptoms are the same in each form, and consist of a sense of heat and burning in the vagina; aching and weight in the region of the vagina and rectum; frequent desire to void water; a profuse discharge from the vagina of offensive character, and somewhat resembling pus, and more or less throbbing pain in the pelvic region.

Treatment.—The treatment must necessarily be, in a large measure, local. A gallon of water should be poured over a teacupful of either linseed meal or wheat bran, stir well and allow it to stand fifteen minutes, and then strain through muslin or cheese cloth. The half of this should

be injected into the vagina at once, and as *hot* as it can be borne. It should be used night and morning for one week, and at night only for the succeeding week. After this injection, No. 140 should be used, a teacupful at a time. It should be warm and used immediately after the injection. After waiting a half hour No. 141 should be used. A ball of absorbent cotton the size of a large hen's egg should be used, a string six to seven inches long being tied about the center, and No. 141 smeared over the outside of the cotton. This should be introduced well up into the vagina till it strikes the womb. The syringe nozzle can be used to accomplish this. The string should be long enough so the end projects, so as to be used in removing the cotton. Nos. 140 and 141 should be used twice a day, night and morning, during the second week, the same as during the first. As the disease improves they need be used *only* at night. During the first week the patient should take of *bicarbonate of potash, twenty grains*, and dissolve it in four tablespoonsful of water and the juice of half a lemon in the same amount of water. These should be prepared in separate glasses, and then poured together and drank while effervescing.

No. 140.

℞

Hydrarg. Bichlor..... gr. ij.
Aquae Dist..... o ij.

M. Sig.—Use locally a teacupful at a time as directed.

No. 141.

℞

Acid. Boricum (finest powder.)..... gr. x.
Glycerina..... ʒ ij.

M. Sig.—Apply upon absorbent cotton as directed.

LEUCORRHŒA.

There is no disorder in the whole list of female ills so frequent as leucorrhœa or "whites." Probably no woman

ever goes through life without suffering at some period from it. If slight, she says nothing about it, and it is only when it becomes annoying by its constancy, abundance or irritating properties, that she seeks treatment. It occurs at all ages, and in all classes. Properly, it is only a symptom of some other disease, and the condition giving rise to it oftenest is a congested state of the vagina, uterus and its appendages. There are a number of causes of congestion of these organs, and which indirectly cause leucorrhœa; amongst these are the various displacements of the womb, growths of different character within this organ, prolonged lactation, excessive coition, and pregnancy.

Other causes of leucorrhœa are long walks, occupation requiring long hours on the feet, taking cold, running a sewing machine, debility from want of outdoor exercise, too close confinement in an overheated room, too much or too little underwear, imprudence during menstruation and after confinement.

Treatment.—Hygienic measures should be thoroughly carried out in the treatment of this affection. Sponge and sitz baths in cold water, exercise in the open air, ventilation. Care should be taken that the lower extremities are warmly clad, but not an over-abundance in the region of the hips and pelvis. When underclothing is worn in two pieces it brings a double thickness in the region of the pelvis; this is very undesirable in either sex. If the clothing were so made as to be in one piece, this would be obviated. In addition to the hygienic treatment, we advise that two quarts of hot water be injected slowly into the vagina and follow it immediately with No. 142, two teaspoonfuls to a quart of warm water and use as an injection. This should be used every night until better.

No. 142.

℞

Fl. Ext. Hydras. can. colorless.
(P. D. & Co.)
Glycerina.....aa ℥ j.

M. Sig.—℥ ij to a quart of water as directed.

Obstinate cases may require something more, in which case we advise the following, No. 143:

No. 143.

℞

Zinci Sulphate	ʒ j.
Alum	grs. xv.
Cocoa Butter	ʒ iij.
White Wax	ʒ ss.
Oil Sweet Almond q. s.	
Ext. Hyoscy	grs. iij.

M. et ft. supposit. No. vj, Sig.—Use locally as directed.

After using the water and No. 142 as above directed, a suppository should be pushed well up into the vagina, and after it has become warmed it should, by means of the index finger, be spread over the upper part of the vagina and mouth of the womb. This should be left undisturbed until the third morning, when an injection of warm water should be taken; omit two nights and upon the third apply another suppository as before, leaving it on the same, and continuing in this manner until the prescription has been used two to six times, as the severity of the case requires. Do not be alarmed if this causes some smarting; as the disease gets better it will be less. Sexual intercourse should not occur while the medicine is on, neither should the medicine be used during menstruation. Mild cases of leucorrhœa can be cured by using myrtle tea as an injection. Steep one ounce of the myrtle leaves in a pint of water, strain, and use warm.

PAINFUL MENSTRUATION. (*Dysmenorrhœa.*)

Any lady who suffers at the time of her monthly sickness, will be able to recognize this distressing affection without very much description. The pain is usually confined to the pelvis and loins, occasionally in some other part of the body. As soon as the flow begins the pain

generally abates; sometimes it continues throughout the duration of the discharge.

Treatment.—At the beginning a warm sitz bath should be taken of fifteen to thirty minutes' duration. Into a goblet of water put ten drops *tincture of aconite*, and into a like amount of water put forty drops of *tincture of pulsatilla*, and take of these two a teaspoonful every fifteen minutes alternately; this brings each a half hour apart. This same treatment should be used in cases where the flow stops from taking cold, or if it starts and stops from any cause accompanied by fever and headache. If desired, the warm sitz bath can be taken two or three times in twenty-four hours.

This treatment will relieve most cases. If it should not, we advise that No. 145 be procured, one to be used each night, commencing on the fifth day before the sickness begins; these suppositories should be introduced well up into the vagina, and after becoming warm, spread over the mouth of the womb with the finger.

No. 145.

℞

Ext. Cannab. Ind. .....
Ext. Hyoscyami ..... } aa. gr. ijss.
Cacao Butter ..... ʒ v.

M. et ft. suppos. No. v. Sig.—One to be used every night as directed.

In case of retardation of the monthly flow, or after it has once commenced and stops from any imprudence in young girls, after relieving the symptoms by means of the sitz bath and aconite and pulsatilla, and if menstruation does not go on naturally, it will be best to have them take No. 144 for a month or two in order to assist nature in re-establishing this function, taking care that the imprudence does not occur again.

No. 144.

℞

Ferri. Sulphate exsic.
Terebinthinae alba . . . . . aa. ʒ ss.
Pulv. Aloes soc . . . . . grs. x.

M. et divide into pil. No. xxx Sig.—One pill night and morning.

PROFUSE MENSTRUATION OR MENORRHAGIA.

In many females, the discharge is always profuse and does not seem to weaken them; if, however, there seems to be an exhaustion, and it is desired to lessen the discharge, No. 148 should be commenced upon the second day of the flow, and taken every four to six hours to *partly* check the discharge. Flowing between the regular time is not uncommon, especially as "change of life" approaches. This can be checked by taking No. 147 as directed; this is only to check the flow, and as soon as it is better take No. 149 and continue it for six weeks to two months, and try to improve the general health by such hygienic measures as have been previously recommended in menstrual troubles.

No. 147.

℞

Fl. Ext. Ergotae (P. D. & Co.) . . } aa. ℥ j.
Tr. Cannab. Ind. . . . . . }
Syrup Simp. q. s. ad . . . . . ℥ iv.

M. Sig.—ʒ j every two hours until 6 doses are taken, and then at longer intervals as required.

No. 148.

℞

Plumbi Acetas . . . . . grs. xxxij.
Acid. acetic. dil . . . . . ℥ j.
Aquae . . . . . ℥ j.

M. Sig.—ʒ j in a wineglass of water every 4 to 6 hours.

STERILITY.

Sterility in the female implies incapability for conception, and is synonymously called barrenness. It has always received more or less attention from medical writers, from the earliest period to the present. The frequent reference made to it by Biblical writers as a reproach to woman, is well known to all readers of that book. Before such reproach is placed upon the woman, the sexual capacity of the husband should be determined. The causes of sterility are quite numerous, such as absence of the uterus, vagina or ovaries; obturator hymen; displacements of various forms; tumors; inflammation of the uterus, ovaries or Fallopian tubes. Many of the causes of sterility in the female can be remedied by the competent gynecologist, while others are not amenable to treatment. No physical results are produced by sterility, but its existence will frequently depress the spirits and sadden the disposition, which under other circumstances would have been cheerful and equable. There is no reason why a woman should regard this incapacity as a reproach to her womanhood. To want children and not be able to have them is infinitely better than to be able to have and *not* want them.

NEURALGIA OF THE NECK OF THE BLADDER.

This is an affection of frequent occurrence in females, and is one which often gives rise to the most intense suffering. It occurs at all times of life, but is very much more common in the married than the unmarried.

Symptoms.—Frequent desire to pass water, with more or less pain attending it. The pain is sometimes relieved as soon as the urine is passed, and at other times it continues or increases. Generally, after a desire arises to urinate, the longer it is put off the greater the pain. The

patient, in some instances, has to pass water every few minutes. This may continue for days at a time, unless remedies to relieve are administered.

Causes.—The condition giving rise to this painful affection is an inflammation of the lining membrane of the bladder. We have observed it so often with "onanism" as practiced by the married to prevent conception, that we are led to place this as one of the active causes of irritation of the neck of the bladder in married females. We have made mention, under a previous subject, of the injuries resulting to the wife if the sexual act is not completed. In this revolting, pernicious and unphysiological practice the husband suffers nearly as much as the wife; if the effect is not so soon observed it will follow just as certainly. It is most certain that the vagina and uterus are directly benefited by the absorption of the male elements which are left with them if coition is natural, and the incompletion of the sexual function can but result, in time, injuriously.

Treatment.—The patient at the very first symptom of this affection, should begin treatment by taking the gum arabic and barley tea recommended on page 101; for immediate relief a teaspoonful of either chloroform or laudanum may be placed in the vessel, and boiling water poured over it and the patient sitting over this; a sitz bath of fifteen to twenty minutes, the water being as warm as can be borne, will also relieve. As an internal remedy No. 146 should be taken until the disease is fully controlled.

No. 146.

℞

Potassium Citrate	ʒ iv.
Fl. Ext. Triticum Repens (P. D. & Co.)	
Tr. Hyoscyami	aa. ℥ j.
Fl. Ext. Buch	ʒ ss.
Aquae q. s. ad	℥ iij.

M. Sig.—ʒ j in a wineglass of water three to four times a day.

FALLING OF THE WOMB. (*Prolapsus*).

The term *falling of the womb* is self-explanatory, and requires no further definition. It is of frequent occurrence and the most annoying of the numerous displacements. By referring to Part I of this volume, Engravings 4 and 5, the reader will better understand the natural position of the womb, and also how it is held in its position by ligaments which bind it to neighboring points of support.

In health the womb is from two to three inches above the external opening (vulva) when the patient is standing; a little more if lying down. The patient is able to touch the lower end of it with her index finger, and will find it pointing back toward the rectum.

If the "womb is down" of course it will be nearer the vulva and may be so low down as to be visible; sometimes projecting half its length.

Causes.—Any condition which tends to debilitate the system may give rise to this complaint, as frequent child bearing, prolonged nursing, advanced age, laborious occupation, etc, Tight lacing, by pressing the intestines down upon the uterus, acts as a cause; dancing and jumping at the time of menstruation, when the uterus is congested and increased in weight, are apt to produce this complaint. The most frequent cause of prolapsus is the too early exercise after confinement. At this time the uterus is heavier than in health, the vagina distended and the uterine ligaments all relaxed; a combination of abnormal conditions particularly favoring this accident.

Symptoms.—If the womb is down so it is visible or just within the lips of the vulva where it can be easily touched, the disorder is determined without difficulty. In earlier stages, perhaps before the patient has thought that the uterus is out of place, there are symptoms which point to prolapsus, the most common of which are a sensation

of dragging and weight low down in the pelvis; irritation of the rectum and bladder; dull pain in the back and loins; easily fatigued from standing or walking; more or less leucorrhœa. These symptoms are generally relieved by lying down. In addition to the local symptoms, there is usually some headache, more or less indigestion, and occasionally palpitation.

Treatment.—The first thing in the treatment of prolapsus is to replace the uterus. This is accomplished by the patient lying upon a hard mattress, with the hips raised. In obstinate cases the patient may be obliged to assume the "knee elbow" position. By this is meant resting on the knees and the chest. Pillows may be placed about the patient to make her more comfortable. While she is resting in this position the nurse should gently push the womb back into place. She need not fear pushing it too far; a finger's length will be sufficient. After the uterus is in place it should be *kept* there by the use of a supporter till the ligaments regain their strength.

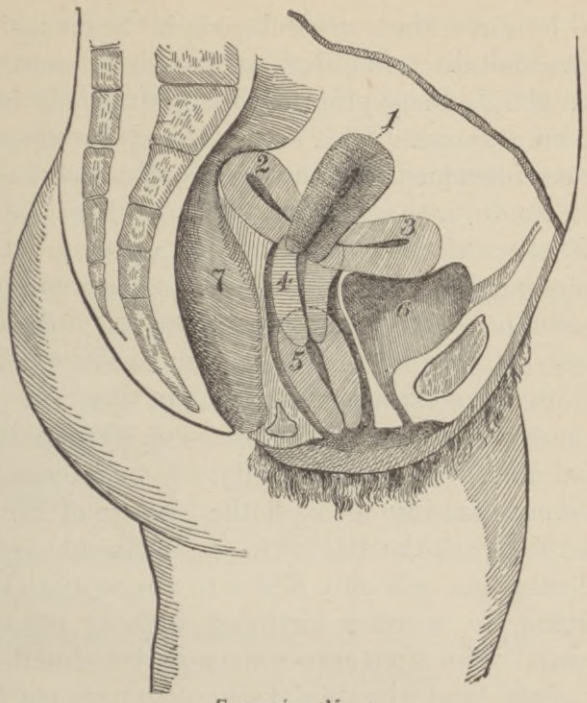
Very little benefit will be derived from wearing a pessary, and a large number of cases will be positively harmed. After several years' trial the writer has abandoned their use altogether.

ANTEVERSION AND RETROVERSION OF THE WOMB.

By anteversion of the womb is meant the tipping or falling forward of this organ. (Engraving No. 9-3.) By this accident the uterus is brought in contact with the bladder, causing irritation of that organ.

Retroversion is the opposite of anteversion, the womb inclining backward against the rectum. (Engraving Nos. 9-2.) This condition often gives rise to constipation.

The causes of anteversion and retroversion are very similar to those giving rise to falling of the womb. The diagnosis and treatment of these affections belong to the gynecologist, and to such we leave them.



Engraving No. 9
Displacements of the Womb.

By a study of engraving No. 9, a thorough understanding can be obtained of what is meant by "displacement of the womb." 1, is the womb in natural position; 2, shows it inclined backward (retroversion); 3, inclined forward (anteversion); 4 and 5, shows this organ in different stages of prolapsus (falling of the womb); 6, is the bladder changed in shape by the anteverted womb (3); 7, the rectum, showing how constipation is produced by the retroverted womb (2) obstructing the rectum.

CHANGE OF LIFE. (*Menopause.*)

As soon as a woman ceases to menstruate, it is said that she has a "change of life." This great physiological change—the end of the fruitful season in the life of woman—is a most important and critical one in her history, and

may well be called the "critical period," beset as it is with many hazards to her health, happiness, and even her life.

After about thirty years of being "unwell," a woman *ceases* to menstruate. This may occur at the age of thirty, and in rare instances, not until sixty; the usual age, however, is from forty-three to forty-seven. Previous to complete cessation of the "periods," for a year or two, she is very irregular; this is styled the "dodging time," and is often accompanied by various mental and physiological phenomena, which her friends often fail to understand, some of the manifestations being fits of hysteria, jealousy, violont bursts of temper, grief, sadness, dyspepsia, melancholy, and not infrequently insanity. It sometimes happens that a woman passing through the change of life will be possessed to break the Eighth Commandment, and falsify. In some cases she will only desire to appropriate one kind of an article, in another anything, without regard to its value or use. She often craves strong drink, and if her physician is of the kind who thinks stimulants are not harmful, he may consent to her having it, and in this way a habit is formed which may continue during the remainder of her life. This, if it occurs, is a very unfortunate affair. It is not unusual at this time that a woman takes a sudden aversion to her husband, her friends, or even her children. In many instances the patient may take on some organic disease which becomes chronic, from which the sufferer is released only by death; but in far the greater number, after a few weeks, months, and sometimes it may extend into years, the system recovers its normal tone, and the sufferer is, as it were, born again into new physical life and enjoyment, with a healthy mentality, and the promise of a long life before her.

A lady in "change of life" usually becomes more "stout," fat accumulating about the bosom and abdomen, giving her a more matronly appearance. This is so great in some cases as to lead to the belief that she is *enciente;*

the breasts swell and pain her to such an extent that she is led to think she has some malignant tumor; the nose is much inclined to bleed during this period, especially at what was formerly her "regular time;" she has great flushings of heat, blushing, as it were, over her entire body. This is a favorable symptom, as it is an effort of nature to temporarily relieve the internal organs. No. 150 is an excellent remedy for hot flashes during this period, and may also be taken if there is much fulness felt in the head. It should be continued for four to six weeks as directed, and then twice a day for a week, and once a day for a week longer.

No. 150.

℞

Fowler's Solution	ʒ j.
Tr. Card. Co	ʒ ss.
Aquae q. s. ad	ʒ iv.

M. Sig.—ʒ j three times a day after eating.

During the "dodging time," should there be much flowing, No. 148 may be used to control it; if leucorrhœa is troublesome, No. 143 can be used as directed under that affection; if irritation of the bladder, use the gum arabic and barley tea, recommended on page 101. Unless actually required, it will be better to leave the case in nature's hands, and if the advice given in the preceding pages in reference to hygienic measures has been followed, we feel assured that very little medicine will be required at this very important period of woman's life.

CONCLUDING REMARKS.

If these volumes are the means of lessening the pain of only a few unfortunate sufferers, we shall feel largely compensated for our task; it has been an arduous one but attended with many feelings of satisfaction, being akin to those experienced by every true physician, as he observes, under the influence of well tried remedies and prudent counsel, man's worst enemy, disease, giving place to his greatest blessing, health.

The subjects directly bearing upon the health of women have been of unusual interest, and if we have, only in a very small measure, contributed to her higher physical development, we feel that our labors will be fully repaid. We do not forget that to woman is consigned the highest and holiest duties of this world; not only is the moulding of her offspring's physical form required of her, but its moral and intellectual destiny is committed to her keeping. Whether she be able to perform these numerous duties, depends largely upon her physical attributes; hence, the necessity that she read these volumes—not listlessly as she would a fiction, but thoughtfully and carefully that it may, through God's blessing, be an humble aid to a higher and better physiological development of her sex and a consequent improvement of our children—America's priceless treasures! and that the time may sooner come, "That our sons may grow up as young plants, and that our daughters may be as the polished corners of the temple."