





"If prudery is shocked at my poetry of truth,—the only pure poetry,—it is of no consequence to me. I do not ask the advice of those shame-faces, who would be chaster than nature and purer than God."

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THE
PHYSIOLOGY OF WOMAN
AND
HER DISEASES

5710

FROM INFANCY TO OLD AGE:

INCLUDING ALL THOSE OF HER CRITICAL PERIODS, PREGNANCY
AND CHILDBIRTH; THEIR CAUSES, SYMPTOMS, AND
APPROPRIATE TREATMENT, WITH HYGIENIC
RULES FOR THEIR PREVENTION,

AND FOR THE
PRESERVATION OF FEMALE HEALTH:

ALSO, THE MANAGEMENT OF
PREGNANT AND PARTURIENT WOMEN,
BY WHICH THEIR PAINS AND PERILS MAY BE GREATLY OBIVIATED.

TO WHICH IS ADDED,

A Treatise on Womanhood and Manhood,
LOVE, MARRIAGE, AND HEREDITARY DESCENT:

BEING THE MOST APPROVED VIEWS OF MODERN TIMES,
ADAPTED TO THE INSTRUCTION OF FEMALES
AND PROFESSIONAL READING.

IN THREE BOOKS—COMPLETE IN ONE VOLUME.

10

BY C. MORRILL, M.D.

Author of Sundry Medical Essays, Lectures on Popular Physiology, etc.

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TO
THE WOMEN OF AMERICA,
AND TO
ALL OTHERS

WHO FEEL INTERESTED IN THE WELFARE AND
IMPROVEMENT OF OUR RACE,

This Work

IS RESPECTFULLY INSCRIBED BY

THE AUTHOR.

FALSE DELICACY AND NOTIONS ON ANATOMY AND PHYSIOLOGY.

SOME persons think it wrong to exhibit plates and models illustrating different parts of the female, particularly to youth. But this is an improper view of the subject: it is the result of false delicacy, and arises from ignorance. The more we attempt to conceal from children or others, the greater is their curiosity, and the stronger their desire to gratify it unobserved. Such is the law of perverted nature. The best way is to inculcate no secrecy, by restricting a knowledge of any part of the system, but allow every part to be studied, and let children be taught very little reserve. It is not the most fastidious who are the most virtuous, and we should suspect such, much sooner than others. It is only by an early study of physiology that the mind can be disenthralled from the false notions which are so common on these subjects. An excellent method to curb the venereal appetite, and to elevate and refine the character is, to study well every part of the human system, and recognise the Divine Architect in its wonderful mechanism. "To the pure," says the apostle, "all things are pure." "I am glad the time has come," observed a sensible lady of Philadelphia, "when people ARE NOT ASHAMED OF GOD'S OWN WORK."—*Beach.*

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INTRODUCTION.

FEEBLE and sensitive at birth, remarks L'Isere, and destined by nature to give us existence and to preserve us afterwards, by means of her tender and watchful care, WOMAN, the most faithful companion of man, may be regarded as the very complement of the benefits bestowed upon us by the Divine Being; as an object fitted to excite our highest interest, and presenting to the philosopher, as well as to the physician, a vast field of contemplation.

We have but to reflect a moment upon her social condition, in order to observe that the female is one of the most essential objects of creation;—that man without the influence of her charms would become a degenerate creature, and the world made desolate. The value of her influence, of course, much depends upon the perfection of her organization, physical and mental, on the refinement and elevation of her character, and on the delicacy and proper direction of her charming loveliness. Where HEALTH is not maintained, beauty soon disappears, and charms are lost; indeed, health or perfection of physical development in the female, is almost synonymous with beauty and everything that is charming in her character: they are both found associated.

The normal woman, as she came from the hand of the Creator is the most beautiful object of creation; upon her frame is traced the most exquisite lines of grace, the resplendence of which, has always formed a halo of angelic perfection, a subject for the song of the poet, the fancy of the painter, and the skill of the sculptor. The constitution of the female mind and character, widely differs from the male; and it is impossible, in this state of existence, for the sexes perfectly to comprehend each other;—thus, each is eminently constituted to divert the other. It is the love of woman—her attractive charms, which act as an undying stimulus to man, for “weal or woe,” in all his efforts—in his toils, his dangers and his privations; by these is the student, pale and wasted by midnight study, cheered and comforted; by these is the mariner sustained in his perilous voyages across the stormy, trackless deep; by these, also, is the soldier inspired with courage to face the cannon’s mouth; in fine, it is the charming loveliness of woman,

which sustains man in innumerable sacrifices and employments. For the purpose of courting her favor, he lays at her feet the fruit of his toils, and finds in her acceptance and smiles, his happiest reward. Therefore, as the influence of woman is great, and effected through her charms, it becomes her duty to herself, to her family, and to the world to preserve her HEALTH, upon which the reality of her beauty depends.

There are other and more important reasons why woman should preserve the charms of her own loveliness, or in other words her HEALTH. By losing it, she not only makes a wreck of her own expectations and happiness, but as a daughter, her premature death may fill the bosoms of her parents with never-ending sorrow. When she comes, according to the intention of nature, to fulfil the duties of a wife, she may reduce to despair her husband, her house to indigence, and convert to a sick-bed, what should have been one of comfort. The most important relation of her social condition remains yet to be told: an awful responsibility is attached to the title of "MOTHER;" the healthy constitution of her offspring particularly depends on the good health of the mother. Upon the originally healthy organization of the child, also, will very much depend the success of a well directed course of physical education in after life. Confirmed ill health in the mother is sure to entail debility or disease on her offspring. A little timely knowledge might very often, to say the least, obviate these sad and afflicting results.

The greatest end and object of woman's existence is, evidently, to perpetuate the species. The fatigue and anxiety of childbirth and nursing, the responsibility of educating her children, require, for their due performance, besides perfection of physical organization, qualities both rare and estimable, and an endurance of fatigue, as well as a submission to privations, which nothing renders supportable, but the love of offspring which a kind Providence has so deeply implanted in the nature of the female. But how can a vigorous woman even fulfill these important duties unless she be instructed? We are told by some that nature is to guide her! Such do not reflect that in her present social condition, she is subjected to an artificial mode of existence—a state that is continually opposing the native dispositions of the animal economy; but such is the case, and we must be satisfied, until some change is wrought, with seeking by the aid of philosophy for artificial substitutes, which harmonize with the nature of the female constitution. It is not too much to aver, that it is mainly owing to ignorance of her own constitution, that woman in passing through her *critical periods*, or while fulfilling the endearing duties of the great end of her existence so often falls a premature victim to some of the numerous ills that beset her.

It was never intended by a bountiful Deity that human life should be prematurely cut off, or extinguished at its very dawn. That its prolongation depends on our own conduct and management, is proved by the following circumstance: We frequently observe the feeble and delicate child, with proper care, become healthy and vigorous; while the robust and healthy infant, under unfavorable circumstances, becomes enfeebled in health, and unfit for the contingencies of life.

It is quite uncommon to meet with a mother, who, before becoming such, had received the least instruction concerning the true object of those mysterious powers by which the species is reproduced; and, "will it be believed, that in more than one instance, in a class of life where fortune conferred its choicest blessings, a young mother has learned, for the first time, from her physician, even when the pains of labor were upon her, that she was not to be subjected to a surgeon's knife, before she could be blessed with the darling object of her love? What does the feeling heart say to this? It can say but one thing:—truths which so nearly concern the welfare of those we love, can never be withheld without culpability." Upon its mother the infant depends for that cherishing care which its delicate frame, at this period, so much requires. She it is according to the design of nature, who is to watch over its tender years; provide its nourishment, and attend to all its wants. But to what extent has her previous education fitted her for the correct discharge of these duties? We find in the majority of instances, that she has contracted the marriage relation, and become a mother, without a suspicion of her deficiency in knowledge concerning the development, birth, and bringing up of the new being which she is to cherish. It is true that she is deeply afflicted when she witnesses the sufferings of her babe, and bitterly laments her own inability to afford it relief. When it finally falls a victim to mismanagement, she piously submits to what she believes to be a *dispensation of Providence*; but which in reality is all owing to the want, on the part of the mother, of a little timely knowledge.

The parent, remarks a medical writer, enters upon the important charge entrusted to her care with less previous preparation for its proper fulfilment, than if it were a plant or flower which God had committed to her management, instead of a living being in whose existence and happiness her whole soul is centered; for if a rare or curious flower be presented her, she will enquire minutely in regard to the best means of rearing it, and will act upon the information; but when a human being is confided to her care, the same person accepts of the trust, without asking a single question about the necessary treatment.

“Who that has a heart to feel, or a judgment to weigh the consequences of those great and acknowledged errors of her physical training, can forbear to wish her enlightened on those immutable laws upon which her happiness so entirely depends? Who can suppress the sigh that involuntarily arises on beholding a family of attenuated offspring, too feeble to resist the encroachments of infantile disease, bending and withering beneath the slightest vicissitudes of atmospheric change, and constantly exciting the fears of an invalid mother for their very existence, whilst she herself, the unconscious cause of most of their ills, is scarce able, from exhaustion, to assert her position as their natural protector.

“I envy not the heart of that man who can witness, without emotions deep-felt and sincere, and an instant conviction of his duty to the sufferer, the slow and insidious approach of disease that is to deprive the helpless objects of a mother’s love. I claim no sympathy from him who can day after day approach the bed-side of the invalid, and console himself that she who has failed to receive at his hands the anticipated benefit, is beyond the reach of his skill from vices inherent in her organism. Is it his sole duty to dole out the pitiful pill or potion, that is absurdly expected to restore her to health? to make the rose revisit that sad cheek, blanched into premature decay, from a total want of knowledge of the everlasting and immutable laws of her nature? Shall she fondly rely upon her chosen medical counsellor to lead her through the perilous paths of gestation and childbirth, when, from deficient education, she is often utterly ignorant of its natural progress? Will he whose heart and head are better adapted to his high and responsible calling, from an absurd subjection to blind conventionalism, oppose a sincere and honest effort for her instruction? Look, for one moment, at those horrid and revolting outrages that have been committed in our midst, by those female fiends, the abortionists! Could such things be, if women were properly instructed in the laws of their physical existence? Would those registers of vice, that may emphatically be called the dial-plates of infamy and corruption, dare to announce the occupations of these wretches, if the community themselves were not in a state of moral apathy and heartlessness?

“Which of our number, who values his character for truthfulness, dare to say, that he makes even the most ordinary prescription with more than a faint hope that it is understood, or will be carried out according to his wishes? It is well known to the physician, that very little reliance can be placed upon the best domestic aid our country affords; and that the prescription of the nurse or the patient (often of no mean de

gree of power) frequently accompanies, or precedes his own. Would this be so, if the patient possessed a *guide* for her conduct, in the perilous situations in which she is often placed? Can it be improper to tell a rational mother, how to break to her child the end and object of those mysterious powers, which are to place her in a situation to fulfil the duties which her very instinct tells her she will be called upon to perform?"

It has been alleged by some physicians, that females require no knowledge concerning their physical organization, because *medical aid* is always at hand to correct the evils of their ignorance. But what shall we say of the mere physic-giving physician,—he who sees nothing of the dangers which beset the female in her present condition; who disregards the influence of a bad diet and air; improper clothing; want of exercise, proper ventilation and cleanliness; and who expects in a day, by some paltry drug, to destroy the consequences of years of transgression, and that while the depressing cause still continues in action. A medical man is rarely consulted till the health is gone; and even if he were, intelligence on the part of the patient is needed, in order to second his efforts at restoration. Great evil not unfrequently results from the physician's prescription being misunderstood, untimely, or improperly administered.

It must be conceded, then, that woman ought to be educated in the physiology and nature of her organization, and the diseases to which she is incident. Her own welfare requires this; and not her own merely but the good of her offspring; and in fine, the proper development of the physical and moral powers of our whole race depends upon the conduct of the female before marriage, during pregnancy, suckling, and afterwards. How is she to be instructed? We answer, by putting within her reach those truths concening her organization which have been elicited by the patient investigations of the accomplished medical men, who have in every age of the world devoted their lives to these subjects, and to whom we are indebted for nearly all we know concerning the prevention and cure of disease. There are two ways by which this knowledge may be communicated; the first and most important is, by putting into her hands works which shall be sufficiently extensive and perspicuous for the purpose; the second is, by frequent and free converse with educated medical men.

Our profession abounds in numerous valuable treatises upon the physiology and diseases of females, which contain information of the greatest moment to the sex. Why should it be withheld? The author of this work makes no pretensions to originality; he has endeavored in presenting to the female a complete treatise on the **PHYSIOLOGY OF WOMAN AND HER DIS-**

EASES, not to leave anything important uninclosed; he has given the most approved views and treatment of modern times, and has made it an especial point to instruct females in the physiology of their system, and the mode of preventing disease, by dwelling at length on the CAUSES and SYMPTOMS, and on special as well as general HYGIENE; he has also labored, as far as consistent with a truthful exposition, to avoid shocking the prejudices or delicacy of the reader.

Within a few years, since the author first contemplated the production of this work, a knowledge of her own system has been considered more indispensable as a part of the education of the female than formerly. Consequently, several books on this subject have made their appearance; some of these are of a character highly objectionable, and are purchased because there is a desire for such information as they *profess* to contain, and because their real character is not known;—such are those “*private* medical companions” which are heralded through the country, by their empirical and mercenary originators. Some others there are, by authors of respectability and science, and which might be read with profit; but in general, they are not sufficiently copious, treating only of a few diseases, without giving the treatment; or, they are not made sufficiently interesting, from being unembellished by topics of interest as well as of importance. Finally, others there are, of pocket size merely, but whose authors have the vanity to occupy some pages in giving the names of authors consulted in preparing their works!; and who also have the effrontery to say that they have sufficiently explained every female disease ever heard of!

After thus alluding to the works of others, designed for the instruction of females, I will say nothing in favor of my own attempt; in the body of the work itself, must be looked for its merits, and I leave it to stand or fall by its own worth.

As I have before intimated, I make no pretensions to new discoveries, but have in preparing this work freely consulted the most approved authors, whenever I believed the reader might be benefitted by so doing. The frequent acknowledgments and references to authors that I have had occasion to make throughout the volume, will, I hope, save me from any accusation of illegitimate depredations. It will be seen that I have made free use of the able treatise of Colombat de L'Isere on the Diseases of Females, translated by Dr. Meigs: to him I am much indebted for remarks on HYGIENE, as well as the CAUSES AND SYMPTOMS of disease. The excellent works of Dewees, Churchill, Denman, Velpeau, Meigs, Dixon, Tweedie, Combe, Watson, and many others, have, also, been freely consulted.

In giving the proper treatment of the various affections to which the female is obnoxious, I do not wish to be understood as advocating the ideas of some, who believe that every one may become capable of doctoring himself. The domestic administration of medicine, as at present practiced, without a knowledge of the system, of the power of remedies, or of the diseases which they are designed to remove, is a great evil. There is at present such a thirst among all classes of community for all kinds of knowledge, that it is worse than useless to try to deprive them of it; the more physicians inveigh against these abuses, without imparting correct information, the more will "affectionate mothers and aunts" resort to *dosing*, or allow themselves to be influenced by *quackery*. On the contrary, the author believes, that if the community were informed in regard to the proper treatment of disease, of the extensive acquirements necessary to constitute the educated physician, and of the onerous duties he has to perform, they would have a more just appreciation of his demands upon their patronage, repudiate quackery, and consequently receive more benefit from our noble and humane profession.

The plan of our work will be seen from an examination of the TABLE OF CONTENTS. After giving the ANATOMY of organs peculiar to the female, we have commenced with the PHENOMENA AND HYGIENE OF CHILDHOOD AND PUBERTY. Then we have treated of the PHYSIOLOGY and all the DISEASES peculiar to every stage of WOMAN'S existence. We have closed with the HYGIENE AND MANAGEMENT OF INFANCY—thus making the whole subject complete by embracing every period of the life of the female.

The intelligent woman will see the necessity of having in her confidence a capable physician; as it is impossible for her, as indeed it is for the physician, himself, to be a proper judge of her own diseased condition.

To make our effort still more useful we have added, at the end of the book, directions for making DIETETIC PREPARATIONS, and a few additional FORMS OF PRESCRIPTIONS; also a GLOSSARY for the purpose of assisting the reader in understanding the medical terms which we have found it necessary to introduce into the work.

THE AUTHOR.

PREFACE TO THE FIFTH EDITION.

The very flattering reception of the earlier editions of this work by the public, has, after the elapse of several years, induced the author to issue this improved edition.

He has been influenced by another consideration: Since the first production of this work, the evils besetting the lives of females have in nowise abated, but rather increased. At the present time, there seems to be a desire as well as a great need among women, of such information as is contained in this volume. In consequence, the market has been flooded with several pretentious works—mere *catchpennies*, issued by physicians, so-called, merely for the purpose of advertising their noxious nostrums, and calling attention to their vile avocations as ABORTIONISTS. In consequence, the public ought to be informed in regard to these matters, and have within their reach a true and reliable work upon which they can depend in all emergencies.

There are no literary pretensions here. The author asks nothing for himself, but every thing for Science, History, and Natural History. By these, the great revelation has been made. Woman has been explained to us. The science of *ovology* has revealed all. What was formerly called an impurity in her, is her holiest, her most poetic crisis. Nature gives woman to man, feeble, depending constantly upon the need of being loved and protected. She is glad to rest upon some one. She loves beforehand him to whom nature seems to lead her. To stop her, she must have more virtue and strength of mind than man. Where the world does not spoil her, she is good, and docile, and ennobling to man. What a duty, what a privilege for us! Cherish, then, love her, protect her. To a true woman, one moment of genuine love is worth more than all the glories of the world.

THE AUTHOR.

BOOK I.

THE
PHYSIOLOGY OF WOMAN,
AND HER
DISEASES,
INCLUDING
ALL THOSE OF HER CRITICAL PERIODS.

“When Conscience, History, and Natural History accord — Believe.”

THE
PHYSIOLOGY OF WOMAN,
AND
HER DISEASES.

PART I.

ANATOMY OF ORGANS PECULIAR TO THE FEMALE.

CHAPTER I.

PECULIARITIES OF THE FEMALE SYSTEM, WITH THE ANATOMY
OF ORGANS PECULIAR TO THE SEX.

THERE has been a popular belief, which exists to some extent in our day, that the human female is almost a different being from the male. Yet, in fact, although the Deity, for the purpose of preserving certain moral and physical differences, has imposed a distinctness of organization upon the sexes, and allotted to each respective duties which cannot be changed, this dissimilitude, though great, is not so distinctive as is by many supposed. In the formation of man, it would be idle, by any process of reasoning, to decide to which sex is assigned the most important part in fulfilling the intentions of nature; they cannot evidently be fulfilled by one sex alone.

• Much may be done through the influences of education and modes of life, in varying the female constitution, but they are not able to deprive it of its distinctive peculiarities. When these great agents have been employed under equal circumstances, an approximation of similarity has been observed; yet they have never been able to alter the character of the female so much, as to leave a doubt to which sex the individual belongs. In those rare cases of malformation, where there is a complete absence of the

ovaria, the mind and body present an extraordinary assimilation with those of the male. The delicacy and gentleness peculiar to the female is exchanged for the superior firmness and steadiness of purpose of the male. The difference in personal appearance, and fancy for rude sports, are also apparent. From these peculiarities, connected with certain derangements of structure, occurring sometimes in females, they give rise to the impression that both sexes are combined in the same person, and thus forming what have been called *hermaphrodites*. We need only say, that no such being has ever been known to exist in the human species; although there have been many curious cases of *malformation*.

We have, however, in this place, only to explain the peculiarities that distinguish the female from the male, which impose upon her, functions and diseases altogether her own. For her organization and temperament particularly adapt her for the contingences connected with the processes of conception, delivery and suckling, which she is destined to perform. Besides being liable to most of the diseases of the male, she is, from the age of puberty, subject to irregularities of her own peculiar function, *menstruation*, from which she severely suffers.*

The anatomical and physiological peculiarities of the female are numerous. One of the most evident differences of the sexes, is the inferiority in stature of the female. The bones of her whole system are more delicate and less extended. Those of the cranium are smaller, as also is the space destined to be filled with the brain. The connection of the bones with each other, in articulating, differ from those of the male, in being better concealed. The chest is more elevated, in consequence of the ribs forming nearly right angles with the spine. This disposition of the ribs renders the chest shorter, though its upper part is larger. Of the differences in the bones of the *pelvis* we shall speak hereafter.

* An eminent medical writer is of opinion, that most of the causes which degenerate the human race, originate with the female; he remarks: "The degeneration of the species always begins in nature with the female; to study the diseases of them is to arrive at the source of all that belong to the human species."

The muscular system also differs; its activity is much greater; and the whole of the fibres of the female, possess greater tenuity and sensibility.

The nerves are smaller and of more delicate structure; they possess greater sensibility, and hence the increased susceptibility of impressions, from physical and moral causes; hence, also, the rapidity of contraction of the muscles, and less permanency of impressions. And thus the organization of the muscular and nervous systems, contribute to render the female more liable to spasmodic diseases, and exposed to inordinate stimulation from internal and external, moral and physical causes.

In the circulatory system are united the peculiarities of the muscular and nervous systems. The circulation is carried on with more rapidity, but less force; the arteries are smaller, more excitable, and less easily calmed when inordinately excited. The veins are more strongly marked upon the surface of the body, thus offering less resistance to the distension of the blood.

The cellular system is more abundant and more flexible. From its abundance about the articulations of joints and large foldings of the body, a roundness and beauty is given to parts which in the male are sometimes unsightly. The texture of the skin is much finer in the female, more highly polished and transparent, and is, of itself, almost an object of beauty. Its sensibility is much greater, and its sympathies are more vivid than in the male.

It will be seen, by the peculiarities which we have now pointed out, that the female constitution is of a marked and in many respects distinct character. There are other physical peculiarities contained within and about the *pelvis* which we shall soon describe, endowed with an extent of influence that belongs to none of those yet mentioned.

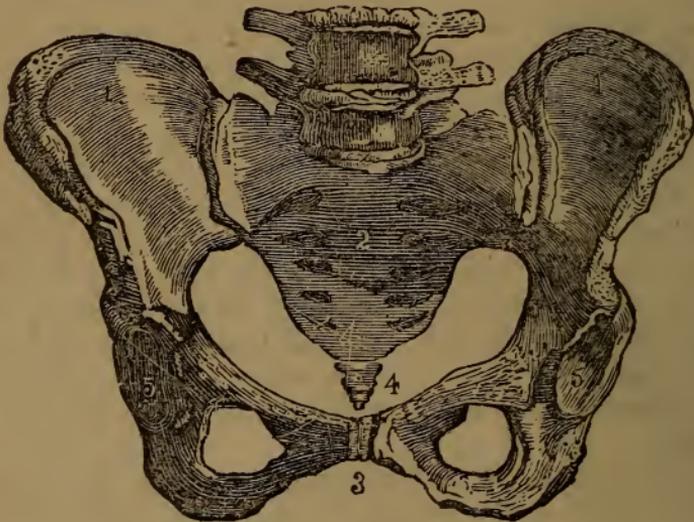
NOTWITHSTANDING the aversion of females, from innate and becoming feelings of chastity, for every allusion to the organs destined for the continuation of the species, yet, from the importance and actual necessity of their having a knowledge of those organs, they being the seat of numerous diseases and accidents, it is unavoidably incum-

bent upon me to give such information in these descriptions. While doing so, I shall sympathize deeply with her feelings, and endeavor that no expression shall fall from my pen, which may raise a single blush upon the cheek of any modest and intelligent woman.

THE PELVIS .

By the term PELVIS, from a Greek word, signifying *basin*, is indicated that portion of the abdominal cavity included within the bones of the pelvis, which are four in number: the *ossa innominata* or hip bones. the *sacrum* and

FIG. 1.*



* A front view of the female pelvis. 1. 1. The *ossa innominata*, or hip bones. 2. The *sacrum*, perforated with two rows of holes for the transmission of nerves. 3. The *symphysis pubis*, or ospubis. 4. The coccyx. 5. 5. Articulations for the thigh bones. The *antero-posterior diameter* of the brim, from symphysis pubis to middle of sacrum, measures four inches and a half. The *transverse*, from the middle of the brim on one side to the same point on the opposite, five inches and a quarter. The *oblique* diameter measures about five inches. The *antero-posterior* and *transverse* diameters of the *outlet* measure each four inches. The cavity of the pelvis measures in depth, one inch and a half in front, and four inches and a half posteriorly.

coccyx; which in the adult are firmly united by what are called the *symphyses*. The triangular space between these bones is known as the *cavity* of the pelvis. It is usually divided by anatomists into the *brim* or *inlet*, *cavity*, and *outlet*. The *brim* is the superior part, and in the female, is of an oval form, corresponding with the child's head. The *outlet* is of an irregular form and is the inferior part. The *cavity* lies between them. See Fig. 1.

In the female, the bones of the pelvis are lighter and more delicate than in the male. The inlet, outlet and cavity, are larger in the former than in the latter.

The contents of the female pelvis are, the BLADDER, VAGINA, UTERUS, with its appendages, and the RECTUM.

The BLADDER (4, Fig. 2,) is situated in front, and has the uterus immediately behind, from which it is usually separated by a convolution of small intestines. The *urethra*, passage from the bladder, is about an inch and a half in length, and passes downwards and forwards to the *meatus urinarius*, opening for the urine, which is situated in the vagina, immediately below the symphysis pubis, and behind the *nymphæ*. See Fig. .2.

The VAGINA (12, Fig. 2,) is a membranous canal, leading from the external parts to the uterus or womb, and corresponds in direction with the axis of the outlet of the pelvis. It is constricted at its commencement, but becomes considerably dilated near the uterus. Its length is variable, though it is generally five or six inches. It is inserted into the neck of the uterus, which projects into the upper extremity of this canal.

The UTERUS (17, Fig. 2,) is a flattened organ, somewhat of a triangular shape, with the base directed upwards and forwards, and the apex downwards and backwards, in the line of the axis of the inlet of the pelvis. In the natural unimpregnated state it is about three inches in length, two in breadth at its broadest part, and one in thickness, and is divided into *fundus*, *body*, *cervix* or neck, and *os uteri* or mouth of the uterus. At the period of puberty this organ weighs about one ounce and a half; after child-bearing from two to three ounces; and at the ninth month of pregnancy from two to four pounds. The membrane lining the abdomen, called the *peritoneum*, envelopes the

upper part of this organ, forming the *broad ligaments*, which serve with the *round ligaments*, which are muscular cords situated between the layers of the broad ligaments, in retaining the uterus in its proper position. The

FIG. 2.*



* A side view of the organs of the female pelvis. 1. The symphysis pubis. 2. The abdominal coverings. 3. A collection of fat forming the mons Veneris. 4. The urinary bladder. 5. The entrance of the left ureter (passage from the kidney.) 6. The canal of the urethra. 7. The meatus urinarius. 8. The clitoris divided through the middle. 9. The left nymphæ. 10. The left labia majora. 11. The meatus of the vagina. 12. The canal of the vagina. 13. The wall of separation between the bladder and the vagina. 14. The wall of separation between the vagina and the rectum. 15. The perineum (space between the vagina and anus.) 16. The os uteri. 17. Its neck. 18. The fundus. The body of the uterus is seen between the two last figures. 19. The rectum. 20. The anus. 21. The upper part of the rectum covered with the peritoneal membrane. 22. The recto-uterine fold of the peritoneum. 23. The uterine fold of the same. 24. The reflection of the peritoneum over the bladder to the internal walls of the abdomen. 25. The last vertebra of the back. 26. The sacrum. 27. The coccyx. 28. The left thigh.

appendages of the uterus are also enclosed in this fold of the peritoneum. They are the *Fallopian tubes* and *ovaries*, which will be considered hereafter.

The RECTUM (19, Fig. 2,) is the termination of the large intestines; it receives its name from the straitness of its form in comparison with the colon above it. It is separated from the vagina by a triangular space, the base of which is downwards and constitutes the *perineum*; its termination externally is called the *anus*.

CHAPTER II.

REPRODUCTIVE ORGANS.

THE FEMALE REPRODUCTIVE ORGANS, are divided into *external* and *internal*. The external, are the MONS VENERIS, LABIA MAJORA, LABIA MINORA OR NYMPHÆ, CLITORIS, MEATUS URINARIUS, and the OPENING OF THE VAGINA. The internal organs are contained within the pelvis,—they are the VAGINA, UTERUS, OVARIES, and FALLOPIAN TUBES; a part of which have been already described, but will be reviewed for the purpose of taking a more extended survey of them.

EXTERNAL GENITAL ORGANS.

THE MONS VENERIS, Mt. Venus, is the eminence in front of the pelvis. It is covered with a fatty substance, the common skin and hairs.

The LABIA MAJORA (10 Fig. 2,) are two large longitudinal folds of integument, consisting of fat and loose cellular tissue; their fissure called *vulva*, receives the opening of the urethra and vagina. The external surface of the labia is covered with hairs; the inner surface is smooth and lined with mucous membrane. The commissure, formed by the union of the labia, posteriorly, is called the *fourchette*. The use of the labia is to favor the extension of the vulva in the passage of the child's head; during which they are completely unfolded and effaced.

The LABIA MINORA OR NYMPHÆ (9, Fig. 2,) are two smaller folds situated within the labia majora. The nymphæ consist of mucous membrane, and are supplied with a number of sebaceous follicles or small glands, and contain, in their interior, a layer of erectile tissue. It is difficult to conceive the motives for bestowing upon this organ a title which pertains to the divinities that preside over fountains. These bodies exercise no influence over

the sources or direction of the urine, and it is proper to say, that their use is unknown.

The CLITORIS (8, Fig. 2,) is a small, elongated organ, situated in front of the os pubis, with its point jutting out under the summit of the nymphæ. This organ has considerable analogy to the male penis; its extremity possesses a *glans*, which is provided with two small *erectile* muscles. It is capable of erection, and is endowed with intense erotic sensibility.

Just on a line with the pubic arch is a small projection, the *vestibule*, immediately beneath which, is the ORIFICE OF THE URETHRA, (7, Fig. 2.) A knowledge of its situation is very important in passing the catheter, when it is necessary to relieve the bladder of its contents.

At about an inch beneath the clitoris is the *entrance of the vagina*, (11, Fig. 2,) marked by a projecting margin.

The ENTRANCE TO THE VAGINA, is generally closed in early life by a membrane of a semi-lunar form, which is stretched across the opening; this is called the HYMEN. It is generally perforated near its middle, and is so thin and delicate as to yield to slight force; therefore it is often wanting in adult persons, having probably been ruptured during infancy. Certain it is, that very many young persons are met with in whom no trace of it is to be found. It has been regarded as a test of virginity; but the reader will understand that it cannot be relied on, since it is often wholly wanting, and in other instances so strong as to require the knife of the surgeon for its destruction. The dogmas upon the subject of the hymen, so frequently give rise to distressing doubts and suspicions, that they ought to be exploded.

In some individuals the hymen is not crescentic, but circular, with an opening in the centre, or in some other part; occasionally examples are met with in which it is imperforate. Instances also are recorded in which it was so firm as to prevent the delivery of the child, till incisions were made to obviate the difficulty. The rupture of the hymen gives rise to a sort of fringe around the opening of the vagina; this is called *caruncula myrtiformes*.

THE EXTERNAL SEXUAL ORGANS, in the aggregate, are

indicated by the word PUDENDUM, from *pudor*, shame ; a word very happily selected as a reference to, rather than a direct denomination of, a part of the body which the sex, without exception even of many barbarous tribes, endeavor modestly to conceal. We are told, that the first sinful indulgence of the human appetites, was succeeded by the deepest consciousness of exposure upon this subject ; and the fig-leaf which concealed the shame of the first woman, is a simple expression or emblem of female delicacy. The Venus de Medici is not less expressive of female modesty, than of the perfection of the female form : its modesty is the key to that inimitable, universal and pervading beauty, which places it at the head of the ancient works of art, and renders the statue at once a truth in morals, and a profound homage to one of the best attributes of woman.—MEIGS.

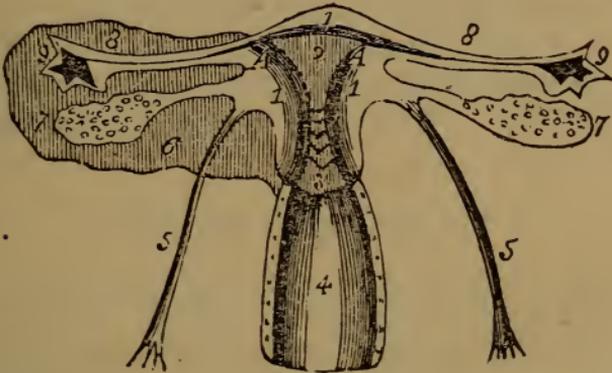
INTERNAL GENITAL ORGANS.

THE membranous tube of the VAGINA connects the external with the internal organs. It is longer in virgins than in those women who have borne many children ; and larger in diameter in the latter than in the former, from its having been frequently dilated by the passage of the child's head. It generally closes speedily after the passage of a child, even one of a very large size. The form of the UTERUS is very well represented by a pear, with the large part upward—it is larger in those women who have borne children. It is composed of muscular fibres, blood vessels, absorbents and nerves, which are very small in the unimpregnated state ; but in the gravid womb, the same vessels acquire an enormous size, are exceedingly numerous, and are furnished with torrents of blood from the uterine arteries. *See the anatomy of these organs at page 21.*

The FALLOPIAN TUBES, or oviducts, (8, 8, Fig. 3,) called also by French writers, uterine trumpets, are situated in the upper border of the broad ligaments, and connect with the upper part of the uterus. Each tube is four or five inches in length, and is perforated through its whole extent by an exceedingly minute canal, which opens at

one end into the upper angle of the cavity of the uterus; the other extremity called fimbria, lies loose in the cavity of the pelvis, and has gained the appellation of *fimbriated extremity*. (9, 9, Fig. 3.)

FIG. 3.*



When this fimbria is excited by the veneral orgasm, it becomes erect, and is then directed towards the ovum, which it grasps and conveys by some vital process not very well understood, from its position, through the Fallopian tube into the cavity of the uterus; where its growth takes place till the birth of the child. (*See Pregnancy.*)

The OVARIA, (7, 7, Fig. 3,) are two, oblong, flattened, oval, and shining bodies, situated in the posterior layer of the broad ligaments, and connected with the fundus of the uterus at each side, by means of a rounded muscular cord—the *ligament of the ovaria*. The ova, or eggs, are the

* A section of the vagina, uterus, and its appendages, from side to side. 1. 1. 1. The thick walls of the uterus. 2. The cavity of the uterus. 3. The mouth of the uterus. 4. The vagina. 5. 5. The round ligaments. 6. The broad ligament, represented only on one side. 7. 7. The ovaria. The ova are represented by the dots. 8. 8. The Fallopian tubes, down each of which is seen a black line; this is the small passage proceeding from the open ends to the uterus. 9. 9. The fimbriated extremities of the tubes, which grasp the eggs for the purpose of conveying them through the tubes to the uterus. A. A. The commencement of the passages down the Fallopian tubes.

germina, or rudiments of the *embryo*, or child, and are contained in the *Graafian vesicles*. It would be tedious to the general reader, to give the anatomical structure of these eggs; they resemble small bags filled with a whitish albuminous fluid, similar to that found in the eggs of common fowls. They are about the size of a pin's head, and vary in number from two to four hundred, or more. After the separation of an ova, a yellow spot, the *corpus luteum*, is formed in place of the detached ovule. In process of time, however, the corpus luteum disappears, and nothing but a cicatrix remains in the original seat of the ovule.

THE MAMMÆ, OR BREASTS.

ANOTHER organ of the female which we should not omit to describe, is the MAMMÆ, or breasts. Their situation and form is well known. They exist in the male as well as female, but in a rudimentary state. The left mammæ is a little larger than the right. Near the centre of the convexity of each breast, is a small projection called the *nipple*, which is surrounded by an areola having a colored tint; the color is of a delicate pink in the female before impregnation, afterwards it assumes a brownish hue which deepens in color as pregnancy advances; after the birth of the child the brownish tint continues through life.

The mammæ, in structure, is a secreting gland, consisting of lobes which are held together by cellular tissue. Its excretory ducts, which are ten or fifteen in number, commence by small openings at the apex of the nipple and pass inward, towards the central part of the gland, where they enlarge and give off numerous branches, to ramify through the gland to their ultimate termination in the minute lobules.

The direct sympathy that exists between the breasts and uterus, has led to the belief that there is an open connection between the two organs. It is only necessary to state that no such communication in reality exists. Though Fallopius and other authors declare that the sympathy is produced by an anastomosis of vessels, they have not shown how, or where, such connection is to be found.

The UTERUS and BREASTS seem to be a set of organs balancing each other in the system ; thus, in pregnancy and at the menstrual periods, the uterus is active ; but after parturition the action of the uterus subsides, while the breasts in their turn become active, and secrete milk. In case of inflammation of the uterus, incident to lying-in women, the secretion of milk is destroyed ; so when the uterus yields the menstrual discharge, the milk is not secreted in perfection during a continuance of this discharge ; nor do we ever find them both inflamed at the same time.

PART II.

DISEASES OF THE EXTERNAL GENITAL ORGANS—SYMPTOMS, CAUSES, AND TREATMENT.

CHAPTER I.

DISEASES OF THE LABIA MAJORA

THE EXTERNAL REPRODUCTIVE ORGANS are so constructed as to render them liable to a variety of complaints, which are apt to excite alarm in the mind of the female, however free from danger they may in reality be. Women, especially the married, when laboring under affections of these parts, are often kept in a state of great anxiety, until they can know the exact nature of the difficulty, and that it will not be attended with danger. On this account it is important that females be acquainted with the diseases to which they are incident, and thus in a measure be able to save their peace of mind, avoid the causes which tend to them, and have remedies timely applied for their relief.

1. THE LABIA MAJORA, on account of their looseness of texture, sometimes become very much enlarged from slight irritation; this happens frequently with those who neglect daily washing of the parts, during, and after the menstrual purgation. When there has been a neglect of proper cleanliness, the secretions become acrid and produce itching; if friction be indulged in, the parts become inflamed and sometimes very much swollen. The same thing may take place in regard to the nymphæ. Therefore it is important that these parts be daily washed with

warm water, particularly during the flow, and immediately after the menses have ceased.

2. ABSCESS of the labia sometimes occurs, which is extremely painful. The progress of the inflammation towards suppuration is sometimes so rapid that but little time is permitted to procure resolution.

It is CAUSED by blows, falls, forcible intercourse, and injuries of any kind may produce it; or it may arise from a general disposition to inflammatory action.

The SYMPTOMS are heat, swelling, redness, and throbbing pain in the part, extending to the groin and down the thigh. On examination, the labia are found to be enlarged, a circumscribed hardness is felt, and the part is exquisitely tender.

In the TREATMENT, rest and quiet must be adopted; and if the symptoms are severe, leeches at the commencement, may be applied to the part, and followed by bread poultices and the administration of a brisk purgative of infusion of senna with salts. If suppuration be established the leeches may be omitted. Poultices should be applied till the formation of matter, when a free incision should be made for its discharge. Dr. Dewees recommends in children, where it is difficult to confine a poultice to the parts, the application of strong mercurial ointment with turpentine.

3. ENCYSTED TUMORS of the labia are met with of various sizes, and generally circumscribed. They occasion but few *symptoms*, except those that arise from their size.

In the TREATMENT, simple incision of the tumour may be sufficient, or it may be entirely dissected out, which is probably the best plan.

4. WARTY TUMORS.—These occur both singly and in clusters, generally suspended by a pedicle, from some part of the external organs. Their size varies from that of a pea to that of a turkey's egg. They are apt to spread internally to the vestibule; but are neither painful or tender, and are of inconvenience, only from their size. Their color is the same as the natural parts. They are, in many cases, of *venereal* origin, and if suppuration takes place in them, as it sometimes does, they are apt to form unhealthy sores.

The TREATMENT is by excision, either with the knife, scissors, or ligature. If there is a suspicion of syphilis, mercury, in some one of its forms, must be given. The invalid is to be kept quiet, upon a moderate diet, and have the bowels freed occasionally with medicine.

5. IN YOUNG CHILDREN it sometimes happens that the inner faces of the labia become irritated, which results in inflammation, uniting the surfaces in contact.

The TREATMENT required in these cases, is to separate the united surfaces by gently drawing them apart, and with the end of a probe divide the adhesions. It is sometimes, though rarely necessary to use the knife, unless the operation be delayed till womanhood. Such adhesions arise from a want of cleanliness; therefore parents should be sure that these parts are regularly cleansed every time the child is washed, by carefully separating the labia. They should then be tenderly dried with a soft cloth, and may be dusted with powdered starch. Affections of the labia, resulting from pregnancy and child-bearing, will hereafter be considered.

CHAPTER II.

DISEASES OF THE NYMPHÆ.

THE NYMPHÆ or lesser labia, are subject to enlargement, when they are changed from a red to a dark color, become dense and sometimes covered with little tumors, resembling warts; these, in cold weather, are subject to excoriation, especially if they protrude beyond the external labia, as they sometimes do.

In the TREATMENT, we prescribe rest, free purgation with senna and salts, and if there be much inflammation, the application of leeches near the part. A soft bread and milk poultice should be applied once in three or four hours. When such means fail, and the affection becomes chronic, the protruding part must be removed by the knife or scissors, which is a safe operation. A similar one is performed by the Arabs and Moors, in applying the rite of circumcision to their young females.

CHAPTER III.

DISEASES OF THE CLITORIS.

THE CLITORIS is sometimes the seat of cancer, when there is no alternative but extirpation by the knife, which should be done early, in order to be successful. It also sometimes becomes enlarged from inflammation, when cooling and astringent lotions may give relief. It is sometimes necessary to resort to the amputation of this organ for such enlargements.

It is the *malformation* and *enlargement* of this part, which have given rise to the absurd opinion of *hermaphrodites*. The existence of such a being, has gained the assent of the greater part of mankind; but Dr. Francis informs us that the latest decisions in juridical medicine, reject the possibility of both sexes in the same individual of the human species.

Dr. Meigs remarks, that "notwithstanding monœcious plants, and some of the lower orders of the animal kingdom, contain within their bodies, the organs of a double sex, we are not authorized to admit that a similar condition can occur in beings of a highly complex organization, where an entire individuality of the male and female are, and must be indispensable."

CHAPTER IV.

IMPERFORATION AND TOO GREAT DENSITY OF THE HYMEN.

THE HYMEN is sometimes *imperforate*, and at others, of too great *density*, though perforated sufficiently for the passage of the menses.

In the first case, no inconvenience is experienced, till after the age of puberty; then, the menstruous fluid is duly secreted, but finding no outlet, is accumulated within the uterus. Such persons suffer pain, only at each return of the menstrual period. In cases where the uterus has been completely filled, the pains so much resemble those

of labor, that they have sometimes been mistaken for them; they, at this stage being very severe.

The REMEDY, in all instances, seems to be the same; it is simply to cut through the confining membrane, when the fluid will be immediately discharged.

2. In the rare cases of too great density of the hymen with a small opening, it seems that it does not always prevent conception, notwithstanding its embarrassing effect. A number of such unquestionable cases are on record, in which the woman became pregnant, and the child easily delivered after the operation of dividing the rigid hymen.

CHAPTER V.

INFLAMMATION OF THE VULVA.

INFLAMMATION of the mucous membrane of the VULVA, occurs at all periods of life, but differs according to the age of the patient.

IN CHILDREN, it occupies the whole mucous membrane of these parts, and sometimes spreads to the vagina, producing a profuse milky discharge, called by authors, *infantile leucorrhœa*. This form is seen at all periods after birth, in infants as well as older children, mostly among the neglected, and children of the poor. The causes are cold, mechanical injuries, want of cleanliness, etc.

The SYMPTOMS are local uneasiness, and scalding of the urine. The mucous membrane is inflamed and puffy, and after some time there is observed a thin and colorless discharge, which soon becomes copious, thicker, and of a yellowish color. It is often of an acrid character, excoriating the skin at the margin of the external organs.

The TREATMENT of the milder form is simple and generally successful. When there is much irritation, the parts should be fomented three or four times a day, with a decoction of marsh mallow leaves or poppies. After each fomentation, the parts being dried, black-wash or a weak solution of sugar of lead, or sulphate of zinc may be applied. When the disease is obstinate and becomes chronic, a lotion of nitrate of silver, (10 grains to the ounce of water,) is preferable.

The child must be kept quiet, upon a moderate, unstimulating diet. Laxative medicines must be occasionally given. If there is a tendency to adhesion, lint, spread with simple ointment, should be placed between the labia. If the child becomes weakened by a continuance of the disease, Peruvian bark must be given internally, and wine may be allowed in moderate quantities. Should diarrhea occur, chalk mixture with opium may be given.

2. IN ADULTS, inflammation of the VULVA is more circumscribed, giving rise to a discharge of transparent mucous only. The pain is incalculably more severe. It is more common among married women, especially newly married. The causes and symptoms are about the same as those mentioned under *infantile leucorrhœa*. The treatment generally should be more antiphlogistic than there directed; in severe cases, leeches, to the parts, with saline purgatives to keep the bowels free, and poppy fomentations, are all the remedies necessary, in addition to those before mentioned. In both cases, extreme cleanliness should be observed, with a spare diet.

CHAPTER VI.

PRURITUS, OR ITCHING OF THE VULVA.

PRURITUS, or itching of the vulva, is one of the most troublesome and distressing complaints, to which the female is subject. It is sometimes symptomatic of other diseases, as of the uterus, bladder and rectum. Women who are not pregnant are subject to it, though not equally liable.

The SYMPTOMS are uneasy sensations of itching, pricking, tingling, etc.; the desire to scratch is so indomitable, as sometimes to put decency to defiance. If the complaint be not arrested, the patient will be reduced to a very melancholy condition; unfit for society, solitude leaves her to the uncontrolled exercise of her imagination; her mind, influenced by the excitement of the organs affected, is occupied by lascivious thoughts and impure desires, and her conduct, "in defiance of herself," towards the other sex is in keeping, with her depraved disposition.

The CAUSES are various ; a common one, is an efflorescence of the aphthous kind, first pointed out by Dr. Dewees, of Philadelphia ; several kinds of eruptions ; acrid secretions within the labia ; irritation from pregnancy ; want of cleanliness ; worms, etc.

The TREATMENT will be determined by the location of the irritation, and constitution of the patient. Dr. Dewees places most of his reliance upon borax, especially in those cases which depend upon an eruption of the parts. He used it in the form of a solution in water, which was freely applied to the parts affected ; and certainly great reliance is to be placed upon this article. When the complaint proves obstinate, depletion by purgatives and blood letting adds much to the influence of the borax.* In all cases, care must be taken to remove irritating collections from the rectum, if any exist. The strictest cleanliness must be observed, to facilitate which, the parts should be gently washed, three or four times a day, with warm milk and water, and carefully dried. Iced water, or cold water with a few drops of nitric acid, is useful in giving temporary relief in severe cases.

Other astringents than borax are often used with success ; as a solution of sugar of lead, alum, and sulphate of zinc. When these have failed, balsam copaiva, and dry calomel, applied to the parts have succeeded. Sometimes the irritation extends up to the vagina ; then it is necessary to apply the remedies with a syringe.

Alterative medicines, such as sulphur, decoction of sarsaparilla, etc., internally, and a few grains of cicuta or hyosciamus, to allay irritation, are often very beneficial. These remedies, or a selection from them, apply, of course, to those cases in which the disease is local. If the patient be pregnant, palliative means will suffice, as the disorder generally disappears after delivery. In both cases, the diet should be very moderate, with abstinence

* The following FORM is the best mode of using it, which rarely fails ; viz. :—Borate of Soda, half an ounce ; Sulphate of Morphine, six grains, Distilled Rose Water, eight ounces ; to be made into a mixture according to art and applied three times a day to the affected parts, by means of a bit of sponge or a piece of linen, after having washed the surfaces with tepid water and soap, and dried them.

from stimulants of every kind. The patient should resist the inclination to obtain relief from itching by friction, and all means calculated to improve the general health, should be employed, as moderate exercise, bathing with tepid water, shower bath, etc.—these have been found particularly serviceable.

THERE are other affections of and near the external organs, of a character similar to some of those already described, as *oozing tumors* of the labia; *tumors and thickening of the membrane* at the orifice of the urethra; *tumors* in the pelvis, external to the vaginal canal; and *abscesses* between the vagina and rectum.

When these various affections occur, which is not common, the principles of treatment are the same as before directed for other and similar ones. In all excoriations and discharges, whether such discharges arise from the parts themselves, or merely pass over them, as in leucorrhœa or whites, the strictest cleanliness must be observed.

[For additional FORMS OF PRESCRIPTIONS and DIETETIC PREPARATIONS, the reader is referred to the close of the book.]

PART III.

PHYSIOLOGY OF THE INTERNAL GENITAL ORGANS.—MENSTRUATION—NATURE—TIME OF OCCURENCE AND QUANTITY.—IMPERFECT PUBERTY, WITH HYGIENIC RULES FOR ARRIVING AT HEALTHY.MENSTRUATION.

CHAPTER I.

PHENOMENA OF THE PHYSIOLOGICAL AND MORAL CHANGES WHICH OCCUR IN THE FEMALE DURING CHILDHOOD AND AT PUBERTY, WITH HYGIENIC RULES FOR THE NORMAL DEVELOPMENT.

WE have already spoken of the peculiarities of the female constitution (Chapt. I., Part I.) of adult age; we here purpose briefly to trace the occurrence of those differences, and others of a moral character, which so eminently distinguish the female from the male constitution—leaving out the particular consideration of early infancy, which will be treated of in Book II. of this volume.

What subject, indeed, is more worthy of our attentive meditation, than the series of changes, physical, moral, and physiological, that accompany every stage of woman's existence! By a long succession of modifications and revolutions, she discloses all the phases of her constitution. In infancy, she differs slightly from the male, in whose pleasures and amusements she participates, as well as in his dispositions and tastes, his inconstancy and vivacity. At that early period, ignorant of her own sex, ignorant, so to speak, of her own nature, the blush of modesty does not mantle on her cheek, and her eyes, which reveal no passions, seem to seek only what has reference to her own real wants. (*Colombat.*)

It may be remarked, that generally the female infant is less robust, and consequently its care is less fatiguing to the nurse, than that of the male. Both, however, thus early, are subject to the same class of diseases; they are principally liable to convulsive affections, and especially to inflammation of the brain, on account of the head in infancy being of a greater proportional size, than at any other age, and a vital centre, towards which the efforts of the organism are mostly directed. These are important facts, not to be lost sight of, in the early management of the infant; if, indeed, this susceptibility of the brain to disease, and other necessary facilities for establishing the functions of the female infant without improper interruption, be not regarded, the ground work of maladies may be formed at this period, which will consign her to a premature grave, or if she survive, deprive her of all the charms which render life agreeable and endurable.

Great errors exist in rearing the children of the wealthy and luxurious. The "ten thousand aches and pains" to which they are subject from voluptuous living, more than counterbalance the coercive carelessness of the indigent. The children of the latter are not so precocious, and when they are provided with sufficient nourishment and clothing, they are far oftener athletic and intellectual than those of the pampered rich.

No sooner does the infant make its appearance in this "world of trouble," than it is subjected, in its management, to the distressing results of an ignorance of nature's laws. "First, an ignorant nurse is permitted to squeeze its lungs into the narrowest compass with a bandage enveloping again and again its fragile form; then its intestines are irritated with castor oil, and various nostrums, when paregoric, Godfrey's cordial, Dalby's carminative, etc., etc., are given to allay the pain produced by the medicine; then it is fed with pap, composed of crackers, boiled flour, and various other *improvements* upon its natural diet. It is jolted on the knee, or rocked in a cradle immersed in a feather bed, till exhausted nature comes to its relief, and it sleeps. This process is continued from day to day; its head is sweltered with a cap—it is half suffocated with the heat of the nursery, or beneath heavy bedcloths—and

so it struggles through its early infancy, if it does not die with dropsy of the brain during its teething, the most frequent result of the exhaustion of the nervous system, consequent on this shocking ignorance."

These are important facts, and not to be disregarded. "What matter is it if they (the poor) be not able to elicit the admiration of foolish drawing-room spectators by their infantile efforts? Far oftener do they develop their powers in the hall of science, or in the senate. What though a puny race of offspring attest not the folly of their early marriage? a well developed and healthy maturity shall be rewarded with children who will do honor to their parents, and aid them in their declining years. Until these facts are attended to, our daughters, though they may glory in their early beauty and accomplishments, will have to lament their premature old age—ay, and their mental feebleness besides; for there can assuredly be no great intellectual energy in a body whose failing powers are constantly taxed to their fullest extent with the mere effort of living." In Book II. of this work we shall endeavor to point out the causes which may affect the child before its birth, and in the chapter on "Imperfect Puberty," we shall speak more fully of the causes of precocious temperaments, to which we invite particular attention.

What we have to say further upon the subject of this chapter, may be regarded as an abstract of the excellent remarks of Dr. Colombat de L'Isere upon the phenomena and hygiene of puberty—better than which, we can present nothing to the reader.

If the female have been reared under favorable circumstances, the shades of difference in the sexes soon assume a more decided tone, and her peculiar character becomes so much the more marked as the development is more complete, and she approaches the period (puberty) when nature, by a sudden change, reveals the completion of those changes, which she has been so silently making.

The interval between the tenth year and the age of puberty, is a period of transition, a sort of passage from childhood to adolescence, which appears to be the happiest era in the life of the female. Her extreme nervous

mobility prevents her being too long impressed by the grave sentiments that might be fitted to interfere with her happiness. This being, for young women, the period of gentle pleasures and the freest gayety, it follows that imagination exhibits every object under the most attractive colors, and that the existence of young females is agreeably varied by a piquant freedom of action and a great mobility of tastes and affections. Exempt, at this age, from cares and troubles, they sing, they weep and laugh at the same moment; and, as their joys, so their pleasures and their grief, as well as all their other impressions, are ephemeral; they proceed along a flowery path up to the age when nature calls on them for the tribute which they owe to the species.

The young girl, who, until now, was an equivocal, non-sexual creature, becomes a woman in her countenance and in all the parts of her body, in the elegance of her stature and beauty of her form, the delicacy of her features, in her constitution, in the sonorous and melodious tones of her voice, in her sensibility and affections, in her character, her inclinations, her tastes, her habits, and even in her maladies. Very soon are all the traits of resemblance between the two sexes, found to be effaced. The bud, newly expanded, blossoms amongst the flowers, and this brilliant metamorphosis is signalised by the rosy tints of the lips and cheeks, and the perfect development which discloses the arrival of the age of puberty.

This important period, this first moment of triumph in which nature seems to renew herself, is announced by various striking and admirable phenomena which put an end to the social inertia in which the young girl had lived from the period of her birth. The genital organs soon become a centre of fluxion; nature makes great efforts in order to establish the periodical discharge, and the whole machine experiences, in its inmost recesses, a succussion, a violent commotion, a general movement. The new energy of the UTERUS impresses a powerful impulse upon the entire system of organs; their functions become more active; the body grows with rapidity; the various portions of the figure become more expressed, and bring out those graceful contours which belong to the tender sex

alone. At the same time other important changes take place; the pelvis and genital organs, which were in a rudimentary condition only, now acquire their full proportions, and many changes occur which will be enumerated in the next chapter, imparting to the surface of the body a voluptuous embonpoint which lends the highest splendor to the attractive beauty and freshness of youth.

The physiognomy of the young woman has now acquired a new expression; her gestures bear the stamp of her feelings; her language has become more touching and pathetic; her eyes, full of life but languishing, announce a mixture of desires and fears, of modesty and love—in fine, everything conspires to excite, to caress and to incite.

Her tastes, her enjoyments and her inclinations are modified like the rest; her most pressing want is to experience frivolous emotions; she is passionately given to the dance, shows, and company; the curiosity so natural to her sex acquires new force and activity; she devours books of romance, or more than ever fervent in devotion, is excited by the expansive passions, and particularly by religious piety, which is to her a sort of love.

At this brilliant period of life, her moral, which depends upon her physical condition, undergoes great mutations. The young girl becomes more tender-hearted, more sensitive, more compassionate, and appears to attach herself to everything about her. The new sensations of her soul make her timid in approaching the companions of her childhood; a strange trouble, a sort of restlessness, an agitation before unknown, are the heralds of a power whose existence she does not even suspect.

The action of the new forces of vitality, established within the genital organs, augments more and more, and reacts with energy upon the whole system. Under the sympathetic irradiations of the UTERUS, the general sensibility becomes changed, and even excited in a peculiar manner. A new sentiment soon gives rise to desires, which, as yet, have no definite object, and to vague emotions, of an instinct that seeks some object—it knows not what. This rising want produces the impressions of a touching melancholy, a charming bashfulness, whose prin-

ple is founded in ingenious love, presaging new dispositions and announcing that the inclinations and habits of childhood are exchanged for other sentiments. The young virgin becomes timid, reserved, abstract and dreamy. She sighs less for pleasure than for happiness; the necessity of loving makes her seek solitude—and this new want, that troubles her heart and engages it wholly, becomes, if it remain unsatisfied, a source of multiplied disorders and derangements.

There are various causes which have the effect of either retarding or hastening the period of puberty. These we shall speak of more fully in the chapter on “Imperfect Puberty”; some of them are sedentary habits, and a luxurious life; much and early excitement of the brain, and emotions; the perusal of obscene romances; the theatre; the ball room; masturbation, etc. But these artificial means, as will hereafter be seen, are always highly injurious to the constitution. The normal puberty is announced by the eruption of the menses, and is observed about the fifteenth or sixteenth year.

In general, the crisis of puberty is more distressing for females than for males; especially for those who are endowed with a very delicate and nervous constitution, as often happens to such as lead a sedentary life, and have acquired the habits and manners appertaining to the opulent and luxurious classes. (*See Chap. II., Part III.*)

HYGIENIC RULES FOR THE NORMAL DEVELOPMENT OF PUBERTY.

WHEN the young female indicates, by the unfolding of her physical functions, that she is approaching the completion of her full development, she needs the closest attention, and a management suited to counteract the tendency of her childish constitution. Whereas, before puberty, she existed but for herself alone; having reached this age, the spring-time of life, when all her charms are in bloom, she now belongs to the entire species which she is destined to perpetuate, by bearing almost all the burthen of reproduction.

As at this period, the instinct of modesty often leads

young girls to conceal their first menstrual flow, it becomes the duty of mothers to inform them of the revolution they are about to undergo, and to announce to them that the sanguine discharge, which they are to become subject to, is a natural function, upon which their health will henceforward depend. Young persons, kept in entire ignorance upon this point, and taking their new condition for some shameful infirmity, have been known to oppose the salutary efforts of nature, by means of lotions, injections, and other equally dangerous agents. The exact truth, therefore, should be told to girls just arriving at puberty, as it is very dangerous for them to remain entirely ignorant.

The general attention required by young females, at entering the brilliant and stormy crisis, which is terminated by the appearance of the menses, will now be detailed. A carefully regulated diet, is of all means the most appropriate for moderating the excitement and disorder resulting from the momentary plentitude of the circulatory system. The food of a young girl ought to consist, principally, of vegetable substances, of preparations of milk, of the tender meats, and of light and easily digestible substances. Water and milk, with cooling drinks, should form the chief part of her drink. Solid and highly seasoned meats, sour and unripe fruits, stimulating artifices, alcoholic liquors, as well as the daily use of coffee and tea, must be carefully avoided. Tepid baths, taken from time to time, will contribute, together with the regimen, to produce a general detergent effect, and will have the advantage, moreover, of softening the skin and dispersing the cutaneous eruptions, to which girls are particularly subject, at the period of puberty.

For the purpose of placing the genital organs, in a condition favorable to their becoming the seat of the irritation which preceeds the menstrual exhalation, we should advise gymnastic exercises, walking, riding and running; the game of battledore, the jumping rope, the hoop, and riding on horseback; lastly, friction about the pelvis and inferior extremities, the wearing of flannel drawers, etc., are additional means very useful for inviting the flow of the menses. If the important function

delay its appearance too long, and particularly, if the girl suffer any of the evil effects of amenorrhœa, we should resort to very warm hip and foot baths, and to all those means which will be pointed out in the chapter upon *tardy appearance of the menses*. These means, of course, should be applied under the direction of the medical adviser. At this period, in particular, must be forbidden the wearing of corsets with busks and whalebones, and tight clothing, which obstruct the free development of the pelvis, of the thorax, and of the neck, and which might prove the origin of most of the diseases, whose sad picture we shall hereafter sketch.

At the same time, attention to the moral condition of the female should not be omitted; for this reason, young girls should be removed from boarding school, when they approach the age of puberty, in order to exercise a constant care over them. We should prevent, as far as possible, the false emotions produced by the reading of licentious books, especially of the highly-wrought romances of the modern school, which are the more injurious, as all the faculties become, as it were, overpowered by the desire to experience the sentiment which these works represent in an imaginary and exaggerated strain. Frequent visits to the theatre, ought to be carefully avoided, because they, also, may give rise to sensations conformable to the moral condition, which is naturally, at puberty, already too much exalted. These powerful-exciting agents, and still more frequently, the violent intimacies formed at boarding-school, tear the veil of modesty, and destroy forever, the charming innocence, which is the most attractive ornament of a young girl. Endowed with an organization eminently impressionable, she soon contracts improper habits, and constantly tormented by an amorous melancholy, becomes sad, dreamy, sentimental and languishing. Like a delicate plant, withered by the rays of a burning sun, she fades and dies under the influence of a poisoned breath. The desires for happiness and love, so sweet and attractive in their native truth, are in her converted into a devouring flame, and MASTUREATION, *that execrable and fatal evil*, soon destroys her beauty, impairs

her health, and conducts her almost always to a premature grave!

Comme une fleur dessechée
Tombe, la tête penchée
Feuille à feuille, sur le sol ;
Ainsi meurt la pauvre fille.
En elle plus rien ne brille,
Que les perles de son col.

[BERTHAND.]

It often happens that, in spite of all the care and precaution of a tender and prudent mother, the imagination of a girl becomes exalted to such a point, as to silence the voice of reason and shame. In this unequal contest, where nature often gains the victory over social institutions, we should resort to the use of means, which may, by a powerful diversion, counterbalance and destroy the erotic exaltation. Experience has proved, that among these means, severe occupation of the mind, and bodily exercises carried so far as to induce fatigue, are more efficacious than all the drugs of the apothecary ; the Fable which represents the chaste Diana as the goddess of the chase, is an ingenious allegory, which seems to prove that the ancients had discovered, in corporeal exercises, the power of blunting, and even of extinguishing the stings of love. A strict superintendence ; a milk and vegetable diet ; the study of history, geography and belles-lettres ; counsels founded upon religion and morality ; the frequent use of cold bathing ; the precaution never to leave young persons alone, and especially to make them retire late and rise early ; such are the means to which we may almost always resort with success.

A directly opposite plan should be adopted for girls who, though arrived at the age of puberty, are cold, apathetic, and indifferent ; and it is to such only that the culture of the fine arts, the frequenting of balls, of theatres, of crowded assemblies, and even the reading of certain imaginative works and romances, will not be hurtful, and might even prove useful in exciting their sensibility, and thus inviting the menstrual exhalation.

CHAPTER II.

THE APPROACH OF MENSTRUATION.

THERE is at certain periods, from the time of puberty to the approach of old age, a discharge of fluid resembling blood, from the uterus, and its appendages, of every healthy woman, who is not pregnant, or who is not suckling. This discharge is peculiar to the human female, and from its returns being monthly, it is called MENSTRUATION, from the Latin word *mensis*, signifying month.

There are several exceptions to this definition. It is said that some women never menstruate; that some menstruate and continue to give suck; and others are said to menstruate during pregnancy; but the definition is generally true, such cases being extremely rare. There are, however, many morbid causes that derange this function, which may diminish or increase the natural amount, or suppress it altogether. As these subjects are all of the greatest importance, we shall hereafter treat of them at length.

The first appearance of the menses, in this climate, is observed at about the age of fourteen or fifteen years, and it ceases to recur at about the forty-fifth year of the individual's age; though it may appear considerably earlier or later. At whatever time of life it comes on, a woman is said to be at the age of puberty; though of this, it is a consequence, not a cause. The early or late appearance of the menses, depends upon the climate, the constitution, the modes of living, and upon the manners of those with whom young women associate. The early appearance is facilitated by the use of very nutritious food, the constant use of wines, coffee, etc.; as also by the reading of love novels, amorous conversation, waltzing, and in short, any thing of this description, assists in promoting puberty; those who reach it, however, by artificial means, and much before the natural period, will have to suffer for it in after life.

When, by the regular process of nature, the female constitution becomes matured, the period of puberty is indicated by the regular establishment of this function, which is an evidence of her ability to bear children. It constantly keeps pace with the development of her constitution; where this is rapid, it will appear proportionably earlier; where this process is slower, it will be later in appearing.

It may be proper to say that in some cases impregnation has taken place before there was a colored discharge from the vagina. The explanation of this seeming exception, appears to be in the fact of no very rare occurrence, that the menstruous evacuation, for the first few periods, may be a colorless, serous discharge. This is especially the case with those in whom the discharge appears early; it may be mistaken for leucorrhœa, and care should be taken that its suppression be not attempted.

We shall endeavor to detail in a plain manner, the causes which may give rise to derangements of this most important function, so that when there is a departure from the original plan of nature, our readers may feel that they possess a degree of information upon this subject, which will enable them to favor the laws of their being, and avoid the many useless and hurtful medicines prescribed by the ignorant. When the proper period has arrived, and nature has perfected her work, as regards development, if allowed to exercise her powers, unimpeded by the indiscretions of the patient, and the ignorance of quacks, she is able, when evident obstructions are removed, by the innate agency of her own forces, to effect her purpose.

When the menses are about to appear, they are generally announced by a variety of changes in the constitution, and symptoms of greater or less severity. It being at this epoch that nature perfects her work, it is the period of the most perfect beauty, of which the female is susceptible; it is the one at which the moral changes are not less remarkable than the physical; it is a moment, of all others, the most replete with consequences to the inexperienced and confiding female. Dr. Dixon remarks, in relation to the changes which occur when the young female is about to pass into the state of womanhood,

“ that they are sufficiently evident to the observer to make this period of life most interesting, and to elicit our warmest sympathy, and all the kindlier feelings of our nature. How sensitive—how tremulous is now her nervous system ; how susceptible to every gentle emotion of the soul and how delicately alive to friendship. Happy is she who shares the council and sympathy of a fond and intelligent mother—a mother, whose intellect and instincts both combine to convince her of her duties to her child. *In such language as a mother alone can use, and with a purpose as pure and holy as she alone can feel in the discharge of that duty, let her communicate as far as she shall judge expedient, the end and object of nature in this novel and extraordinary change.* Much useful counsel and caution, that may save both many a heart-felt grief, may be communicated by a mother to an intelligent child, without raising a blush upon the cheek of either ; and very dear in after life will be the reflection of both, if this duty be faithfully performed.” We will endeavor to aid her, by giving an outline of the various phenomena that precede the approach of the menses ; although it is doubtful, if in any two cases, its appearance is accompanied by the same order of symptoms.

Among girls who have been delicately and luxuriously brought up, a great variety of nervous symptoms, as they are called, precede the appearance of the menses ; such as ringing in the ears ; palpitation of the heart ; starting from slight and sudden noises ; loathings and cravings of the appetite ; convulsive twitchings ; irascibility of temper, etc.—all of which are immediately relieved by a trifling discharge from the vagina. There is often a determination of blood to the head, lungs, breast, stomach and bowels—also to the genital system, producing a sense of weight, burning of urine, pain in the back and loins—all of which announce the approaching discharge.

At this period, also, other interesting and curious phenomena present themselves : the chest expands, the neck and throat increase in size, the mammæ swell, the nipples protrude, and in short, the whole system is expanded and enlarged. The complexion is improved, the countenance is more animated and expressive, the tone of voice becomes

more harmonious, and the conversation more intelligent and agreeable, the mind no longer being engaged in childish amusements—in a word, a new being, almost, is created.

In some girls, the menses appear without any preceding indisposition ; but in general, some of the foregoing symptoms present themselves, which are followed by a colorless discharge that soon becomes red, when they abate ; sometimes, however, returning with less violence for a few periods. The first period disappears in three or four days, and the female does not become *regular* till the third or fourth one ; that is, she does not assume the exact time and quantity that is to be in future her standard of health.

In by far the majority of persons, after the menses are properly established, few, if any of these troublesome symptoms accompany its eruption ; it not uncommonly appears with so little premonition, as to surprise the female very awkwardly. There are cases, however, which we shall consider in treating of *deranged menstruation*, wherein many annoying and painful symptoms arise at every period during life. Such unfortunate females are subject to colic pains, headaches, hysterical symptoms, violent spasms, sickness of the stomach, vomiting, etc.—while in others the digestive functions become deranged and painful. “Let all such, carefully study the exciting causes that precede one of their worst periods ; they will soon perceive whether it be fatigue, indigestible food, stimulating drinks—such as strong tea, coffee, etc.—and learn to avoid the cause, over which, when in action, medicine has very little control.”

The menstrual period, for the most part, continues from three to five days, and then gradually disappears, leaving a state of slight lassitude which is dissipated in a day or two ; so the female is not free from the discharge more than from twenty-two to twenty-five days at a time ; and there are many examples met with, in which the period of its duration is not less than seven or eight days for each menstruation.

CHAPTER III.

THE PHYSIOLOGY OF MENSTRUATION.

It was formerly a matter of much uncertainty from whence the menstrual discharge proceeded; some supposed it came from the uterus alone, and others from the vagina, or both. But this question is now decided, as far as those two organs are concerned, from its having been repeatedly seen flowing from the mouth of the uterus, in cases of prolapse of that organ. What part of it is supplied by the OVARIA, is not yet precisely known.

From the earliest time to the present day, much has been written by ingenious philosophers, in endeavoring to point out the proximate cause, of this peculiar habit of the female. The influence of the moon, was very early assigned as the cause; this opinion arose in consequence of the function being periodical, and its observing a lunar interval. To destroy this hypothesis, it is only necessary to state the fact, that there are women menstruating each hour of every day in the month and year. It has also been attributed to a *plethora* of the constitution, or of the uterus, it having been presumed that women were more disposed to plethora than men; and to get rid of this super-abundance of blood, some outlet was necessary, and that this outlet was the uterus. It may be observed, however, that in good health, the loss of several times the quantity of blood, discharged previous to, or in the very act of menstruation, from the arm, or any other part of the body, does not prevent or interrupt the flowing of the menses. It has been attributed to other causes; as fermentation in the uterus; the power of habit; some humour of the constitution; amorous phlogosis, etc.—none of which are satisfactory. Some have regarded it as a simple discharge of blood, others as a secretion; some as a constitutional discharge, and others as merely local.

Dr. Dewees remarks:—"The final cause of the menses is perhaps enveloped in some obscurity; but of this, we

know, at least, one incontrovertible fact, namely: that the healthy performance of this function, is in some way or other connected with impregnation, as no well-attested instance is yet upon record, where this has taken place in a female who never had had this discharge, or where it was not eliminated of a healthy character, and with a greater or less degree of regularity." After him, Dr. Meigs says:—"What is the proximate cause of the periodicity, I deem it bootless to enquire; since this, like most other vital processes, has a sort of metaphysical subtilty, which defies all endeavor to grasp or retain it.

"Happily, at the present day, we are better informed upon the nature of the menses, both in health and in disease; and in so far, at least, better prepared to fulfill our duty towards the patient.

"It seems to be universally admitted that the substantial causes of menstruation ought to be sought for in a condition of the female OVARIES, which are regarded as the proper seats of the reproductive faculty, not only as being the points in which the aphrodisiac faculty most essentially dwells, but as influencing the female constitution in the remarkable manner known to be coincident with the development of those bodies, and also consequent upon the abstraction of their vital energies after the lapse of years. In the male, the full unfolding of the size, form and power of the testes, is the sign and guarantee of the reproductive force, and the same is true of the ovary of the female, in whom, up to the age of puberty, these organs are known to be incomplete.

"The total absence, by congenital deformity, or by ablation, or by diseased destruction of both ovaries, is known to be attended with the loss of the menstrual power, as well as of the erotic principle. The atrophy of the same organs, by the progress of age, equally involves the abolition of the menstrual force. If these propositions be true, it follows that the seat of the menstrual force must be conceded to exist in the ovaries."

Indeed, it is now no longer doubted, that it is not to the influence of the uterus, but to the ovaria, that we are to attribute all the changes that take place in the female pelvis, in the mammæ and uterine system, at the period of

puberty ; and it seems that it is not improbable, that it is also owing to certain changes in the Graafian vesicle at the time of menstruation, that all the phenomena of that singular process are to be referred. (*Negrier.*) Dr. Lee remarks :—"That the determination of blood which takes place to the uterine system every month, and that all the phenomena of menstruation, depend upon the ovaria, and that at each period a Graafian vesicle bursts and its contents escape, is rendered extremely probable." The researches of M. Gendrin have led him, also, to believe that the menstrual flux is the result of a periodic congestion, which takes place every month in the ovaries.

These explanations enable us to arrive at the *nature* and *purpose* of menstruation. At each monthly period, a small vesicle or ovum is detached from its bed in the ovaria, and passes through the canal of the Fallopian tube, into the cavity of the uterus. This contains the rudiments of a new being. The same periodic cause which thus separates the ovum, at the same time gives rise to the menstrual secretion, which washes this egg off through the mouth of the uterus—nature not then designing it to remain. This vesicle is about the size of a pin's head and contains a yolk and membranous envelopes, as is proved by the microscope.

We shall now see the relation of this discharge, with the reproduction of the species. Let it be borne in mind that the appearance of it, is the evidence that nature has designed, and is now ready, to produce a living and independent creature. When the conditions of nature have been complied with, and conception has taken place, the ovum is separated from its bed, as in the menstrual process ; but instead of being washed away, it is, by the powers peculiar to this function, retained in the cavity of the uterus, where it germinates and becomes a living being. The menstrual discharge, now, instead of uselessly passing away, is retained for the formation and growth of a membrane, which envelopes the embryo and passing over the mouths of the Fallopian tubes and uterus, effectually closing them up, forms a connecting medium between the mother and child, for the sustenance of the latter, in a way that will be explained in the chapter on *pregnancy*.

It is proper to remark, that the OVARIA of a female who has never menstruated, is a soft pulpy mass, oval in shape, with a regular, smooth and glistening surface. In one who has menstruated—say for ten years—the external characters of the ovaria, are much changed; they are seamed and scarred throughout; instead of the regular oval form, we find scars and deep corrugations. These changes are in proportion to the length of time the woman has menstruated; when there has been but one menstruation, and consequently but one ovum detached, we find but one scar, and so on, one in the place of each separated ovum. The ovaria of a female who has ceased to indicate, by the periodic secretion, her ability for fecundation, has lost entirely its regular plumpness, and instead of a soft, glistening substance, it is a grisly, withered mass.

The first issue of the menstruous fluid, is serous; it may be more exactly expressed as *sero-sanguine*, which becomes more decidedly like blood in the course of a few hours, and continues so, till the latter part of the period, when it grows paler and paler, until at length it ceases entirely, leaving the parts bedewed by their ordinary secretions. It has been a question, as we have remarked, whether pure blood is discharged; but at the present day the majority of physiologists regard it as a secretion resembling blood, but not containing fibrine or the coagulable principle; all discharges of *coagula* being distinguished from proper menstruation, and assigned to abnormal causes.

In regard to the opinions of menstruation being a local or constitutional discharge, since the late discoveries concerning it, they are no longer at variance. Every discharge is local, though its effects must be constitutional. It seems, too, more rational, since this discharge is the sign of so many changes in the constitution, occurring at puberty, to regard it as but the index of a general state affecting the whole constitution. This view, alone, explains the phenomena of the disorders of menstruation, and points to that rational treatment, which is based, not solely or mainly in the use of local stimulants, but on remedies, which, operating on the constitution at large, arouse and regulate those actions which constitute a function.

There has been an opinion, probably derived from the Jewish legislator, afterwards adopted by the Arabian physicians, and credited in other countries, that the menstruous fluid possessed some peculiar malignant properties. The severe regulations made in some countries for the conduct of women at the time of menstruation, the expressions used,* the disposal of the blood discharged, or of anything contaminated with it; the complaints of women attributed to its retention, and the effects enumerated by grave writers; indicate the most dreadful apprehensions of its baneful influence. We may remark, that under peculiar circumstances of health, or states of the uterus, or in hot climates, if the evacuation be slowly made, the menstruous blood may become more acrimonious or offensive than the common mass, or any other secretion from it; but in this country and age, no malignity is suspected; the menstruous woman mixes in society, as at all other times, and there is no reason for thinking otherwise than that this discharge is of the most inoffensive nature. (*Denman.*)

CHAPTER IV.

TIME OF OCCURRENCE AND QUANTITY OF THE MENSTRUAL DISCHARGE, WITH HYGIENIC RULES FOR MENSTRUOUS WOMEN.

It has already been stated that the appearance of the menses in this climate, is observed, at the age of fourteen or fifteen years, and that it ceases about the forty-fifth year of the individual's age. It will be noticed, that it divides the life of the female into three distinct periods: the first, that of childhood, exists from birth till the fourteenth year; the second, the most important period, that in which she is capable of child-bearing, usually terminates at about the forty-fifth year; the third is the remaining portion of life, after she is incapable of fecundity. Those who are *regular*, menstruate every twenty-eight days, or thirteen times a year, so that a woman who

* Isaiah XXX, and Ezekiel.

should continue to be regular from the fifteenth to the forty-fifth year, would have near four hundred repetitions of this function; or, according to the late theory of menstruation, would discharge about four hundred ova or eggs.

It has also been stated, that the time of the appearance of the menses, varies according to a variety of circumstances. We are constantly observing instances in which it appears at twelve and thirteen, and even ten years of age; and its appearance is occasionally delayed till the seventeenth and twentieth year. In those rare instances of discharges resembling menstruation, occurring in extreme infancy, there is but little approach to the proper discharge; they most often depend upon a congestion of the genital organs, similarly produced as congestion of the lungs in infants and adults, giving rise to a bloody expectoration from those organs.

Below, we give a table of Dr. Meigs', upon the authority of Drs. Boismont, of Paris, and Lee, of London, showing the ages at which 1781 women began to menstruate in France and England. As the French, and particularly the English women, are of similar temperaments with our own, and live in about the same latitude, it is as good authority as we can furnish.

In 1781 women, the menses occurred

At 11 years, in	110,	At 16 years, in	284,
“ 12 “ “	144,	“ 18 “ “	144,
“ 13 “ “	256,	“ 19 “ “	72,
“ 14 “ “	360,	“ 20 “ “	40.
“ 15 “ “	366,		

Dr. Denman remarks:—“The early or late appearance of the menses may depend upon the climate, the constitution, the delicacy and hardness of living, and upon the manners of those with whom young women converse. In Greece, and other hot countries, girls begin to menstruate at eight, nine and ten years of age; but advancing to the northern climates, there is a gradual protraction of the time, till we come to Lapland, where women do not menstruate till they arrive at mature age, and then in small quantities, at long intervals, and sometimes only in summer. But if they do not menstruate according to the

genius of the country, it is said they suffer equal inconvenience as in warmer climates, where the quantity discharged is much greater, and the period shorter.

“In this country, (England) girls begin to menstruate from the fourteenth to the eighteenth years of their age, and sometimes at a later period, without any signs of disease; but if they are of delicate constitution, and luxuriously educated, sleeping upon down beds, and sitting in hot rooms, menstruation usually commences at a more early period.”

Linnæus remarks that he saw women in Lapland who menstruated only once a year. M. Lisfrank has met with women who were “regular” every fifth or six month, and others only every fourth, and even sixth year—some of whom enjoyed good health. Many women are met with who, in all other respects, are in fine health, yet in whom the periodical returns anticipate as regards the lunar months. Thus, certain nervous women, especially such as are of an erotic temperament, are found to menstruate every fortnight, while others, of an opposite constitution, are subject to the returns only every six weeks, or even only every two months. Occasionally, women who have been regular till that time cease to menstruate at the age of thirty-five, or thereabouts, and have a return again of the discharge after the lapse of five or ten years.

In general, a warm climate favors the early appearance of the menses. Haller mentions the case of a girl in the Alpine valley of Emmenthal, who was delivered of a child at her ninth year; and cites examples of the eruption of the menses at birth, at three months, at four months, the second year, the third, fourth, fifth, sixth, seventh, eighth, ninth and tenth year; and says that he was daily in the habit of seeing a noble lady, of great beauty and wit, who was then in her ninth year, and who had menstruated regularly for some years past, without any injury to her health. She was very small and delicate. The rule, however, of precocious menstruation is not invariable for warm climates, since the young females of the banks of the Senegal are regular at the same epochs with those of the young persons at Paris or Philadelphia. The

instances mentioned, occurred mostly in certain distinguished and luxurious families. (*Meigs.*)

The quantity discharged at each menstrual period, depends upon the climate, constitution and manner of living; but it varies in different women in the same climate, or, in the same women at different periods. In this country, the usual amount is five or six ounces. It is well for the female to understand, however, that it may be very much less or considerably more; each one having a rate of her own from which she rarely varies, and it might be said never, unless some circumstance may have interfered with her health. It seems that this function differs as much as some others—such as the required amount of food, sleep, etc.

Hippocrates thought that the Greek women lost twenty ounces at each menstruation. Galen estimated it at eighteen ounces. Haller computed it at six, eight, or twelve ounces for the German women. According to Smellie it amounts to four ounces in England. Astruc says that it varies from eight to ten ounces among the French women. Magendie thinks it is often very great and may amount to several pounds. The difficulty of collecting the menstrual blood, and the numerous variations in the amount of the discharge, have necessarily occasioned the differences of reports by the observers whose names are here mentioned. (*Colombat.*)

Among our own country-women, there would undoubtedly be far more uniformity in the appearance and quantity of this fluid, and in its effect on the constitution, could females arrive to the period of puberty under more favorable influences than at present surround them.

In health, the menses return with surprising regularity; a great majority of women expect it with the utmost confidence for a certain day of the week or month, and accordingly make preparations for its reception, frequently modifying their arrangements of business or pleasure by its indications; for it should be remarked that the discharge, in a good many subjects, appears suddenly, and is quite free from the first moment, whereas in general it commences by slow degrees, increasing in abundance at the end of the first day, and declining on the last.

Menstruation may be regarded as one of the most important epochs in the life of a female; should it not be established, all the charms of her person disappear, and she is subjected to despondency, and a long train of lamentable evils. Therefore, the attention of a mother should be fixed upon this period, with a degree of interest due to one who stands in such an endearing relation as that of a daughter. Dr. Colombat's remarks are so well adapted to illustrate these consequences and the means of avoiding them, that we shall close this chapter by transferring the substance of them.

From the first appearance of the menses, until the term when they are to cease by the lapse of years, her health, her freshness and her beauty depend upon the regular return of this sanguine evacuation. Those who experience no menstrual revolution, are rarely fruitful, and its sudden suppression in youth and in health, is one of the least deceptive signs of conception.

When the periodical evacuation meets with obstacles, and nature makes vain efforts to establish it, all the powers of life diminish or become perverted; and trouble and disorder among the functions throw a speedy veil over the brilliancy of the maiden. A crowd of symptoms often come to aggravate this dull languor; the respiration becomes difficult, the circulation languishes, the tastes and appetite are perverted, depraved, the feet and limbs begin to swell, the eyelids to be tumid, the face is bloated, and acquires a sallow hue, or a greenish or chalky tint; at length painful palpitations, frequent faintings, a deep-felt anxiety, distress, weakness of the senses, a certain indolency, and a weariness which renders every motion disagreeable—come to obscure this sad and afflicting picture. When we come to speak of the derangements of this function in their proper places we shall treat more fully of this condition and of the modes of obviating it.

HYGIENIC RULES FOR MENSTRUOUS WOMEN.

FROM the period of puberty to the critical age, the menstrual discharge requires certain cares and precautions, which it is important to understand. While the flow is

present, women ought to refrain from taking cold baths, and from washing the hands and genital organs in cold water; they should, also, avoid cold feet; they should not remain with the arms or neck uncovered, and must abstain from iced, exciting and alcoholic drinks—such as wines, coffee, tea, liquors, etc.; marital connexion, also, ought to be proscribed, because the excitement determined by it in the genital organs, may occasion either menorrhagia, or more or less complete suppression, and secondarily a utero-vaginal inflammation. It is well, also, to avoid sitting upon cold and damp places, for example, the earth, a stone bench, a grassy bank, etc.

The napkins employed to receive the fluid of the menses, as it escapes from the genital parts, ought always to be well aired, and in winter, warmed before being applied. If the discharge be too abundant, it may be remedied by a vegetable and milk diet; by repose; by the horizontal position; by cooling and sedative drinks, as weak lemonade, barley water, whey, etc.; if the female be of lymphatic temperament, she must use, on the contrary, a tonic diet, composed chiefly of roast meats, feculent substances, and rich soups. When menstruation is entirely or partially suppressed, in consequence of some imprudence or unexpected occurrence, it is necessary to endeavor to recall it, by means of warm infusions of balm, etc. Rest in bed, warmth to the thighs and legs, maintained by bottles filled with warm water, are other means which should not be neglected.

We ought to remark, moreover, that during the flow of the menses, except some absolute necessity arises, it is proper to abstain from the use of bleeding, of purgatives, of emetics, and all those remedial means which act energetically, and which might occasion an impression capable of disturbing the salutary efforts of nature. In general, women may escape most of the disorders of menstruation, either by exercising, to a greater extent, the muscular system, which they too often condemn to dangerous inaction; by abstaining from exciting, salted, or highly-seasoned food, and from stimulating drinks; or, lastly, by taking care to clothe themselves suitably during the winter; and especially by wearing flannel drawers, some days

before, and during the epoch of the menses, principally. It is, likewise, very important that they should abstain, during the presence of the discharge, from all intellectual labors, and from severe study, which, by establishing a high cerebral excitement, determine an unequal distribution of the vital forces, and cause an afflux towards the brain of the blood which ought to flow towards the genital apparatus.

Before concluding what we had to say upon the attention to HYGIENE that menstruation requires, we will add, that so long as the function lasts, women ought to be the object of the most attentive kindness, and of a solicitude capable of preserving them, as far as possible, from the unhappy influences of the physical and moral causes which affect them then more strongly than at any other period. It is well to say, also, that if some amongst them become subject, at these periods, to caprices, to sadness, and unequal temper, we should always bear these transient humors with indulgence, because they depend upon the action of the body upon the mind, and upon an active irritation, which is radiated from the uterus towards the other organs, and especially towards the brain.

CHAPTER V.

IMPERFECT PUBERTY, WITH THE CAUSES AND TREATMENT OF PRECOCIOUS MENSTRUATION.

THE late important discoveries concerning menstruation, establish beyond a doubt, that the proper and healthy appearance of the function, depends upon the maturity of the constitution in infancy and childhood. It is no longer doubted, that this discharge, instead of being merely a passive exudation, dependent upon local causes, is the result of a general state of the female constitution; it is the external sign of a function, the development of which, influences largely the whole organism. We have already, in another place, remarked that this view of the function is important, as it alone explains the phenomena

of *deranged* menstruation. It is vastly more important, from the fact that it points to a more rational mode of treatment than hitherto has been pursued; which, instead of being based upon the use of local stimulants, specific drugs, etc., depends upon the exhibition of those remedies which, operating on the constitution at large, arouse and invigorate the whole of its numerous functions. Indeed, it is now conclusively proved, that nearly all that has heretofore been supposed to have been affected by the agency of such stimulating remedies as have been used, if productive of seeming good to the individual, that the amendment was in reality owing to the efforts of nature producing constitutional changes at the period when the medicine was given.

We have already spoken of the constitutional changes which occur at the period of puberty. It is evident, from infancy, that nature has some grand object in view; all her powers seem to be put in requisition for the growth of the body. The child laughs and skips away its early years, without anything remarkable occurring till the approach of puberty, when suddenly there are signs of a higher vitality, and often before we are aware of the change—instead of the child, we observe in its place a woman. Great changes are now observable in the whole frame; the nervous system in particular, acquires additional capacity of emotion and passion, and the imagination is in an especial manner developed. The lower part of the brain becomes very much enlarged; the blood is attracted to the upper and lower portions of the trunk, subserving to those rapid developments peculiar to the female. The ovaria become red and enlarged; the Fallopian tubes, with their fimbria, are elongated, erectile and irritable; the uterus has acquired size, and a more sanguine hue—and the hips, pelvic organs, and mamma, are enlarged. The organs of the chest participate in the effects of that action, and even the limbs acquire the forms of a maturer development. The intensity of vitality is such, and so complete is the resistance of the frame, at puberty, in the conflict against disease, that the mortality of our species, is least in this portion of our life.

On the other hand, the whole body suffers when the

internal organs of generation are undeveloped ; the mind is dull, and the emotions and passions depressed or absent ; the muscular system is imperfect ; the mammae are withered, the lungs are scantily developed, and not only is life less intense, but less long ; and often, early consumption soon puts a period to the working of so faulty an organism.

A distinguished French physician remarks : “ Various causes, calculated to render the play of the vital forces more active, have the effect either of retarding or precipitating the age of puberty ; thus, abundant and stimulating food and drinks, manners, habits and climate, exercise a marked influence upon this vital phenomenon.

“ Certain moral circumstances may, likewise, accelerate its arrival ; but the artificial maturity thus resulting always acts injuriously upon the organization. Among these circumstances may be enumerated premature passions and pleasures, the arts of imitation, music, painting, the perusal of obscene romances, the inspection of lascivious pictures, the theatre and ball-room ; the bad examples of premature libertinism, of which too many examples are unfortunately furnished in great cities. The specimens of premature puberty, the miserable consequences of too great vivacity of the imagination, are sometimes met with as early as the eighth or tenth year.”

We should consider ourselves highly culpable, notwithstanding we may shock the prejudices of the reader, did we neglect, in this place, to point out a most prominent cause of precocious puberty in young females. Other writers upon these matters, from various causes—perhaps a principal one is, the unpopularity of the subject—have neglected to speak of it ; but when we see the health of thousands of our youth around us, being sacrificed to its shrine, and observe that mystery only adds to its power, the subject is no longer to be avoided. We cannot be misunderstood : we refer to the calamitous and degrading vice of artificial indulgence ; it has, also, been called *masturbation*, *solitary vice*, and received other names, which signify a self-abuse, practiced by the youth of both sexes, to an alarming extent. This evil has been the occasion of several medical convocations at Paris, for the purpose

of proposing means of remedying it; but their efforts proved almost useless, as they made a mystery of the matter, instead of making it public as they should have done. This habit is commenced by some at a very early age, and has undoubtedly, in many instances, been communicated by titillation to infants by ignorant and vicious nurses, for the purpose of quieting them. It exists in boarding schools and other public institutions to an alarming extent, as well as in private life.

It will be inferred from the foregoing, that this abuse is a very great evil. It is not only the cause of the formation of a precocious temperament in the young female, and thus unfitting her for the marital relation and bearing a healthy offspring, but it is the source of numerous diseases too painful to relate. In speaking of such indiscretion in both sexes, Dr. Boerhaave remarks: "It causes convulsions, emaciation, and pain in the membranes of the brain; it deadens the senses, particularly the sight; gives rise to dorsal consumption, and various other mental and bodily disorders."

We have no room for enlarging upon this subject. Parents are delicate in speaking of it to their children; though sometimes they are ignorant of its effects, and have been themselves sufferers by it. Need we say that it is better to warn a child against such demoralizing practices and save his health, nay, his very reason, than to remain silent from motives of a most absurd modesty, and let him pursue his ruin, unconscious that he is doing anything wrong?

It has been mentioned by several authors, and we will give a case in illustration from our countryman, Dr. Dewees, that there seems to be some connection between precocious menstruation and scrofulous affections of the spine. It was the case of a young lady twelve years of age, laboring under a diseased spine. She was afflicted with headaches, sickness of stomach, and had at periods pain in the small of the back, with bearing down sensations, etc. It was concluded that an effort was making for the production of the menses, though the common signs of puberty were mostly wanting. Upon examination by the mother, of her linen, it was ascertained that

there was a discharge from the vagina, resembling leucorrhœa; this was observed for four periods, after which, the menses, with their usual appearances, were established.

It seems from this and similar cases, that ulceration and curvature of the spinal bones may be produced by the same causes—precocious indulgencies, highly spiced food, etc.—which give rise to premature menstruation. We shall find on examination of the diseased spines of young females, where disorganization of the bones has taken place, that the menses are always more or less deranged, and in the latter stages of the disease, that they have entirely disappeared. This sad affection, with its long train of melancholy results, can only be prevented by early management, so as to produce a healthy childhood.

We have sufficiently numerous examples of *precocious puberty*, to establish the following general conclusion:—

1. The signs of puberty may become visible at any period commencing shortly after birth, and extending up to the ordinary time of the regular development of that function (menstruation).
2. The majority of cases exhibit these signs in the third year.
3. The frame, in general, participates but partially in the impulse given to the sexual development; the growth of the rest of the body never being on a par with that of the sexual organs.
4. The internal organs retain the type and textures of an early age, and soon exhibit the signs of premature decay; the ovaria are frequently diseased; the external organs are rarely harmoniously developed; the limbs are very short compared with the trunk.
5. The mental faculties are in most instances obtuse; nay, even deficient.
6. The individuals are short lived. (*Ferguson.*)

The same causes, which in some constitutions produce precocious puberty, in others embarrass the organism so much as to give rise to the imperfect development and consequently late appearance of the menstrual discharge. So that hereafter, when having occasion to refer to them, we shall speak of these causes under the same head. They are hot rooms; sedentary habits and a luxurious life; much and early excitement of the brain and emotions; irritation of the sexual organs, from masturbation or artificial indulgences, etc., etc.

The *woman-infant*, so to speak, pines and wastes under irritative fever, marked by a rapid pulse, much weariness, disturbed sleep, copious perspiration, languor of body and dullness of mind, *symptoms* which are more intense just before and just after menstruation.

The indications for TREATMENT, are, during the period, absolute repose in the horizontal posture. After this is over, all those remedies should be resorted to which are useful in certain forms of *menorrhagia* (see that chapter); those which repress the local action; and all those means elsewhere enumerated which invigorate the languid frame. At the same time the faulty education of mind and body must be remedied.

FROM what we have already said upon this subject, the reader will understand that healthy menstruation is only compatible with a good constitution; that the developing and sustaining of this function, require the action of the constitutional powers in all their plentitude of vigor; that nature, unembarrassed by art, and the carelessness of the female, is able, by her own silent forces, to attain her grand object, viz: the perfect development of the ovaria upon which menstruation depends.

“No one suspects that medicine exerts any influence in producing menstruation in those countless thousands of cases, that occur in classes of society where no solicitude is awakened—where the female each day arises, and after a hasty, and perhaps insufficient meal, commences her labors, often continued into the proper hours of sleep. Here every circumstance that can exercise a tendency to hinder the attainment of the great end, is brought into action; and amidst all sorts of depressing influences, the young female at length becomes regular. It is thus evident that nature is all powerful; she means to compass her purposes, and no slight circumstance will prevent it.

“Now suppose any of the exhausting causes we have enumerated, are brought to bear upon a young girl; suppose her nervous system to be constantly taxed by too much excitement of stimulating food, spices, wine, etc., her body dibilitated by excessive quantities of clothing, perhaps ill-made, and impeding the healthful expansion of

the lungs; whilst she is severely taxed by the absurd requisitions of a school mistress, depriving her of a healthful exercise, at a period of life when she most requires it—the inevitable result will be, that the blood, instead of an equal distribution over the surface of the body, will be thrown upon the internal organs, and it will most certainly go, in increased quantity, to those most immediately intended to be brought forward by nature. A premature establishment of the menses is the consequence; and the pale and sickly plant, (grown under the influence of too much heat and water, and too little light,) is but an emblem of the young female. In neither have the requisitions of nature been fulfilled; and both present the same consequences, viz: great exhaustion and debility, that can only be overcome by a careful attention to nature's demands.

“The class of medicines called tonics, in judicious hands, may aid her restoration; but they never can effect it without carefully retracing and remedying, as far as possible, the errors of early life. Nutritious and unstimulating food, free exercise in the open air, with a hearty enjoyment of all innocent recreation, should be the means chiefly relied upon. How far medicines of the tonic class shall be used, can only depend upon the intelligent and thoughtful physician, whose aid it is supposed will always be requested by the mother.

“Most probably, the poor child is under the daily influence of a doating and fashionable mother, who has called to her aid all the appliances of our modern system of education. With the eloquent example of all animated nature before her, the feathered and brute tribes, aided by unrestrained freedom of motion, natural food, fresh air, and healthful sleep, carrying out the plan of their own being, and exciting the envy of the poor invalid—she, alas! is subjected to the irksome discipline of the school-room, with its repulsive and dry details, and too often its daily jargon of sound without sense; her body clothed with fashionable garments, the preservation of which seems the most important object of her life; whilst every free and healthful movement is restrained, and every natural im-

pulse checked, because it over-steps some absurd idea of gentility.

“It is impossible, if we are to convey any correct idea of the healthful establishment of menstruation, to avoid constant reference to tight dress, and deficient exercise. Our conviction that these, with ill-chosen food, and some other evils of temperament entailed upon their offspring by the unmanageable passions of parents, impressing their own systems with disease, and thus conveying it to their children, is so strong, and our belief that we should resort to natural means for cure, and not to medicine, so conclusive, that if we recur again to this subject, the reader must impute it entirely to a sincere desire to aid her in her endeavors to benefit her child, and not to carry out any hypothesis of our own.

“The administration of some of the more gentle medicines may become necessary from the impossibility of immediately regulating the regimen of the patient; and we do not object to their use with the view of putting the body as soon as possible in a condition to dispense with them. It is the use of stimulating and specific drugs that we deplore; such as are intended to force nature. This they can never do, without inflicting great injury upon the delicate lining membrane of the stomach and bowels, for on that is their action first expended, before they can possibly affect the OVARIA. Moreover, they are often given before nature presents any evidence of personal development, and whilst the evolution of the ovaria is going on with all the certainty and speed intended for the peculiar individual.”

We have made these copious extracts from Dr. Dixon, for the purpose of impressing more fully upon the mind of the female, that in these cases, but little reliance can be placed upon medicine. It is exceedingly important that the reader understand this fact; if she be suffering, or if her child be suffering, under maternal care, she importunes the physician for medicine, imagining that this will be a restorative of health—without ever taking into consideration those causes that we have enumerated, which have produced a too early development of puberty! Under these circumstances, it will be a great misfortune to

the patient, if the physician employed be one who practices his profession solely as the means of acquiring wealth, combined, as this disposition often is, with deficient qualifications.

The physician above named mentions a case wherein the mother importunately demanded medical treatment for her child, who possessed not a single sign of womanhood; and on his refusal to prescribe, death was the consequence, from the use of a powerful medicine (probably a quack medicine of the day) administered by a well-meaning but ignorant parent. He remarks: "The case made, at the time, a strong impression upon our sympathies, and we determined to use our humble powers of popular instruction, when time and experience had given us more knowledge of the subject." From this, it will be seen that the educated and prudent physician prescribes from a knowledge of the properties of medicines; and that no unqualified person should attempt to modify his treatment. In the pages devoted to the consideration of deranged menstruation, will be found the most approved medical treatment, when any is necessary, for disorders of this function, which, of course, should only be applied under the direction of a competent physician.

CHAPTER VI.

GENERAL HYGIENE FOR FEMALES, BY WHICH THEY MAY SECURE TO THEMSELVES HEALTH AND PERSONAL BEAUTY.

MEDICINE as a *developing agent*, it will have been observed, is of little or no avail in effecting the maturity of the bodily functions. We do not now speak of it as a *curative agent*, for it is obvious that when certain derangements and obstructions already exist, the judicious employment of medicines adapted to the case, will put the body in a favorable condition for nature to act, when regimen may take the place of it. We have heretofore spoken of the special causes that produce premature decay and prostration of the constitutional functions, and of the restorative

power of HYGIENE, a well regulated diet, exercise, etc. It is now proper, in a more extended view, to notice the peculiar modifications of general hygiene, necessary, in its application to the female.

It is ill-ventilation, improper clothing, and want of cleanliness; ill-feeding and drinking; over work and want of exercise; mental calamities and passions of the mind; excessive indulgences, etc., which rob life of its maturity and bring a long train of evils to the sufferer; some of these are known as nervous debility, dyspepsia, and bilious difficulties, all of which are more or less in the power of the individual to avoid, were she instructed in the laws of physical organization.

It is evident that obedience to the physiological laws is necessary in order to secure an existence free from pain. For instance, the lungs must be supplied with a sufficiency of that element, unadulterated and unviciated, which has been designed by nature for their use. The skin must be cleansed from those impurities which are constantly collecting upon it. The digestive organs must be furnished with their proper quantity and quality of food and drink. The muscles of every part of the body must be brought into frequent and active exercise, by proper employment, or vigorous diversion. The exhausted powers of the whole physical organization, must be recruited and refreshed by suitable intervals devoted to "tired nature's sweet restorer," unconscious sleep. And as Dr. Armstrong says:—

"'Tis the great art of life to manage well
The restless mind."—————

It must not be too much engaged in the pursuit of knowledge, nor entirely unemployed; for

—————"solitude, sad nurse of care,
To sickly musing gives the pensive mind."

We shall now proceed to review, in regular succession, (that we may not avoid important omissions,) the several classes of circumstances which constitute HYGIENE, according to the method of Dr. Colombat, whose writings upon this

subject, we shall freely avail ourselves of, they being so well adapted to our present purpose ; indeed, the following remarks are extracted from his work with very little change.

1. CIRCUMFUSA, OR SURROUNDING CIRCUMSTANCES.—If it be true, as the sage of Cos observes, that air is the aliment, the pabulum of life, it also happens that it may become the aliment or cause of death, in the disorder of which it is frequently known to be the pernicious cause. As women are by nature more sensitive and impressionable, and possess smaller lungs, that are more irritable, and more liable to phthisis, they are of course more injuriously affected than men are by the influence of atmospheric vicissitudes. Precautions in regard to the respiratory organs deserve, in an especial manner, to fix our most particular attention at the approach to puberty, during the act of menstruation, at the change of life, and in fact, at all the epochs of the life of the female that are characterised by an increase of the general susceptibility.

Women, particularly those in whom luxury and ease have given additional acuteness to their impressionability, ought, as far as possible, to inhabit elevated apartments ; *they should avoid crowded saloons, where the air is both too hot and unwholesome* ; they should be particularly careful not to pass carelessly from a high to a low temperature ; when compelled to do so, or to remain for sometime with a part of the person unprotected, they might greatly lessen the risk of injury from sudden transition of temperature and from the pernicious tendency of sudden cold, by stopping for a while in a cooler apartment, or by keeping up an artificial warmth, by walking or any other brisk motion. Those who are of a delicate constitution and prone to catarrhal and tuberculous disorders, would act very wisely in rendering their parenchymatous organs and their whole mucous system, and especially the bronchial and genital mucous membranes, less impressionable by keeping up a gentle excitement on the skin, by wearing flannel jackets and drawers ; they may, also, weaken the evil powers of dampness and cold, by using mild tonic drinks, and food both nutritious and easy of digestion.

The changes that the constitution of the air may under-

go are sometimes extremely hurtful, especially to women. They ought, as far as possible, to interdict for themselves all places of resort where great numbers are assembled, such as balls, shows, concerts, etc. Without dwelling in extenso upon the effects of exhalations and gaseous effluvia, we shall be satisfied with saying, that the habit indulged in by some females of surrounding themselves with odors, deserves to be mentioned, on account of the accidents and the real danger which accompany such habits. Nervous persons should, therefore, not only shun the impression of powerful odors, and perfumes, even the most delicate, but they ought not to have in their chambers flower-pots and vases filled with flowers, which are attended with the double inconvenience of affecting the nervous sensibility too powerfully, and of decomposing the air by the exhalations of carbonic acid gas.

Among the numerous cases in point, that we have it in our power to cite, we shall confine ourselves to the case related by Cromer—that of the daughter of Nicholas I., who died after having inhaled the odor of a rose. In 1774, a woman in London was found dead in her bed, in consequence of having breathed the odor of several full-blown lilies that she had placed in a small chamber. Triller, saw a violet give rise to a distressing accident; under nearly similar circumstances, the emanations from some lilies in blossom very nearly proved fatal to the wife of Sanmonier, the distinguished Rouen surgeon. Lastly, on the night of the tenth of August, 1837, the Duchess d'Ab***, was upon the point of being asphyxiated from having slept several hours in her bed-room, where her friends and the admirers of her literary talents had deposited their presents of flowers on the eve of her birth-day.

From the facts above related, it is easy to judge that women ought to abstain from perfuming their apartments with flowers, essences of oriental pastilles, and from carrying about their persons, perfumery and sweet scented bags, which are capable not only of powerfully affecting the nervous sensibility, but even acting as the occasional cause of syncope, of asphyxia, and a variety of spasmodic disorders, to which the sex are peculiarly prone.

Let us add that the abuse of perfumes is attended with

the objection that it may exalt or depress the power of the sense of smelling, and that Montaigne has judiciously remarked, "*que la plus exquisite senteur d'une femme, c'est de ne rien sentir*" *bene olet quæ nihil olet.*

Among the most mischievous habits indulged in by females, we ought to signalise the use of foot-stoves, which disengage a quantity of carbonic gas, and, likewise, excite the genital organs and predispose to fluor albus, and uterine hemorrhage, to piles, varix, ulcers on the legs, etc. Persons whose avocations expose their feet to cold, would do well to substitute for the foot-stove a small box, lined with bear skin, to put the feet in, or a tin vase filled with hot water.

2. APPLICATA, OR THINGS APPLIED TO THE SURFACE OF THE BODY; CLOTHING, CLEANLINESS, COSMETICS, ETC.—Inasmuch as there is attached to our clothing, the precious advantage of guarding the body from the immediate impression of the atmosphere, and thus of annulling, to a certain extent, the influences of atmospherical vicissitudes, it is very important that all parts of the female dress should be constructed with reference to their manner of life, the circumstances in which they are placed, and the prevailing temperature of the air. In winter, they should wear woollen stuffs, or silken stuffs wadded, or double, which, while they are both supple and light, yet keep up a good degree of warmth about the person, from their being bad conductors of caloric. Although furs are possessed of the same property, they are inconvenient, because upon leaving them off, merely for a short time, the person becomes sensible of the slightest cold. In summer, they should make use of linen or hemp; whereas, in the fall and spring, the variableness of the season requires the use of dresses that are moderately warm. Lastly, at all seasons of the year, females ought not, without great care, to lessen the number of their garments, or suddenly change them for others, less preservative against the sudden changes of weather. It is equally important for them, at all times and seasons, to keep the bosom and the arms covered, and most especially is it important, during the act of menstruation.

The form of the female dress, also, deserves attention ; *it should always be large enough not to interfere with a perfect freedom of motion, and not to exert any compressing power on the several parts of the body* ; the corset, especially when badly constructed, or too tight, interferes with the motions of the body, prevents the expansion of the lungs, and favors a stagnation of blood, in the internal parts of the body, disposing them to be attacked with inflammation, and in consequence thereof, with consumption. Moreover, they painfully compress the breasts, and act as causes of cancerous engorgements and indurations. It is but just, however, to state, while the corset, when too small, too tight, and supplied with strong whale-bone and a steel busk, is almost always hurtful, the elastic corset, well-fitted to the shape, furnished with ample gussets to receive the breasts, without compressing them, and besides, unprovided with the busk, and applied moderately tight, lends grace to the figure, gives a useful support to the bosom, increases the energy of the muscles on the chest and abdomen, and, in fine, obviates a disposition to divide, met with in some of the muscles, prevents the escape of the abdominal viscera from the cavity of the belly, as well as the deviations of the womb, in pregnant and lying-in women. It should be said, furthermore, that a corset, when well made, ought to adapt itself to the hips and other parts of the body, and not these latter to the corset, as the fashions often require.

The use of whale-bones, far from being injurious, in all cases, as most authors consider them, is, on the contrary, useful, provided they be made very thin and flexible ; for they prevent the numerous folds that the various motions of the wearer would make in the corsets, and which, as well as the pain that attends them, could be no otherwise prevented than by making the corset fit much tighter than when provided with whale-bones. It should be remarked, also, that the shoulder peices ought to be very large, and especially very elastic ; but that, although we recommend to full-grown women the use of a corset *not too tight*, we look upon their use, before the age of puberty, as very hurtful.

Frequent changes of clean linen, and strict attention to

cleanliness, deserve the most scrupulous attention of the female ; she ought to take a tepid bath at least once a month, the effect of it being to cleanse the skin, render it supple, promote the peripheral circulation, excite perspiration, and thus assist nature in one of her proposed ends. The temperature of the bath ought to be so adjusted as to excite neither a sensation of heat nor cold ; *it should simply be agreeable*. This last is always to be preferred to that of the thermometer, which, although it does indicate the temperature of the water, yet it does not indicate what may happen to suit the state of the bather. River or sea bathing, in the summer season, most generally agrees with the constitution of the sex ; but hip-baths, which tend to produce a congestion of the pelvic viscera, should not be allowed, except under some special indication, of which a skilful physician is the most fitting judge.

Among the attentions to cleanliness, we ought to place in the first rank, those that refer to the cure of the sexual parts. The ONLY liquid a woman ought to use for her *toilet*, at all seasons of the year, except winter, is fresh water ; in the winter season, it ought to be tepid, that is, it should be made as warm as it is in the summer season. Very cold water might produce inflammation of the vaginal-uterine mucous membrane, and thus bring on the whites ; whereas, the frequent employment of tepid water is attended with the risk of relaxing the genital organs, and giving them a disposition to be affected with hemorrhage.

For the purpose of injecting the vagina, it is best to make use of a syringe, with a curved canula ending in an olive, with several holes in it ; by such an arrangement of the canula, the woman is not subject to too violent an impulsion of the liquid against the mouth of the uterus. It is just to state, moreover, that all those toilet vinegars, those essences, the astringent compositions, and all those mysterious waters that the perfumers have the talent to produce, under a variety of picturesque titles, should be proscribed by females who attach any importance to the conservation of their health ; it is, at the same time, useful for them to know, that certain preparations invented by the corruption of the public manners, and which are the occa-

sional resources of mere libertinism, are far from equaling the precious character of true innocence.

A desire to please, and to conquer all hearts by her beauty, has, in all countries and in all ages, been one of the most important occupations in the life of the female; to attain this end, her imagination, fruitful in inventions of the sort, has suggested to her various means, in the first rank of which, is the *cosmetic*. These articles which, as their name shows, are designed to embellish the skin, have fallen into the hands of a set of charlatans, who have transformed them into a thousand shapes, more or less prejudicial to the health, and always useless, "*pour reparer des ans l'irreparable outrage.*"

If there really are any cosmetics, which are unattended with injurious effects upon the skin, such as the aromatic distilled waters, etc., the greater proportion of them, especially the different sorts of *rouge*, and among others, the red and the white, compounded of the metallic preparations, such as lead, mercury, antimony, bismuth, arsenic, etc., etc., are extremely hurtful, and are, at the present day, wholly abandoned to the use of players, courtesans, and a few old coquets. Far from producing the effect so much wished for, these various preparations are fit for nothing but to precipitate the appearance of age; they deepen the wrinkles, ruin the skin, arrest the perspiration, bring on tetter of different sorts, pimples and erysipelas. It is true, that some of them succeed in dispersing spots, and some forms of cutaneous eruptions, but then, they are generally followed by metastasis and repercussion, that are mostly very dangerous. Salivation, tremors, palsy, convulsions, lead colic, ophthalmias, inflammation of the stomach, of the liver, and the lungs, have been the miserable consequences produced by the application of various metallic preparations to the skin. It is a duty, however, to observe, that the *rouge*, called "vegetable rouge," prepared from the carthamus, as well as that extracted from red sanders wood infused in alcohol, from cochineal, from the root of the alkanet, Brazil wood, and other vegetable substances, is attended with little danger, provided it be seldom employed and in moderation. According to Prof. Chaussier, the *steatite* may be made use of, without much inconveni-

ence, for the purpose of whitening and polishing the skin, and even as a preventaive against certain contagious disorders.

Where fresh water, the best and most efficacious of cosmetics, will not suffice to cleanse the skin, or restore its brilliancy and suppleness, lost by the abuse of pleasures, prolonged vigils, the use of paint, the action of the air, and the solar rays, etc., the ladies may successfully employ a balsamic lotion, prepared by mixing ten drops of balsam of Mecca, a drachm of sugar, the yolk of an egg, and six ounces of distilled rose water, or *fleurs de feve*. She might, likewise, make use of the cucumber ointment, *beurre de cacao* ointment, or sweet almond ointment, taking care to get them fresh, and without any combination with the metallic salts, that certain perfumers are in the habit of mixing with them.

Cucumber ointment, or the salve made from the same vegetable, and colored with alkanet root, and perfumed with a drop of the essence of roses, is the only article that can be safely employed, either for protecting the lips from the irritating action of cold weather or for giving them the vermilion tint, which disease had deprived them of. A woman ought always to refuse to employ the different sorts of vinegars for the same end. She will do well, also, not to use, without great circumspection, most of the so called *treasures* of the mouth, into the composition of which various acids are known to enter, and the presence of which render them quite injurious to the teeth;* the tincture of guaiacum, the vinous tincture of bark, and the spirit of cochlearia, are the best dentifrices for the preservation of the mouth. A mixture of water and alcohol, with a few grains of sal ammoniac may also be very beneficially employed, and the powder of Peruvian bark, or charcoal, or burnt bread, incorporated with honey, compose an opiate which is very suitable for whitening the teeth, removing the tartar that encrusts them, and thereby for preserving them from the attacks of caries.†

*Dr. Regnard has proved that the action of acids on the teeth is the most common, and almost sole cause of decay.

†M. Faveau, a skilful dentist of Paris, makes a most successful use of

This opiate ought to be used at least once a week, and it is right to rinse the mouth after each meal, with cool wine and water, and to do the same thing each morning, with water containing a portion of some one of the liquid dentifrices we have mentioned, or merely a little *eau de cologne*; no one should ever clean the teeth except with a soft brush; nor should they take cold drinks immediately after taking their food very hot.

The cosmetics prepared for the hands, and all the cutaneous surfaces, with a view to their neatness, consist of pastes and flour of sweet and bitter almonds, of fecula, and of aromatic soaps. We think it a duty, however, to say that the Windsor and Palmyra soaps, which are in most general use, are but ill-suited to preserve the softness and suppleness of the skin, because they always contain an excess of alkali, which dries, and at last cracks it. None of these objections are chargeable against the liquid soap called *Oleine*, prepared by M. Guerlain, Perfumer, at Paris.

The caustic substances that enter into the composition of *depilatories*, should be sufficient motive for rejecting their use; not only may they give rise to serious symptoms, but there is the further objection, that they do not fulfil the end proposed; for the hair which they cause to fall, soon grows again. All those metallic substances, also, that are used for dyeing the hair, should be banished from a lady's toilet, as being very dangerous articles. They mostly consist of nitrate of silver, or a mixture of sulphuret of lead or quick-lime, to be diluted with water at the time of using it. We add, as to what relates to the care of the hair, that she ought to confine herself to the use of the comb; to wash it from time to time with water, and to detach the dandruff occasionally with a brush; and, lastly, she should tress it with a grace, and perfume it occasionally with some perfumed oil.

We shall close, by reminding the ladies that too frequent dressing of the hair, with hot curling tongs, dries, and makes it early turn gray; that metallic combs cut it,

a *ciment oblitérique*, for the purpose of arresting decay, and curing pains of the teeth; it is composed of anhydrous sulphate of alumine and an alcoholic and ethereal extract of the *pistachia lentiscus*

and that the various pomatums recommended for improving the growth of the hair, have no other effect than to cover it with a coat of grease, consisting, for the most part, of colored tallow, perfumed and occasionally mixed with oil or beef's marrow. Let us observe, moreover, that cleanliness and native elegance, the graces of the body as well as those of the mind, and, in fine, good temper and modesty, are the most powerful of cosmetics.

3. INGESTA—FOOD, DRINKS, ETC.—Although it be difficult, not to say impossible, to trace out the rules of alimentary regimen applicable to all women alike, we may state that their food ought to be proportioned to their constitution and to the exercise they undergo, as more or less fatiguing. Their taste naturally inclines them to prefer such dishes and beverages as are of easy digestion, and most of them, likewise, are very fond of fruits—preparations of milk and all the lighter kinds of food, or such as are taken from the vegetable kingdom. Yet some there are, *who, giving way to a false appetite, have the habit of overloading the stomach with food*; but it generally happens that their exaggerated digestive power leads them to a state of corpulency and excess of embonpoint, which by depriving the body of its suppleness, its activity, and all its natural proportions, are as unfavorable to its beauty and its health, as leanness itself. There are also many women to be met with who are *extremely addicted to the use of high-seasoned food and to spiritous and aromatic drinks*; but most of those who thus transgress the laws of HYGIENE are found to be barren, lean, of a bilious temperament, and subject to attacks of uterine hemorrhage, menstrual disorders, cutaneous eruptions, and also to inflammation of the womb and bowels.

Women who desire to retain, during the longest possible period, the advantages of youth, of beauty, and above all, of health, should wholly abstain from liquors, stimulating, acrid, and spicy dishes, from fat meats, pastry, and in one word, *from all kinds, of food artfully prepared to exaggerate the limits of the appetite and create factitious wants*. Light kinds of food, derived from the vegetable kingdom, meats of easy digestion, boiled or roast meats,

fish, birds and game plainly dressed, milk in its various preparations, fruits, herbaceous vegetables, and lastly, water, pure, and under proper circumstances with a little red wine—such should be the constituents of diet for a woman from puberty to the “change of life.” We, moreover, give it as our opinion that the frequent use of tea and coffee, is in general hurtful to women, and especially to those who shine less by their intellectual qualifications than by their beauty and all the perfections of their merely physical nature.

4. EXCRETA—EXCRETION OF THE MENSES, THE FÆCES, THE URINE, THE SWEAT, ETC.—Our bodies so often waste and repair the materials of which they are constituted that we may compare one of them to the vessel of Theseus, which was so often repaired, that at length not one piece of its original timbers was left. As the condition of health chiefly depends upon the perfect harmony of this double action, it is easy to understand why it is of importance to promote, and sometimes to moderate the different secretions of the animal machine. Women should not only follow out the hygienic rules we have traced out for them in reference to their menstruation, but *they ought to pay a special attention to the excrementitial evacuations, to see that they are effected in due proportions at the periods, and by the routes assigned for them by nature.* Their attention is chiefly required as to the urinary and fæcal evacuations; that is to say, they ought to yield to the first solicitations of the one, and facilitate the expulsion of the other, by mild food, cooling drinks, and occasionally by means of emollient enemata, and by suppositories, where there happens to arise a state of obstinate costiveness.

It is needful, also, to watch with the same scruples, the state of the perspiration, remembering that on the one hand, too much perspiration brings on general debility, and renders the skin susceptible to the vicissitudes of the weather, whilst on the other hand, a sudden suppression of the sweat occasions an infinity of disorders of a nature more or less severe. To keep up a gentle perspiration of the whole skin; to keep the person perfectly clean; to dress

moderately and suitably as to the season ; to abstain from all immoderate exercise, and, lastly, to avoid sudden transitions from heat to cold ; such are the means by which they may keep up a constant, regular exercise of the functions of the economy.

GESTA—EXERCISE, LATE HOURS, SLEEP, REST, ETC.—To keep herself in a state of health as perfect as may comport with the mobility of the organization, the female should addict herself to a moderate amount of exercise, which should end, however, as soon as it becomes fatiguing. All the world knows that the celebrated Tronchin, when he was called to the court of Louis XVI. and consulted by nervous ladies as to their disorders, never recommended anything but exercise, sustained and varied by all sorts of dissipation. He pushed the rigor of his orders so far as to prescribe for them the very duties their valets had been accustomed to perform for them ; and the coquettes and high dames of the court were seen polishing the inlaid floors, which they had before scarce deigned to press with their feet.

We ought, also, in this relation, to bring to mind the inestimable value of rural pursuits. The aroma of plants and flowers exhaled at sunrise, the oxygen which is set free in torrents under the influence of light, the ravishing aspect of nature, the melodious song of the birds, all serve to procure the most delicious sensations, and impart to the organs an incredible amount of strength and health.

Among the exercises to be regarded as most suitable for females, are those connected with house-keeping, walking, as an amusement, or as a prescription, riding on horse-back, jumping, and above all, dancing, provided it be not continued to a late hour of the night, nor indulged in immediately after a repast or during the catamenial flow. The waltz, which has on very good grounds, met with many opponents, conjoins with the disadvantage of fatiguing too much, the greater one of propelling the blood too strongly towards the principal internal organs, and especially the heart, lungs and brain.

Speaking, reading aloud, and, above all, singing, contribute more powerfully than might be supposed to the

conservation of the health, and the prevention of many affections of the lung, and stomach. Moderate exercise, moreover, increases the appetite, facilitates the digestion of the food, energizes the circulation of the fluids, promotes the secretions and the excretions, and augments the power and activity of all the systems of organs. When carried to excess, it is far from producing such salutary effects; for it then exhausts the organs, reduces the strength, and renders all the functions languid. In fine, leisure, indolence, luxurious habits, the soft and sedentary tone of life which are the very vices of education among the wealthy, leave the body in a state either of debility or of lymphatic embonpoint, and frequently constitute the chief causes of a thousand nervous affections, and that excessive sensibility which renders even the gentlest impressions absolutely painful.

It is impossible to repeat too often, *that exercise is the surest antidote to the continued state of suffering complained of by many ladies in high life.* Let a languishing coquette, pale and vapory, keep company with strong, healthy village girls, and participate in their labors as well as their amusements, for a while; she will soon find in herself a most admirable metamorphosis! Her digestion, which was disordered, will be gradually restored; her strength will return in company with the freshness and bloom of her complexion; indeed, her whole nervous system will be corroborated, and the desperate languor and mobility which constituted a continued state of suffering, will soon give place to a stable and brilliant condition of health.

Rest, which is as needful as exercise, should be enjoyed in proper proportion. Late hours are always prejudicial to the health of the sex, because *they cannot repair in the morning the losses of sleep at night, nor with impunity invert the invariable order of nature.* With those among them, who, as they say, turn night into day and day into night, all the organs suffer, the functions are deranged, the nutrition is very imperfect, the physical constitution loses its energy entirely, and the appearance and bloom of youth soon depart and give place to wrinkles and old age.

Although sleep is a means of restoration, with which

nature endows us, it ought not to exceed certain bounds ; that is, it ought not to be prolonged beyond from seven to nine hours. Sleep solicited by too soft a bed, plunges the nervous system into a sort of stupor, induces debility rather than procures strength, and brings about a fulness of the vessels, followed by torpor of the circulation, and not rarely by hemorrhage. Upon the whole, the female ought to retire early to bed, be up betimes in the morning, and pass her waking hours in occupations that may exercise without fatiguing the organs.

PERCEPTA—PASSIONS, INTELLECTUAL LABORS, ETC.—Helvetius says, “ that the passions are the celestial fire that vivifies the moral world ; it is to them that the arts and sciences owe their discoveries, and man the elevation of his position.” It is true, however, that while some of them are useful to him, the greater portion of them agitate the current of his existence, fill it with storms, and curtail its duration. Their influence upon his health is questioned by none, whether they act slowly or whether they burst forth with impetuous violence : in the former, they are like a concealed poison that destroys ; in the latter, like a devouring flame. Notwithstanding that each one of the passions possesses a character peculiar to itself, and discloses itself by characteristic signs, they all have this in common—that they pervert the habitual order of the functions. The concentrated passions, such as jealousy, hate, fear, envy, grief, and its varied forms, direct their action principally upon the diaphragm, the stomach, liver and womb, all of whose functions they are capable of disturbing.

The intense passions, as well as emotions, whether agreeable or painful, felt in excess, impart shocks so violent that the most alarming symptoms and even death itself may be brought on by them. Tissot knew a female at Lausanne, who fell into convulsions whenever the name of her rival was mentioned in her presence. In the annals of France, we see that a princess of Condi died of jealousy on hearing that her husband had attached himself to a lady of honor, to Catherine de Medicis. Valerius Maximus speaks of an Athenian lady who lost her speech in an excess of rage ; and Buchan reports the case

of a woman who died suddenly with cerebral hemorrhage produced by a similar cause. Lastly, Prof. Rostan saw a lady perish in the course of two days, with an attack of peri-pneumonia, with which she was seized upon reading a letter that announced the death of her son. Let us further add, that a sordid interest led to the sudden death of Leibnitz's niece. That celebrated philosopher had scarcely yielded his last sigh when his avaricious heiress caused his trunks to be opened, and upon seeing the piles of gold he had bequeathed to her was so filled with delicious joy that she expired before she could count them. We also observe, that Cromwell's daughter, after the execution of Charles I., was so indignant at having for her father the assassin of her King that she died of despair. Although the lively emotions and impetuous movements of the soul do not always produce such fatal effects, they always act in an injurious manner upon the economy, and principally among women whose sensibility and imagination are commonly of an exalted cast.

We conclude with remarking, that literary labor, or abstract studies, protracted meditations, which in a manner, concentrate all the vital forces upon the organ of thought, are also, very prejudicial to females. Conflicts of the mind are especially hurtful to them, at the period when nature calls upon them to fulfill the important functions of their sex; and at an age when they ought to shine rather by the advantages and graces of youth, the art of pleasing and the charms of their conversation, than by a scientific or literary reputation, which men, even, never purchase but at the expense of both their health and their happiness.

PART IV.

DISEASES OF THE INTERNAL GENITAL ORGANS.—DERANGED
MENSTRUATION, WITH OTHER FUNCTIONAL DISORDERS,
AND ORGANIC DISEASES.

CHAPTER I.

SYMPATHIES OF THE UTERUS, WITH PRELIMINARY OBSERVA-
TIONS UPON DISEASES OF THE INTERNAL ORGANS;—THEIR
GENERAL CAUSES, DIAGNOSIS, AND TREATMENT.

BEFORE proceeding to the consideration of special dis-
eases of these organs, a few observations upon the SYMPA-
THIES OF THE WOMB, and general remarks on the CAUSES,
DIAGNOSIS, AND TREATMENT OF DISEASES OF THE FEMALE
GENITAL SYSTEM, may not be out of place.

THE SYMPATHIES OF THE WOMB, were formerly very much
misunderstood; its influences were supposed to be almost
innumerable, and powerful beyond comprehension. It has
been handed down, from the most ancient times, that the
uterus governs all other functions of the economy, with a
potent sway, and no less powerful than capricious; that
it not only forms and governs the moral character of the
female, but that it regulates the physical organization in
every portion of her body, and creates, exalts, and modi-
fies all the diseases with which she is afflicted; hence the
declaration of Van Helmont: *Propter uterum solum, mu-
lier id est quod est*;* and of Hippocrates: *Propter solum
uterum, mulier tota morbus est.*†

* By reason of the uterus, alone, woman is what she is.

† On account, alone, of the uterus, woman is all disease.

By some, the uterus was declared to possess a separate life; that it had its own peculiar mode of existence, and that it was wholly independent of the laws which govern the system in general. Aretæus speaks of it as "an animal confined within another animal; that it travelled without restraint from any part of the body to another; that it would take possession of any sense; or occupy any viscera, whether situated at the right or left side of the body; but that its movements were rather towards the inferior portions of it. That it was like a wandering being; that it relished agreeable odors, and would move itself towards the place from which they appeared to emanate; but would remove itself, in sadness, from places which had disagreeable smells," etc. Plato remarks, that "the womb is a wild beast, that obeys no reason, but which, when its desires are unsated, wanders about within the body and excites all sort of irregular motions."

Thus, it is evident that the ancients were not only ignorant of the true sympathies of the uterus, but, also, of its anatomy, and even of its situation and relation to other organs of the body. Quite as far from the real truth, too, regard we the opinions of some modern authors; one of whom, declares that the uterus is of so little consequence to the animal economy, that it might be spared from the body, without the system suffering from its removal; and that it has but little influence or control over the functions of the body.*

There is nothing more positively known, than that there exists a certain sympathetic power, the influence of which may be received by one or several organs of the body, from some remote organ, mechanically disconnected. Such sympathy seems to depend upon a peculiarity of organization, by which the parts so constituted, are induced to vibrate in unison, and irradiate the impressions they receive upon each other. Whether this is directed by nervous anastomosis, or by the intervention of the brain, or in some other manner, is as impenetrable to us as is the veil which conceals the real nature of the nervous power.

*Mr. Fogo, a few years since, in a paper entitled, "On the degree of importance which should be attached to the functions of the uterus, in regard to health."

We shall restrict ourselves in this place, to a brief statement of the most prominent sympathies of the uterus; they are so evident, that it would be absurd in the highest degree, to call them in question. A knowledge of this influence is of very great importance; and, in fact, sometimes, this sympathetic phenomena is the only clew to uterine disease. Distinguished physicians have been frequently consulted for diseases referred to the breasts, stomach, bowels, and heart; also, for neuralgias, loss of voice, etc., (see chapter on hysteria) which were, in reality, but the sympathetic reaction of a disease of the womb, that might have been made certain on an examination by the *touch*. Under such circumstances, the symptoms only are combatted, instead of the disease which gives rise to them.

1. The sympathy of the uterus with the breasts: we have before adverted to this subject, (see page 29) and shall now state, in addition, other facts. It is universally known that the sucking and tittillation of the nipple by the infant, frequently give rise to sensations referable to the *genitalia*. The breasts of pregnant women, when the fœtus dies, become flaccid—also, during uterine hemorrhage; and the suppression of the menses, or the lochia, and the distension of the womb by polypus and moles, frequently produces a secretion of milk, and, sometimes, a milk fever. Women who are suckling, and have an abundant secretion of milk, do not generally menstruate, have but little lochia, and are rarely subject to leucorrhœa; whereas, those who but half fulfil the obligations of a mother, lose their milk, are liable to copious menstrual discharges, abundant lochia, and leucorrhœa.

2. The sympathy with the stomach is evident, from the strange and capricious appetite, nausea, vomiting, etc., which arise during pregnancy and irregularity of the menses.

3. The sympathy with the brain is sufficiently manifest: pregnant women, sometimes lose their memory, or, on the other hand, have it greatly strengthened; their imagination is more lively, or they become less intelligent. They are sometimes prompted to strange acts, become partially insane, etc. Also, it frequently happens that, violent fits of passion, emotions of the mind, jealousy, etc.,

arrest the flow of the menses and lochia, and suspend the secretion of milk ; whereas, the whites are increased.

4. The sympathy of the uterus with the respiratory and vocal organs is proved by the palpitations, faintings, spitting of blood, loss of voice, and other phenomena that occur during the existence of uterine disorders, and in pregnancy.

The sympathies that exist between the uterus and numerous other organs are manifest, from the many changes that occur at puberty, and at the change of life ; the sensations excited by the kiss of a lover ; the tooth-ache, ringing in the ears, indigestion, colic, and other symptoms supervening during pregnancy ; the cessation of uterine catarrh by its establishment in some other part ; vicarious menstruation, and the suppression of the menses upon the application of cold to the hands and feet ; and a great variety of other phenomena, which—remarks L'Isere—prove the accuracy of these two aphorisms of Van Helmont—*On account of the uterus, woman is what she is. . . . all women are doubly diseased.**

He also remarks : Any researches made in this direction (to explain the causes of the great influence of the womb upon the entire economy) would certainly tend only to prove still more conclusively that man may ever seek in vain to lift up the veil that shrouds the impenetrable secrets of nature.

THE DISEASES OF THE UTERINE SYSTEM may be divided into FUNCTIONAL and ORGANIC.

1. The FUNCTIONAL disorders consist of those variations from the natural secretion of the menses, which are commonly known as *Amenorrhœa*, or suppression of the menses ; *Dysmenorrhœa*, or difficult and painful menstruation ; and *Menorrhœgia*, or excessive menstruation. Menstruation may be scanty or altogether absent, whether its place be supplied by a vicarious discharge, (leucorrhœa) or not, or it may be in excess. The character of the menstruous fluid varies at different times—it ought to be the color

* Propter solum uterum, mulier id est quod est. . . . femina omnem bis patitur morbum.

of venous blood ; but it is sometimes lighter, merely tinged with red, and sometimes darker. It may possess greater or less consistence than natural. In the healthy state, it does not coagulate, but in some kinds of derangements, clots are frequently discharged. In health, it has but a faint, sickly odor, which is occasionally superseded by a strong, disagreeable smell.

An internal examination, rarely reveals anything unusual in these conditions of the uterus : its density may vary a little, and the heat may be increased ; and in some derangements, the mouth and neck of the uterus are observed to be more open and flabby than usual, while in others they are somewhat narrowed, by contraction of the muscular fibres. But these disorders, when uncomplicated, may continue for years, without having any tendency to run into organic disease of the womb.

2. The ORGANIC diseases of the uterus and its appendages, are often the result of inflammation, either of the mucous membrane, or of the muscular and vascular tissues ;—giving rise to *induration, softening, ulceration* and *abscess*. The secreting surface of the uterus may give rise to *purulent discharges*, or, its cavity may be distended with *air, fluid*, or degenerated masses, called *moles* and *hydatids*.

A change of nutrition, also, takes place, forming *fibrous tumors* ; they are found of different degrees of consistence, flabby, soft and dense, and occasionally containing portions of *calcareous matter*.

The womb is subject, also, to MALIGNANT DISEASES, in the form of *fungous growth, ulcerations*, and of *morbid depositions*. The fungous, denominated *cauliflower excrescence*, is nothing more than a mass of enlarged and diseased vessels, with their cellular substance. *Malignant ulcerations*, or *corroding ulcer* first attacks the neck of the uterus, and then spreads with varying rapidity to the body of that organ, and frequently to the vagina. *Cancerous deposition* may take place in the neck of the uterus, in its body, or in both places at once. It may, also, take place in the cellular tissue which connects the uterus to neighboring parts.

The uterus is, also, subject to various accidents, such

as *rupture, displacement*, etc.; the first is generally the consequence of violent labor pains. Displacements of the uterus are of different kinds, and are consequent upon a relaxation of the usual supports of that organ. We may have *inversion, retroversion, anteversion, prolapsus*, etc.

The Fallopian tubes and ovaria undergo morbid changes similar to those which take place in the uterus; the most common of these are: *obliteration of their canals; distension by serous effusion, tubercula or encephaloid matter; adhesion, and cancerous deposition.*

SOME additional light may, perhaps, be thrown upon these diseased conditions, and the period of their occurrence, if we briefly consider the anatomical changes which the uterus and its appendages undergo at the great epochs of female life; and the predisposition thence arising to certain disorders.

Before menstruation has commenced, the uterus is of a very dense structure, with vessels and nerves of a size only sufficient for its nutrition. The ovaries are small, pale, and undeveloped. Up to this period, diseases of the internal organs are extremely rare.

After menstruation, we shall find that the womb has undergone a change. It has increased in size and is of a softer texture; the vessels are enlarged and carry more blood. The nerves, too, if not much enlarged, are more excitable. The mucous membrane is of a florid, red color, and a train of pathological phenomena commences. First, we may have various *functional disturbances* and *local congestions* with a *discharge of blood*. Then, *neuralgia* of the uterus, *hysteria, leucorrhœa, or inflammation*, with its consequences, although the latter is more frequent at a later period. The establishment of menstruation exercises an important sympathetic influence over other and distant organs. The brain and nervous system, the stomach and intestinal canal, the glandular system, etc., are exposed to new, energetic, and morbid influences.

After conception and during gestation, a further change of structure takes place. The mucous membrane lining the uterine cavity, becomes more vascular, and is quickened into increased action, for the purposes of pregnancy.

The walls of the uterus lose their density, and are much enlarged, for the accommodation of the blood vessels, which are very much increased in size, carrying many times the ordinary quantity of blood. The lymphatics and nerves are, also, proportionally developed. The ovaria are more vascular than usual, and increased in volume. The uterine disorders which occur during gestation, are in accordance with the anatomical condition of the organ; there may be irregular distribution of blood, as *congestion, inflammation, hemorrhage, etc., neuralgic pains and spasmodic difficulties*. The canals of the Fallopian tubes are subject to obliteration, and the ovaria to distension, by the formation from inflammation of serous, and purulent matter.

After a safe delivery, these peculiarities lose their prominence, but the uterus is not left in the same state as before impregnation—and every succeeding pregnancy develops still more these changes. Now the diseases which prevail during the child-bearing period, answer exactly to these changes; from the increased amount of blood in circulation, and exaltation of the nervous influence, we have frequent *hemorrhage, and nervous difficulties, and inflammation of the substance and lining membrane* is more frequent than previously. We seldom see ulceration to any great extent, or lesions of nutrition, till towards the latter part of this period.

In elderly women, after the child-bearing period, the vessels and nerves of the uterus are found diminished in size; the lining membrane is thicker than at an earlier age, and pale; but the substance has acquired, throughout, nearly its primitive density, and considerably more at the neck of the uterus, presenting, in fact, a cartilaginous appearance. The canal leading to the uterus is nearly, and in many cases quite obliterated, the vagina and uterine ligaments are greatly relaxed, and the ovaries very much shrivelled. In accordance with this change, active inflammation and hemorrhage are much more rare, but destructive and organic diseases are more frequent; as *fibrous and fleshy tumors, morbid fungous growths, and cancerous deposition*. From the obliteration of the canal of the neck, an accumulation of mucus in the uterine cavity, some-

times leads to *rupture of that organ*; and the relaxation of the supports of the uterus readily admits of *prolapse*. The ovaria, also, at this period are subject to lesions of nutrition, giving rise to various solid and fluid deposits, and malignant fungoid diseases, similar to those of the uterus.

As the diseases of the vagina are often closely connected with those of the uterus and its appendages, we shall include them all under the same head.

CAUSES.—All circumstances of evil influence, or which deviate from the design of nature, may be regarded as causes of the various genital affections. They may, in reference to particular diseases, generally, be divided into the *predisposing* and *exciting*; which distinction we shall make, when practicable in speaking of individual disorders. Among these circumstances, as most prominent, we may mention *abusus coitus*, masturbation, continence, celibacy, sterility, laborious labors, abortions, and drying up the milk. Those females who reside in large cities and live in a state of opulence, are afflicted with a greater number and variety of diseases, than those of the country and less exalted rank; this is doubtless owing to the latter being less under the influence of those perturbing causes, to which those who reside in cities, and the opulent, are perpetually subject.

On account of the sympathies that exist between the *genitalia*, and other parts of the economy, as we have seen, should be reckoned among the most common causes of the diseases of females in large towns, and among the opulent classes—the impurity of the atmosphere; disregard of the laws of HYGIENE; cold and astringent cosmetic lotions for the vulva, during, or soon after the menses; the use of emmenagogues protracted vigils; the use of foot-warmers, exciting dishes and the immoderate use of tea, coffee, wines and ices; excitements and commotions; illicit enjoyments; viewing theatrical representations and reading works of fiction; indolence; jealousy, disappointed love, and loss of fortune; and, in short, all the violent emotions and passions of the mind. All of these, and other similar causes act more powerfully among city women, because they are, in general, endowed with the liveliest imagina-

tion, and extremely nervous and impressionable—especially those of the elevated class.

In country women and among the less opulent classes, these affections often depend upon different causes: such as a marshy residence, a damp and badly-lighted dwelling; violent exertion, blows and falls; atmospheric vicissitudes, sitting on the cold ground, and the immersion of the hands or feet in cold water; the continued use of too unnutritious food, and alcoholic drinks; the use of emmenagogues; meddlesome midwifery; sedentary labor in cellars and low damp work-shops; finally, rage, libertinism, drunkenness, filthiness, etc.

DIAGNOSIS.—The diagnosis of uterine disease is of great importance, and often requires great care and skill. The information for this purpose is derived from three sources: 1. From the *symptoms*. 2. From a *manual or tactile examination*, as *touching per vaginam, per rectum*, etc. 3. From a *visual examination* by the SPECULUM. All of these means will be detailed at length, for the purpose of distinguishing individual diseases, when we come to speak of them.

When there is any doubt in regard to the nature or location of a disease of these organs, the most delicate female should not object to such examination as may lead to a knowledge of the cure of a disorder, which otherwise might prove speedily fatal. It is needless to say, that the greatest gentleness should be, and is used by every gentleman, and the examination repeated as seldom as possible.

TREATMENT.—As we shall dwell at length upon the treatment, when speaking of individual diseases, we need barely advert to the subject in this place. There are some medicines that are regarded as emmenagogues: such as the ergot, iron, strychnine, aloes, electro-magnetism, cantharides, etc., which seem to act directly upon the uterine system.

Preparations of iodine have latterly been successfully used, particularly the iodide of potash. Calomel and opium exert a remarkable power over uterine inflammation; and

cupping the loins, or the application of leeches to the vulva, anus, or over the pubis, are highly useful. Of late years, blood has been extracted directly from the neck of the uterus, by means of the speculum, with leeches and scarification. By the same means caustics may be applied to the part affected without injuring the vagina: as nitrate of silver and mercury, butter of antimony, etc., in ulcerations and excoriations.

In diseases of the vagina and neck of the uterus, injections of various substances may be thrown up by a syringe—as astringent decoctions and infusions, solutions of sulphate of zinc and copper, nitrate of silver, etc. Emollient and anodyne injections, as well as those of simply warm and cold water, are, also, very useful.

An appropriate system of **HYGIENE**, is one of the most important means of cure, and should never be neglected. A proper diet, the judicious employment of the external application of cold and tepid water, counter irritation, the use of anodyne plasters, etc., etc., are all of great importance, and will be pointed out when their several virtues are required in different diseases.

SECTION I.

FUNCTIONAL DISORDERS.

CHAPTER II.

SUPPRESSION OF MENSTRUATION AT PUBERTY, OR TARDY APPEARANCE OF THE MENSES—FOUR DIVISIONS—CAUSES—SYMPTOMS AND TREATMENT.

It has been stated, that in this climate the average period of puberty in the female, is from the fourteenth to the fifteenth year—which is indicated by the menstrual discharge. If, however, the usual period arrives and we have, or have not, the signs as enumerated in Chapter I.

and II. of Part III., and the menses do not occur, or if they have been established, and disappeared again from other causes than those of pregnancy, suckling and old age, the individual is said to labor under SUPPRESSION OF THE MENSES. There are two forms of suppression, each of which is important, as being intimately connected with its proper understanding and treatment.

The *first form* is that, when from age or personal development, it is judged that the proper period of puberty has arrived—and it does not appear at all—known as *tardy appearance of the menses*. This form originates mostly from constitutional causes, and is the subject of this chapter.

The *second form* is that, in which it has appeared, but is interrupted after having been established; this is the proper *Amenorrhea* or *suppression of the menses*, of authors, and will form the subject of the next chapter.

There are several *divisions* of the first form, or *tardy appearance of the menses*, which we shall notice in order. The *first*, is when at the usual age of puberty, there is little or no development of the female system. The *second*, is when there are indications of development, which is but slowly taking place. The *third*, is when this development is interrupted by a chronic affection of some other part. The *fourth*, is when the most perfect development of the female constitution has taken place, yet it does not appear.

1. *When there is little or no development of the female system at the age of puberty.* This is easily detected by the absence of all the signs which should characterize the appearance of womanhood; the breasts do not enlarge, and in fine, none of those changes occur which are enumerated in Chapter I. and II. of Part III. The *cause* may be, imperfect development, or malformation—as absence of the OVARIA, or UTERUS. It is evident that in such a condition, it would not only be useless, but it would be inhuman and cruel to torture a girl's system with stimulating emmenagogues, which may be in good condition, merely because she has attained her fourteenth or fifteenth year. We have spoken plainly on this point, at page 68 and 69, and shown that when it is practicable time, etc.,

is all that is required, to effect the anxiously hoped for change.

In this condition, if the mother or friends of the female are rational and informed upon the subject, they will see the entire insufficiency of medicine to produce the desired end. But, they sometimes act in open defiance of knowledge, even after possessing it, to the imminent risk of the destruction of the poor girl who is the object of their solicitude. Dr. Dewees mentions a parallel case to that mentioned at page 69, of the sad fate of a "most amiable and interesting young creature," for whom he was requested to prescribe for the expected menses. She was in perfect health, and had not a mark of womanhood—though she was fifteen years of age—and this was all that could be urged by the mother in favor of an attempt to "bring down her courses." He relied upon the good sense of the parent, freely explaining to her that no medicine was needed, and heard nothing more of the girl for six months. At the end of this time, he was suddenly summoned again to attend her; he found her alarmingly ill, throwing up large quantities of blood, and she died a few days after from the excess of this discharge.

It seems that the mother, with the view of producing the menstrual discharge, had procured some medicine of a quack, which, upon giving according to his directions, produced fever, loss of appetite, and vomiting; she again called upon the "Doctor," and he encouraged her to persevere with the medicine, saying that the fever, etc., was an effort of nature for the end proposed—"she persevered, fatally persevered; for in a few days more she lost her lovely and only daughter." The medicine upon examination proved to be the oil of savin.

2. *When there are indications of development, which is but slowly taking place.* This condition is known by the partial occurrence of those changes before mentioned, that indicate puberty. There is slight enlargement of the breasts, some expansion of the body, etc. The general health seems to suffer, especially if the girl have passed the fifteenth year; the face is pallid, and only flushed upon occasions of sudden and violent mental excitement, or physical exercise, which soon oppress and

exhaust the system. She is assailed by a train of nervous symptoms, as they are called, such as palpitation of the heart, ringing in the ears, headache, loss of appetite or a desire for the most opposite and inconsistent articles of diet. This constitutes very nearly what is called the LYMPHATIC temperament: or, that in which the vessels are filled with lymph or thin blood.

This condition is sometimes accompanied by leucorrhœa, (see that chapter;) which particularly deserves notice when the health appears to suffer.

A distinguished French writer, in speaking of the CAUSES of this affection, remarks: "The general debility which is so often the cause and attendant of suppression, does not always derive its origin in the primitive constitution of the female; it is often the unfortunate consequence of a number of debilitating causes, such as living in a low, humid situation, deprived of the light of the sun; aliment of a bad quality; warm watery drinks; insufficient nourishment; want of exercise, or the fatigue produced by labor beyond the strength; tedious disease and convalescence; leucorrhœa; the abuse of sanguine evacuations; disappointment and all the depressing passions; and finally, all the causes which impoverish the blood, and render it incapable of imparting to the organs the energy indispensable for the full exercise of the functions. If the contrary excess, that is to say, the state of plethora (sanguine temperament) produces an analagous effect, it is because the blood, too rich in fibrine, forms an obstacle to itself, and opposes the periodical exhalation which constitutes menstruation."

These lamentable causes are continually in operation, among a great portion of the human family. The health of females employed in factories, even in our favored country, from their constant deprivation of fresh air, confinement to repulsive and monotonous labor, and general restraint of the natural impulses and desires, must seriously suffer. We think there can be no doubt, that in the vast proportion of individuals thus employed, serious and often lasting injury is done to the constitution.

In the TREATMENT of this form of tardy appearance of the menses, our exertions must be directed to the invigor-

ation of the system in general, and to the development of the uterine system in particular—though to effect the former is much assisting the latter.

The *first* should be attempted by free exercise in the open air, riding on horse-back, when practicable, if not, in an open wagon; walking in proper weather, and when the weather will not permit of exercise abroad, skipping the rope within doors; dancing moderately, with care of not over-heating, and cooling too suddenly; all such means are useful in giving a healthful impetus to the mind and body. By proper attention to dress: clothing enough must be worn at all times to ensure a constant state of comfort; wearing flannel next to the skin in cool weather, and properly protecting the feet and legs against cold; carefully avoiding damp and wet places, and currents of cold air, especially when warm. The diet should be moderate and consist of easily digestible substances both of the vegetable and animal kind; using very cautiously stimulating drinks, such as wine, spirits, beer, etc.

All depressing emotions, whether originating in domestic unhappiness, or careless indifference to the welfare of her children, must be dissipated by the mother and her associates; under the influence of her presence all unhappiness should disappear; home must be a happy place, or the health of the female inmates will suffer. In short, all those HYGIENIC rules mentioned in Chapter VI., Part III., are here applicable, and to them the reader is directed.

All exercise should be taken before evening, and care should be taken not to carry it to the point of fatigue. The practice of invalids riding out before breakfast, or after tea, should not be permitted, unless great care be taken to preserve an even temperature and equable warmth of the skin. The invalid should retire to rest upon the first approach of drowsiness, never suffering herself to be detained by visitors. If it be understood that she is an invalid, no person can be annoyed at her departure. Particular attention must be given to ventilation, without danger from a current of air; an open door or fire place must be principally relied on for this purpose. Tepid water and a rough towel should be used for frequent ablution—only a part of the body being exposed at a time

in cold weather, with care to dry thoroughly, and rub into a glow before resuming the garments.

The second, or when our exertions are directed in particular to the development of the uterine system, must be accomplished by such medicines as have direct or indirect action on the uterus itself; of the direct kind, the tincture of cantharides* seems to be an efficient one, and is particularly applicable when leucorrhœa attends; thirty drops may be given three times a day and the dose gradually increased till this discharge ceases, or is converted into the menstruous.

The various preparations of iron and iodine, in appropriate doses, are always used with success, particularly when there is much general debility of the constitution; the best form of the latter is the tincture with the iodide of potash—from ten to thirty drops may be given from two to four times a day. Of the iron, the sub-carbonate, in ten grain doses, and the wine of iron in the dose of a drachm, are the best forms.

If the patient should be of a full habit and any degree of plethora be present, with symptoms indicating uterine effort, a small bleeding will very often afford relief; or, perhaps a better mode of abstracting blood, is by leeches to the vulva, or cupping the loins. Brisk purging is occasionally necessary; and of the *indirect* remedies for this purpose, aloes combined with rhubarb, seems to be the most certain;—it should be given in very small doses, and perseveringly continued.

Dr. Dewees thinks it preferable—combined as in the following FORM—to the tincture of cantharides, when leucorrhœa does not attend:—

Gum Aloes,.....	half a drachm.
Pulv. Rhubarb,.....	one do.
Oil of Cloves,.....	four drops.
Venet. Soap,.....	eight grains.
Syrup Rhubarb,.....	q. s.

*It will be understood that no medicine which has a *direct* action upon the uterus, is admissible in this condition, unless there is uterine effort; till there are symptoms of the vessels of the uterus being loaded with their secretion, the remedies before noticed, should be continued, to the exclusion of specifics. If the cantharides produce *stranguary*, difficulty of passing the urine, it should be discontinued until these symptoms subside, when it may be again resumed

Mix, and make into sixty pills. One of them may be given every night, or night and morning, or every other night, as they may affect the bowels—the object being merely to keep the bowels free. Electro-magnetism, also, is a valuable remedy, and deserves a trial. At the time medicines are used, the same regard must be paid to air, exercise, and diet, as before recommended.

3. *Where this developement is prevented by a chronic affection of some other part.* This condition is readily detected by the presence of any such disease as may be capable of interrupting this discharge after it has been well established; such as pulmonary consumption; chronic inflammation of the liver, and spleen; dropsy, etc. The existence of either of these diseases will be most certain to interrupt the development of the organs essential to the formation of the menstrual discharge, however favorably this expansion may have commenced.

In such cases, of course, no *treatment* will be availing but that directed to the removal of the original disease; of such diseases we shall not speak in this treatise, as they are not peculiar to females. Although the administration of medicine is often necessary in such cases, it is only to be used as an adjuvant and subordinate remedy to the great natural medicines—diet, air, exercise, and cheerfulness.

In such cases as we have now been describing, it will be seen by the reader, that it would not only be the height of folly, but highly injurious to the patient, to administer medicines for the purpose of “bringing down the menses” as it is termed. The disease, itself, whatever it be, must first be subdued by the use of proper remedies, when the most gentle efforts may be made to favor nature in her attempts to establish, or re-establish this function.

4. *When the most perfect development of the female constitution has taken place, yet the menses does not make its appearance.* This condition is recognised, by the young female having all the outward indications of womanhood; the general character of the constitution is remarkable for its robustness; the appetite and strength are good, and although the complexion has not its proper transparency, nor the eye its proper lustre, the blood-vessels

seem distended with their contents, and the eruption of the menses is all that is wanting to fit her for the duties she is destined to fulfil. It seems that in this condition, the fibrine of the blood is out of proportion to the serum, thus clogging, as it were, the secreting surface of the uterus. It constitutes the SANGUINE temperament in contradistinction to the LYMPHATIC, or that in which the vessels are filled with lymph or thin blood, spoken of in the second division of this subject. It is sometimes, though less often than in the other case, attended by leucorrhœa.

In the TREATMENT, a moderate bleeding is serviceable, either from the arm, or by leeches to the vulva, or cupping the loins. The menses frequently appear a few hours after such abstractions of blood; this may be assisted by hip and foot baths. In less plethoric cases, and particularly where leucorrhœa attends, the tincture of cantharides as directed in division second of this subject, will rarely fail to produce the discharge if given steadily for two or three weeks; the combination of aloes there mentioned will, also, be found very useful. In cases where there is much irritability of the system, madder, from its possessing no general stimulating properties, has been highly recommended. A strong decoction, made by pouring a pint of boiling water upon an ounce of this substance, in fine powder, with a scruple of bruised cloves, then boiling gently fifteen minutes and straining when cool, seems to be the best mode of using it; the dose is a wine-glass full every three hours.

These remedies, if judiciously applied, are generally all that is necessary. The diet of the young girl should be of the mildest kind—mostly vegetable, and exercise may be moderately taken.

It will be noticed by the reader, that most of the cases of *tardy appearance of the menses* come under two grand divisions—those that are characterized by the LYMPHATIC temperament, of a lax fibre, and deficient vitality, and those of the SANGUINE temperament, of an excessive vitality and rigid fibre;—the treatment varies accordingly—it is to be more stimulating in the former, and antiphlogistic in the latter.

WE sometimes have tardy appearance of the menses from *malformation*. When the uterus, or ovaria, or both, are wanting, of course there is no menstruous secretion; but in those rare cases of faulty conformation, where the neck of the uterus is impervious, the vagina is wanting, or its sides adherent, or its orifice closed by false membrane, or an imperforate hymen;—the secretion sometimes takes place and distends the uterus to an alarming extent; also, subjecting the young female to unjust suspicion. In these cases, the outward signs of puberty are present, and great care must be taken to discover the cause of *suppression*.

In the *TREATMENT*, the obstacles which prevent the escape of the menses must be overcome; if this be too long delayed, serious consequences may result. If the canal of the neck be impervious, an artificial one must be made with a trocar, and a probe passed into the uterus. When the canal of the vagina is obliterated, a new one may be formed between the rectum and vagina; when this is not possible, the uterus must be punctured through the rectum. When adhesions unite the sides of the vagina, or imperforate hymen prohibit the emission of the menses, we should first attempt to rupture them, by separating the labia; if we fail, the knife or trocar, must be used, great care being taken to avoid injuring the neighboring parts.

CHAPTER III.

AMENORRHEA OR SUPPRESSION OF THE MENSES, OR ITS INTERRUPTION AFTER HAVING BEEN ESTABLISHED—ACUTE AND CHRONIC—CAUSES—SYMPTOMS AND TREATMENT.

WE next come to consider that condition wherein the flow of the menses, after having been for a longer or shorter time established, has been arrested without being interrupted by pregnancy, suckling or old age. This may happen at any period of menstrual life; and it may take place suddenly, or very gradually, or, in other words, it may be *acute* or *chronic*.

1. *Acute suppression of the menses* may occur from various CAUSES, such as sudden exposure to the cold and damp air, the immersion of the feet or hands in cold water, cold ablutions of the genital organs, sitting upon the ground, or a stone bench, etc., during the menstrual flow; the eating and drinking of ices and very cold drinks, especially when taken while the body is in a state of perspiration; a violent bleeding; the application of a large blister; the employment of purgatives, of emetics, of strong odors; coition during the flow, fever, or any severe disease sitting in at that period. Also, a bodily or mental shock received just previous to, or during the menstrual flow, may produce it; the vivid emotions of the soul, as anger, disappointed love, celibacy, despair, jealousy, immoderate joy, the sudden reception of bad news, a sudden fright, extreme fear, or a sudden disappointment; and finally, all circumstances capable of suddenly determining the blood in other directions than towards the uterus, may give rise to this condition.

The most common cause, perhaps, is cold applied to the feet. The majority of women pay so little regard to this period, that they are exposed to frequent derangements from this agent, by standing in thin shoes or sitting upon cold and damp ground, and going too lightly clothed; some are so reckless of consequences as designedly to stop the flow by putting their feet into cold water, when engaged for a ball or party. Dr. Frank mentions the case of a lady, who, because she expected her lover, put her feet several times into cold water during the flow of the menses, which very soon arrested it; an inflammation of the uterus followed, and she was brought dying into the hospital at Vienna. So much evil has resulted from such and similar impropriety, that the female cannot be too careful when the "manner of women" is upon her.

The SYMPTOMS consequent upon sudden suppression, vary. Most commonly there is fever, with a sensation of heat, weight and pain in the pelvis, uterine colic, disagreeable tension of the loins and upper part of the thighs; enlargement of the breasts and abdomen; lassitude; nausea, vomiting; dizziness, headache, ringing in the ears, frequent palpitations, burning of urine, etc. Or there may

be symptoms of local inflammations either of the lungs, brain, intestinal canal, or of the uterus itself.

Occasionally instead of inflammation, there are severe neuralgic pains of the womb: or a species of *hysteria*, (see that chapter,) simulating inflammation, and changing from one organ to another, as soon as remedies are brought to bear upon it. Attacks of *apoplexy* and *paralysis* have also been known to result from sudden suppression; as also, loss of voice, curious derangements of vision, and cutaneous disorders.

These secondary attacks may be mitigated in severity, by the occurrence of *vicarious menstruation*, discharge of blood from some other part, (see the next chapter) by which the temporary plethora is relieved, without any return of the uterus to a healthy state; or by uterine *leucorrhœa*, which appears to afford relief, and more naturally, since there is a sort of action of the uterus, which, though faulty, seems to be better than having it remain perfectly indifferent. On account of the secondary attacks to which it gives rise, sudden suppression is a much more serious disorder than any other form of menstrual derangement.

There can generally be no difficulty in ascertaining the fact of suppression; if, in irregular cases, there should be any doubt as to their nature, they should at first be treated as simply inflammatory. Attempts are sometimes made by unmarried females, with the view of avoiding exposure of character, to deceive physicians, in regard to one of the causes of menstrual suppression. The well-instructed physician needs no caution on this point; and to those who are disposed to this course, we would advise a careful attention to the chapter on *abortion*, in Book II.

TREATMENT.—The *acute* form is more easily cured than the *chronic*. First, we should endeavor to recall the discharge; and for this purpose the patient should take a warm bath, or put the feet into warm water, and swallow a bowl of hot drink, as whey, thin gruel, etc.* Rest in bed

* The following potion has been found efficacious: take of distilled balm-water, and of orange flower water, of each, two ounces; spirits of Mindererus, three drachms; tincture of saffron thirty drops; syrup of tolu and orange-peel, of each one ounce—of which a table spoonful may

should be prescribed, and warmth may be applied to the legs and thighs, by means of hot flannels, or bottles filled with warm water. *Gentle* purging will be useful; but if it be induced to any extent the object will be defeated; as copious discharges of any kind, by relieving the constitution, supersede menstruation, and prevent effort on the part of the uterus. The spirits of turpentine combined with castor oil—a teaspoonful of each, or more at a dose, will often succeed.

If these means fail to recall the discharge, and there is a general state of plethora, relief will be obtained by loss of blood. If adopted early it may prevent the local disorders to which we have referred; when they arise they must be treated according to the usual method for such diseases. The hysterical affection of the different organs should be combatted with what are called antispasmodic medicines, such as assafœtida, musk, castor, camphor, etc. Should there be severe pain, an injection of a gill of thin starch with a teaspoonful of laudanum and a little camphor, will generally give relief; or if it be complicated with hysteria, the use of three teaspoonsful of tincture of assafœtida, instead of the camphor, may be useful. If there is colic (after bleeding, should the pulse have indicated it) the most certain relief will generally be found, by half ounce doses of the tincture of aloes and myrrh, every three hours, in warm sweetened milk, till the bowels are open. (*Dewees.*)

Upon the approach of the next period, great attention should be given to the patient, and every means used likely to facilitate the natural secretion. The bowels should be kept open—the surface comfortably warm, and the hip, or foot bath, used alternate nights. The strength, if necessary, must be supported by a generous, but not stimulating diet.

If, at the proper time, the menses be re-established, our object will be accomplished; but, if merely a white discharge appear in its stead, we must again, during the interval, put into action all those means mentioned under division second, of the *tardy appearance of the menses*.

be taken every half hour. Dry cupping to the loins and upper part of the thighs may, also, be applied with advantage.

(See Chapter II., Part IV.) If the white discharge persist during the interval, it must be treated simply as leucorrhœa, (see that chapter.) But if no discharge appear, neither red nor white, recourse must be had to those means mentioned in Chapter II. Part IV., and to those remedies soon to be enumerated for *chronic suppression*, according to the condition of the patient.

2. *Chronic suppression of the menses* may be the consequence of an acute attack, from neglect or impossibility of cure, or it may arise from gradual depression of the bodily powers, from causes before mentioned, giving rise to delicate health. It may also arise from diseases of the ovaria, uterus and other parts of the body, as inflammation, induration, ulceration, hydatids, etc., of the uterus and its appendages; anteversion, retroversion, and incomplete prolapsus of the womb. It may also be produced by pulmonary consumption, disease of the heart, scrofula, particularly of the bones, inflammation of the brain, the spinal marrow, the stomach, the spleen, the liver, the lungs, the pleura, the peritoneum, and any irritation in the system which retains the blood and prevents it from being directed upon the uterus.

The quantity of the secretion may gradually diminish, and the time become irregular and uncertain, till at length the uterus altogether ceases to act; or, which is perhaps more frequent, the menses diminish in quantity and become of a paler color, with shorter intervals, until leucorrhœa becomes permanently established in its stead.

The SYMPTOMS which arise from *chronic suppression* are various, being often the same (though less marked) as those mentioned under *acute suppression*. The features of the young woman, heretofore brilliant with freshness and health, are observed to assume the impress of feebleness, depression, and languor; the roses upon the countenance fade; the fire of her eyes is extinguished, and a dark circle surrounds them; finally, the most frequent symptoms are, habitual headache, dyspnoea, dizziness, pains in the back, sides, limbs and joints; deficient appetite, and a general failure of the vital powers, ending in a confirmed state of ill-health. The moral alteration is, also, great; sometimes there is an excessive sensibility, which

renders the female impatient and irascible; at others, her ideas are sad, her imagination is sombre; sometimes the patient seeks for solitude, and sheds causeless tears; again, on the contrary, she becomes passionately fond of music, and amusements of all kinds. The general health rarely suffers before three or four successive periods have passed, unless it be accompanied by considerable leucorrhœa.

If the menses do not occur after suckling, and the health of the individual appears to suffer, an examination should be instituted to ascertain the state of the parts. There may be an obstruction or obliteration of some portion of the canal in the neck or mouth of the uterus, or of the vagina, in consequence of inflammation following delivery. The introduction of the finger will satisfy as regards the vagina, but the permeability through the neck of the uterus, can only be determined by passing up a moderate sized bougie (a slender gum elastic instrument).

Some care is necessary to distinguish between *chronic suppression* and *pregnancy*; as the patient, if she be in a situation to have children *creditably*, may mistake the suppression for the first symptoms of pregnancy. The arrest of the menses, occasioned by conception, is shortly followed by the morning sickness, and an alteration in the breasts, etc. (see PREGNANCY, Book II.)

TREATMENT.—The remedies for this form of suppression, will vary according to the cause which has given rise to it, and the state of the system. When it is consequent upon disease of the genital system, or of some other part, we shall find that, upon the patient's recovery from such disease, the menses will generally return. When the menses have been superseded by leucorrhœa the proper treatment of it will generally restore the uterine functions.

The reader will particularly notice from what we have heretofore remarked upon this point, that every deviation in regularity is not a legitimate reason for medical interference; in many cases, with young girls, especially those who began precociously to menstruate, there will be a want of regularity in return, that must not be mistaken for disease. So, also, it may happen with hale, robust young women, that a temporary suspension takes place

from cold, passions or emotions* of the mind, which, after a certain time, will return without medical treatment. The rule on this point should always be, *never interfere, unless there be some evidence that the health is suffering from the absence of this discharge.*

In chronic suppression, the general health rarely suffers so as to require medicine, before three or four successive periods have passed; up to this time, we should do well to put in requisition those HYGIENIC means mentioned in Chapter VI., of Part III., for regulating the diet, habits of the patient, etc. If we find that the pulse manifests a tendency to excess of action, the treatment should be commenced with such remedies and regimen as will reduce it to a proper standard, before we proceed to the administration of those medicines which have a direct tendency to produce the menstruous discharge; such as small bleedings, or the application of leeches to the vulva, or dry cupping of the loins; by purging and by a strict vegetable diet. Under such circumstances, senna and salts answer as good a purpose as any other purge.

After having, with great care, in this manner prepared the system, and ascertained that no organic disease of the uterus or other parts exists, we may resort to those remedies known as *specifics*. The madder should be given as recommended in Chapter II., of Part IV., for *tardy appearance of the menses*; should this fail, resort may be had to the tincture of cantharides, as there directed, or to the volatile tincture of guaiacum, which, according to Dr. Dewees, has succeeded when all other remedies have failed. It is more stimulating than the others—therefore more care is necessary to have the system properly prepared for its exhibition. The mode of using it, is a teaspoonful every morning, noon and evening in a wine-glass full of sweetened milk; the dose must be gradually increased, when a prolonged use is necessary. Should it disturb the bowels too much, a few drops of laudanum may be added to the dose; but if on the contrary they

* A lady in the country informed us that while menstruating she was much frightened, while riding in a carriage, by the running of the horse; and from that moment the discharge was suspended, which did not reappear till the next period.

should not be sufficiently opened, the addition of a little rhubarb will be an improvement. At the same time that these remedies are used, currents of electricity from an electro-magnetic machine, may be passed through the pelvis daily, or it may be applied alone.

Upon the use of electricity, in suppression of the menses, we find the following in Copland's Medical Dictionary, added in a note by the editor: "Galvano-electricity, or electro-magnetism, deserves more particular attention as an emenagogue remedy. We have succeeded in some chronic cases of amenorrhea, that had resisted all other means, by daily sending a current of electricity through the uterus, or by inserting one conductor in a tub of warm water, in which the feet were immersed, and applying the other over the cervical vertebræ, thus transmitting the fluid through the spinal axis. Dr. Ashwell states, that Dr. Golding Bird has recently employed the same remedy with extraordinary success in the treatment of out patients at Guy's Hospital (London.) In some of the cases, where, after the condition of the alimentary canal had become healthy, the amenorrhea continued with slight pallor and weakness, electric shocks passed through the loins, quickly induced menstruation. In others, its continued repetition three or four times a week, led to a similar result; and instances were not wanting, when a shock suddenly produced the flow. It is, however, a powerful remedy, and should be employed cautiously, lest it may depress the nervous system, and thus protract the disease; when moderately applied, it often rouses into activity the energy of torpid organs and parts; but, when used in excess, it may altogether destroy their excitability. It should not be employed in cases of local congestion or general plethora, nor during pregnancy, and it should seldom be used alone."

By referring to the chapter on THE PHYSIOLOGY OF MENSTRUATION, it will be observed, that according to the late theory of menstruation, the efficient cause of this periodical discharge, is to be found in the ovaria; that there is a monthly evolution or ripening and discharge of an ovæ, upon which this function depends. Deranged menstruation, then, it would seem, must depend more or less upon

some irregularity of the ovaria. Indeed, it is found in suppression, that the flow may often be re-established by remedies applied to the groins, over the ovaries; such as simple frictions, stimulating poultices and liniments, leeches or small blisters, etc.

Other remedies have been used with success, such as iodine in the form of syrup or compound tincture, which is particularly adapted to scrofulous constitutions; the various preparations of iron; the ergot of rye which should always be used with great caution, in doses of from five to ten grains of the powder, two or three times a day; and strychnine, first used for this purpose by Dr. Bardsley of England, and applied by him with great success—the dose is one tenth of a grain three times a day, to be gradually increased to one fourth of a grain; it must be suspended for some days if it give rise to headache or twitching of the muscles. Aloes and myrrh, turpentine, savine, sulphate, carbonate and citrate of iron, are all useful when judiciously applied.

Very few of these remedies, except the preparations of iron and iodine, are applicable in the suppressions of feeble, nervous women, of a scrofulous constitution, or lymphatic temperament—until means have been first made use of to improve the general health. Directly contrary to the condition before spoken of, when there is *excess* of action, and the system is prepared for them by antiphlogistic remedies in this, there is *want* of action and vitality, and the system must be prepared for them by such remedies as gradually raise the powers of life. All those means before mentioned must be put in requisition—a nutritious and stimulating diet, with a cautious use of wine, hip and foot baths, attention to the happy influences of cheerful and varied society and scenes, music, dancing, etc.

This process may be very much assisted by the use of tonic medicines; the various preparations of iron, and iodine, seem to be best adapted for this purpose. Of the former, the best, are carbonate, tartrate, lactate, and citrate of iron, in the dose of eight or ten grains of any one of them, combined with bitter extracts or infusions, as of columba, gentian, quassia, and dandelion. Of the latter, the best form is that of the tincture of iodine in combina-

tion with the iodide of potash—dose, from ten to twenty drops, three times a day, to be increased. This is particularly applicable, as we have remarked, in those of scrofulous constitution. When the general health becomes improved without any effort on the part of the uterus to re-establish its function, a resort must be had to the remedies mentioned above for this purpose.

As a last resource for the girl laboring under obstinate suppression of the menses, marriage has been recommended by eminent physicians from the time of Hippocrates downwards—though of late with less confidence than formerly. Simulating the plan of cure by the animating influence of love and the physical effects of a rational indulgence of the desires, by which the species is reproduced, has been originated an artificial irritant by injection of a solution of ammonia into the vagina. Dr. Lavagna, the originator, remarks: “There is hardly a physician, however limited his practice, to whose lot it has not fallen to observe young females, who, at the age of puberty, were dull, languid, pale and laboring under scanty menstruation, suddenly restored to bloom, animation and vigor, and to the salutary sanguineous evacuation, by an opportunity being afforded them of participating in conjugal duties. Whenever I reflected on this fact, and considered the numerous cases by which it was established, I never doubted that any stimulating medicine which might have the effect of determining an increased sanguineous afflux to the matrix, (uterus) would succeed in exciting suppressed menstrual evacuations.” The mode of use, is, to throw up the vagina, by means of a female syringe, ten drops of pure water ammonia in an ounce of warm milk or water, several times a day. According to his account, the action of the ammonia was very prompt in relieving many cases of suppression.

Another remedy has been proposed and applied with success, viz: stimulating the external surface of the mamma, with sinapisms, a few leeches or slight blisters.

In the chronic form of suppression, when practicable, we should always direct a residence in a fresh and dry atmosphere, a mountainous country is preferable, the use of nourishing food, such as rich soups, light meats, etc. ;

bitter infusions and gently excitant drinks ; mineral spring waters ; dry frictions ; flannel next to the skin ; cold bathing and swimming ; exercise on foot, in a carriage, on horse-back ; a variety of games, jumping, dancing, etc. We should remark in conclusion, that the moral condition of the patient merits as close attention as the medical treatment. If we neglect to attend to the state of the mind, menstrual disorders depending upon certain mental conditions, as profound dejection, resist all the resources of the healing art ; they are mostly powerless in opposing the suppression of a young girl who is tormented by a disappointed or unfortunate love !

It is to the persuasive eloquence and counsels of friendship, the consolations of a prudent, enlightened mother, and especially the gratification of the affections by marriage, when there is not extreme prostration, that we are to look, in these cases, for arresting the disease at its source.

CHAPTER IV.

VICARIOUS MENSTRUATION—NATURE, CAUSE AND TREATMENT.

IN cases of suppressed menstruation, where the monthly menstrual effort occurs, without secretion on the part of the uterus, and where the system generally is suffering from the consequent plethora or irregular distribution of blood, an attempt is made by the natural powers to afford relief by a discharge of blood from some other part ; generally, one which is already diseased or enfeebled. This is called *vicarious menstruation* ; and has taken place from the nostrils, eyes, ears, gums, lungs, stomach, armpits, bladder, nipples, toes, fingers, from the stumps of amputated limbs, from ulcers, and from the surface of the skin, generally. The mucous membranes, however, of the lungs, stomach and intestines, are the most common seats of the discharge.

This discharge generally comes on suddenly and continues at intervals for several days. In most cases it seems to relieve the constitutional distress consequent

upon suppression, but does not favor the natural establishment of the function during the interval. In general, it is not followed by more serious consequences than those resulting from the loss of blood. The most dangerous form is when it proceeds from the lungs.

TREATMENT.—If the attack commenced without previous warning, little can be done during the flow. If the discharge be from the lungs, or stomach, opium, alone, or in combination with sugar of lead may be given, to moderate the evacuation. (Opium, one grain, sugar of lead, two grains.)

If there be grounds for expecting an attack of this kind, means for avoiding it should be at once used, and if possible, at the same time, to stimulate the uterus into activity. If there be much plethora, one good bleeding from the arm; otherwise, cupping over the sacrum, or leeches to the vulva, and mild purging, will answer both indications at the same time. During the interval, the patient must be treated much in the same way as before recommended for suppression.

Where there is debility, tonics, vegetable or mineral, particularly the preparations of iodine and iron, should be given, in doses before directed; and if these means are not successful, and there are no counter-indications to their use, some of those remedies which act more directly upon the uterine system may be given.

When *leucorrhœa* is vicarious of the menses, the treatment is very nearly the same; much good is to be expected from the exhibition of iron and the bitter tonics, with a well-regulated HYGIENE.

CHAPTER V.

MENORRHAGIA, OR EXCESSIVE MENSTRUATION—TWO DIVISIONS—CAUSES—SYMPTOMS, AND TREATMENT.

THE term MENORRHAGIA has been used by some writers to signify merely an increase of the menstrual flow, without any mixture of other fluids; others, include by it all

discharges of blood which may accompany or succeed the menses. We shall follow the latter signification, without including those floodings and uterine hemorrhages connected with pregnancy and parturition, which will be elsewhere considered.

Excessive menstruation may occur in various ways; the menses may return too frequently or too copiously, or at unusual periods. The normal quantity of fluid discharged at each monthly evacuation varying in different women, this condition only exists when there is a disproportion between the loss and the power of replacing it. It is the relative quantity lost, and not the absolute, which constitutes the disease; so that seeming derangement should only be considered *excessive menstruation*, when it has an injurious effect upon the general health.

We shall include every variety of the disease under two divisions, which have reference principally to its severity. In the *first*, although the discharge may be considerable, and occasionally mixed with clots of blood, there is no change in the condition of the mouth of the uterus. In the *second*, there is great loss of blood, with a marked change in the size and condition of the mouth of the uterus, from the severity of the disease.

1. In the *first division*, it often commences with a sudden gush from the vagina, after which, it may stop for some hours, and then recur; and this alternation may continue during the usual period of menstruation. On the other hand, sometimes the discharge goes on regularly, but instead of being over in three or four days, lasts for ten days, or a fortnight, or even three weeks; or it may return in usual quantity every two or three weeks; this variety, more frequently than the other, is connected with that state of the lining membrane of the uterus which gives rise to leucorrhœa.

In this condition, there may be more or less discharge of *clots* of blood along with the proper secretion, though it rarely occurs in young or unmarried females. The subjects of it are generally women of the leucophlegmatic temperament, whose constitutions have been impaired by disease, or frequent child-bearing. One or two small clots appear at first, with an interval, and then return in in-

creased quantity. It is not known in these cases whether the discharge is altered in quantity or quality.

The SYMPTOMS, are languor, exhaustion, weakness across the loins and hips, paleness of the countenance, headache, ringing in the ears, and giddiness; these occur more or less in the slighter cases. If the disease continue, and especially if leucorrhœa be present, all these symptoms become very much aggravated—the languor increases, the face becomes sallow, there is an aching pain across the loins, extending round the abdomen, repeated and severe headaches, derangement of the stomach and bowels; finally, there is extreme exhaustion with a feeble pulse, melancholy, nervous symptoms, ending in dropsy and even epilepsy.

The CAUSES of this disease are often the same as those enumerated as giving rise to suppression, and other derangements of menstruation—though they here act in a different way, viz: errors of physical education; the bad results of an ill-regulated diet; want of proper ventilation; and the depressing influences of grief, terror, etc. Anything which determines the blood to the uterus in undue quantities, acts as a cause—as heated rooms, too much clothing, warm bathing in excess, etc.

A prominent cause, in this physic-taking community, of this disease, as well as of many other ills in both sexes, is the enormous consumption of quack pills and potions of every variety. These so called medicines for the most part contain ingredients that operate violently upon the lower part of the intestines, near the uterus, and thus determine an excessive quantity of blood to that organ, besides debilitating the bowels and frequently producing piles.

Of the *causes*, at a more advanced period of life, child-bearing, and over-suckling are perhaps the most frequent; the latter is often carried to a great extent among the poor, for the purpose of preventing a too rapid increase of the family; which it does very effectually, when it gives rise to this disorder, but at the expense of much suffering, and loss of health to the mother. Excessive *coition* sometimes causes, and always aggravates, this affection.

In the severer cases of this disease, conception does not take place, but it may in the milder ones. The disease

may or may not return after delivery. There is always a great liability to abortion, if the patient become pregnant, and also from the relaxation produced, a disposition to prolapsus of the uterus and vagina. (See chapter on prolapsus.)

TREATMENT.—The first indication, is to remove the cause, if possible. If it proceed from over-suckling, the child should be immediately weaned, and the patient should live for some time *absque marito*.

During the attack, in persons of a full habit of body, and when the affection is recent, it may be necessary to cautiously take blood from the arm, cup the loins, or apply leeches to the anus. The patient should repose constantly in the horizontal position upon a mattress with the hips elevated. The drinks should be cold and refreshing, such as water, lemonade, mucilages or whey, decoction of rice with nitre, of apples, oranges sweetened, syrup of currants, mulberries, cherries, quinces, etc. When the discharge is copious, a dose of opium, or the sugar of lead in combination with opium, will often diminish the quantity; one grain of the opium, or a half grain with two grains of the lead, may be given at a dose, to be repeated once in an hour or two, if necessary. When these remedies have not succeeded, the ergot of rye, given in five grain doses, three times a day, has seldom failed. Other astringent medicines internally have been recommended, such as large doses of sulphuric acid, (ten to twenty drops) largely diluted in infusion of roses, decoction of logwood, of the roots of black current and the roots of the dewberry, etc.

In severe cases, cold to the vulva has been found very useful, either by cloths wrung out of ice water, or by its being poured from a height upon the hips and abdomen; during these applications the feet should be kept warm. Vaginal injections of cold water and astringent solutions have been recommended, but should be used with great caution during the attack; and as a last resort, plugging the vagina;—if used, the plug should be removed in ten or twelve hours, and if necessary, a fresh one may be introduced.

This is the mode of treatment during the attack; much

may also be done during the intervals by local and general remedies and a prudent regulation of the diet. It is of the greatest importance that the bowels be kept open, which must be done mostly by a laxative diet; as stewed fruits, bran bread, etc. A blister may be kept on the loins with great advantage; vaginal injections, at first of tepid and afterwards of cold water, will be found useful. The distressing weakness of the loins may be much relieved by daily sponging the lower parts of the body with cold salt water.

Tonics, especially the mineral ones, should be given, as directed in the last chapter. The muriated tincture of iron, as well as the carbonate, will be found particularly useful. The food, in the sanguine temperament should be exclusively vegetable. Tea and coffee, with every kind of warm drinks, sleeping on feather beds, foot stoves and stimulating food and drinks, should be avoided. In the lymphatic temperament, the food may consist of fish and fowl; even porter and wine may often be given with advantage. Every kind of excitement of the uterine system must be avoided. The invalid should live in a dry atmosphere, and very moderate exercise should be taken throughout the interval. No melancholy companions must be allowed with the patient, and all mental emotions should be carefully avoided.

2. In the *second division of excessive menstruation*, the discharge is more profuse, and its effects more severe, than in the first; it is accompanied by alterations in the condition and size of the mouth of the uterus; occurs at a later period of life, and is more difficult of cure.

The attack commences much in the same way as in the former, though generally not so suddenly; it is not confined to any particular kind of temperament, although it occurs more often in the sanguine, than in the debilitated, or melancholic. This form rarely appears under the age of forty, or after the cessation of the menses. There is, for some time previous to the attack, irregularity, as to time, quantity, and duration of each menstrual period, with occasional leucorrhœa during the intervals. When the menses have flowed naturally for about twenty-four hours the bloody discharge appears; large clots are now

expelled, and there is a great increase in the fluid discharged. The attack at first lasts but eight or ten days; but in long standing cases, it has been known to continue during the interval. The quantity lost is some times very large, producing excessive exhaustion, and weakness of the loins. It is accompanied with a sense of weight and pain in the pelvis, and difficulty of discharging the urine. The general health of course suffers much—the bowels become constipated, the face blanched, and the strength much reduced.

Exactly what change always takes place in the uterus, or its vessels, is not known. Upon examination its mouth is found lower in the pelvis, the neck is more or less swollen and is tilted forward so as to press upon the bladder, thus producing the above named symptom in that organ. There is sometimes tenderness upon pressure in the neck and body of the uterus, the vessels of which, are evidently very much congested, or engorged with blood. So that the discharge is not the result of secretion, but of the rupture of some of the vascular twigs, which ramify on the lining membrane of the uterus. The disease, unless the organic changes be considerable, is not generally very obstinate; it may subside in consequence of remedies, or spontaneously, in two or three months, or it may continue for two or three years.

The CAUSES are often the same as those mentioned as producing the first kind. Women who live indolent lives, with little or no exercise; who are intemperate in the use of stimulants, hot drinks, as tea and coffee; who dance inordinately and keep late hours; who are too prodigal of the joys of wedlock, and have borne many children; who are in the habit of tight lacing, and who yield too readily to passions and emotions of the mind, are those most subject to this disease.

This kind of excessive menstruation is easily distinguished from the flow of blood, dependent upon organic diseases of the uterus, as *corroding ulcer*, *cancer*, *polypus*, etc., by the irregularity of its occurrence in those diseases, and its persistence after the usual period of this excretion has expired.

TREATMENT.—At first, all those means mentioned for

the treatment of the first kind, may be tried. If the opium and lead fail, as they frequently will in this form, as well as the application of cold as there directed, and plugging the vagina—the ergot of rye must be mostly relied upon; in short, it seems to be the only remedy which has the power of controlling this discharge. It may be given in doses of five or ten grains, two or three times a day. During an attack, the patient should be kept in a perfect state of rest—on a hard mattress, covered rather lightly with bed clothes. All her drinks should be cool and unstimulating unless she become faint, when a little wine or brandy may be allowed. At the same time that the ergot is given, cold must be perseveringly applied over the lower part of the abdomen, by cloths wrung out of ice-water, or the *douche*. The precaution of keeping the feet warm, should always be attended to. If the discharge be not arrested, it is a question how far we should be justified in the use of vaginal injections of cold water and astringent solutions. Some authors have highly recommended them, but they would seem attended with danger during the period of attack.

As soon as the discharge ceases, not a moment should be lost in the employment of remedies for the *cure* of the disease. Dry cupping to the loins, and the application of a blister, which is to be kept open, or repeated, are always useful; they relieve the pain in the back, and diminish the white discharge. But the most powerful means which we possess, at this stage, are vaginal injections of cold water and a solution of sugar of lead, and other astringents, two or three times a day. An almost immediate improvement is perceptible; the swelling of the uterus becomes less, the leucorrhœa disappears, and the patient is soon able to walk without inconvenience.

The patient is always liable to relapse; consequently, one or two menstrual periods should be passed, notwithstanding the great improvement, with rest and great caution, before she resumes her usual duties. Should a relapse unfortunately occur, the symptoms must be again met by the same remedies.

During the intervals, the same treatment must be pursued, as directed under the first form of this disease. The bowels must be kept free, at the same time, purging should

be avoided. Tonics, as before directed—iodine in scrofulous constitutions, and iron in all others, are peculiarly beneficial. We may, also, employ with benefit, the mineral spring waters, decoction of catechu or kino, extract of cinchona and columbo. A nutritious diet may be allowed, and if the patient be much weakened, porter or wine. Moderate exercise in the open air, will be very serviceable, while all causes of excitement, especially of the uterine system, must be studiously avoided. For some time the patient (if married) should live *absque marito*.

WOMEN who wish to moderate a too great abundance of the menses, should abstain, during the period of their flow, from all violent exercises, and sometimes even maintain a horizontal position, in such a way that the pelvis may be rather more elevated than the head and trunk: those of strong constitution should make use of a milk and vegetable diet; of diluent, cooling and acidulated drinks—as currant water, whey, weak lemonade, decoctions of barley or dog's grass with nitre, mucilage of gum Arabic, flavored with lemon syrup or with vinegar. Women of a nervo-lymphatic temperament, must be nourished with tonic aliments, principally roast meats, and they ought to use for drink, during their repasts, water mixed with a little generous wine. There might, also, be directed for them with advantage, narcotics and antispasmodics, administered in minute doses during the continuance of the function; the use of cool, or, if the season forbid, of warm baths, in the interval; in either case, small revulsive bleedings from the arm, a few days after the menstrual discharge, to be repeated between each periodical epoch, will contribute powerfully to moderate the discharge of blood from the uterus.

CHAPTER VI.

DYSMENORRHEA, OR DIFFICULT AND PAINFUL MENSTRUATION—SYMPTOMS—CAUSES, AND TREATMENT.

THE most prominent and distinctive mark of this disease is the pain. We may have scanty menstruation as we have seen in "suppression," or profuse, as in "excessive menstruation," and sometimes about the usual amount, but *in addition*, severe pain attending the secretion and discharge of the menses. It is characterized on each return of the monthly period, by successive pains in the loins, commencing a few days before, or just previous to the menstrual eruption; it may occur only for a few periods, but occasionally continues throughout the whole of menstrual life.

The pains vary much in character and intensity, according to the constitution of the individual; they may be moderate and lasting but a few hours each time, or they may be so agonizing as to cause fainting. The stomach and bowels become irritable, producing vomiting, or diarrhoea, with scalding of urine; or, in the severer forms, the nervous system may become much disordered, giving rise to hysterical convulsions, and even catalepsy. These symptoms suddenly or gradually cease upon the eruption of the menses.

This disorder may be divided, according to the constitution of the individual, into two species,—the *inflammatory*, when it occurs in females of a full habit and sanguine temperament,—and the *neuralgic*, when it is confined to those of a nervous temperament and of a thin, delicate habit of body. A third kind may be added, when there is a *mechanical* difficulty and it arises from some impediment in the passage leading to the uterus. These distinctions are only important in the treatment, as the causes are generally the same.

SYMPTOMS.—This disease may attack females at any

age, and is more commonly observed in unmarried women, and in married women who have never borne children. For a day or two previous to the monthly paroxysm, there is a general sense of uneasiness, feelings of cold, and headache which alternates with the pain in the back; the latter pain is often severe and of a bearing down character, simulating that of labor. In plethoric constitutions, there is frequently a flushed face, hot skin and full pulse. In all, there may be severe pain, which is mitigated when menstruation becomes fully established. The period between the commencement of the pain and the flow of the menses, is very uncertain; it may be but a few hours, or it may be a day or two.

When the menses appear, sometimes the eruption is slow and scanty, at others it is in slight gushes. The discharge may be unchanged, but frequently we find it paler than usual, or mixed with small clots of blood. In many cases there is a peculiar membrane discharged, which is supposed to be secreted by the lining membrane of the uterus; it generally has the form of the cavity of that organ, although it may be discharged in shreds. The discharge of this membrane by the unmarried, has sometimes given rise to unjust suspicions of conception. Its expulsion is accompanied by severe pains, resembling those of labor. Dr. Denman regarded the secretion of this membrane as a mark of sterility, and says that he never knew a female conceive in whom it was formed. Subsequent observation informs us, that, although conception is not impossible, it does not often take place.

The CAUSES of this form of menstrual disorder, though various, do not seem to be connected with any derangement of uterine structure. They are often the same as those repeatedly enumerated as giving rise to other irregularities of this function, and in general, all such as excite the nervous system, and more especially, such as exalt the sensibilities of the uterus, as the emotions of terror and joy, have been known to produce it; it has, also, been known to follow the consummation of marriage. Perhaps the most common cause is cold, taken during menstruation, or soon after miscarriage, or delivery. These may give rise to sudden contractions, which, in some cases, if

unrelieved, may produce hardening and alterations in the neck and mouth of the uterus ; thus giving rise to barrenness and a disposition to cancer. The majority of cases are curable, although a few resist all the known means of alleviating the malady, and are only cured when the function of menstruation ceases.

TREATMENT.—The requisite treatment is applicable to the *period of attack* and the *interval*.

At first, we must administer such medicines as relieve pain ; and our principal reliance is upon sedatives, as opium, camphor, etc. Opium may be given in grain doses, every second hour, commencing with the first pain in the back and continuing until relief be obtained. Camphor may be combined with opium, or given alone. If the opium should disturb the stomach, it may be given in form of laudanum, in a glyster of starch, or mucilage of any kind. If the patient be plethoric, and feverish, we should at the same time extract blood, by cupping the loins, or by applying leeches to the thighs ; the bowels may be moved by saline purgatives, and cooling drinks exhibited. Care should be taken lest the amount of depletion altogether supercede menstruation. If the head be affected by the opium, morphine, hyosciamus, or conium may be substituted. The liquor acetate of ammonia, in doses of from a half to a table-spoonful, properly diluted, once in three hours, will be found particularly serviceable when there is fever. Warm local applications, or the warm bath, will be found very serviceable. Drs. Dewees and Gooch gave with success, the ergot, in five grain doses, three times a day, two or three days before the expected attack. Electro-magnetism, also, may prove beneficial in giving relief.

During the *interval*, every effort should be made to strengthen the patient, and lessen the local and general irritability, as repeatedly recommended in other forms of menstrual derangement. The diet should be generous ; with wine, if there be much debility ; and exercise in the open air should be taken daily. A blister or caustic issue to the sacrum, is often very useful, and much benefit may be derived from the daily use of vaginal injections of tepid or cold water, till the approach of the next period, when

warm water must be used ; and for two or three nights previously, the patient should take a hip or foot bath.

One chief reliance during the interval, for medicine, must be placed upon tonics, as the preparations of iron, etc. A good mixture is, equal parts of wine of iron and Hoffmans' anodyne liq., of which, from a half to a tea-spoonful, may be taken two or three times a day. Dr. Dewees relies most confidently upon the tincture of guaiacum, in doses of half a tea-spoonful three times a day. For a change, some of the vegetable tonics may be administered, as gentian, quassia, cascarilla, etc., combined with senega. The bowels must be kept free, with mild purgatives, and if any return of symptoms show themselves, upon the approach of the monthly period, cupping the loins may be useful in warding off the attack.

THE TREATMENT of painful menstruation of the *mechanical* species—caused by a narrowing or stricture of the neck of the uterus, from inflammation or malformation, must consist in dilating the stricture by the cautious introduction of elastic bougies. During this operation, the patient may be upright, or in bed. One of a small size should be commenced with, gradually increasing till one can be passed the size of a male catheter. The instrument should be allowed to remain a few minutes at a time, and its frequency of use must depend upon the irritability of the patient ;—two or three times a week will be often enough. It will be well to use daily vaginal injections of warm water, and if necessary, the patient must be kept under the influence of sedative medicines, with an occasional mild cathartic. It is perhaps unnecessary to say, that no force should be used in passing the instrument.

CHAPTER VII.

DECLINE, OR CESSATION OF MENSTRUATION—CONSTITUTIONAL EFFECTS—TREATMENT, WITH HYGIENIC RULES FOR WOMEN AT THIS PERIOD.

IF at her introduction to the menstruating period, woman is calculated to enlist our sympathy, the circumstances attending its final departure, are still more adapted to excite our earnest desire for her welfare. In youth, she is surrounded with scenes that please the fancy and excite the imagination, and has neither judgment nor precedent to guide her anticipations of good or evil. During the period in which she is fulfilling the great object of her being, she is occupied by the cares and joys of domestic life, and has neither leisure nor desire to reflect upon the approach of that important change, in which she is to undergo the anxieties of a transition to the closing phase of her existence. But when that period approaches, her apprehensions are often painfully excited: it is, indeed, her "critical period." Whether she is to enjoy the remainder of her life, free from some of the severer diseases incident to her sex, or to sink under their accumulated force, when nature has been too severely taxed in youth to retain power enough to repel them, depends much upon the manner in which she has passed through the child-bearing period.—*Dixon.*

We have before stated that, as a general rule, the period during which woman is capable of bearing children, extends from about the fourteenth or fifteenth, to the fortieth or forty-fifth year, depending much upon the constitution and habits of the individual. The nearer a woman approaches the latter named period, all other things being equal, the greater her liability to menstrual irregularity. We have remarked that females delicately brought up, whose nervous systems have been prematurely excited by habits of a certain kind, menstruate earlier than others;

such persons, also, arrive earlier to the period of the cessation of this function than those of a contrary constitution and habits, without any injurious consequences following. Indeed, many such individuals are never free from severe suffering till this change of life exempts them from irregularity of the menses. On the other hand, we find many cases on record, in which this discharge continued regularly much longer than the usual period;* till beyond even the seventy-fifth year.

The occurrence of incapacity for child-bearing in the female at this time of life, seems to be founded in the highest wisdom and beneficence. Besides being incapable at this age of transmitting perfection of organization and vigor to her offspring—the mother, not being able to extend her care to the child, would be obliged to leave it to the management of strangers, at a time when its helplessness would most require a mothers devotion to its necessities.

Sometimes the “change of life” is so silent in its approach, that the woman scarcely notices the change in her condition; at others the approach is so gradual that the diminished quantity first gives warning that the discharge is about to take its leave forever; while again, the irregularity may be so great, both in time and quantity, as justly to give alarm, as well as to produce the most serious danger.

We may remark, as a general rule, that when a woman approaches near her forty-fifth year, her menses become irregular, both in the period of return, and the quantity of fluid evacuated; being sometimes in advance, and at others not appearing until long after the accustomed time. There may be also, some alteration in the health; she perhaps becomes pale, debilitated, and nervous. As in the commencement, so in the cessation, there is generally a gradation; the courses may return two or three times in a month, then cease for a few months, afterwards returning with great profuseness; this state may continue for a year, or longer, when the discharge gradually be-

* M. Orfila has informed us that a woman who had had seven children, became pregnant of her first child at the age of forty-seven, gave birth to her last at sixty, was regular to her ninety-ninth, and died at 114.

comes pale, then of a white serous nature—and ceases, to return no more.

Should the menses not have returned for a few periods, the woman may become the victim of illusions ; the most common of which is,—as the abdomen and breasts enlarge, the appetite becomes capricious, etc.—she may suppose herself to be pregnant. But this hope, if it have been cherished, is soon for ever destroyed ; for the menses before long return in overwhelming quantity.

At this period she may be said to exchange her own constitution for that which is appropriate to the male. The womb having laid aside those vital properties which fitted it for the act of reproduction, gradually ceases to act upon the general economy, and takes its place in class among the other organs whence it emerged at puberty. It diminishes in size, becomes more dense, its neck undergoes a sort of atrophy, and little by little is effaced ; its mouth becomes indistinguishable, or disappears entirely. As the blood no longer retains its habitual determination towards the organs of reproduction, it flows more freely towards the superior regions of the body, when it gives rise to vertigo, headache, epistaxis, and hot flushings. The face acquires a purplish hue, the eyes are red and injected. The pulse being full and bounding, indicates a plethoric state ; the beatings of the heart are effected with a sort of distress, the respiration is not easy, and the sleep often broken by frightful dreams, does not serve as usual to repair the wasted strength. In fine, a sort of uneasiness and restlessness of the limbs, come to indicate a state of great irritability, conjoined with extreme exhaustion. The pains that she feels in the loins and in the lower part of the abdomen, are accompanied with intolerable and vexatious itching about the vulva and fundament. The skin rapidly loses its color and suppleness, becomes wrinkled and sallow ; the hair falls off or turns grey, the breasts, which at first become flaccid and pendulous, at length disappear entirely ; the voice changes and resembles more nearly that of the male, and all the graceful and soft contours of the gentle sex disappear, to be replaced by a wrinkled surface.

The moral character of the female is sometimes even

more affected by the change than her physical constitution. She becomes sad, restless and taciturn ; she regrets her lost power to please ; the enjoyments that are gone forever, and the future, which she views clothed in the most sombre hues. Some among them, who were always good, sweet tempered and patient, become sour, excitable, irascible ; often falling into passion without provocation, they become unjust towards every body ; they issue their orders with sharp tones, and treat every body about them with severity. In others the sensibility increases as it did at puberty, and they are pestered with vapours and hysterical paroxysms, or, tyrannised by the memory of past love, seek to extinguish their ardor in new sources of enjoyment. This resurrection of the desires and passions almost always leads to bitter remorse, and to the most formidable results.

In spite of the loss of her physical advantages, the aged woman who is endowed with sense and wit, and who renounces all vain pretensions, and lays aside all coquetry, finds it in her power, by numerous admirable qualities, to become more worthy than ever of the warmest friendship and confidence of the male to whom she is a sincere and consolatory friend. At this period the qualities of her soul are greatly perfected ; the passions that long agitated her bosom have purified her heart, which becomes steady, so that her friendship is immovable, and capable of the greatest sacrifices. Together with a new existence, she regains a new dominion over all that surround her, and her empire, which was previously circumscribed by the narrow circle of a few men, now comprehends within its circumference even the women who have ceased utterly to be classed among her rivals. (*Colombat.*)

Those women who were always thin and delicate before this period, from menstrual irregularities, have the constitution so completely changed, and so greatly strengthened, that they are restored to the most perfect health and elegance of form, which they enjoyed in the spring-time of their youthful days. The unhappy victims of a life of celibacy, however, those whose lives have been agitated by the liveliest passions, by numerous vexations, or excess of pleasures, are generally more violently and painfully

shaken, at this crisis, than such as have made a better use of their existence.

Some females as they approach this period, entertain the most gloomy apprehensions of danger from the supposition that vicious humors may be retained in the blood; and thus come in requisition "medicines to purify the blood," as they are termed, in the form of nostrums, purging pills, etc., which are highly injurious. But females should know that all this is very absurd, and only a theory of the vulgar. As the menstrual blood is derived from the general mass, if one be pure, the other must be so likewise. There is a great difference in the cessation of this discharge at the proper time, and the suppression of it during the menstrual period. In the one instance it is a natural process, equally so as its commencement, and is effected by the inherent powers of the system; but in the other, the suppression of it, there is a derangement of the intentions of nature, which must of course be followed by deleterious consequences.

The common error (for such it is) that there is a greater mortality among females at this period of life, than of any others, or among the other sex, is replete with evil, and should be exploded. For it appears that fewer women die between the ages of forty and fifty, than men, or indeed, at any other period of their lives, after puberty; and further, that if this change be effected without much disturbance, that they live not only longer than men, but are freer from morbid inconveniences. (*Boiniston.*)

That they are sometimes liable to a disease at this time, and that disease, one of the most terrible in the long list of human infirmities, we admit; but, nevertheless, must insist that CANCER, the disease alluded to, is more rare in the uterus, than in certain other portions of the body—for instance the mamma. If latent disposition to disease, either in the uterus or other parts, become active about this period of life, it is not because the declining menses excite them; but because the disease is slow in developing itself, and is, perhaps, kept in check for a long time, by the menstrual discharge relieving the engorgement of the vessels, which acts, not as a specific discharge, but as a mere depletion: or, in other words, that if an equal

quantity of blood could have been by any other means as certainly abstracted from the uterus, the same favorable result would have followed. (*Deweese.*)

If the patient escape the more serious affections, there is a liability to seizures of a temporary nature in various parts. The most common of these, are hemorrhages from different surfaces, local inflammations in delicate parts, dizziness, hysterical paroxysms, colic, rheumatism, piles, cutaneous eruptions, ulcers of the legs, dyspepsia, leucorrhœa, palsy, apoplexy, etc. In extremely rare instances, sudden death has occurred at this period. After the system has been for so many years accustomed to the menstrual discharge, even though nature intends it shall cease, it may be regarded as the somewhat sudden stoppage of a constitutional drain, which in other instances is observed to have similar results. The degree of danger in these attacks, seems to depend upon the abruptness of the menstrual cessation.

TREATMENT.—Nothing will be so effective at this period in guarding the female against the occurrence of dangerous irregularities of the menstrual discharge, as a well regulated diet, exercise, management of the passions and emotions of the mind, etc.

Those women who live in the country and are in the habit of exercising freely in the open air, and have passed the child-bearing period, according to the intentions of nature, by suckling their own children; who do not pamper their systems by luxurious and stimulating food and drinks; who do not relax their bodies by long confinement in hot rooms, and too long indulgence in bed, have little or no suffering at this epoch.

There are two conditions of this period, which, when they occur require particular treatment. First, when there is a diminution in quantity of the proper discharge; and second, when there is an excess of it. The first, requires to be treated in the same manner as "Suppression of the Menses," of which we have already spoken. (See that chapter.) The second, requires much the same management as directed for "Excessive Menstruation," which it is not necessary to repeat.

The variety of affections which show themselves at the

period we are now considering, require no peculiarity of treatment, though the loss of the menses and tendency to plethora must always be kept in view. Notwithstanding the hysterical, and other symptoms, are sometimes severe; yet, they very soon disappear when the system becomes accustomed to the change of the circulating fluid, and it becomes more equally distributed over the other parts of the system. The following HYGIENIC rules from the eminent French physician, before several times named in this work, will be found to embrace important directions for the management of the female at this epoch of her life.

HYGIENIC RULES RELATIVE TO THE CHANGE OF LIFE.

THIS great revolution, this remarkable epoch of life, which most commonly happens between the age of forty and fifty years; but which is subordinate to the influences of climate, constitution and mode of life, to the social position and the healthful or morbid condition of the patient, requires such cares and precautions, of a HYGIENIC nature, as may serve, as far as possible to prevent the evils to which women are then known to be liable.

The first counsel they ought to receive is, an advice to reject all sorts of drugs and preparations, to which are attached such titles as "health pills," "elixir of long life," or "elixir of propriety"; and all the receipts that are loudly proclaimed by ignorance, puffed by charlatanism and old-womanism, accredited by the attractions of a vogue, and by millions of so-called miraculous cures: the approach of the critical period less, perhaps, than any other epoch, admits of any infractions as to regimen, dress, bodily exercise, sleep and watching, the various excretions and, also, the affections, and passions of the soul. The diet, which ought not to be too nutritious, may be composed of white meats, veal, chickens, fresh-water fish, vegetables, such as succory, spinach, acidulous fruits, cooked, and raw fruits very ripe. Such a person should reject all spiced dishes, ragouts, black and salted meats, coffee, tea, spiritous liquors, and, in fine, all stimulating and indigestible food. Plethoric women, who are subject to copious menstrual discharges, should renounce late suppers, should

drink whey, cooling beverages, infusions with succory, and acidulous mineral waters. All such women ought to make it a rule to take moderate exercise, with a view to distribute throughout the entire system, the excitability which is thus withdrawn from the reproductive system. *Exercise taken in attending to household affairs, is so much the more favorable, as it is proportioned to the physical strength, and superadds, to the natural effects of toil, the internal satisfaction arising from the fulfilment of duty.* Lastly, riding out in the country, where one may go to inhale the bracing air of morning; the cares demanded for the proper culture of flowers; short excursions into pleasant regions of country, where the land is high and dry, especially in agreeable company, also constitute the kinds of exercise from which may be derived the happiest results.

Women who have reached their critical period of life, should, with more than usual care, withdraw themselves from the influences of atmospherical vicissitudes, and especially from that of a cold, damp atmosphere,* which often gives rise to catarrhal discharges, leucorrhœas, etc. They would, also, do well to avoid, especially at those periods at which they are accustomed to menstruate—they would do well, we say, to avoid large assemblies, theatres, heated, close rooms, where only impure air can be breathed; they ought, also, to eschew all low and damp situations, to give up the use of foot-warmers; they ought not to sleep upon feather beds, nor on any bed that is too soft and too warm, for such are attended with the disadvantage of promoting plethoric accumulations, and disposing the system to attacks of uterine hemorrhage, of causing constipation of the bowels, and exciting the genital organs, which should henceforth be kept, as far as possible, in a state of inaction. Sleep, if prolonged beyond six or seven hours, long watchings, too much exercise of the mental faculties; sensations, whether too acute or too

* Among washer-women, and other females habitually exposed to damp cold, the cessation of the menses is, for the most part, distressing and tempestuous: such women, likewise, are more liable than others to leucorrhœal discharges, chronic inflammations, and cancerous affections of the womb.

profound; wrath, love of play, and all sorts of passionate sentiments,—these are especially hurtful to a woman about the close of her menstrual life.

Love, a sentiment so gentle and so natural to the female, a passion which is, so to speak, the sole dominant passion of the sex, may, at the critical age, produce the greatest disturbance in the nervous system; on this account, the use of venery could not be too moderate at this period of life, and should, in case of the appearance of any signs, be placed under complete interdict. Under such an event, it is the dictate of prudence to avoid all such circumstances as might tend to awaken any erotic thoughts in the mind, and reanimate a sentiment that ought rather to become extinct, such as the spectacle of lascivious figures, the reading of passionate novels, and, in fine, every thing calculated to cause regret for charms that are lost, and enjoyments that are ended forever.

Most women, as we have remarked, exaggerate to themselves, the dangers of the critical age, representing the future in the most sombre hues; they should be reassured upon this point, and disabused of the false idea they generally form, that their menses are designed to purge the body of some virus or impure principle, and that the cessation of the flow is about to become the source of numerous disorders. They should be reminded, that when this short period is once past, their sex has a better chance of long life than ours. The persons who live with them ought to turn aside their sad thoughts, and avoid all occasions of strong feelings, and seek, indeed, to inspire them with none but complacent affections: assisted by the counsels of medicine, and of friendship combined, and arming themselves with courage for the conflict, the sex may hope to spend many happy days, far beyond an age at which they suppose there is no further hope of happiness for them.

How great soever may be the advantages of the HYGIENIC measures we have just proposed, the health of many different females, still demands the rigorous observation of many precautions, and the employment of certain therapeutical agents, among which, we may mention venesection, issues, enemata, baths, and purgative medicines; bleeding is indicated on account of the plethora which gene-

rally succeeds the final cessation of the menses. Recourse should be had to it at an early period, and it should be repeated from time to time, and at intervals, greater or less, according to circumstances. Bleeding at the arm is always preferable, because it should be rather derivative than spoliative. Bleeding in the foot ought to be rejected in these cases; as well, likewise, as the application of leeches to the vulva and thighs. This last method of abstracting blood is objectionable, as tending to increase the local irritation and plethora, which it is so desirable to remove. However, there are cases, very rare ones to be sure, in which leeches may be advantageously applied to the hypogaster, and even to the vulva; such are the cases when the lower belly and the pelvic viscera are affected with acute pain, that venesection at the arm; even when several times repeated, has been found incapable of alleviating.

Constipation ought to be combatted by the use of injections, sweetened with honey, or prepared with the addition of a teaspoonful of olive oil. Suppositories of *beurre de cacao*, the use of the plunge bath and of gentle laxatives, such as Seidlitz water, ptisans with prunes, tamarind whey, veal broth or vegetable broth, infusions of wild succory, and other drinks of the same sort, containing a weak solution of sulphate of soda, are proceedings to be instituted with advantage to the patient. Drastic cathartics, especially aloetic purgatives, ought always to be rejected, for they excite the viscera of the pelvis, especially the womb and the rectum, too much, accumulating in that direction congestions that frequently lead to attacks of menorrhagia and obstinate hemorrhoidal disorders. For similar reasons, we ought to abstain from purgative injections invariably, as well as from hip-baths, nor have recourse to common injections without care in the employment of them, and only in cases of absolute necessity.

Those women, who, in early life may have been subject to swellings of the joints, or of the lymphatic ganglions, to ophthalmias, and to cutaneous eruptions; and those, lastly, who happen to labor under chronic, mucous, or parenchymatous inflammation, etc., will act prudently by establishing some point of derivation upon the skin by an

issue, and especially by a blister. Petit Radel has justly remarked, that the last named exutory is preferable to the former kind, because it acts upon a more extended surface, and the irritation produced by it may be easily increased or diminished. Let us close by remarking, that the cessation of the menses, which is a physiological phenomena, as natural as the first appearance, would almost always terminate well, were it not that former excess, careless dieting, and a treatment not unfrequently foreign to the principles of the art, intervene and oppose its progress. We cannot, therefore, too loudly proclaim to the sex, that infractions of the laws of HYGIENE may lead them into the arms of death, at a period which would have been for them, the commencement of a more tranquil life, and an existence exposed to much fewer dangers.

CHAPTER VIII.

LEUCORRHŒA—NATURE—VARIETIES—SYMPTOMS—CAUSES, AND TREATMENT.

THE term LEUCORRHŒA is derived from two Greek words, signifying *white flow*, which is synonymous with *fluor albus* and the English word *whites*, and is applied to designate the discharge of a white or colorless fluid from the vagina, unconnected with structural disorganization of the parts. Though the discharged fluid may vary in color, consistency and quantity, depending upon the stage of the disease;—in color, from a white, to that of a green, brown, or slightly redish tinge;—in consistence, from that of limpid water merely, to that of a ropy substance, mixed with a thinner liquid;—in quantity, from a slight increase of the natural secretion, to several ounces in the twenty-four hours.

This discharge originates in the minute blood-vessels which line the cavity of the vagina and uterus, probably often the same as those engaged in secreting the menses; though upon this point authors are not positive.

These vessels, are minute and countless in number.

forming a complete membrane, similar in structure to the mucous membrane of the mouth, nose, and throat; they both secrete a mucus very similar in consistence and appearance, and that of the former like unto that of the latter, under various states of disease, may become gluey or puriform and tinged with blood. These mucous disorders have a general resemblance to each other, whatever be their seats or sources.

Leucorrhœa is so very common, that it is, perhaps, as rare to meet with a woman who has never had some form of it, as to find one who never in her life had a cold in the head or the slightest increase of discharge from the nose. (*Meigs.*) It may attack females of all ages, a more chronic form occurring in advanced life; it is most common, however, during the period comprised between the ages of fifteen and forty-five, rarely appearing after that time, unless it be symptomatic of organic disease of the uterus, as cancer, etc. Children and even infants are subject to acute attacks, with more or less local inflammation; here, the mucous membrane of the vagina only shares in the general susceptibility of this class of organs at this period of life, in which also, the intestinal surface, that of the lungs, throat and nostrils, participate, being more active than at any other stage of existence, and the seats of maladies unfrequent or unknown at a later age. Leucorrhœa, occurring in infancy is generally a catarrh of the vagina, and often sympathetic of intestinal irritation.

This disease is observed in women of every temperament, according to the peculiar cause: In the lymphatic, in whom, from deficient power the uterus is unequal to the secretion of the florid menses, or from constitutional causes, the vessels of the mucous membrane lining the womb are in a state of unusual activity;—in the melancholic, where mental depression aids in the aggravation of what originally might have been a slight congestion, their fears being actually alive to any disorder of these parts; and in the plethoric and robust, in whom the circulation, rapid and energetic, throughout the whole system, is peculiarly so in the sexual organs during their functional life. Though it is far oftener observed in the lymphatic temperament, than in the sanguine, or in those of a debilitated

constitution, than in those who have an active circulation. In the higher orders of society, where from luxurious excitements, the nervous system is so much, and the muscular so little exerted, this malady is particularly common. There are few disorders of the general health unaccompanied by irregularity of the vaginal secretion; and any thing that tends to over-excite or debilitate the uterine system will produce it.

In regard to the seat of this disease, it is known that pregnant women, in whom the orifice of the uterus is closed, are subject to it, proving that in these instances, it is exclusively vaginal. On the other hand we are equally certain that irritating causes may give rise to unhealthy secretion from the lining membrane of the uterus—also, when irritated by structural disorder, the matter discharged is sometimes not to be distinguished from that of common leucorrhœa. It is even probable that the Fallopian tubes do sometimes afford a part, and even a considerable portion of the matter discharged. (*Meigs.*) In the majority of cases, however, it is believed that the vagina is the seat of the discharge. (*Ferguson.*)

The most common circumstances, according to Churchill, under which uterine leucorrhœa occurs, are the following:

1. In young females of delicate constitution, there may be a secretion of *whites* at one, two, or three of the monthly periods preceding the appearance of the menses, and vicarious of them. By the discovery that the uterine system is already in action, though giving rise to a morbid discharge, the treatment must be modified accordingly. (See "Suppression of the Menses.")

2. In suppressed menstruation, the subsequent monthly periods may be marked by a white discharge, nearly the same in quantity, and continuing as long as the natural secretion.

3. The intervals of menstruation may be occupied by leucorrhœa; in these cases the discharge increases just before the appearance of the menses, and re-appears in increased quantity afterwards; ultimately the leucorrhœa may entirely supersede the menses.

4. Excessive menstruation is sometimes caused, and often accompanied by the white discharge, which increases

just before and after the menstrual periods, and may occupy the intervals.

5. At the period of "decline of the menses," the few last returns may be marked by the occurrence of *whites*, instead of the proper menstrual discharge.

6. In chlorotic patients, leucorrhœa may be vicarious of the menses.

7. After abortion a white discharge may be secreted, either constantly, or occasionally for some months, which predisposes to successive abortions.

8. After child-bearing, when the lochia has disappeared, the white discharge may appear and continue for a month or two, or longer, till superseded by the appearance of the menses.

Vaginal leucorrhœa may be present, or complicated with any of the foregoing cases, though perhaps the uterine disorder predominates, modifying all the symptoms. No one or even all of these cases, are near as frequent as a chronic form of simple vaginal leucorrhœa, as this is one of the most common diseases to which females are subject; few, as we have remarked, escaping an attack of it at one time or other of their lives.

The *forms* of leucorrhœa are either *acute* or *chronic*.

SYMPTOMS.—Sometimes from its brevity and slight development the *acute state* may have passed unnoticed, though, there is generally a greater or less degree of constitutional excitement, or local suffering present. The pulse is quickened, the skin is hotter than natural, there is some thirst, and the patient is liable to hysteric paroxysms. There is a sense of heat and pain in the vagina, with slight swelling and tenderness; and at first a thin exudation, like that in common catarrhal inflammation of the mucous membrane of the nose; it then becomes thicker, and afterwards thin pus, with the formation of which the pain and swelling abate. The irritation may be communicated to the bladder, giving rise to retention of urine. If the attack be violent there will be weight and pain in the lower part of the abdomen, extending down the thighs.

In the *chronic* form there is a variation in the symptoms, corresponding with the quantity and quality of the discharge. In the slighter and more recent cases, but

little distress is experienced ; there is a degree of languor, occasional weakness in the back and loins, headache with a paler complexion than natural, and an unusual degree of moisture about the external parts of generation. But when the discharge increases, the symptoms become more severe. There is constant pain in the back and loins, signs of debility, and dyspepsia, with nervous excitability. The discharge of matter is generally imperceptible, and continuous, often, however, flowing in slight gushes, or mixed with masses of ropy mucus. The following passage from Dr. Vigarous, gives a clear and succinct account of the symptoms and progress of this disease, to its termination :

At first, the patient perceives a discharge of mild matter, almost white, which moistens the vagina and escapes drop by drop. She experiences no inconvenience, no pain, nor any morbid sensation, (unless there be weight in the loins with colic pains). Hence, women, prevented by an excess of modesty, take no precautions in this stage, and neglect a disease, which, at this period, is of easy cure, but which soon becomes obstinate. Women pass several years in this way before the danger is exhibited by severe symptoms. After the lapse of some time, more or less, and after all precautions and all remedies have been neglected, the urine becomes thick, and, according to Hippocrates, similar to that of mare's, *jumentosa*. The pulse is vermicular ; the discharge becomes so abundant as to soak through the napkins which she employs, (it seems to attract to itself the sources of all the other excretions) ; the matter becomes, successively, greenish, yellow, black, and similar to washings of flesh ; it becomes acrid, and occasions pain, excoriations, ulcers of the womb ; the woman takes an aversion to *coitus* ; the face becomes pale, bloated ; the eyes swell, and are surrounded by a yellow circle, as in dropsical people, they lose their lustre and become heavy and dull ; the appetite is lost, (or depraved with nauseous eructation from acidity of the stomach) ; grief and sorrow take possession of the patient ; (there is almost constant pain in the spine and loins, the hips and stomach ;) the senses are weakened, particularly vision ; sighing and lassitude, upon the slightest exertion,

indicate the greatest debility. Gradually the smell of the matter becomes insupportable; (there is obstinate constipation of the bowels, with nausea and acid vomiting;) the menses flow irregularly, often are suppressed; and hectic seizing the patient, soon drags her to the grave. (*Tom. I., page 235—translated by Meigs.*) This may be thought a highly wrought picture, but it is the sad termination of occasional cases, whose cure has been entirely neglected. It shows the importance of timely attention to the treatment of a disease which may be so calamitous.

Upon examination, it is sometimes found, though rarely, that there is slight enlargement of the body of the uterus, with some tenderness in the acute form; also, the mouth of the uterus is found swollen and tender, and rather more open than in the healthy state. Upon using the speculum, is discovered the mucous membrane of the neck, pale, slightly rose colored, deep red, or spotted; these red points are probably the inflamed orifices of muciparous glands, which are numerous in the canal of the neck, and are supposed, in a peculiar form of this disease, to give rise to an albuminous fluid, resembling the white of eggs. This sort of discharge is to be met with in women who do not bear children; the quantity is small and seems to have but one inconvenience, and that is, of rendering the woman barren. All means of cure have been employed in vain, in some obstinate cases of this form of the affection.

The Fallopian tubes are sometimes discovered to have undergone a change: they are found very much enlarged, and filled with puriform mucus and blood.

In a great proportion of cases, however, upon examination with the speculum, though the individuals have made loud complaint of the troublesomeness of the discharge, no inflammation or ulcer has been discovered,—nothing but an abundant, then mucus, bathing the vaginal surfaces.

The CAUSES of leucorrhœa are very various and numerous; they may all, however, be included under two classes, the *local* and *constitutional*; the latter of which are by far the most common and important.

The *local causes* are, cold, violence from rape or instrumental delivery, excessive coition, abortion, inflammation spreading internally from the vulva, the use of quack

emmenagogue medicines, stimulating injections, the irritation arising from worms in the rectum, or a pessary allowed to remain too long in the vagina, displacements, etc.

Women who too freely indulge in the gratifications of love, who, from their necessities, or calling, are exposed to the abuse of venery; and especially those who indulge in *solitary* or *selfish* abuse of this enjoyment, are always obnoxious to leucorrhœa. "Nature, for the wisest purposes, has implanted in the sexes the passion of love; it presides like a guardian angel over every sentiment that is pure and holy in our natures; it warms the heart and kindles the affections with a flame of vestal purity; but let the reader beware of the premature excitement of a passion that was only designed by the Creator to ensure the great end of our existence, viz: the perpetuation of the species.

"What a proof of the entire purity of purpose on the part of nature, when unsullied by art, is the affection of a mother for her child! Think of the strength and duration of that passion—compare it with an impure emotion, and then ask if we should not blush to lose sight of an impulse so lovely, for the indulgence of a base and selfish gratification."

In treating of "deranged menstruation," we had occasion to refer to the evils of the miserable quack compositions, heralded by their unprincipled inventors as specifics for menstrual derangements. The infirmity which we are now considering, is often closely complicated with the other, and produced by the same causes, and we often have to deplore the alarming mischief produced by the futile efforts of the ignorant pretender, to cure this disease by powerfully drugging the system with physic.

Dr. Meigs mentions a considerable number of cases of leucorrhœa that came under his observation, in which the disease was produced by the irritation of pessaries, (instruments to support the uterus—see *prolapsus of that organ*) which had been allowed to remain in the vagina. Of course, all attempts to cure must fail till such causes be removed.

The *constitutional causes* of leucorrhœa, we have remarked, are both numerous and important. Most of those

errors in diet, regimen, physical education, etc., so often referred to in our remarks upon menstruation and its derangements, act here with equal force. So that all we have there said upon the operation of these great agents in forming the human constitution, is equally applicable in relation to this disease. The following circumstances are found to act powerfully in the production of leucorrhœa:—

1. Original constitution or temperament: there is a deficiency of secretive energy, as exhibited in those cases when leucorrhœa is vicarious of, or introductory to, the menses. This condition exists mostly in those of a scrofulous habit, either hereditary or acquired, and the lymphatic temperament; they are generally characterized by a relaxed fibre, fair skin, and light hair.

2. Location, atmosphere, and occupation: thus, women who reside in a damp and cold climate, where there is a humid, impure air; also, those of sedentary and luxurious habits, who live in indolence, in large cities, are almost sure to have this complaint.

3. Habits of life, and the quality, and quantity of nourishment: they affect all constitutions and temperaments. Those who indulge much in bed, who keep late hours, who over stimulate, who indulge in emotions and passions of the mind, who drink immoderately of thin unnourishing drinks, as tea and coffee, who use the warm bath, or "foot-stove" to excess, rarely escape it.

4. Habits in regard to cleanliness; the neglect of this physical virtue, will be almost sure to produce it, even in those who are not otherwise disposed to the disease.

Women in the lower walks of life, especially in cities, are more exposed to many of the predisposing causes of leucorrhœa, and consequently are more obnoxious to the disease. It is pretty sure to follow nervous and hysterical affections, especially if there be great irritability of temper. Those who have suffered from frequent and difficult labors and over suckling, those who have relaxation of the system generally, and of the uterine particularly; who have become debilitated from menorrhagia, diarrhœa, hemorrhoids, or who labor under irregularity or suppression of the menses, are ever prone to this complaint.

In fact, the *constitutional causes* of this disorder are so numerous, that the majority of authors we have consulted upon the subject of leucorrhœa, make it a constitutional disease. It has been thought by some to be hereditary. Some ladies are not constantly afflicted with it, and only have a discharge when their systems are excited; as by fever, anger, alarm, or joy; others, upon taking a glass of wine, eating highly seasoned victuals; others, again, when their stomachs are acid, or otherwise irritated, will have this discharge more abundantly; very many are only sensible of its existence just before the menses are about to appear, or immediately after they have ceased. Most women, who are subject to leucorrhœa, will have an increased discharge when pregnant; while some will have it at no other time; and all, perhaps, will have it more abundant after too great venereal indulgence. (*Dewees.*)

In speaking of the causes of this disease, an eminent French physician remarks: "The mode of life to which the social condition condemns women in large cities, delivers them over, so to speak, defenceless against the numerous causes of the chronic inflammation of the utero-vaginal mucous membrane. Thus, in populous cities, idleness, effeminacy, or sedentary life, the constant contact of the sexes, and the frequenting of places where every thing inspires pleasure; prolonged watching; excessive dancing, frivolous occupation, and the study of the arts that give too great activity to the imagination; erotic reading; the pernicious establishment of an artificial puberty; the premature shock of the genital system; the concentration of the sentiments and thoughts on objects which keep the genital system in a state of permanent excitation; finally, a number of vicious habits, and excesses of all kinds, which, by introducing modifications more or less profound into the general constitution, re-act more particularly upon the sensibility of the womb, which, in the female, is not only the organ most apt to lend itself to the fluxionary movements, but, likewise, the centre towards which all the morbid actions seem principally to tend."

We have before adverted to the injurious effect of an habitual indulgence in the excessive use of tea and coffee; and all physicians can bear witness to the pernicious influ-

ence of these articles, of which our country women are so fond, and which they so generally use in excess. We are well satisfied that they exhaust the nervous system, weaken the stomach and derange digestion. In before adverting to the warm bath as a debilitating cause, we shall be understood as referring only to its excessive use in the higher classes of society, as they are termed; for in the lower, it is not abused, since, alas! it is seldom sufficiently used. When properly applied it is a powerful means of preventing disease, but may be, if perverted, an equally efficacious agent in its production. Over five minutes indulgence in a warm bath at the temperature commonly used, is likely to be followed by exhaustion; it should be immediately followed by the shower bath, and friction with a rough towel—which produce an agreeable reaction and establish a healthful circulation in the skin.

The application of cold from dampening the feet, sitting on the damp ground, etc., is a very different thing from its application by the shower bath, and is productive of the worst consequences. Also excessive warmth, as too close confinement in hot rooms, too much clothing, sleeping too warm on feather beds, etc., by causing exhaustion, will produce the same result.

“The constant drugging of unprincipled pretenders, many of whom, we grieve to say, are provided with their legal warrants under our degrading system of medical education, is equally productive of the disease. The tone of the body is impaired, by the incessant irritation of the bowels with every variety of quack pills and potions, until the whole vascular system becomes exhausted, and the blood-vessels of the uterus open their mouths, as it were, like dead creatures, and suffer the blood first to escape in large quantities, constituting excessive menstruation; then, as we know by observation, they take on that peculiar action, productive of the leucorrhœal secretion.”

The duration of leucorrhœa is variable. Those cases connected with the menstrual function are generally the most prolonged. The question has arisen as to whether the discharge of this disease, (not venereal) may not give rise to a gonorrhœal discharge, or sores in the male. There have been seeming cases in confirmation of such a fact,

but Dr. John Hunter and other authors, are of opinion that it never takes place; though when very acrid it is often observed to give rise to a temporary mucous discharge.

In the treatment it is necessary to distinguish the simple leucorrhœal discharge from that which is caused by local disease, as polypus, prolapsus, ulcerations and excrescences. (*See the symptoms of those diseases under their proper chapters.*)

TREATMENT.—This of course must have reference to the cause which produced the disease, to the state of the constitution, and that of the uterus and vagina. It is consolatory to know that it is generally successful, if the proper remedies are applied in season and persevered in.

The parts must be regularly washed in warm water three or four times a day—and if the patient be plethoric, or if in the *acute* form and plethora be not present, local depletion* is required; this may be done by cupping the loins, or applying leeches to the vulva. During this stage, which is short, the patient should be confined to the horizontal position, and be purged with saline cathartics; the diet should be very spare and all possible causes of excitement avoided. Vaginal injections of warm water, and occasionally a hip bath are powerful adjuncts in abating the inflammation. If by these means, or a neglect of them, the disease is not cured, it very soon assumes the chronic form, which is vastly more common than the other.

Before speaking of the medication necessary in the *chronic* form, we shall give directions concerning diet, regimen, etc., which are quite as important. As we are writing partly for the instruction of females, it will have been observed, that in our descriptions we do not always follow the usual systematic order found in medical books.

We have endeavored to show that this disease has its origin in deep-seated causes—no less than an abuse of the great laws of nature. The intelligent physician well understands the absurdity, by the administration of medicine alone, of attempting to change the long continued and

* Dr. Dewees recommends that a strict antiphlogistic plan be constantly pursued during the cure of either stage of this complaint, till we are assured the discharge is maintained by habit:

unhealthy action of parts, that have not for years performed their natural functions, while the cause by which it was produced remains still in action. It is evident that there is no alternative but for the female, perseveringly to retrace and reform her errors before there can be any hopes of a restoration to health.

The remarks already made upon HYGIENE in Part III., are here particularly applicable. If the female would escape, or be rid of this affection, "the mind must be kept pure, and free from improper associations. Such is the wonderful influence upon the uterine system, that, as we have shown, any of the more intense emotions will produce it, if the patient be predisposed from debility to the disease.

"Far more certain in its influence, because, alas! much more common, is that state of prurient excitement of the imagination, so often produced by the wretched and demoralizing flood of "cheap literature" as it is called by its unprincipled publishers. Were the statute against obscene publications and prints, properly enforced, our families would be rid of these loathsome and filthy productions, and society freed from a curse that is sapping it in the most vital part, viz: the moral purity of its daughters and mothers.

In leucorrhœal discharge of the *chronic* form we must first be assured of the absence of *polypus*, *excessences*, etc. in the vagina and uterus; next we must ascertain that the discharge is not a symptom of oppressed circulation, or of disease in the rectum, or other neighboring parts. If, upon examination, any of these diseases be found to exist they must be treated as elsewhere directed. When it is made out that the malady is dependent on a local state, combined with disorder of the general health, the treatment for the chronic form will be safely applied. In a great majority of cases hysteria, in some of its various forms will be found to accompany the discharge. In some, there is inordinate nervous sensibility, in others, torpor and inactivity; while again with general debility, there is much nervous irritation in the uterine system, constant pruritus, or aching which is more intolerable than pain itself. In all of these grades of the disease, the uterus

and vagina do not fail to draw into their sympathies the digestive organs.

Strict attention, therefore, must be given to diet, exercise, and mode of life. The food should be devoid of all excitement, simply nourishing without stimulating the stomach; pure air, and absence from those habits of late hours, entailed by a city life are essential to a speedy cure; and with these, all that regimen so well known as the *dyspeptic* should be resorted to.

When proper attention, then, has been given to the reduction of the pulse, and evacuation of the bowels, as mentioned under the acute form, a blister may be applied to the sacrum and repeated if necessary; we must then proceed to exhibit some of those medicines which act upon the utero-vaginal membrane through the general system. The best are balsam copaiba, cantharides, cubebs, and the various turpentine. The copaiba may be given in increased doses, commencing with fifteen drops three times a day, or if the stomach be delicate, it may be made up into pills. The tincture of cantharides, according to Dewees, is very efficacious; he says, "of this I direct thirty drops every morning, noon and evening, in a little sugar and water, increasing the dose every third day, five drops at a time, until strangury, (difficulty of passing the urine) is produced, unless the disease be arrested, which is not unfrequently the case, before this symptom appears." The patient should desist from the use of the medicine as soon as she feels the approach of strangury, and if necessary resume it when all uneasiness has disappeared. If the strangury be severe, free use should be made of flax-seed tea, gum Arabic or barley water—and the patient may take, upon going to bed, twenty five drops of laudanum. The cubebs may be used in doses of from ten to thirty grains every six hours—if not speedily useful it should be discontinued. Any of the turpentine may be given in doses of from a scruple to a drachm, in pills, or in mucilage of gum Arabic. Extreme cleanliness must be observed, or little good will be derived from the best plan of treatment.

As soon as a change is observed in the discharge, by its becoming thinner and more copious, astringent injec-

tions may be employed with the happiest results; they should *only be used* as long as no tenderness, or sense of weight in the pelvis be produced by them. In the milder cases a decoction of Peruvian, or oak bark, or catechu may be used; but in general the best astringent injections are the sulphate of zinc, in proportion of five or six grains to the ounce of water: or, from twenty to thirty grains of the sulphate of copper to eight ounces of water; alum may be used (20 grains to 6 ounces of water.) A solution of nitrate of silver (4 grains to the ounce of water,) is very useful. Vaginal injections of soap and water should be used previous to any one of these, which may be employed three times a day.

When the leucorrhœa is accompanied with sensibility, pruritus, etc., of the vagina and uterus, anodyne injections are indicated: as twenty-five or thirty drops of laudanum in mucilage or water, poppy decoction, etc.

When the leucorrhœal discharge is profuse, and becomes yellowish, or pus-like, astringent medicines internally, synchronous with their local application, will be found very useful; the decoction of logwood, gum kino, or catechu, etc., are applicable. A very absurd idea is occasionally entertained, that this discharge is a healthful evacuation, and ought not to be interfered with. We need not say that it is of the greatest injury to the constitution, and should be cured as soon as possible without a too sudden suppression. The following FORMULA will be found a very useful astringent: Take of gum kino one part, Canadian turpentine four parts, as much of the powder of tormentilla as may be necessary to form a mass; divide the same into pills of five grains each, and take from three to half a dozen of them night and morning. At this stage of the disease, the ergot of rye has been highly recommended in five grain doses, three times a day. At this period, as well as during the whole course of the disease, the bowels must be kept open by a laxative diet, and the occasional use of cathartics.* Electro-magnetism may be tried along with the other remedies.

* In obstinate cases, much reliance has been placed by some physicians, upon revulsive determination towards the intestinal mucous membrane by the use of purgatives; rhubarb, in small doses is the best, as it is at the same time purgative, tonic and astringent.

In addition to the local and constitutional treatment already noticed, where there is much debility, as there generally is, the class of remedies known as tonics are not to be dispensed with. The vegetable ones, such as bark, gentian, quassia, cascarilla, etc., may be used; but the preparations of iron and iodine are most to be relied on. Of the former, the carbonate, or citrate may be administered in the usual doses; but, perhaps, the best FORM is the sulphate, combined as follows: sul. iron, one scruple, balsam copaiba and liquorice powder, of each sufficient to form a mass of proper consistency, which is to be divided into forty pills, of which three or four may be taken three times a day. The use of iodine has been highly praised, and in those cases of leucorrhœa which are so common in scrofulous constitutions, this remedy is preferable to all others. The compound tincture may be given in doses of from ten to twenty drops, three times a day, or the syrup of iodine, or of the iodide of iron, in doses of two tea spoonsful three or four times a day, in some appropriate infusion.

In those cases of leucorrhœa characterized by an albuminous discharge, and dependent on an inflamed and sensitive condition of the mouth and neck of the uterus, the means of cure are, rest, moderate use of leeches to the mouth itself, purging and injections of warm water and soap and mucilages, aided by the judicious employment of blue mass and anodyne enemata.

Those cases which are complicated with menstruation, must be treated with reference to that discharge. Conium, hyosciamus, or opium may be given if there be much local or general irritation. Cleanliness, as before remarked, is of the utmost importance; the external parts should be washed with tepid water, or milk and water, two or three times a day and carefully dried. When the disease is on the decline, benefit will be derived from sponging the back, loins, and lower part of the abdomen with tepid or cold salt water. Sea bathing, with proper precautions, may be allowed; and benefit will probably be obtained from a residence at, and the use of waters of mineral springs.

The state of the stomach and bowels should be particularly attended to—frequent but gentle purging is generally

useful. If there be any excoriation, the use of a sugar of lead lotion, or black wash will probably remove it.

Leucorrhœa dependent on prolapsus of the uterus often requires for its cure the use of the pessary—which will be explained when we come to treat of that subject.

CHAPTER IX.

CHLOROSIS—NATURE—SYMPTOMS—CAUSES AND TREATMENT.

THE term CHLOROSIS is derived from a Greek word, signifying *green*,—called “green sickness,” from the peculiar pale or greenish complexion of those afflicted with it. It is a disorder of the general health, and arises as the consequence of retention of the menses, excessive menstruation, long continued leucorrhœa, and other depressing and exhausting diseases, bad nutrition, etc. The organs of digestion and assimilation are often the seat of the disease, which occasionally appears in the male as well as the female. The blood, in this affection, has often been found very much changed in its natural constituents.

SYMPTOMS.—No disease inspires more tender interest, or more touching compassion, than the state of paleness, suffering and languor, observed in a young chlorotic girl; like some delicate plant, deprived of the beneficent rays of the sun, she is a flower which withers and droops away, even before its blossoming.

The approach of chlorosis is marked by a state of habitual inertia and melancholy; the patient becomes sombre and taciturn, weeps without cause, and sighs involuntarily; the face becomes bloated; the expression is, as it were, veiled; the eyes sad and languishing; the eyelids, which are swollen, especially in the morning, are encircled by a blackish areola, strongly contrasting with the pearl-white color of the schlorotic coat and the pallor of the lips; the skin, particularly of the extremities, is dry and cool; the pulse frequent, rather large and less easily compressed; the respiration is difficult; digestion is deranged; the alvine dejections become white, hard, and sometimes fluid;

palpitations and fits of yawning make their appearance, while debility, lassitude, a desire for sleep, or rather for repose, as well as the whole collection of symptoms augment from day to day. The patient feels frequent inclination to make deep and very strong inspirations, a symptom which is excited and increased by walking, by ascending, and, finally, by any mental emotion. The impulse of the heart is generally stronger than natural; and the carotid arteries, which beat with great force, are the seat of certain abnormal sounds. Blood drawn from the venous system and from leech bites, is pale and aqueous; the clot is soft and diffuent; the animal heat is diminished; the lips, nose, hands, and all the organs situated at a distance from the centre of circulation, are cold and almost icy; the general cellular tissue becomes the seat of a serous turgescence which is especially observable about the eyelids and face. The inferior extremities, particularly the ankles, become edematous, a condition which is more marked towards evening, and which differs from that of common dropsy, in not retaining the impression of the fingers.

As this disease progresses, the functions of the stomach are more and more deranged; the strangest and most depraved tastes manifest themselves; the patient prefers the most sapid substances, such as salt, vinegar, green fruits; they often seek, with avidity, indigestible substances, and such as are in no way nutritive, as charcoal, plaster, earth, ashes, spiders, flies, and other equally disgusting insects. The appetite gradually diminishes, until complete anorexia is established; at other times, on the contrary, it is increased beyond measure, while the ingestion of food is followed by a sensation of weight at the epigastrium, by nausea, and sometimes by vomiting. The tongue is generally large and covered with a mucous coat; acid regurgitations, and frequent nausea occur, especially in the morning; a feeling of heat and weight in the epigastric region, and sometimes nervous pains in the course of the esophagus, and extending through to the shoulders, make their appearance. Finally, the patient experiences alternations of constipation, and watery diarrhœa. The alvine dejections are white, while the urine, small in quantity, is pale and limpid, as in all the nervous affections. The

genital organs are commonly affected with abundant leucorrhœal discharge; most generally there is a failure or suppression of the menses; at other times, they persist and last longer than natural; which gives rise to the most diverse nervous disorders, uterine colics, pains in the loins, great depression and stupidity. The patient now, more than ever, seeks solitude, sighs involuntarily, and weeps without cause; she is tormented by sinister ideas; her temper is capricious, odd and irascible; for her, all thought of happiness is gone, and in her despair, she often speaks of suicide; finally, the night, far from procuring repose, brings her only broken slumbers and frightful dreams.

When the progress of the disease is not arrested, the symptoms become more and more aggravated; there is ringing in the ears, vertigo, partial loss of sight, tremors of the limbs, neuralgia of the teeth, neck and head, and hysterical symptoms; the skin assumes a greenish or earthy hue; the abdomen is hard and tumid; thirst arises, the dispnœa, faintness and palpitations are increased; diarrhœa, as well as hectic fever creep in; daily exacerbations occur, and the emaciation makes rapid progress. Finally, general infiltration, extreme feebleness, invincible repugnance to all kinds of exertion, alteration of the features, and a pale, violet color of the lips, forbode approaching death; which comes at last, without shock and almost without pain, surprising the patient under a complete state of marasmus.

We have compiled the foregoing symptoms of this disease from M. Colombat, whose descriptions are always so accurate as to leave nothing important unincorporated. We should state that the duration of chlorosis has no fixed limit, but that when properly treated, it commonly terminates by a return of health in from one to two months.

The CAUSES of chlorosis may be divided into the *predisposing* and *general*. Among the former, may be ranked hereditary predisposition, rapid and premature growth, a feeble, melancholic constitution; a lymphatic, nervous, or scrofulous temperament; the privation of the physical enjoyments of love, or their abuse; the state of widowhood; onanism; sudden and continued suppression of the menses, and their too great abundance; frequent hemorrhages.

ges; depressing moral emotions, disappointments, grief, sadness, captivity, and the melancholy which accompanies unfortunate love, etc.

The *general* causes, are living in low, damp, and cold situations, secluded from the solar rays, as in quarries, mines, dungeons, the cellars of weavers, in low work shops, in valleys of great depth, which are shaded by wood, and in the sombre, narrow, and badly ventilated streets of large cities. Periods of famine, continued use of heavy indigestible and decomposed food; the indulgence in warm aqueous drinks, or in the excessive use of vinegar, of green fruit, and all crude articles; excessive fatigue, and finally, the want of exercise, and a sedentary, easy, voluptuous mode of life, are all causes of the nervous debility, which give rise to the derangement of the functions, constituting chlorosis.

Dr. Marshall Hall observes: "It is quite obvious, on tracing the succession of symptoms, that the first link in the chain is constipation, and that the subsequent links are the effects of the continued operation of this cause. Servants, and especially cooks, are particularly liable to chlorosis. But the delicate and inert habits of the rich, not less frequently lead to this affection. In all these, there is the same defective digestion, assimilation and formation of blood."

"Under the many exciting and depressing influences of society, as constituted in our country, and the unexampled rapidity with which children become men and women, constant derangements of health are occurring; and although years are advancing, the constitution suffers great drawbacks; the body does not advance to its full and proper evolution at the time nature intended it to attain that condition. During these intervals of sickness the powers of digestion are feeble; and very delicate and careful preparation of the food is necessary, if we would not oppress them and greatly hinder recovery.

"If this be true when comparative facilities exist, what shall we say of the condition of those who constitute the working classes of our population; whose every day brings with it its stern demands of nature for attention to all her laws, and the entire time is occupied with toilsome labor?

The damp cellar, or the stifling attic chamber, in the foul atmosphere of some by-lane or street, are not adapted to produce appetite, and the wretched occupant, even if for the time possessing the means, has no leisure to pay attention to the wants of the body. Thus it is from day to day that inattention to the unalterable laws of nature, is followed by a condition of listless and wretched indifference, and the final appearance of this melancholy disease."

Chlorosis is not easily confounded with any other disease or condition of the body, excepting that arising from the loss of much blood.

TREATMENT.—As this disease is more or less complicated with a disordered digestion, much stress has been laid upon the efficacy of purgative medicines—and certainly they are of great value in assisting a cure. Aloes and rhubarb, in combination with iron, are found to be the most useful. Dr. M. Hall prescribes a pill, composed of equal parts of aloes and sulphate of iron.

At first a due evacuation of the bowels must be daily secured. An injection of a pint of warm water into the rectum two or three times a week, is useful in aiding the peristaltic action, and removing collections from the large intestines. The compound decoction of aloes with the compound tincture of cardamoms; the compound aloetic pill, with the oil of cassia; or the wine of aloes with the compound tincture of rhubarb, in appropriate doses, are the best forms of purgatives. (*Ashwell.*)

The preparations of iodine have been highly recommended in this disease, and are particularly adapted to patients of a strumous or scrofulous habit of body, who have glandular swellings. The iodide of iron may be given in two grain doses, in solution, two or three times a day, or it may be given in form of syrup. But perhaps the best form is the compound tincture of iodine, in doses of from ten to twenty drops three times a day. These preparations should never be taken upon an entirely empty stomach, as they are liable to produce heat and oppression.

Other mineral and vegetable tonics will often be found useful. The following FORM has been used successfully:

Sub-carbonate of Iron,.....one ounce.
Carbonate of Soda,.....one drachm.

Pulverized Nutmeg,.....	two drachms.
do Liquorice root,...	two do
do Ginger,.....	one drachm and a half.
do Cinnamon,.....	one do do do
White Sugar,.....	half an ounce.
Oil of Anise,.....	four drops.

To be thoroughly mixed and pulverized. Dose, a tea-spoonful, two or three times a day, in milk.

Of all medical agents, iron has gained the greatest reputation in this disease. Dr. Blaud has recommended the following FORM as a specific, and all who have given it a trial, speak highly in its favor: Sulphate of iron and sub-carbonate of potash, of each, half an ounce; reduce them separately to a fine powder; then mix thoroughly, little by little; add a sufficient quantity of mucilage of gum tragacanth; beat strongly in a mortar, and make a mass, to be divided into forty-eight boluses. A mutual decomposition of the two salts takes place, which adds much to the efficiency of the remedy. A pill should be taken early in the morning, and in the evening upon retiring, during the first three days. On the fourth, fifth and sixth days, a pill should be added at mid-day; to go on increasing, till at the sixteenth day, four pills may be taken three times a day. It is, according to Dr. Blaud, to be continued in this last mentioned dose long enough to dissipate the symptoms of the disease, when it should be gradually left off.

Dr. Meigs speaks highly of the following FORM, to be used much in the same manner as the above:

Citrate of Iron,.....	two drachms,
Sulphate of Quinine,.....	half a drachm,
Water,	one fluid ounce.

Mix and take from twenty to thirty drops at a dose, in syrup or water, about half an hour after each meal.

Any one of the vegetable tonics may be given with advantage, such as Peruvian bark, cascarilla, gentian, quassia, etc.

Counter irritation by blisters, according to the various functional disturbances, and medicines mentioned in the last chapter, which act upon mucous membranes, are not

to be omitted. Menstruation may be regarded as a desirable occurrence, and as soon as the constitution shall have been somewhat rallied by these remedies, we shall be justified in using some of those medicines mentioned in the chapter upon the "suppression of the menses," which act directly upon the uterus.

The ammonial injection, composed of one drachm of the pure liquor ammonia to a pint of milk, daily injected into the vagina, has proved very efficient. (*Ashwell.*) It is said that chlorosis is frequently cured by marriage.

The patient should be comfortably clothed with flannel next to the skin and take a moderate amount of exercise in the dry, pure, open air. The diet should be generous, adapted to the condition of the digestive organs; a free use of tomatoes, cooked to the liking, will, from its alterative properties, be found a good article of food. A moderate quantity of wine may be allowed, according to circumstances. Riding in a carriage and on horse-back, in a pure air, are proper modes of exercise; and pleasant conversation, in addition to the charms afforded by diversity of views and landscapes. Boating excursions, music, sea-bathing and swimming, etc., are hygienic means which cannot be too highly recommended to sad, nervous and melancholic women. Travelling, also, and the use of mineral waters, taken at the springs, are great advantages.

The use of tight corsets ought to be forbidden; sleep should not be protracted beyond eight or nine hours, and the bed should be neither too warm nor too soft. Exciting drinks should be prohibited, as, also, highly nutritious food, vivid emotions, the frequenting of balls and shows, the reading of high-wrought romances, the examination of lascivious pictures, and, in short, all circumstances capable of exciting the sensibilities too strongly, should be avoided. Sedative drinks, frictions upon the surface of the body, and constant diversion, are to be kept constantly in view.

CHAPTER X.

HYSTERIA — NATURE — SYMPTOMS — CAUSES — VARIETIES —
COMPLICATIONS—TREATMENT—MORAL AND PREVENTIVE
MANAGEMENT.

THE term HYSTERIA is derived from a Greek word, signifying womb—from which the disease was formerly supposed to arise. Many modern authors suppose the term to have been applied with some degree of vagueness, and that it suggests a theory of the disorder which is somewhat questionable.

It has been handed down from Hippocrates, Galen, Van Helmont, and many others, that the uterus exercises a superior power over every other system; that it presides over them with a sway no less capricious than powerful. That it not only forms and governs the moral character of the female, but creates, exalts, or modifies disease, and regulates all the physical movements, in every portion of her body, etc.; hence the declaration of Van Helmont: *On account of the uterus, woman is what she is*; and of Hippocrates: *On account of the uterus, woman is all disease*.

In modern times, a superior knowledge of anatomy and physiology, as well as of disease, has given us a more rational view of the condition and influence of the uterus. It is now regarded in importance, only as a viscera of the first order. And although its healthy condition is every way necessary to the general health of the system, it does not seem to exert much more influence, either in a state of health or disease, over other portions of the animal economy, than the stomach and some other important organs. The influence of the uterus is greatest during menstruation and gestation.

The seat of hysteria, instead of being the uterus, would seem to be in the brain and nervous system; but the exact condition of these organs, necessary to give rise to the various phenomena of this affection, is not known. There

is no doubt that a certain morbid condition of the nerves of the uterus, may give rise to it ; but that every derangement of function, or even lesion of this organ will produce it, there are unquestionable reasons for denying. Indeed, the uterus may be seriously affected, as in cancer, with an absence of those distressing symptoms, called "nervous;" so, also, in acute inflammation of this organ, there is almost always an exemption from the symptoms constituting hysteria. So, it would seem, that there must exist some peculiar morbid condition of the nerves of an organ, before the brain, or nervous system are called into sympathy with it. (*Deweese.*) Dr. Good remarks: "With a morbid condition of this organ, indeed, hysteria is in many instances very closely connected, though it is going too far to say, that it is always dependent upon such condition ; for we meet occasionally with instances, in which no possible connection can be traced between the disease and the organs, and sometimes witness it in males as decidedly as in females."

The majority of modern authors seem to be inclined to the belief that the cause of this malady is to be sought for in lesions of the *nervous apparatus of the uterine system*. M. Colombat observes: "If it be allowed us to put forth an opinion, as to the probable source of the disease, founded upon the cases which have fallen under our own observation, and which we have compared together, and with a great number of others reported by different authors, we should say that hysteria, properly so called, has its principal seat in the nervous system of the uterine apparatus, and that it consists of a special and *sui generis* mode of excitation and perversion of this system, reacting sympathetically upon the general nervous system ; we state further, that this peculiar excitation, this morbid modification of the uterine innervation, may itself have for its origin, either a local irritation, often inappreciable, or a sympathetic one, resulting from a moral cause, or from the pathological condition of some organ or different apparatus with which the uterus has bonds of union more or less direct."

Dr. Meigs coincides with him in the above opinion, and remarks: "Even admitting that the UTERUS itself, or the

OVARIA, is not at the foundation of the malady, nor the disturbing force in the malady, we may readily conceive it is in the reproductive tissue, and the reproductive influence or power, that is situated the *fons et erigo* of the evil. I conceive the question to be, not so much whether hysteria arises from a disturbing power of the womb, as from a disturbing power of the reproductive agencies implanted in the economy; and I conceive that deviations of that power, or those agencies, whether in the male or the female, may alike be regarded as *ipsissimas causas* in these maladies."

Hysteria occurs in females, mostly, during the child-bearing period; it is very rare before the age of puberty and after the cessation of the menses. It is observed to occur more frequently in single, than in married life, and the first attack is oftener at about the period of menstruation than any other.

Those women of a delicate habit, whose nervous systems are extremely sensible, are most subject to hysterical affections; it also attacks the sanguine and plethoric. There is usually a susceptibility, which is acquired by inactivity and a sedentary life, grief, anxiety of mind, a suppression or obstruction of menstruation, excessive evacuations, and a long continued use of an unnutritious diet, or of crude unwholesome food. Those who possess this susceptibility, are apt to pursue objects with ardor, exaggerate grievances, and under the influence of ordinary emotion are prone to hurried breathing, or to sighing, sobbing or laughing.

SYMPTOMS.—What peculiar condition of the brain exists in hysteria, can neither be named, or demonstrated; yet, there is no part of the body that may not have its nerves to sympathize with it, calling forth powerful—nay awful, phenomena, and a numerous train of symptoms peculiar to the part thus sympathizing. Hence, the "Protean shapes" this disease is said to assume. It is proper here to remark what we wish to have distinctly understood, that it is believed females can generally by observation of their own peculiarities and by mental discipline, after obvious difficulties have been removed, do far more to *prevent* an attack, than a physician can do for its relief

The disease attacks in paroxysms, known as "hysterical fits." "These are sometimes preceded by dejection of spirits, anxiety of mind, effusion of tears, difficulty of breathing, sickness at the stomach, and palpitations of the heart; but it more usually happens that a pain is felt on the left side, about the flexure of the colon, with a sense of distention advancing upwards, till it gets into the stomach, and removing from thence into the throat, it occasions, by its pressure, a sensation as if a ball was lodged there, which by authors has been called *globus hystericus*. The disease having arrived at this height, the patient appears to be threatened with suffocation, becomes faint, and is affected with stupor and insensibility; while, at the same time, the trunk of the body is turned to and fro, the limbs are variously agitated; wild and irregular actions take place in alternate fits of laughter, crying, and screaming; incoherent expressions are uttered, a temporary delirium prevails, and a frothy saliva is discharged from the mouth. The spasms at length abating, a quantity of wind is evacuated upwards, with frequent sighing and sobbing, and the woman recovers the exercise of sense and motion, without any recollection of what has taken place during the fit; feeling, however, a severe pain in her head, and a soreness over the whole body.

"In some cases, there is little or no convulsive motion, and the person lies seemingly in a state of profound sleep, without either sense or motion. Hiccup is a symptom which likewise attends, in some instances, on hysteria; and now and then it happens that a fit of hysteria consists of this alone. In some cases, of this nature, it has been known to continue for two or three days, during which it frequently seems as if it would suffocate the patient, and proceeds, gradually weakening her, till it either goes off or else occasions death by suffocation; but this last is extremely rare. Besides hiccup, other slight spasmodic affections, sometimes wholly form a fit of hysteria, which perhaps continue for a day or two, and then either go off themselves, or are removed by the aid of medicine. In some cases the patient is attacked with violent pains in the back, which extend from the spine to the sternum, and at length become fixed upon the region of the stomach, being

evidently of a spasmodic nature, and often prevailing in so high a degree as to cause clammy sweats, a pale cadaverous look, coldness of the extremities, and a pulse hardly perceptible."

Sydenham, as well as most of authors, have remarked the numerous *varieties* and forms under which this disease appears, "resembling most of the distempers wherewith, mankind are afflicted." In whatever part of the body it be seated it gives rise to symptoms peculiar to that part; so that if the hysteric "susceptibility" be not discerned; such symptoms may be mistaken for some essential disease of that particular organ. Thus, if the nerves of the stomach be the seat of the sympathy, we shall have eructations, sour belchings, pains in that region, indigestion, capricious appetite, *globus hystericus*, etc. If the intestines, we have spasms, tympanitis, diarrhea or costiveness, contractions of the abdominal muscles, etc. If the liver, pain in the right side, obstructions or a change in secretion and flow of the bile, etc. If the kidneys, an immoderate, or diminished secretion and flow of urine, very high colored, and sometimes offensive, with severe pain in the parts—bloody urine, etc. If the bladder, in continence or retention of urine, mucous discharges, etc. If the heart, palpitation, faintness, etc. If the scalp, a sense of heat on the back part of the head, coldness on top, great tenderness to the touch, etc. Or, if the muscular system be the seat, we shall have violent convulsions, twitchings, etc.

Certain parts, mentioned in this affection, sympathise with the brain more constantly and extensively than others; it may be said that the stomach, esophagus, the heart, scalp, and kidneys, almost always participate in the affection. All of these parts may not be simultaneously affected, but they may present themselves separately, and alternately; in either case, this peculiar disease is betrayed and the plan for relief indicated.

The combination of melancholy and depressing symptoms, which precede hysterical attacks, should serve to protect the female from those unkind observations so often made by her associates. The predisposing causes, it will soon be seen, are most often such as are well calculated painfully to excite our sympathy. We have already

spoken of certain departures from *moral purity*, and they may often be the exciting cause of this disease ; but when we see it brought upon a delicate and sensitive female, from causes originating in domestic unhappiness—it may be an unkind or drunken husband, an obstinate child, or disappointed affection—we can but most keenly feel for her unfortunate condition, and regret the present departure from Christian principles, which characterizes our social organization.

The recurrence of hysteric paroxysms, in those predisposed to them, is generally irregular ; they may at any time be developed upon the application of occasional, and when the predisposition is great, slight causes. Violent attacks are generally, though not always, accompanied with unconsciousness ; at their conclusion, females will frequently express a knowledge of the circumstances that transpired and lament their inability of the least control of themselves.

We have spoken of some of the variations in this disease, but there are yet others more important. Almost every kind of serious disease may be simulated by what we must call hysteria. And sometimes it requires much skill and reflection in order to determine the true import of the symptoms, and the real nature of the case.

One of the diseases which is often copied by hysteria, is *inflammation of the peritoneum*. We find the patient complaining of acute pain in the abdomen, aggravated by the slightest pressure ; she may have too, a hot skin, and a quick pulse. It will be well in such cases, before resorting to bleeding and the application of leeches, to ascertain whether all this suffering may not be simply nervous. If she be found to have had similar attacks before ; if she has been known to have hysterical fits ; and if the tenderness be felt as much upon the slightest touch, as when firmer pressure is made—after purging the patient, and the administration of an assafœtida enemata—the peritonitis will soon vanish.

There are other pains which infest females of the hysteric constitution, which are apt to be erroneously regarded as inflammation ; “*stitches*” and *pains in the side* are the most common: There is another, a pain occupying

some one point in the head, often just above the eyebrows, known as *clavus hystericus*. In these cases, leeching, blistering, etc., for supposed pleurisy or chronic inflammation of the liver or spleen, may well be spared, since they serve to rivet the complaint.

Palsy is also simulated by this disease. Its being mixed up with hysterical symptoms will generally disclose the true nature of the affection. Such affections referred to the throat are very common; for example, *a loss of voice, laryngitis, inability to swallow*; etc. In cases of the "hysterical breast," the mammæ become painful and tender; the girl's fear is excited, and if not understood, her attention is anxiously fixed upon it, by local applications; whereas the treatment should be general, and the local uneasiness disregarded, or the attention of the sufferer be drawn from it.

Among such affections of the air-passages, there is a loud harsh, dry, barking *cough*; it occurs in paroxysms, and is more annoying to hear than to suffer. Hysterical *eructation* and *vomiting* are very common. There is also *bloody expectoration*, and even *vomiting of blood*. None of these are dangerous, and the attention of the sufferer should be diverted from them as much as possible.

Hysterical affections of the *joints*, and bones of the *spine* are also common. Such patients complain of pain and tenderness; and it is now notorious that scores of young women have been unnecessarily confined for months, and even years, to a horizontal position, and have had their backs seamed with issues for supposed disease of the bodies of the vertebræ, who had in reality nothing the matter with them but hysteria, and who would probably have soon ceased to complain, if, instead of being restricted to that unnatural imprisonment and posture, they had taken a daily gallop on horse-back. It is very curious to notice how the mind is apt to become affected in these cases; after the patient has been lying supine for months, she *is* unable to stand or walk; simply because she *thinks* she is unable. The instant she makes a fair effort to use her limbs again, she can, and does use them. (*Watson.*) In these cases there is no alternative, and we

generally succeed in *making* them walk ; and then they are convinced that they may do so with impunity.

Dr. Bright was called to see a young lady in affluent circumstances, who had been confined to her bed for many months. If she attempted to move, she was thrown into excruciating agony, and had nearly lost the use of the lower extremities. Dr. Bright being satisfied that it was a case of hysteria, substituted bread pills for the medicine that she had been long taking, with the same tranquilizing effects. He attempted to get her shifted gently from the bed to the sofa, but it was impossible ; the paroxysm almost overcame her. "I called" he says, "after an absence of nearly a month ; her sister met me at the door with a smiling face to tell me that our patient was quite well ; and on enquiry, she related how three mornings before, under a *deep religious impression*, she had completely recovered all her powers ; and I found her sitting up, working and amusing herself, as if she were completely convalescent from some ordinary illness."

Such cases as these suit the purposes of miracle-mongers. Dr. Watson relates, that a few years ago, the religious Journals of a certain party in England, were full of an instance of miraculous cure. The patient was a young woman with supposed paralysis of the lower extremities ; an enthusiastic preacher had influence enough with her to make her *believe* that if on a certain day she prayed for recovery with a strong faith, her prayer would be successful, she would recover ; she did so. Many of these pseudo-diseases terminate suddenly under strong moral emotion. A fall, a fire in the house, overwhelming terror, etc., are often found equally efficacious.

Some of the shapes assumed by this Protean disease, are hideous and disgusting. Sometimes paralysis, or spasm of the muscular fibres of the bladder, really occurs ; but it is a common trick of these patients to pretend that they labor under *retention of urine*. No doubt the difficulty is sometimes real, but it is proved to be oftener feigned or exaggerated. It will often disapper, upon the patient's being left without pity, to her own resources. Such patients are deceitful and obstinate, practising, or attempting to practice, the most aimless and unnatural impositions.

They have been known to swallow their urine and vomit it up again, to induce the belief that the secretion had taken place in an unnatural way. They have produced fragments of common gravel, asserting that these were voided with the urine. And a young woman in an English hospital, after contriving to make the surgeons believe that she had stone in the bladder, actually submitted to be placed upon the operating table, and tied up in the posture for *lithotomy*, before a theatre full of students, when the imposture was detected.

The state of mind evinced by many hysterical women, especially when its morbid propensities drive them to such acts as these, entitle them to our deepest commiseration;—and, indeed, it is quite impossible for rational minds not to pity the unhappy victims of this wretched disorder. In distinguishing these aped affections from those that are real—if the patient be a young unmarried woman; if she have any disorder or irregularity of the uterine functions; if she have had any former hysterical symptoms; and especially if she be subject to *fits* of hysteria—we may be pretty well assured that the affection is hysterical. It is very important, in the treatment, not to overlook real disease, when it is mixed with, and marked by such symptoms.

Hysteria is sometimes *complicated* with those strange forms of nervous disorder known as *cataplexy* and *ecstasy*. These conditions are *rare and wonderful*: so much so that weak and superstitious persons have referred them to supernatural interposition in human affairs; and stronger minded individuals who never have witnessed them, regard their occurrence as fabulous, and laugh at them as the tricks and cheatings of imposture. They happen mostly in the same class of persons as hysteria, seem to be produced by similar causes, and resemble it, in seldom being attended with danger to life; their treatment is, also, the same.

Cataleptic attacks occur in paroxysms, and sometimes alternate with well-marked hysteria: there is a sudden suspension of thought, of sensibility, and of voluntary motion; the patient remaining, during the paroxysm, in the position in which she happened to be in at the instant

of attack, or in the position in which she may be placed during its continuance. Dr. Gooch describes a case of it, as he witnessed the disease in a patient who had long been subject to the common forms of hysteria. He thus describes it: "A few days after our first visit, we were summoned to observe a remarkable change in her symptoms; the attendants said she was dying, or in a *trance*. She was lying in bed, motionless and apparently senseless. Her eyes were open but no rising of the chest, no movements of the nostrils, no appearance of respiration could be seen; the only signs of life were her warmth and pulse; the latter was, as we had hitherto observed it, weak, and about 120.

The trunk of the body was now lifted, so as to form rather an obtuse angle with the limbs (a most uncomfortable position,) and there left with nothing to support it; there she continued sitting while we were asking questions and conversing, so that many minutes must have passed. One arm was now raised, then the other; and where they were left, there they remained. It was now a curious sight to see her, sitting up in bed, her eyes open, staring lifelessly, her arms outstretched, yet without any visible sign of animation. She was very thin and pallid, and looked like a corpse that had been propped up, and had stiffened in this attitude. We now took her out of bed, placed her upright, and endeavored to rouse her by calling loudly in her ears—but in vain. She stood up, but as inanimate as a statue. The slightest push put her off her balance. No exertion was made to regain it. She would have fallen if I had not caught her."

Dr. Gooch records, that she went into this state three several times. The first attack lasted fourteen hours, the second, twelve hours, the third, nine hours, with intervals of one and two days between them. The patient afterwards recovered.

There is another and milder form of this condition, in which the patient is unable to move or speak, but is conscious of all that is going on around. It has been called the *daymare*.

In what is called *ecstasy* the state is different. As the term imports, the patient is lost to all external impressions

and is wrapt and absorbed in some high object of imaginative contemplation. The muscles are sometimes rigid, at others relaxed; these patients often walk, speak and sing. This condition is not uncommon as forming a part of religious insanity. An eminent English writer remarks: "Nervous and susceptible persons are apt to be thrown into these trances under the influence of animal magnetism; and grave authors assure us that the intelligence which then deserts the brain, concentrates itself in the epigastrium; or at the tips of the fingers; that people in that state read letters which are placed upon their stomachs, or applied to the soles of their feet; answer oracularly, enigmatical questions; describe exactly their own internal organic diseases; and even foretell future events.

"I take it for granted that they who were in the habit of speaking, a few years since, in some of our places of worship, in what they called unknown tongues, were either gross imposters, and deserved to be publicly whipped, or persons laboring under this disease, and wanting physic." It is a curious fact that many of the Italian Improvisatori are in possession of their peculiar faculty only while they are in a state of extatic trance; and that few of them enjoy good health, or consider their gift otherwise that morbid.

Hysteria has been confounded with hypochondriasis, but the two diseases differ in quite a number of particulars. Hysteria attacks the sanguine and plethoric as well as those of a delicate habit; comes on soon after puberty; its attack is sudden and violent, with *globus hystericus*, etc. We find the reverse in hypochondriasis; it seldom occurs till after the age of thirty-five, and attacks the melancholic; comes on gradually; is a tedious disease and difficult to cure; its effects are mostly confined to the canal of the intestines; and it generally terminates in confirmed melancholy. Hysteria is much relieved by advancing age, whereas the other is usually aggravated.

Hysteria is not likely to be confounded with syncope or apoplexy, as the *peculiar* symptoms which attend it, do not occur in either of those conditions. In syncope there is an entire cessation of the pulse, and a ghostly counte-

nance ; in apoplexy there is a sort of snoring, and a quick pulse ; which do not occur in hysteria.

This affection differs from epilepsy, in that this arises from a more decided change in the brain ; there is a greater distention in the blood vessels of the brain ; a more frightful expression of the countenance, and drawing of the mouth to one side, rolling of the eyeballs, and grinding of the teeth ; while in hysteria the cheeks are red, but at rest, and the eye is fixed and quite natural.

Occasionally, hysteria is combined with some one or all of these diseases, and sometimes they are the cause of unfortunate results ; as persons have remained so long in the paroxysm, as to be thought dead, and have actually been buried* when life was not extinct.

The CAUSES of hysteria, are the *predisposing*, or such as give to the constitution a susceptibility to the disease, and the *exciting*, or those which more immediately bring on a paroxysm, when the susceptibility already exists.

1. *Predisposing causes.* It has been observed, that whatever destroys the general tone of the system, and in particular of the nervous system, especially if this be gradually produced, disposes the body to hysteria. Hence a too sedentary life ; over-stimulating diet, or much care ; the various emotions resulting from social, or *unsocial* life, as it should be called : as disappointed hope, prolonged anxiety ; the culture of belles-lettres ; great development of the intellect ; a vivid imagination ; the abuse of perfumes ; exciting drinks, alcoholic, tea and coffee, etc. ; abused affection ; grief ; terror, etc., are the most prominent causes of this kind. Some of these causes act by too much exhausting the nervous system, others by taxing its sensibilities too highly, and preventing it from acquiring its proper tone. Parents who have acquired disease, or debilitated constitutions, from these causes, are apt to engen-

* In the year 1745, *Lady Russel* remained for eight days without giving the slightest appearance of life, or the least sign of alteration. She was aroused by the sound of the bell of a neighboring church, whilst her husband, who vehemently opposed her inhumation, was holding her hand and bathing it with his tears ; she lived many years after this event. J. Raulin, speaks of an hysterical girl, whose funeral he postponed, because her color had not entirely changed. The author adds that in the course of a few hours the supposed corpse recovered her consciousness.

der this susceptibility in their offspring. Yet the condition is more owing to defective physical and moral education in early life.

From the influence of luxury, indolence, and sentimental reading, the hysterical susceptibility is becoming a common characteristic of the female inhabitants of cities, and gaining increased prevalence among the country population. A medical writer remarks: "Hysteria is undoubtedly mostly due to an indolent, luxurious, and enervating mode of life; and we may thank for this those (well-meaning though short sighted) persons, who so studiously oppose every effort for enlightening females upon the laws which govern their being, while they fill their hands and heads with mawkish and sentimental trash, yclept, 'the light literature' of the day. This absorbs their sleeping and waking moments, to the frequent exclusion of even a proper attention to the duties of exercise and cleanliness. What, then, can be expected, in our enervating climate, but a predisposition to nervous diseases? It must and does follow, and may be traced directly to such causes." Nothing is more true than this description, and it is sometimes, though rarely, produced in males by the same causes.

The causes of plethora sometimes induce the susceptibility to hysteria in nervous habits, particularly the convulsive form of the complaint; but more frequently the susceptibility is produced by the causes of debility before enumerated. In addition to those particularly noticed, may be mentioned others—as attacks of fever, excessive evacuations, or the long-continued use of sedative, depletory, or irritating remedies.

2. *Exciting causes.* When the susceptibility of the nervous system above described exists, a slight excitement is often sufficient to induce a hysterical paroxysm. It should be remarked that this susceptibility varies in different individuals; while some have a "fit" provoked by the slighter causes, others require that they should be powerful, or long-continued.

This condition is more common in women and children, than in men; and more common in all persons when in a state of weakness. It is most common in young women,

in whom, with a debilitated constitution, the process of menstruation is in some way or other disordered. So that we find a greater predisposition at the time of the menstrual periods, and immediately after delivery. Consequently, *sudden suppression* of the menses, *excessive*, and *altered* menstruation as in leucorrhœa, may be reckoned as common exciting causes, also forced continence, abuse of coitus, masturbation, and all circumstances capable of producing, maintaining or increasing irritation of the uterus and especially of the ovaria.

Many of those causes, also, enumerated as the *predisposing*, when they act suddenly, are conspicuous as *exciting* causes. Among them may be mentioned, emotions of the mind of whatever kind, as sudden grief, anger, fright, joy, or surprise of any kind, unrequited affection, jealousy, disappointment, reading of novels, erotic conversation, the sight of ghastly and bloody spectacles, sombre or too animated music; finally all the causes that produce violent emotions, or suddenly recall painful and lasting impressions.

The exciting causes of irritation in some important organ, are perhaps the most important in reference to the treatment, as they are more under the control of remedies than emotions of the mind.

Food, improper in *quantity* and *quality*, is perhaps the most common cause of irritation; as highly seasoned and exciting dishes; very salt meat and fish; iced creams, etc. Also, the use of iced and very hot drinks, as tea and coffee; alcoholic drinks, aromatic substances. The old proverb, "What is one man's meat", etc., is here particularly apposite. The human stomach, at times, is extremely capricious, while at others, it will suffer great abuses, and for a long time without resistance. In many nervous and dyspeptic patients, experience alone, is the only safe guide by which the food can be regulated.

One of the most common symptoms attending hysteria is the formation of wind and gas in the stomach and bowels, which is the effect of a certain condition of these parts; one is occasioned by relaxation, which suffers them to be distended by the disengaged air, during an imperfect digestion; the other, perhaps, is caused by the secretion,

or elimination of gas from the extremities of the vessels terminating upon the internal surface of the stomach and intestines.

Worms in the intestinal canal, and cancerous, as well as other obstructions, as of the liver, spleen, kidneys, etc., may act as exciting causes.

Those who labor under this idiosyncrasy of the nervous system, no matter how they arrived to it, are peculiarly unfortunate; as they are constantly liable to be affected by slight causes, which have no influence on others. Because these affections are not often dangerous, and the subject of them often enjoys otherwise very good health, she too often becomes the object of cruel and ill-directed ridicule. Authors mention instances in which such women have been thrown into "fits" by the odors of musk, ambergris, and even by the rose and lilac, when they could easily bear the stronger smell of tobacco. Others have been made violently sick by the very name of rhubarb, Peruvian bark, and even coffee. Boyle relates the case of a lady who, upon hearing the sound of a bell, or any loud noise, would swoon so deeply as scarcely to be distinguished from death. Another case is recorded of a young lady who always had a hysterical attack if she heard the clock strike five—her father having died at that hour. Such and similar cases are very numerous.

The force of imitation is very remarkable in propagating this affection: instances in hospital practice are numerous, wherein a whole ward-full of patients, upon viewing a hysterical paroxysm, have themselves been attacked so violently by it, as to require the most active means for restoring them.

There is no doubt that certain females, sometimes pretend hysteric attacks, for the purpose of exciting sympathy and obtaining the gratification of some desire; as coveted luxuries, compelling the parents consent to desired marriages, etc. This is certainly a mortifying discovery, and such cases are easily detected by the physician; they usually declining treatment, particularly if of a disagreeable character.

Notwithstanding hysteric paroxysms may sometimes be extremely awful to behold, they are seldom accompanied

with danger, and the disease never terminates fatally, unless it be complicated with more serious maladies.

TREATMENT.—The treatment of hysteria is divided into that which is proper in the *paroxysm*, and that which is required in the *intervals*, for the purpose of modifying the predisposition and removing the exciting causes.

1. In the *paroxysm* it is important to adopt such measures as may be necessary to prevent the patient from sustaining injury during the violence of the struggles. She should be in a cool and airy apartment, and have all tight dress loosened about her person. When the paroxysm is very severe it is not possible to administer remedies by the mouth; but cold water dashed on the face, or the cold *douch* to the head, applied by pouring water from a height, from the spout of a tea-pot or other convenient vessel, will often be useful in rousing the nervous system and abridging the paroxysm. For the same purpose, preparations of ammonia may be held to the nose, unless there be much determination of blood to the head, when it may be injurious. As soon as the patient is able to swallow, the attack may be shortened by the administration of half an ounce of mixture assafœtida, frequently repeated; or half a tea-spoonful of ether, with ten or fifteen drops of laudanum; or a draught containing a tea-spoonful of the ammoniated tincture of valerian. When the patient cannot be made to swallow, great good may be effected by enemata: as two drachms of assafœtida and half a tea-spoonful of laudanum with half a pint of water, mixed by means of the yolk of an egg; or half an ounce of turpentine, prepared in the same manner; or the same quantity of cold water thrown into the rectum, and applied externally to the abdomen, will often bring the fit to a speedy termination. There is almost always costiveness, or other derangements of the bowels, for which active purges are requisite: the infusion of senna, and castor oil are to be preferred. When there is a formation of much wind and a tympanitic state of the abdomen, there is no remedy better than the oil of turpentine, by the mouth and rectum.

Blood-letting has been recommended, but requires to be used with caution. When decided signs of plethora exist, with much determination of blood to the head during the

paroxysm, the system is put in a better condition for the above mentioned antispasmodics, by the previous loss of a few ounces of blood. Dr. Whytt thinks that there is no remedy so effectual as the warm foot bath, which should be used along with the other remedies. When the paroxysm depends upon indigestible food in the stomach, an emetic should be given as soon as the patient can swallow. When vomiting attends the attack, it should be encouraged by draughts of tepid water, until the stomach be cleansed. In lingering cases, it becomes necessary to apply sinapisms to the feet, and sometimes blisters to the calves of the legs. Also, when there is tenderness about the spinal cord, counter irritants are very useful.

When the patient has warning of the approaching paroxysm, it may frequently be interrupted by a timely dose of laudanum, assafoetida, or Hoffman's anodyne liquor. When laudanum disagrees, morphine may be substituted, in doses of one-fourth of a grain.

In those cases where hysteria depends upon a *suppression* of the menses, *excessive* menstruation, or *leucorrhœa*, the treatment must be modified as elsewhere directed. (See those chapters.) The patient often receives injury from the violence of by-standers in attempting to unclench the hands, etc.; such attempts are highly improper, as they are every way calculated to do mischief, and never to do good. There should be in attendance a sufficient number of persons to control the movements of the patient, without violence. Every thing should be done quietly, and no aggravating remarks should be made to irritate the affected person.

In the treatment of that long catalogue of affections, which are not real, but simulated by hysteria, the cold *douche* is a most valuable resource. Those cases wherein limbs are incapable of motion, from having been permanently contracted for a long time, will generally yield after a few minutes application of cold water. Dr. Clark cured a case of *locked jaws*, after all other remedies had failed, simply by placing the head of the patient over a tub and pouring cold water on her face. It often requires some determination to put this expedient into practice, as the patient is apt to look upon the author of it as a mon-

ster of cruelty. The transmission of electrical shocks through the part affected is, also, sometimes effectual.

In the *moral management* of hysteria, it is important to temper kindness with firmness, and to avoid a parade of sympathy. Of all the spasmodic affections, this is most readily propagated by *sympathy*. If, in the large ward of a hospital, one girl goes off in a "fit," half a dozen others perhaps, or all who happen to possess the hysteric susceptibility, will have a strong inclination to follow her example. A stern nurse, or an order that the cold affusion, or some more disagreeable application, shall be employed, will keep the complaint greatly in check; and on the other hand, great sympathy with such patients has a striking effect in encouraging the paroxysms. These facts show that the "fits" are not wholly wilful, neither are they wholly conquerable. (*Watson.*)

2. Respecting the management of hysteric patients in the *intervals*—after having spoken of the remedies most beneficial for giving tone and firmness to the system in treating of *deranged menstruation, leucorrhœa* and *chlorosis*—we have here but little to say. The great object to be aimed at, is the restoration of the nervous system to the requisite degree of stability, necessary to overcome the acquired susceptibility.

The mind, if possible, should always be diverted from the contemplation of the ills of the body. A due intercourse with society, in such a manner as to divert without exciting, is desirable. The patient should be aware, that for a cure, vastly more depends upon her judicious management of the moral faculties, and proper employment of the physical powers, than can be effected by medicine; she should be informed how much depends upon herself, by not yielding to sudden impulses, emotions of the mind, and destructive forebodings. The physical, exciting causes, improper practices, or whatever they may be, should also be avoided.

The remedies must be directed to the nervous system, through the medium of the stomach, skin, and the mind. They will consist of tonics, antispasmodics, the cold bath, and agreeable impressions on the mind. The tonics will consist of the various bitters, preparations of iron, iodine

and food ; such as Peruvian bark, sulphate of quinine, gentian, orange peel, columba and quassia ; the carbonate, sulphate, citrate and wine of iron ; the compound tincture and syrup of iodine, etc. The antispasmodics, are asafoetida, valerian, ether, castor, etc. The food should be only such as agrees and is easy of digestion ; such as poultry, mutton, venison, soft boiled eggs, tomatoes, and bread made from unbolted wheat flour.

Much good may be expected from the steady employment of the shower bath. The bowels must be kept regular, by the employment of aperients composed of aloes and rhubarb ; a constant attention to this is most important. An attention to the following points is also of great consequence : a well regulated course of exercise, both on foot and on horse-back ; the avoidance of hot rooms and late hours, both in respect to going to bed, and to rising from it ; the avoidance of moral emotions, of novel reading and of all the other numerous modes of mental and bodily dissipation, which accompany and lessen the blessings of civilization. Marriage sometimes proves a cure ; when this is the case it is probably by satisfying the affections of the heart.

The susceptibility to hysteria, may be more easily prevented than cured ; in a great majority of instances it is the result of injudicious management in early life. Parents do not foresee the misery they are laying up for their daughters, in pampering them with stimulating food, allowing modes of dress which unduly compress the most important organs of life, and filling them with fashionable accomplishments. Too much time is devoted to sedentary employment, and the perusal of works of fiction is too often substituted for more solid attainments, which produce a fondness for injurious excitement.

We will close this chapter by quoting some remarks made upon this point by Sir B. Brodie. After remarking that no better service can be rendered society, than by explaining to parents how much the ordinary system of education tends to engender the disposition to this disease among their female children, he says : "The boys are sent at an early age to school, where a large portion of their time is passed in taking exercise in the open air ;

while their sisters are confined to heated rooms, taking little exercise out of doors, and often none at all, excepting in a carriage. Then for the most part, the latter spend much more of their time in actual study than the former. *The mind is over educated at the expense of the physical structure*; and after all, with little advantage to the mind itself; for who can doubt, that the principal object of this part of education ought to be, not so much to fill the mind with knowledge, as to train it to a right exercise of its intellectual and moral faculties; or that other things being the same, this is more easily accomplished in those whose animal functions are preserved in a healthy state, than it is in others.

CHAPTER XI.

NYMPHOMANIA, OR FUROR UTERINUS—NATURE—CAUSES—SYMPTOMS AND TREATMENT.

By NYMPHOMANIA or furor uterinus, is understood, an exaggerated, voluptuous sensation, accompanied by venereal desire, which is irresistible and insatiable. We have spoken of a complaint, (Chapter VI. Part II.) *pruritus of the vulva*, which has been often confounded with this affection, though it is of a very different character.

Some authors have placed the seat of this disease in the brain, while others fix it in the genital organs. Modern authors, however, amongst others, M. Colombat, in whose opinion we ourselves agree, regard it as resulting from a simultaneous irritation of the brain and sexual organs. The above named author, observes: "This morbid exaggeration of the venereal appetite, this *astus eroticus*, is less a disease than a symptom, for the manifestation of which, is required the concurrence of the brain and the organs to which erotic sensations are referred. The point of departure is sometimes in the brain, and sometimes in the uterus and its appendages. In the former case, the disease is developed under the influence of moral causes which secondarily irritate the genital parts, and in the latter, it

is a primary irritation of the organs of generation reacting sympathetically upon the brain, and especially on the cerebellum.

“The affection, which may appear at all ages, generally attacks women of an original *uterine* temperament, which is determined by the predominance of the sanguine system, and extreme irritability of the abdominal viscera. Women of this constitution have certain characteristics; their stature is small, their skin dark, and their complexion highly colored; in them the breasts and all the attributes of puberty have been developed at an early period; the clitoris and the nymphæ, which are generally of abnormal length, are endowed with exquisite sensibility. Young widows, who have to regret frequent engorgements, public girls who have been suddenly deprived by forcible seclusion of venereal pleasures, to which they had abandoned themselves to excess, ardent women, married to men whose cold and feeble constitutions prevent often-repeated sexual connexion, and finally those who are attacked with some chronic cerebral affection, are most exposed to this frightful disorder, especially when they inhabit warm climates, in which the passions are most vivid and the imagination most exalted.”

The genital organs of some women, acquire such a preponderance, as to make it always impossible for them to control the intensity of the erotic flame which devours them; such was the young girl of whom Buffon speaks: “I have seen, and I have regarded her as a singular phenomenon, a girl of twelve years of age, a dark brunette, of a bright and highly colored complexion, of small stature, but already fully formed, with a rounded neck and embonpoint, perform the most indecent action at the simple appearance of a man; nothing could control her in this, neither the presence of her mother, nor remonstrances, nor punishments. Yet she did not lose her reason, and the attack, which was carried to such a point as to be frightful, ceased the moment that she remained alone with women.” Such also, was the shameful and disgusting Messalina, who was accustomed to escape during the night from the bed where slept her stupid lord, the Emperor Claudius, and disguised in the dress of a courtesan,

hastened to encounter the brutality of the vilest debauchery.

CAUSES.—These may be divided into the *predisposing* and *exciting*, or those which act upon the brain, and secondarily the sexual organs, and those whose action is felt primarily upon the uterus and its appendages.

In the former, should be included all circumstances capable of producing an exaltation of excitement in the brain and nervous system; such as the reading of lascivious and impassioned works, viewing of voluptuous paintings, romantic conversations, associating with corrupt companions, frequent visits to balls or theatres; disappointed love; the too assiduous cultivation of the fine arts; the influence of imitation on beholding it in others; the abuse of aphrodisiac remedies, or of spirituous liquors, or of aromatics and perfumes which excite too much the brain and general sensibility.

The causes whose action is directly upon the genital organs, and which may afterwards react sympathetically upon the brain, are masturbation, the abuse of coition, pruritus of the vulva, inflammation of the nymphæ, clitoris, neck of the uterus and ovaries; we may add, the irritation of ascarides in the rectum; and finally the use of drastic purgatives, and the internal or extensive, external employment of cantharides.

SYMPTOMS.—At first the female experiences venereal desires, especially at the periods of menstruation, which her prudence induces her to conceal. The care which she takes at this period to hide the obscene ideas that constantly disturb her imagination, renders her sad, taciturn and melancholy; she loses her appetite and sleep, and seeks solitude. After the disorder has made some progress, far from seeking to hide her irresistible passion, the patient employs all her address to make it known by frequent sighs, by encouraging proposals, by voluptuous attitudes, and finally by complete forgetfulness of all modesty. At the sight of one of the male sex her pulse is agitated, her face becomes more animated; her respiration hurried, her senses are obscured, she makes indecent gestures and proposals; finally, when the paroxysm is at its height, she strikes and tears everything that opposes

her, and at last falls into furious delirium. There are certain other symptoms, as a sensation of pruriginous heat in the loins, hypogastrium and breasts; the genital parts, which are red, swollen and constantly irritated from handling and illicit manœuvres, are generally the seat of a fetid, and sometimes a purulent discharge. Finally, there is ardent thirst, grinding of the teeth, spasm of the esophagus, and, in some cases hydrophobic symptoms. The attacks of furor uterinus frequently follow each other with great regularity, and sometimes terminate fatally; especially is this the case when there is organic disease of the uterus or its appendages.

We remarked that nymphomania had been confounded with *pruritus*; but they are generally easily distinguishable. In the former there is a voluptuous sensation, accompanied by venereal desire. Pruritus on the contrary is characterised by an indomitable itching, seldom accompanied by voluptuousness; indeed, there is most often, great repugnance to venery.

TREATMENT.—This is to be applied, according to the seat of the malady, to the brain and nervous system, to the reproductive organs, or to both.

In general, greater good may be expected from HYGIENE than from drugs, which are not so successful in opposing a disease whose source lies in moral causes. Some means of diversion should therefore be devised, capable of turning aside her imagination from lascivious thoughts; for this purpose, should be recommended constant occupation of some kind, travelling, walking, etc. The reading of romances; balls and shows, the society of men; the viewing of voluptuous statuary; and every thing capable of producing erotic excitement, should be avoided with the greatest care. Their thoughts, if possible, should always be employed with something foreign to their *passion*, and they should be allowed only to associate with persons of their own sex; they should take frequent and prolonged warm baths, with cold affusions to the head, while in the bath. They should use cold and sedative drinks, emulsion of almonds and marsh mallows with nitrate of potash, or a few grains of camphor, and enemata of the same nature; finally, whey, broths made of beets and sorrel, and

of chicken or veal with nitre; lemonade; a milk and vegetable diet, etc.

General bleeding, and the application of leeches to the back of the neck, or behind the ears, are useful, especially when the brain is considerably affected. Frequent saline purging, is also not to be neglected.

When the disease depends upon local causes, as venereal excitement, masturbation, leucorrhœa, prurigo, the presence of worms, etc., in addition to the above, sedatives may be applied with good success; as injections of starch or mucilage with laudanum, decoction of poppy-heads, of cicuta, of hen bane, etc.; or cloths saturated with any one of these may be applied to the genital parts. Also the employment of enemata of milk with a few grains of camphor, and the careful internal administration of camphor and opium will be found useful. Finally, for the purpose of quelling the erotic desires, Dr. Coster has proposed the employment, internally of tartar emetic, one or two grains in a pint of water, to be taken in teacupful doses, every hour, so as to excite nausea, without occasioning vomiting.

Everything capable of exciting the genital organs must be studiously avoided; soft mattresses, feather beds, and beds of down must be forbidden, and those made of straw or simple hair mattresses, substituted. In desperate cases it is sometimes necessary to use an apparatus, a sort of wire work, whose meshes are so close as to prevent the passage of the finger. Let us repeat, that the strictest regimen should be observed, a milk and vegetable diet, with abstinence from stimulating food and drinks of every description. During the intervals of calm, the patient should be reminded of her duty to herself and family, which is dishonored by her shameful practices, and, also, how much depends upon her own efforts in controlling her propensities. Though marriage has sometimes proved a remedy for nymphomania, it is a means that should only be resorted to when we are fully assured of its applicability.

CHAPTER XII.

HYSTERALGIA, OR IRRITABLE UTERUS—SYMPTOMS—CAUSES, AND TREATMENT.

THIS disease, known, also, as *neuralgia* of the uterus, is principally characterized by pain in that organ; it was first described by Dr. Gooch, who defines it, "a painful and tender state of the uterus, neither attended by, nor tending to produce change in its structure." By writers anterior to his time, it was confounded with, and regarded as a kind of chronic inflammation.

This disease occurs in females of every temperament, and may appear at any time within the menstrual age; the young and middle aged, however, are most subject to it—the aged being rarely attacked.

SYMPTOMS.—This affection, at times, is one of extreme suffering. There is pain in the lower part of the abdomen and loins, which usually comes on a few days before or after menstruation, and from which the patient is never quite free. It is subject to aggravations, from mental excitement and bodily exertion; hence the patient is induced to give way to the relief afforded by repose. The result is, that by the pain, the want of exercise and fresh air, the general health is broken; and a languid circulation, constipation and dyspepsia are super-induced.

Upon examination, the uterus is found tender from slight pressure. Sometimes the neck and body are slightly swollen, but not hard; the mouth of the uterus, and vagina are found healthy. The disease may continue for months or years, it may be subdued by medical treatment, or it may subside spontaneously. It is a sure cause of barrenness, but it does not terminate in organic disease of the uterus, or endanger life.

Leucorrhœa sometimes, though not always, accompanies this disease. It may be distinguished from acute and chronic inflammation of the uterus, by the absence of

heat and throbbing, and by the stationeriness and long-continuance of the symptoms, without a tendency to disorganization of the organ. From "painful and difficult menstruation" it is distinguished by a continuance of the pain, more or less severe, throughout the interval. From displacements of the uterus and vagina, by the natural position of those organs in this affection.

From a comparison of this malady with long-continued and painful affections of other parts of the frame, it must be inferred to be nervous. Thus, the breasts, the spine, and the various joints, may be the seat of acute pain, which may endure for many years without being accompanied by organic change.

The CAUSES of this disease are often obscure. The most appreciable are, bodily exertion during menstruation, or too soon after abortion and delivery; excessive coition, and an improper use of astringent injections. It may, also, come on after great fatigue merely, such as long journies, dancing, dissipation, late hours, etc.

TREATMENT.—There are few diseases so tedious of cure and liable to relapse, as this. The indications are—1. to relieve the pain; 2. to restore the constitutional condition.

1. The violence of the pain must be allayed by absolute rest during the paroxysm, and narcotics, such as opium, hyosciamus, morphine, etc., either alone or in combination, with camphor or asafœtida. If the stomach be too irritable, they will be found equally as efficacious by injection into the vagina or rectum. Opium and belladonna plasters, or hop and poppy fomentations, to the sacrum and abdomen, are also useful. Counter irritation should be practiced by means of small blisters or dry cupping to the loins. Much relief will be afforded by vaginal injections of warm water alone, or a solution of morpnine (two grains to the ounce,) if the pain be severe. The warm hip bath, will often procure relief. The bowels should be kept open, by the mildest means, as all active purgation in this disease is invariably injurious.

2. Although, during a severe paroxysm of pain, close confinement is indispensable, in the horizontal posture, this should not prevent the patient from being often carried into the open air and taking moderate carriage exercise,

particularly as soon as there is an abatement of the most violent symptoms. A generous diet, but so as not to burthen the stomach, fresh air, and a gradual course of tonic medicines, (iron preparations are preferable,) are the best means of treating the constitutional condition accompanying this obstinate disorder.

There is another affection of the uterus, much resembling this, which might be, perhaps, more properly named *rheumatism of the womb*. The plan of treatment is the same as above recommended.

THERE is a painful state of the vagina sometimes met with, analagous to the affection of the uterus just described; and which might be termed *Irritable Vagina*. It is characterized by extreme tenderness, when the lining membrane is touched by the finger, and a hysteric attack not unfrequently follows *coitus*. In some it is developed by marriage, and in others by child-bearing, or both. The treatment is mainly the same as above directed for Hysteralgia.

SECTION II.

ORGANIC DISEASES.

CHAPTER I.

INFLAMMATION OF THE UTERUS—FALLOPIAN TUBES AND OVARIES—ACUTE AND CHRONIC—CAUSES—SYMPTOMS—TERMINATIONS AND TREATMENT.

THE diseases of the INTERNAL GENITAL ORGANS which we have hitherto considered, are the FUNCTIONAL; and are not attended with structural changes of so serious a nature as to prevent a complete restoration. The line of distinction between the *functional* and *organic* is not always so apparent as might at first appear. This arises from the complications to which all of these disorders are more or

less subject, which give them a tendency to produce disorganization. The diseases of these organs now to be considered, are the ORGANIC ; and though mostly curable in their earlier stages, they are far more serious than the other class, often, for a long time, resisting the best appliances of art for their relief.

INFLAMMATION of the *acute* form, in the unimpregnated uterus is a rare disease ; *chronic* varieties, however, are frequently met with. It may attack the mucous or serous coats alone, or in connection, the proper tissue of the uterus ; it may occupy the body or the neck, or both. Its occurrence is very rare, till after marriage, and it scarcely ever appears before the age of puberty.

CAUSES.—Blows externally and local contusions most frequently give rise to it ; it is oftener produced soon after marriage, than at any other period. Cold taken during menstruation by improper exposure, may, by suppressing the secretion, convert the periodic congestion which precedes the eruption of that discharge, into active inflammation.

Dr. Colombat enumerates the following causes: "Irritating injections ; suppression of the discharge of piles ; leucorrhœa ; the use of violent medicines to force the menses, or to procure abortion ; too frequently repeated coitus ; relative disproportion of the organs ; solitary enjoyment ; celibacy ; widowhood ; sudden cooling of the extremities ; cold bathing of the lower parts of the body ; cold general baths, and iced drinks, especially during menstruation ; fatigue walks ; violent exercise on horseback, or in carriages without springs ; excessive dancing ; loss of sleep ; wounds ; the application of a pessary ; heating and stimulating food ; spirituous drinks ; coffee ; wine ; and strong moral disturbances, which may suspend the flow of the menses, of the lochia, etc.

SYMPTOMS.—In the *acute* form, the attack commences with chills, succeeded by feverishness, heat and uneasiness in the pelvic region, and pain in the back and lower part of the abdomen, extending to the groins, and down to the thighs. There is more or less tenderness on pressure.

Upon examination, the uterus will generally be found

increased in size, and often somewhat depressed in the pelvis; the mouth more open than natural, and the neck tender to the touch.

The constitutional symptoms vary; there is seldom much fever, and though the pulse may be somewhat quicker, than usual, it is very often unaffected. The menses sooner or later become suppressed, when we have all the symptoms consequent upon that condition.

The local irritation is soon imparted to the neighboring organs; the vagina, rectum, urethra and bladder participate, giving rise to pain and difficulty in discharging the fæces and urine.

Distant organs also sympathize; the breasts swell and become painful; there is nausea with a diminished appetite; the bowels become constipated; and the general health differs very much.

Chronic inflammation of the uterus is much more important than the acute; not only from its more frequent occurrence, but also from its being often found complicated with various other organic diseases of this organ, adding to the distress, and accelerating their progress. It is often very insidious, giving irregular indications of its presence; we may have nearly all the symptoms enumerated under the acute form, but they are less marked.

The CAUSES of the *chronic* form, may be divided into *predisposing* and *exciting*; the latter are the same as enumerated under the *acute* form. The predisposing causes, are depressing moral emotions, a scrofulous constitution, or lymphatic temperament, syphalitic diathesis, a cancerous predisposition, improper aliments, dwelling in low, damp and unventillated places, tight corsets, and reading novels which produce uterine phlogosis.

Menstruation is more or less disturbed, and there is often a vaginal discharge. This slow inflammation, from the sympathetic influence of the uterus when irritable may give rise to a variety of nervous symptoms; the female becomes fretful and capricious, and often hysterical. Such symptoms may also indicate other serious affections of an obscure character, and comparative rare occurrence; so that it often becomes necessary for the female to submit to a manual examination, for the purpose of ascertain.

ing the real condition of things. No female should neglect to submit at once to a step so necessary for her proper treatment; as, of course, the utmost propriety is observed by every gentleman who is obliged to resort to such an examination.

“We may often justly suspect the existence of this slow inflammation of the uterus, from the fretful and capricious disposition of females who have previously been of an equable and happy temperament. It was said by the ancient physicians, that the ‘uterus was an animal within an animal,’ so well were they convinced of its surprising power over the affections and sentiments. Nor does it seem at all inconsistent with the perfect harmony of nature’s laws that it should be so. When we reflect on the inconceivable wonders of its functions—that within its cavity, nature, with her plastic hand, gives the first evidence of her power to attach an immortal spirit to those very elements of which the meanest insect, or even a blade of grass is, also, formed—we may, with great propriety demand why the whole organism should not respond to its slightest affection.”

Inflammation of the uterus frequently terminates in *resolution*. There are other conditions, however, consequent upon this disease, which, though rare, from their importance, deserve notice.

The uterus may become *indurated* or *enlarged*, either temporarily or permanently; the former is supposed frequently to give a disposition to cancer. This augmentation in volume, may, from its pressure upon the bladder and rectum, give rise to incontinence of urine and constipation. It, also, favors displacement of the organ.

This disease may, also, terminate in *softening* of the substance of the uterus; in *abscess* and *gangrene*—though rarely. It may be distinguished from other organic diseases of this organ by a thorough examination, and investigation into all the symptoms.

TREATMENT.—The activity of the treatment will depend upon the severity of the attack and upon the constitution of the patient. Venesection will only be necessary where there is considerable fever.

In the *acute* form, cupping the loins, or leeches to the

vulva, to be repeated if necessary, will be found useful. Or the leeches may be applied directly to the uterus itself by means of the speculum, as advised by French authors. Mild saline purgatives will, also, be necessary to evacuate the bowels. Benefit has been derived in this form from the administration of opium and tartrate of antimony in combination (one grain of opium to one-fourth grain of the antimony, in pill) repeated every hour or two, till sleep was obtained. Diaphoretics are always useful, as liquor acetate ammonia, and Dover's powder. Local poppy fomentations, and hip baths, frequently repeated, are, also, useful; as, also, are vaginal injections of decoction of poppies with a small quantity of laudanum.

In all *chronic* cases, as well as acute, after the employment of antiphlogistic remedies, much benefit may be derived from counter irritation to the loins, by means of mustard poultices, croton oil, etc. If blisters be used, the flies should be carefully removed before the vesication takes place, or tissue paper interposed, to prevent strangury. The application of leeches, or scarification at the mouth of the uterus is, also, very useful in this form. When permanent thickening, or enlargement of the uterus has taken place, along with a proper dietetic regulation, great benefit may be expected from the exhibition of iodine. The use of it, in some of its various forms should be perseveringly prolonged. The diet must be simple yet nourishing. The patient, if married, must live *absque marito*, and strenuously avoid excitement of every description. At an advanced stage, all means should be employed which are calculated to improve the general health.

INFLAMMATION OF THE FALLOPIAN TUBES AND OVARIA, sometimes occurs independently of affections of the uterus; most frequently, however, from their proximity to the latter, they are affected by an extension of the more acute disorders of the uterus. Under these circumstances, no good would result from giving an extended description of the disease, as the *causes*, *symptoms* and *treatment* are about the same as just enumerated. The exact seat of the affection can rarely be detected till after death.

The FALLOPIAN TUBES may be attacked by *acute* inflam-

mation, which may pass into the *chronic* form and terminate in the formation of *pus*; the abscess may open into the peritoneum and prove fatal, or it may discharge externally; or, the inflammation may give rise to adhesions and obliteration of the canal of the tubes,—thus cutting off all communication between the uterus and ovaria, rendering the woman barren.

The OVARIA are, also, liable to attacks of inflammation which may terminate in *softening* or *abscess*. Under these circumstances, there is more or less pain, tenderness and swelling of the side; and from five to ten quarts of pus have been discharged. The abscess may burst into the peritoneum and prove fatal; but it more frequently establishes a communication with the uterus, bladder or rectum, and thus escapes externally.

During the *acute* stage of these attacks, active antiphlogistic remedies and fomentations must be employed according to the severity of the symptoms; in the *chronic* form, we should have recourse to counter irritation, the use of iodine internally, etc.—as directed under “inflammation of the uterus.”

CHAPTER II.

SIMPLE ULCERATION OF THE NECK OF THE UTERUS—CAUSES, SYMPTOMS AND TREATMENT.

THERE is a chronic inflammation of the neck of the uterus followed by simple ulceration, which is much more common than inflammation of the womb generally, described in the last chapter; though it is not often that the symptoms become so marked as to excite the fears of the patient, till after the ulcerative process has commenced. If an opportunity be afforded at an early period, of examining with the speculum, a circle of a deep red color, having a puffy feel, with small superficial specks of ulceration, will be observed around the mouth of the uterus.

The disease is not confined to any one temperament, but occurs mostly during uterine activity, and more frequently

after sexual commerce has given the uterus additional irritability. The ulceration is mainly confined to the neck, and is often owing to local irritation from shocks to which this part is exposed; and, as might be expected, prostitutes are particularly obnoxious to it.

The CAUSES are, local irritations from pessaries, *contrivances to prevent conception*, etc. In addition to these, cold taken during menstruation, from insufficient clothing and wet feet; the improper use of astringent injections; masturbation, etc., are prominent causes.

The SYMPTOMS, during the inflammatory stage, are occasional shivering, alternating with heat; a dull pain and weight in the loins and lower part of the pelvis, with itching of the external parts; and sometimes the abdomen appears swollen. The presence of leucorrhœa, especially later in the disease, is not uncommon.

The mouth of the uterus is found more open than natural, and tender upon pressure; marital intercourse is attended with severe pain. All these symptoms are aggravated upon the occurrence of ulceration.

Upon examination, by passing the finger carefully over the ulcerated surface, a degree of roughness, with depression will be felt, unless it be very superficial. When the finger is withdrawn it will generally be covered with a yellowish white matter, sometimes streaked with blood.

The disease is distinguished from the *corroding ulcer* by the limited depth and extent of ulceration, absence of hemorrhages, by the discharge being inodorous and the constitutional symptoms not severe; whereas, in corroding ulcer, we find an aggravation of all these symptoms. What constitutes the difference between these affections, or whether the conversion of simple ulceration into corroding ulcer ever occurs, it is at present impossible to say. This we know, that the former is comparatively of trifling moment, while the latter is of such malignancy as to destroy a great part of the uterus, despite of all our efforts.

It is distinguished from *cancer* by a comparative mildness of all the symptoms. Also, from *syphilitic ulcer* by the irregular boundaries and rough edges of the latter.

TREATMENT.—During the inflammatory stage, active measures may anticipate ulceration. Cupping the loins,

or the application of leeches to the vulva, or to the neck of the uterus itself, should be immediately resorted to. This should be followed by hip baths, emollient vaginal injections, and the exhibition of saline laxatives; and when this is done, counter irritation to the sacrum, by blisters, etc. By these means, the swelling and tenderness of the neck may often be lessened.

When *ulceration* has taken place, emollient vaginal injections should first be used; then the milder astringent ones may be tried; such as sugar of lead, sulphate of zinc, copper, etc. Or astringent ointments may be applied directly to the ulcers by means of the speculum; such as the sugar of lead, etc.

If the disease resist milder remedies and have made considerable progress, it will be necessary to cauterize the ulcerated surface. This is best done by the use of the speculum, when the caustic* may be applied to the seat of the disease, without injuring healthy parts. The nitrate of silver, butter of antimony, nitric acid, or caustic iodine may be applied in this manner, great care being taken to limit the application to the parts affected. Some have been very successful in the use of the per-nitrate of mercury, applied by the means of a camel-hair pencil. These medicines judiciously employed rarely fail of giving relief.

Occasional bathing will be useful throughout the disease. The bowels must be kept in a soluble condition by mild aperients, without purging. When the general health appears to suffer, the internal exhibition of sarsaparilla, and other alteratives should not be neglected, though the principal reliance must be placed upon local applications.

*Dr. Lisfrank has mentioned the following circumstances as forbidding the use of caustic: 1. If there be much engorgement of the uterus; 2. If there be sufficient inflammation to give rise to pain; 3. The caustic is not to be applied within four or five days of the appearance of the menses, nor for three or four days afterwards.

CHAPTER III.

PROLAPSUS OF THE UTERUS—NATURE—CAUSES—SYMPTOMS AND TREATMENT.

THE situation of the uterus and its mode of support, when maintained in the normal condition, are admirably adapted to the functions it has to perform. It possesses four ligaments, which are broad expansions of the peritoneum, fixing it to the sides of the pelvis, which are of necessity elastic, being adapted to the purposes of child-bearing. These very circumstances, though sufficient under the conditions designed by nature for retaining it in place, in our present perverted state of existence render it peculiarly liable to displacement. Most, or all of the debilitating causes so often adverted to in this volume, to which females are subject, are concerned in giving rise to a state of system decidedly favorable for the supervention of this condition. In addition, the uterus is subject to the impulses and pressure of the abdominal and pelvic viscera. The bladder, with which it is so intimately connected, may exceed its natural fulness and push the uterus backwards; while the rectum when excessively loaded may act in the same manner in the opposite direction. The vagina, an organ of diversified function, may become relaxed and permit a descent within or through its canal of the prolapsed womb. Add to these causes the relaxation of the perineal muscles and abdominal walls and the weight, and alteration of position of the uterus, during pregnancy, independently of tumors, and there can be no wonder that the uterus, of all the organs of the body, is most exposed to displacement.

It may be thought somewhat out of place to treat of some of the displacements of the womb in this place, they being so intimately connected with pregnancy and parturition; but we think, that the convenience of not separating the discussions on these subjects, more than counter

balance any considerations of this nature, and have preferred to give them all in one view.

IN this chapter we shall speak of *prolapsus of the uterus*, which is the most common form of displacement to which the womb is subject. The other forms will be treated of in succeeding chapters.

This displacement of the uterus has been designated by various terms: *Prolapsus*, *Procidentia*, and "*falling down of the womb*," are the most common. It consists simply in a depression of the uterus below its natural level in the pelvis. To an adequate understanding of all the circumstances which may influence this condition, it is important to be acquainted with the natural situation of the womb, and its relation to surrounding organs. See *Figs. 2 and 3 with descriptions at page 22 and 27.*

The uterus is situated nearly in the centre of the cavity of the pelvis, its mouth being from four to six inches from the external parts. Its body is supported by the *broad and rounded ligaments*, while its neck rests upon the vagina; so it is evident that this organ cannot descend without a rupture, or extension of its ligaments (the latter takes place) and except by pushing the vagina before it, or by passing itself into the canal of the vagina.

Prolapsus may be divided into *imperfect* and *perfect*, for the purpose of indicating different degrees of displacement. By the former is signified, that though the uterus has advanced considerably downwards it continues to remain within the cavity of the vagina; by the latter, that it has descended below the orifice of that canal so as to completely protrude beyond the labia, turning the vagina inside out. The symptoms of each differ little, except in intensity.

Every degree of prolapsus of the uterus is met with, from those cases in which the mouth of the uterus descends a little lower than its natural situation, to others wherein the mouth of the organ projects through the external parts, dragging with it the vagina, and forming a large tumor between the thighs of the woman equal in size to a large melon." This will cause an alteration in the relative situation of the parts within the pelvis and of the abdo

minal viscera, both regarding each other, and also, the containing parts, as the parietes of the abdomen and the bones of the pelvis. The bladder instead of being retained in the pelvis, falls down into the external tumor dragging with it the meatus urinarius; so that in order to introduce a catheter into the bladder, the point of the instrument must be turned towards the knees of the woman. The rectum instead of following the curve of the sacrum, first dips down into the posterior part of the tumor, and afterwards ascends into the pelvis. The Fallopian tubes and ovaria will of course, be dragged down with the uterus, and the centre of the tumor will be filled up by the small intestines which hang down into it (the mesentary being stretched)—whilst the omentum will occupy any vacant space which may be left. (*Clark.*)

It occurs in all ranks, and most frequently in females beyond the middle age, who have borne children. (*Churchill.*) It has been met with in women who have not borne children, and even in maids. (*Capuron.*) Dr. Monroe mentions a case which occurred in a child three years of age. Of all the chronic diseases arising from a local cause, to which women in civilized society are liable, prolapsus uteri, or displacement of the womb, is perhaps the most frequent. (*Hamilton.*)

CAUSES.—The immediate causes of this disease are—1. Relaxation of the broad and round ligaments above. 2. A want of due tone in the vagina below. By the first the uterus is permitted to fall, and by the second the uterus is allowed to be received into the cavity. (*Clark.*)

The relaxation of the muscles at the floor of the pelvis, and of the vagina is probably the more important cause. After repeated leucorrhœa, menorrhagia, repeated child-bearing, etc., the levator-ani muscles, and the canal of the vagina, become much debilitated and the walls of the uterus with its ligaments become less resisting than before. Weakness and loss of power of the supporting muscles of the floor of the pelvis, and of the abdomen, in consequence of general debility of the system are unquestionably the most prominent causes. These muscles from their rigidity and contractile powers, are essential aids in keeping the organs of the abdomen and pelvis in their relative position

and sustaining them against the contractions at stool, during labor, and of the diaphragm above. Every time we breathe, sneeze, cough, etc., the diaphragm is forced downwards, which presses the intestines upon the uterus and bladder; and if the natural supports of these organs be any way weakened it is easy to conceive that their displacement is inevitable.

In addition to the causes of prolapsus, incident to a married life, such as increased weight of the uterus in pregnancy, ill-managed labors, walking too soon after delivery or abortion, etc., a prominent place in the list, is due to those causes referred to in almost every chapter of this volume, which exhaust and debilitate the female constitution in early life; they are defects in physical education; precocious excitement, physical and mental; masturbation; too early marriage; improper diet, dress, etc., etc.

“The mania that exists for precocious education and marriage, causes the years that nature designed for corporeal development, and corresponding intellectual vigor, to be wasted in the restraints of dress, the school and the ball-room. With a body not half clothed, and a mind intent on pleasure, the hours designed for sleep are perverted by the midnight revel. * * When one is finished, another in perspective keeps the mind morbidly sensitive to impression, whilst the constant restraint of fashionable dress absolutely forbids the exercise indispensable to the attainment of organic strength. Exposure to midnight air with a body reeking from the effect of dancing in an overheated room, produces its inevitable effect; and at last, an early marriage and premature confinement, cap the climax of her misery; and the unfortunate female, hitherto regardless of the plain dictates of unerring nature, becomes an unwilling subject for medical treatment.

“The barbarous corset is a powerful cause of producing the disease. It presses the bowels directly upon the uterus, and prevents a proper and healthful circulation of blood in the lungs; thus reducing the general health, and causing congestion and leucorrhœa. Frequent abortion is likewise a fertile cause; excessive dancing, and various *improprieties* heretofore alluded to. Nothing is more

common amongst those who work in mills and manufacturing establishments, where the fresh air is shut out, and the body overworked in constrained and awkward positions."

SYMPTOMS.—These are *sympathetic* in the earlier stages, and afterwards *mechanical*, arising from the displacement of other organs, and the pressure of the prolapsed uterus upon them.

Those women of irritable constitutions, who have been tenderly and luxuriously brought up, suffer much even from slight sinking of the uterus; while strong women almost entirely disregard these early inconveniences, and complain but little even when the organ is entirely prolapsed, of large size, and ulcerated. Dr. Ashwell, upon this point, remarks: "A lady, wealthy and self-indulgent, from over-exertion in dancing, while the catamenia were present, displaced the uterus very slightly, so slightly that in a day or two it was only just resting on the perineum; yet she never stirred off the sofa for a month. At the same time, I had under my care a poor woman, earning her living by carrying vegetables on her head to and from market, whose uterus, as large as a good sized melon, was entirely out of the vagina, and ulcerated. She merely wanted to be relieved from the acrimony of the discharge, scarcely complaining at all of the mechanical inconvenience of weight and position. Doubtless, relaxation of the organ frequently exists without being recognized, as the early *symptoms* of lumbar weight and uneasiness, are too common to be soon attributed to displacement. But when these have continued long, nausea, loss of appetite, constipation and flatulence being added to them, suspicion is excited. It is then found that standing or walking aggravates the symptoms, and that the recumbent posture alone gives certain and immediate relief. Almost constant leucorrhœa and occasional stranguary, claim attention. Thus, week after week passes away, and remedy after remedy is tried; the patient ultimately soliciting an examination, that the disease being accurately made out, something more curative may be tried."

Menstruation, though sometimes disturbed, is often regular and rarely complicated with hemorrhage. As long as

the uterus is retained in the vagina, there is no impediment to impregnation; cases even, are on record, where impregnation and delivery have been safely effected while the uterus was beyond the vulva.

If the womb descend to the external orifice, and especially if it protrude, there is much pain and distress in the pelvic region, and difficulty in voiding the urine and fæces; in some cases, this can only be accomplished by the woman's first lying down and returning the uterus to its natural situation. The recumbent position gives relief from the distressing sensations, but not from the prolapse. The patient is seldom free from leucorrhœa, which gradually diminishes her strength. Attacks of menorrhagia occasionally occur, but are rare.

The appetite becomes irregular, or is totally lost; the stomach and bowels lose their tone, and become greatly distended with air; the spirits are depressed; every employment becomes irksome, and life itself is considered scarcely desirable. There are, however, a variety of shades in the degree of this sympathy. (*Clark.*)

Upon examination, in imperfect prolapsus, the womb can be felt by passing the finger through the vaginal orifice; its mouth will be discovered at the bottom of the tumor; and the vagina will be found relaxed, dilated and thrown into folds. If the prolapse be perfect, the uterus will be discovered by separating the labia; it is usually conical or pear-shaped. The tumor is seldom very large in those cases where the patient, upon lying down, is in the habit of returning it into the pelvis; but when this is neglected, or not possible, it sometimes attains a very large size.

In all cases of prolapse, *the mouth of the uterus will be found at the lower part of the tumor*; attention to this fact will always serve to distinguish it. If there be any doubt in regard to it, from its resemblance to polypus tumors, we can make sure of its being the mouth of the womb by the careful introduction of a bougie. The protruded organ will have lying on its anterior wall the bladder, the whole being covered by the everted vagina. Generally, the tumor is firm and elastic to the touch; it preserves its delicate pink color when frequently returned into the pelvis; but when long exposed to the external air, it be-

comes dark red, or brown. It is peculiarly exposed to irritation and pressure, giving rise to superficial ulceration, forming additional distress to the already severe sufferings of the patient. Such ulcerations have been known to assume a gangrenous appearance, and cases are on record, in which the uterus has been completely separated and came away, and yet the patient recovered. The sack formed behind the prolapsed uterus and vagina often acts as a receptacle for the fluid discharges.

TREATMENT.—When left to nature alone, prolapsus of the womb may soon become quite incurable, for its tendency is always to increase, and the chances of success are always more unfavorable as the case is of longer date, the descent greater, and the concomitant circumstances more disadvantageous. As the simple depression of the womb, or prolapsus in the first stage, generally produces but slight inconvenience, it happens that the natural, but unreasonable delicacy of the female makes her fearful of confiding her complaint to the medical attendant, preferring to leave in the hands of nature the care of a malady of whose evil tendencies she is ignorant. There are women, it is true, who conceal this painful infirmity for years together, and even attain to an advanced age without any very serious symptoms. And there are others, in whom the womb cannot be reduced, either in consequence of its having been delayed so long as to give rise to adhesions, or from its containing within its cavity a fœtus of several months, or from other insurmountable obstacles, or such at least as are connected with circumstances that may lead to the sudden death of the patient. This disorder might, perhaps, never compromise the life of the patient, were it not that by neglect the mischief has a tendency to increase and extend—simple depression soon becoming a positive falling, and finally, a complete prolapsus—and for certain complications that always aggravate the prognosis, which of itself is bad enough; thus, a descent and relaxation of the vagina; a deformity of the pelvis; a dropsy; a state of marasmus; the presence of a cancer upon the neck of the uterus, or of polypus in the cavity of the womb, or of a fœtus; a stone in the bladder, are so many complications changing the indications of treatment always

to the disadvantage of the patient, and liable to become fatal, not only by preventing the reduction of the tumor, but, also, by necessitating certain operations and certain peculiar cares. (*Colombat.*)

In the treatment, there are two principal indications: the first is, to replacet he organ in its natural position; and the second is, to prevent the recurrence of the displacement. In the milder cases, we can often succeed by acting medicinally upon the mucous membrane: in the severer ones, we are obliged to have recourse to mechanical support.

In *imperfect* prolapse, it is generally an easy matter to restore the uterus to its natural position; all that is necessary is, to have the patient lie upon her back, with the pelvis elevated somewhat higher than the head, allowing the abdominal muscles to relax as much as possible. The reduction may be often facilitated by the introduction of two fingers into the vagina, and gently pushing the womb towards its natural place.

After the reduction, along with rest in the horizontal posture, providing no signs of inflammation appear, should be prescribed, with a view to the radical cure, the use of cold astringent injections to be repeated two or three times a day, and HYGIENIC means for the restoration of the general health. The lower part of the abdomen, the genitals and the back may be sponged with cold water, and an injection (a pint) of cold water may be thrown up the vagina morning and evening. The patient should remain in the recumbent position, and receive the injection gently and slowly, by means of an appropriate syringe, or an elastic bottle. Various kinds of astringents have been recommended, all of which should be used with care. The most useful are, the decoction of oak bark, green tea, galls, rind of pomegranite, infusion of roses, etc.; the sulphate of copper or zinc, (half a drachm to a pint of water,) nitrate of silver, (from one to ten grains to the ounce of water,) alumn, (half a drachm to the ounce,) etc.

The improvement of the general health always has a marked and favorable influence upon this affection; therefore, our attention in all cases should be carefully directed to it. Aromatic purgatives, with alteratives, tonics, and

an appropriate diet, will be useful, and a well directed course of diversion in the country.

In *complete* prolapsus of the uterus, or where it protrudes through the external parts, its reposition is more or less difficult. As preliminary, the patient should empty the bladder and rectum, either spontaneously or by means of the catheter, and common enema. If the uterine tumor be found swollen and painful, as frequently happens, from the action of the air, the urine, and the clothing, emollient poultices should be applied to it, and the swelling may be reduced by fomentations, baths, venesection, dieting, diluent drinks, laxatives, etc., according to circumstances.

The parts having been brought into a proper condition and the patient placed as before, the uterus should be gently though firmly pressed upwards by the hand, (previously well oiled,) and when within the vagina, one or two fingers should be introduced in order to push the womb into the cavity of the pelvis.

Should there be considerable difficulty in the reduction, all efforts ought to be suspended till there is some diminution in the sensibility and size of the tumor; this may be brought about by prolonged rest in the horizontal posture and a continued application of the remedies above mentioned. No matter how severe or of how long standing, all hopes of reduction should not be soon renounced; yet it should be remembered that there may be cases in which it is impossible, and that ill-advised and severe efforts have brought on fatal inflammation.

If reiterated efforts should render it evidently impossible to restore the womb to its proper place, we must be content with giving due support to the tumor, by means of a proper suspensory bandage, which should be anointed with cerate; a bandage of oiled silk, doubled, seems best to answer this purpose. Should an irreducible prolapsed uterus be attacked by extensive gangrene and sloughing, the propriety of amputating the womb at the neck, must be decided upon, which, though a formidable operation, has been safely performed. The circumscribed ulceration which frequently takes place, should be treated by emollient poultices and astringent applications.

When prolapsus takes place at an advanced stage of

pregnancy, the reduction should, nevertheless, be attempted as before; it may be easily effected at an early stage. The bladder and rectum should be evacuated as before directed, and it must not be forgotten that the introduction of the catheter is frequently no easy matter, from the distortion of the parts; in some cases, recourse must be had to the male catheter, as the female instrument will not at all answer the purpose. When pregnancy is so far advanced as to render such attempts imprudent, all we can do is to give proper support to the womb, by means of a suspensory bandage, and advise the patient to observe the horizontal posture, in bed; and when her full period has arrived, the delivery of the child should be facilitated, by sustaining the prolapsed organ, and assisting the dilatation of the mouth of the uterus. After the child is born the reduction may be easily effected.

There is one important point which it is necessary for pregnant females afflicted with this malady to understand. The prolapsed womb, from its pressure on the bladder, almost always gives rise to suppression of the urine; this may be obviated by passing up a finger behind the symphysis pubis, and pushing back the womb so as to relieve the urethra and bladder of such pressure.

We have now spoken of the mode of reducing prolapsus of the uterus under different circumstances; there always yet remains an indication, that of retaining the womb in its proper position, by the use of *pessaries*; which are of different shapes, dimensions and materials. Where the affection is recent, this supporting instrument is not absolutely indispensable, but it is for the most part so, when the woman is of a large size, and the disorder is of long standing or considerably advanced.

Pessaries of various kinds are used, either of sponge, glass, cork, boxwood, ivory, gold, silver, or of gum elastic. Those in common use are flat, round, oval, or globular, with a hole in the centre, to allow the escape of any discharge. The best, are probably the globe, and flat or rather, the disc-like, pessaries made very light, either of gold or silver washed with gold. The glass pessary sometimes answers a very good purpose. "A good pessary," remarks Dr. Clark, "should combine firmness, lightness, and close-

ness of texture: firmness, that it may not yield to pressure; lightness, that it may not incommode by weight; and closeness of texture, that it may not imbibe the secretions of the vagina.”

The mode of introducing a pessary is very simple. After the evacuation of the bladder and rectum, as previously directed, the patient should lie upon her left side, with the knees drawn up, and a pillow between them. The pessary should be dipped in olive oil, and pressed against the external mouth with a gentle force, occasionally suspended, so as to give time for the vagina to dilate. Some time should be required to place it at the mouth of the uterus, for if it enter too readily, or with too little force, it is liable to be expelled at the first bearing down in evacuating the rectum or bladder. It would be well for the female, awhile after the introduction, not to go out without *the napkin*, lest in some sudden fit of coughing, sneezing, or laughter, the instrument might be forced from its place, to her mortification and dismay.

The irritation excited by the introduction of a pessary should be counteracted by rest, diet, baths, enemata, emollient and opiate injections; if these be not sufficient, the instrument should be temporarily suspended. Women should remember that the presence of such an instrument in the vagina requires the most scrupulous attention to cleanliness. They should bathe frequently, and have recourse to the daily use of vaginal injections of cold water. It should be withdrawn once in three or six months, or if there be much discharge, once in two or four weeks will not be too often.

When from any cause, pessaries cannot be made use of, there are other resources, the principal of which, is the use of some one of the numerous patterns of utero-abdominal supporters, sold in almost every village throughout the Union. An operation has been proposed for the permanent cure of this affection, which resembles the one adopted for prolapsus of the anus. It consists in removing a portion of the vaginal mucous membrane, and uniting the opposite edges of the wound, so that when healed, the calibre of the canal shall be diminished.

We should remark that the plan of treatment, by rest in

the horizontal posture very long continued, is apt to exhaust the muscular force of the patient, and thus prove an injury instead of being a benefit. In slight cases of prolapse, a method calculated to invigorate the general health, would be far more likely to produce a cure, than dependence upon a pessary, which is, perhaps indispensable at an advanced stage. Hence, such patients should take exercise in the open air, live upon a nutritious diet, with wine and malt liquor; avoiding all depressing and injurious circumstances, disregarding as much as possible the annoying sensations proceeding from the prolapsus; tonics and aperient enemata may also be necessary, as well as vaginal injections of astringent solutions; and when the general health improves, the local disorder will generally lessen, and finally disappear.

Some authors have recommended a subsequent pregnancy, as a means of obtaining a radical cure of this malady; and indeed, women are frequently restored to perfect health by it, who have been much distressed by prolapsus of the uterus for several years.

CHAPTER IV.

INVERSION OF THE UTERUS—CAUSES—SYMPTOMS AND TREATMENT.

INVERSION of the uterus differs widely from *prolapse*; for, while the organ is equally depressed in both cases, in the former, the womb is turned inside out; the fundus losing its position, sinks perpendicularly inwards and downwards, till it passes through the mouth, forming a tumor between the thighs; while in prolapsus the mouth is always at the lower part of the tumor. The ovaries, Fallopian tubes and intestines occupy the space formerly filled by the womb, and the sack is lined internally, by peritoneum, while it is covered externally, by the mucous membrane of the uterus.

Inversion is the most dangerous of the uterine displacements, but happily the most rare. Writers have recog-

nised three varieties of the disease. A simple *depression* which takes place when the top or fundus of the womb is somewhat indented like the bottom of a glass bottle. 2. *Incomplete inversion*, when the uterus has descended into the vagina. 3. *Complete inversion*, where the uterus protrudes externally with the mouth above, and the fundus below. Authors have also divided the malady into *acute* and *chronic*.

CAUSES—These are mostly connected with child-birth. It has been observed to follow very quick labors, especially if the patient be delivered standing, or make too violent efforts: or, it may occur after a natural labor, as the result of a peculiar condition of the uterine fibre. The most common causes are violent extraction of the placenta; forcible pulling of the cord, while the placenta is still attached to the womb, and the pressure of the intestines upon the fundus at the same time; prolonged efforts at bearing down, with the view of more speedily expelling the placenta; and shortness of the cord, or its being twisted around the child's head or body.

This affection may also arise from, or follow dropsy of the womb; the walls being relaxed, thin and weakened, yield readily to the impulsion of the bowels by the contraction of the diaphragm, and of the abdominal muscles. A large tumor of the fundus may, by its weight, descend through the mouth of the uterus, dragging the fundus along with it, and thus producing complete inversion.

SYMPTOMS.—These are always serious and alarming, indicating the important nature of the accident. Immediately after the inversion there is sudden exhaustion and sinking; the countenance becomes deadly pale, the voice weak, the pulse rapid, small and fluttering, accompanied with nausea, vomiting, and the patient is threatened with the immediate loss of life. These symptoms often depend upon the loss of blood which takes place, but not always. There are sometimes nervous symptoms, and even convulsions.

Hemorrhage to a very large amount not unfrequently occurs; violent uterine contraction almost always takes place, immediately preceding, or accompanying the inver-

sion ; there is also great pain, with a dragging sensation from the loins, and occasional retention of urine.

Upon examination *per vaginam*, a tumor will be found either in the cavity of the pelvis, or hanging through the vulva. This tumor will be globular, and possess a rough bleeding surface. If the displacement be not reducible, it sometimes happens that the tumor becomes strangulated, running on to gangrene, and ending in the death of the patient. If the inversion be *complete*, we may acquire further information from a visual examination ; the tumor is at first red, but gradually becomes of a dull brown.

The foregoing are the most prominent symptoms of *acute* inversion ; those which characterise the *chronic* stage of the disease, are of course much less formidable.

Inversion is easily distinguished from prolapsus of the uterus : in the former there is *no mouth of the uterus inferiorly*, but a rough and bleeding surface.

As we have before intimated, inversion of the womb is a dangerous accident, that may prove speedily fatal, if there be the least delay attending its reposition. Notwithstanding some women have been known to live a long time with a complete inversion, unreduced, it generally happens that the few who do survive, drag out a miserable existence, and perish at last from profuse leucorrhœa and repeated attacks of flooding. The reposition of the inverted organ becomes more and more difficult the longer it is delayed, and often becomes wholly impossible. There are examples, however, going to show that the reposition has been performed as late as the fifth and eighth days, and even much later ; also, the organ after being long inverted has been known to reduce itself spontaneously.

TREATMENT.—The first object should be to reduce the displaced organ instantly ; and if it be attempted as soon as the accident occurs, it is in general not very difficult. Every hour increases the difficulty ; and the lapse of four or five days may render it impossible ; though there is a great difference, according as the inversion is complete or incomplete. It has been spontaneously reduced even when the displacement was complete.

But no anticipation of such a result will justify our

losing a moment in attempting to replace the uterus. The fundus of the protruded uterus should be indented, and passed in through the vaginal orifice, followed by the hand, (previously well oiled) in the form of a cone, up through the neck and mouth of the uterus; the hand should be made to press mainly upon the fundus of the organ, and should not be withdrawn till the vagina shall have been put upon the stretch, when, if still further pressed it sometimes suddenly starts from the hand like an india-rubber bottle when turned inside out, and the organ is restored to its natural position. The hand, which is now in the cavity of the uterus, should not be withdrawn, but be allowed to be expelled by the uterine contraction; we should first, however, be sure that the restoration is complete.

When the placenta remains attached to the womb at the period of inversion, it will often be found impossible to reduce the uterus, until it is removed; this should be done by peeling it off with the fingers, acting from the edges towards the centre. When the tumor is in danger of strangulation, from powerful contraction of the neck of the uterus, it has been recommended to divide it with a bistoury. Unless the reduction be attempted at the moment the accident occurs, the bladder and rectum should be previously evacuated. If the inverted womb and the neighboring parts should be much swollen, or if the patient be feverish, it may be necessary to apply leeches and poultices or foment the parts before attempting the reduction.

Notwithstanding the disease be of some days standing, we should not look upon the reduction as hopeless; no means likely to effect so desirable an object, should be left untried, as attempts have been successful, after days and even weeks have elapsed. It should be remembered, however, that there is a point, beyond which, a continuance of the attempts would only be injurious to the patient by aggravating all the symptoms. Sometimes it happens that the inflammation may be resolved by palliating the distress of the patient, and the organ remains irreducible without giving her any great inconvenience.

After we succeed in restoring the uterus to its natural

action, great care is requisite to avoid a recurrence of the accident. The patient should remain for some time in the horizontal position, with the pelvis elevated, the knees bent and the head low. Opium should be administered, and stimulants, according to circumstances.

When reduction cannot be effected, and the disease runs on to gangrene, the suppuration should be promoted and the symptoms allayed by emollient fomentation and injections of cinchana, camphor, chloride of soda, and tonics, internally. But should the symptoms be so severe as to greatly endanger life, the womb may be removed, either by the ligature, or direct amputation.

The operation by ligature is most often preferred, and consists in applying a cord, (silk is preferable) or silver wire, around the tumor at the highest part, and gradually tightening as the patient may be able to bear it, until the tumor is entirely detached. Or two ligatures may be used, passed through the centre of the neck of the tumor, each one including half. The pain, nausea and vomiting must be treated with sedatives, and when violent, the ligature should be temporarily loosened. The strength of the patient must be maintained by a nutritious, though not stimulating diet. We need not remark that this is a dangerous operation, and should not be resorted to on slight occasions.

We should observe that when inversion is complicated with polypus, the latter must first be treated as elsewhere directed. (See that chapter.)

CHAPTER V.

RETROVERSION AND ANTEVERSION OF THE UTERUS—CAUSES, SYMPTOMS AND TREATMENT.

THE terms RETROVERSION and ANTEVERSION, have been applied to those cases in which the fundus of the uterus has been found displaced posteriorly and anteriorly. As the *causes, symptoms and treatment* of these two displace-

ments are very nearly the same, we have thought best to speak of them under one head.

In retroversion of the womb, the fundus is carried towards, and lodged in the hollow of the sacrum, while the mouth is brought forwards, and upwards behind the symphysis pubis. In anteversion, the fundus is directed towards the symphysis pubis, and the mouth towards the sacrum. The former is frequent, while the latter is much more rare.

Retroversion is most frequently met with in pregnant women; antêversion, on the other hand, is rare in pregnancy, and is not very frequent in the unimpregnated uterus, though both diseases may occur at any age of female life after puberty.

CAUSES.—The causes that *predispose* to gradual displacements, are a natural mobility of the womb, a certain smallness of the pelvis, or a largeness of the same, a deep curvature of the sacrum, and the pressure of the bowels upon the fundus, and upon one of the sides of the womb.

Where the retroversion takes place suddenly, it is caused by over-distention of the bladder with urine; violent and sudden contraction of the abdominal muscles and diaphragm, from vomiting, or the expulsion of the urine and fæces; external violence, as a fall, a blow, and sudden fright, causing a violent convulsive movement of the diaphragm.

A woman who allows her bladder to become enormously distended, will render herself liable to retroversion during its continuance, especially if she happen to be engaged in a fit of laughter, sneezing or coughing. A jump from a carriage step, or a chair, or a trip on the pavement, while the womb is pushed backwards by the full bladder, may suddenly and even instantly jam the uterus under the promontory of the sacrum, which is followed by bearing down efforts, every repetition of which aggravates the mischief. If the woman be unimpregnated, perhaps she will empty the bladder, and the womb raised upwards again by its ligaments is not suspected to have been retroverted; but if she be pregnant, at two and a half or three and a half months, and the fundus be once jammed below the promontory, it will probably remain

there, even after the bladder shall have been perfectly emptied by the catheter. Let a woman, two and a half months gone, get into a stage or rail car, having neglected to evacuate the bladder beforehand, if she get off on her ride with eight or twelve ounces in the organ, and is prevented for some hours from relieving herself, she will hardly reach her journey's end without having retroversion; and when she attempts to relieve the bladder, is found to labor under a total suppression of urine, or at least, a most painful dysuria. (*Meigs.*)

The *causes* of *anteversion*, are increased weight of the fundus of the uterus in consequence of an engorgement; constipation, giving rise to large collections in the rectum; painful labor; vomiting; great fatigue and violent shocks.

The mechanism of anteversion of the womb is extremely simple; if the bladder be empty, and a sudden expulsive force exerted at the same time, it may be easily tilted over anteriorly, especially if it be increased in weight from thickening of its walls, or its ligaments have been relaxed by frequent child-bearing; the process is much assisted, also, by accumulations in the rectum.

SYMPTOMS.—From the size of the uterus after the fourth month, it follows that neither of these displacements can occur after that period; but when retroversion has already existed for some time, the rectum, the neck of the bladder, and the urethra, must be compressed, giving rise to retention of the fæces and urine; the womb, also, being confined within the hollow of the sacrum, as it enlarges, becomes engorged and inflamed.

The severity of the symptoms depend upon whether these displacements take place suddenly or gradually. Supposing the womb to be non-gravid, and the cavity of the pelvis of the ordinary dimensions, if the displacement take place gradually, the patient begins to feel an inconvenient sense of pressure within the pelvis; then the groins, the loins, and thighs are affected little by little with dragging pains, which become more and more annoying. To these symptoms, there is always added a sense of pressure or weight at the bladder and rectum, giving rise to frequent desire to urinate and go to stool. During the flow of the urine, the jet is soon checked or suddenly ar-

rested, and as the displacement always increases in proportion to the efforts made to expel the urine and fæces, the symptoms are greatly augmented in intensity by those attempts. At length, a complete suppression of urine and stool is produced. In cases where the size of the womb is augmented by pregnancy or engorgement of the organ, the symptoms are less equivocal, the constipation and suppression of urine become complete in a very short time; this is most likely to happen between the third and fourth months of pregnancy. However, cases are related by authors, in which it has taken place at the fifth, and even the seventh month.

It is easy to understand why the displacement of the uterus in pregnant women, is more rapid in its progress, and followed by severer consequences, than in the unimpregnated. When retroversion happens in a pregnant woman, the orifice of the urethra is carried so far behind the pubes, that it becomes difficult to find the meatus, and the urethra is so forcibly pressed against the bone that it is often impossible to pass up a catheter, even a flat one. The escape of the urine which occasionally takes place in jets, is in most cases completely suppressed, so that the distention of the bladder has taken place to the extent of bursting the organ.

The rectum, also, is so much compressed that the smallest portion of fæcal matter cannot escape through the intestine; and the patient is unable to receive enemata. Coincidentally with these symptoms, there is found a painful tumefaction of the external genitals; and in performing the *touch per vaginam*, the womb is found higher up than usual, the anterior wall of the vagina being very tense, while the posterior one is relaxed, and even thrown into folds.

The size of the womb continuing to increase with the progress of the pregnancy, it is soon attacked with inflammation; the organ being now locked between the sacrum and pubis is so powerfully compressed, in some instances, that after death it cannot be extricated without dividing the pubis. In these cases, the inflammation extends along the peritoneum to the bladder, and death has followed either from these extensive inflammations, or from the rupture of

the uterus itself, or the giving way of the bladder. In rare cases, however, even where the patient has been abandoned to nature alone, the womb has spontaneously repositioned itself, all the symptoms disappearing, and pregnancy has gone on to its full term.

Retroversion and anteversion are to be distinguished from other affections of these parts by the characteristic symptoms before named, retention of urine, and of the *faeces*. They are to be distinguished from each other, *upon examination*, by the position of the mouth of the uterus; in the former, it will be anteriorly; in the latter, it will be posteriorly. Sometimes, the *diagnosis* is attended with difficulty, and the greatest care and precision is necessary in analysing all the symptoms.

TREATMENT.—When the case of displacement is one of long standing, before attempting the reposition, we should endeavor to remove the inflammatory symptoms by means, when it is indicated, of general and local blood-letting; by hip-bathing; fomentations; and mucilaginous injections. By the judicious employment of antiphlogistics, we are often enabled to effect the reduction of cases, in which all preceding attempts had failed.

As preliminary to the reposition, we should evacuate the rectum and bladder, when it is possible to do this; enemata and suppositories should be resorted to for the former purpose, and the catheter for the latter; the flat catheter, under these circumstances, is preferable. Another mode should be tried, viz: by raising up the mouth of the uterus. After these means having been successfully applied, the organ has in many cases resumed its natural position; and particularly after the evacuation of the contents of the uterus. Some authors have recommended, when these means fail, for relieving the bladder, that it should be punctured below the pubes.

To reduce the womb, the patient should lie upon the back with the thighs at right angles with the body, so as to relax the abdominal muscles. An attempt should then be made to restore the mouth of the uterus, with one or two fingers bent into a hook shape, whether it be anteriorly or posteriorly. If this measure fail, let two fingers of one hand be carried into the rectum, in order to push up the fundus,

while with one or two fingers of the other hand passed into the vagina, we try to pull the neck downwards. When the mouth of the uterus is high up, there is an advantage in the use of the spoon-like hook. When these attempts fail, success is often obtained by letting the patient place herself upon her knees and elbows, instead of the other position, by which the pressure of the abdominal viscera is less upon the rectum.

Another plan has been recommended, that of introducing the whole hand into the rectum, and then push up the fundus of the womb, which should be assisted by a couple of fingers within the vagina, to act at the same time upon the neck; or a strong catheter, flattened at its extremity, may be passed into the bladder, to be used as a lever in depressing the mouth of the uterus.

Still another means has been recommended, viz: the introduction of a bladder into the vagina, and its inflation by means of a stomach pump with an air tight piston.

It is very rare that no one of these means succeeds. The general and local irritation that arises from these attempts, should be treated by rest, antiphlogistics, and opiates. After the reduction has been effected, to prevent a relapse, the woman should keep herself in a horizontal posture for several weeks, or months, according to circumstances, to be followed by river or sea bathing and a general system of HYGIENE. If there be any disposition to a return of the retroversion, the patient should place herself on her knees and elbows, once or twice a day, and remain for an hour or more at a time; she should avoid constipation, and never suffer the accumulation of urine in the bladder to any extent. Pessaries have, also, been recommended, particularly in anteversion.

Lastly, when attempts at reduction fail in pregnant women, it has been recommended to pass a sound through the mouth of the uterus, (if possible,) for the purpose of inducing abortion; this is sometimes the last hope of safety for the female. When the sound cannot be introduced, a trocar may be plunged into the uterus, through the vagina or rectum, so as to discharge the waters of the ovum, and thus excite abortion. This operation has been performed with success at the sixth month, thus saving the life of the mother.

CHAPTER VI.

OTHER DISPLACEMENTS OF THE UTERUS, AND OVARIA, OF THE
BLADDER AND URETHRA, OF THE VAGINA, AND OF THE
RECTUM—CAUSES—SYMPTOMS AND TREATMENT.

SOME authors have noticed other displacements, of which we shall speak but briefly, as they are mostly of rare occurrence, and often connected with those already described.

RETROFLEXION AND ANTEFLEXION OR CURVATURE OF THE
UTERUS.

THESE have hitherto attracted but little attention from either writers or practitioners of medicine, on account of their having been confounded with other displacements.

Where the curvature is a *retroflexion*, the neck retains its natural position, while the fundus of the uterus is turned backwards into the hollow of the sacrum, like unto what occurs in retroversion. In *anteflexion*, the fundus is inclined forwards, behind the symphysis pubis, similar to what happens in anteversion; but the neck, as in the former case, retains its natural position. Sometimes the body and neck are directed towards the same point, while the fundus preserves its natural situation.

Curvature of the womb is said to be sometimes congenital, when one side of the organ is more completely developed than the other. But the general *causes*, *symptoms* and *treatment*, differ very little from those of retroversion and anteversion. While, on the one hand, *sterility* may depend upon this condition, so a pregnancy, on the other hand, may bring about a speedy and permanent cure. As soon as the delivery is completed, to prevent a relapse, we should hasten to procure a perfect contraction of the womb, now restored to its natural position, by means of frictions over the organ, and by preventing too great an accumulation of

the uterine and fæces. The woman should lie with the pelvis higher than the shoulders.

INCLINATION AND OBLIQUITY OF THE UTERUS.

By inclination, is meant where the womb leans in any direction ; when it inclines backwards or forwards, it may be regarded as the first stage of retroversion or anteversion. When it leans to one side, it is a *latero*version, and in such a state, the neck of the womb, which rises higher than its natural level, inclines its orifice towards one of the sides of the vagina, and the patient has in various degrees the symptoms of anteversion. When the inclinations occur during pregnancy, they are known as OBLIQUITY of the womb ; they can only take place to the sides and the front, distinguished into *right lateral*, *left lateral*, and *anterior obliquity* ; a posterior obliquity cannot occur in a well-formed woman.

Obliquities may be ascertained to exist by the projections, and resistance of the neck of the uterus against the abdominal walls. In the anterior obliquity, the fundus is directed forwards, and the mouth of the uterus against the sacrum. The inclination increases with successive pregnancies ; in some women it is so great, that the abdomen falls down over the external genital organs, sometimes covering the thighs. It is the one most frequently met with, and is *caused* by relaxation from debility of the abdominal walls ; deformity of the spinal column ; the accumulation of fæces in the colon ; and, finally, by any thing capable of inclining the womb forwards.

The lateral obliquity forms a prominence at one side of the abdomen, the mouth of the uterus being directed towards the opposite side. The right lateral obliquity is much more frequent than the left, and besides the faulty direction of the pelvis has been assigned to a variety of *causes*, such as shortness of one of the uterine ligaments ; the habit of sleeping always on one side, particularly the right one ; and, finally, the existence of a tumor in the abdomen or one of the ovaries.

While the inclinations of the uterus that take place in the unimpregnated state are of but little consequence,

those that occur during pregnancy are of importance, as they are a prominent cause of difficult parturition. Certain inconveniences during gestation may be *remedied* by means of a suspensory bandage to the abdomen. As a measure for obviating barrenness, which might arise from a continued obliquity of the uterus, the female should lie on the side opposed to the inclination of the neck, *durante coitu*; and the same precaution should be taken during the conduct of a labor. When this is insufficient its reduction should be attempted as directed for retroversion and anteversion.

ELEVATION OF THE UTERUS.

THIS sometimes takes place to such an extent, that the mouth becomes almost inaccessible to the *touch*, and its posterior surface wholly so from the rectum. This condition, which is rare in the unimpregnated state, may arise from an insufficiency of the ligaments, abscess of the ligaments, dropsy of the ovaria, extra uterine pregnancy, retroversion and anteversion, and hydatids or other foreign bodies of the uterus. It is, also, the normal effect of pregnancy from the fourth to the eighth month. Of course it requires no *treatment* excepting that which is applicable to the disorders of which it is a symptom. When the elevated state of the uterus is a permanent one, it may act as a cause of barrenness.

ABNORMAL IMMOBILITY OF THE UTERUS.

THIS, in addition to the obstruction it causes to the proper dilatation of the bladder and rectum, prevents the rising of the womb from the cavity of the pelvis during pregnancy. Among the *causes*, may be mentioned adhesions that follow attacks of peritonitis, and inflammation of neighboring organs, which is the principal one. It has been remarked that scrofulous women, and those of a lymphatic temperament, those girls who abandon themselves to habits of masturbation, and those who are subject to constipation, are more liable than others to unnatural adhesions.

Although sterility, that is often caused by adhesions of the Fallopian tubes, is to be regarded as a misfortune, conception, in such a condition, is a vastly more serious one, since it may give rise to the most important symptoms by originating a new inflammation, caused by stretching of the ligaments of the expanding womb, as it continues to rise higher and higher during the pregnancy. This gives the woman violent pain, and dragging in the pelvis, and a feeling of lassitude in the thighs. Abscesses often form in the vagina and rectum, and in most cases, the death of the patient, which is inevitable, is preceded by abortion, which may be expected about the third or fourth month, upon some attack of violent uterine inflammation, or profuse hemorrhage. (*Colombat.*)

Similar accidental causes may, also, produce adhesions during pregnancy, when the womb is very high up in the abdomen, sometimes giving rise, at parturition, to the most lamentable results, on account of the laceration of the adhesions.

HERNIA OF THE UTERUS.

THIS is a very rare affection. The principal signs of its existence are the following: the vagina is stretched, and curved towards one of the groins; the mouth of the uterus, which is very high up in the pelvis, is pointed towards the sacrum, or disappears by having been lodged within the hernial tumor. The tumor is hard, form roundish, and is very little reducible. There are three kinds of this affection: called *Inguinal*, when the tumor makes its appearance in the groin; *Crural*, when it appears down on the thigh; and *Ventral*, when it takes place in the gravated uterus, through an accidental separation of the abdominal muscles.

The CAUSES may be attributed to weakness or relaxation of the ligaments of the womb, and of the abdominal muscles; to a violent blow, or contusion, etc. The reduction, which should be promptly attempted, with great care, cannot be effected, except the hernia be a recent one, or without adhesions, and of small size. A relapse should be prevent

ed, after the reduction, by a large compress, supported by a bandage, or a common truss.

HERNIA AND DISPLACEMENT OF THE OVARIA.

THESE sometimes occur, though the former is extremely rare; notwithstanding, six kinds have been described by authors, according to the situation of the protrusion: 1. The *Inguinal*, when the tumor appears in the groin. 2. The *Crural*, when it appears upon the thigh. 3. The *Ischiatic*, when it appears near the loins. 4. The *Umbilical*, when the protrusion takes place at the navel. 5. The *Ventral*, when it occurs through the abdominal muscles. 6. The *Vaginal*, or vagino-rectal, when it takes place into those organs. Cases have been met with on one side alone, and on both sides at the same time.

The CAUSES are, the *predisposing*, and *exciting*. The former are dropsy of the abdomen; sudden emaciation; immoderate use of warm relaxing drinks; and various displacements of the womb. The *exciting* causes of ovarian hernia are, circular compression just above the hips, either by badly constructed corsets, or a belt; wounds and abscesses of those regions. In infancy, it may arise from the careless application of bandages for the support of the navel; loud crying, continued for a long time, etc.

The SYMPTOMS are about the same as those connected with hernia of the uterus; the most distinctive sign is, the correspondence of motions impressed upon the uterus, by the finger introduced into the vagina or rectum, with those which are felt in the tumor itself, by the patient or practitioner. It is probable that assistance might be derived from the monthly increase of the tumor, if observed at the menstrual period.

TREATMENT.—An attempt should be made as soon as possible to reduce the hernia, though it will often fail. If there be symptoms of *strangulation*, recourse must be had to the operation for strangulated hernia; after the strangulation is relieved, if compatible with gentle pressure, the ovary should be returned into the abdomen—otherwise, a compress and bandage need only be applied, without interfering with the displacement.

THE *displacements* to which the ovaria are obnoxious, are mostly connected with those of the uterus, and consequently surpassed by a greater evil; the more serious ones are congenital.

DISPLACEMENT OF THE BLADDER.

THIS may occur in various directions; its protrusion into the vagina and external labia, will only be noticed here, its other displacements not being peculiar to females. By referring to Fig. 2, Book I., and observing the connection of the vagina and bladder, it will be easy to understand the mechanism of hernia of the bladder into the vagina; the urinary sac being pushed against the anterior wall of the vagina by a sudden descent of the diaphragm and violent contraction of the abdominal muscles, gives rise to a fluctuating tumor, that projects within the vagina, or even appears at the external labia.

The *predisposing* CAUSES are, too large a pelvis; numerous pregnancies; a lymphatic temperament; an erect position too frequent and too long continued; too violent exertion of the muscular powers; leucorrhœa; retention of urine, and the habit of discharging it too seldom; *abusus coitus*; an abuse of warm bathing; foot-warmers; tight lacing, and the use of busks; general debility; and a peculiar conformation. The principal *exciting* causes are, parturition; violent exertions; tight lacing; coughing, vomiting, violent dancing, etc. It is more common in women who have borne children.

It is known by a tumor presenting itself either within the canal of the vagina, or outside of the orifice of the vulva. The tumor is blueish, rounded with a polished surface when the bladder is distended; otherwise, it is uneven, wrinkled and soft. In the former case, it is fluctuating, and disappears upon pressure. Long standing, and violent exercise increases its size, while rest diminishes it. This affection produces difficult and painful micturition, and sometimes a tense and enlarged abdomen; sleeplessness and dragging of the stomach, etc. It is frequently complicated with various inflammations and displacements of the uterus. When it occurs in a pregnant

woman, it may become so large as to obstruct the passage of the fœtus.

TREATMENT.—After the employment of antiphlogistics, if indicated, there presents two indications : to reduce the tumor, and prevent future displacement. When the hernia is small it may be easily restrained by means of a sponge cut into a cylindrical shape, or a sachet of fine linen ; the former to be impregnated with some astringent solution, and the latter filled with oak bark, soaked also in some astringent solution, and retained in place by means of a bandage. When the tumor is large, the treatment should be commenced by the introduction of the catheter—a male catheter ; if this be not successful, and particularly if the patient be in labor, it will be necessary to plunge a trocar into the tumor ; when the urine is discharged a catheter may be left in the bladder. We should remark that upon first using the catheter without success, the tumor must be compressed, so as to compel the urine to flow towards the open end of the instrument.

PROLAPSUS OF THE MUCOUS MEMBRANE OF THE URETHRA.

THIS is a very rare disorder, which it is only necessary to notice. It is owing to a relaxed and thickened state of this membrane, and is known by a small redish tumor projecting from the orifice of the meatus urinarius.

DISPLACEMENT OF THE INTESTINES INTO THE VAGINA.

THIS sometimes takes place. The *predisposing causes* are partly the same as those of other hernias, repeated pregnancy and delivery, etc. The *exciting causes* are, also, about the same, and may act in a slow and gradual manner : they are, falls, violent efforts of any kind, at stool, etc.

This affection exhibits all the general characters of the other kinds of hernia. The tumor, which is not troublesome unless very large, is of a soft consistence, and partially or wholly disappears when the patient lies down. Upon examination, the mouth of the uterus is found free and in its natural position ; this will distinguish it from most other tumors of the vagina.

In the TREATMENT, the reduction must be effected if possible. The rectum should be evacuated with injections, and the woman placed with the legs drawn up, and the pelvis elevated. When successful, the hernia should be kept reduced, by a cylindrical pessary. If strangulation take place, it has been recommended to cut down upon the tumor and dilate the opening. Sometimes the intestine finds its way down into the *lábia*, when the management is similar.

PROLAPSUS OF THE VAGINA.

By this is meant an inversion of the internal lining membrane of the organ. It is divided into *complete* and *incomplete*; in the former, the tumor projects more or less beyond the vulva, while in the latter case, it merely appears within the mouth of the vagina.

The *predisposing* CAUSES are, a lymphatic temperament; chronic leucorrhœa; frequent child-bearing or abortion; the abuse of hot-bathing, and of warm, relaxing drinks; bad nutrition and all the causes of a debilitated body. Among the direct causes, should be enumerated *abusus coitus*; masturbation; injury from the child's head and instruments during labor; external violence; violent efforts of every kind; leaping, laughing, vomiting, etc.

SYMPTOMS.—In a partial prolapsus, the tumor is rounded, double, or forms a circular cushion, varying according as the descent implicates both the anterior and posterior walls, or extends to the whole surface of the tube. There is a feeling of weight and uneasiness about the vagina and fundament; and dragging sensations in the lumbar region. When the falling is complete, there is a purulent discharge, obstinate constipation, and stranguary of urine. The action of the urine upon the surface of the tumor, and friction in walking, often produce painful inflammation and excoriations.

This affection is very troublesome, and may become even dangerous during labor; though the *prognosis*, generally, is not bad.

TREATMENT.—This consists in *incomplete* prolapsus, in the use of antiphlogistics, local fomentations, and poultices,

to be continued till the inflammatory symptoms are overcome; then, tonics, if the constitution require them, and astringent lotions and injections. Recourse may, also, be had to counter irritation to the loins with advantage.

In *complete* falling, after a preliminary antiphlogistic treatment, the reduction should be effected as soon as possible; then, should be employed tonics internally, and astringent lotions and injections, as above directed; also, the introduction of sponges, impregnated with astringent solutions, or by sachets filled with proper ingredients. It is said that pessaries, also, may be used with advantage. A well regulated system of HYGIENE, with tonics and mineral waters, should be put in requisition for the restoration of the patient.

When the disorder is of long standing and the tumor irreducible, its extirpation by means of the scissors and knife, has been recommended.

INVAGINATION OF THE VAGINA.

THIS consists in a displacement of the upper part of the tube, which, being carried downwards by the womb in a prolapsed state, becomes intussuscepted in the lower part of the vagina. This disorder is a lesion secondary to, and symptomatic of, the prolapse of the uterus, which is its direct cause. It is important not to confound this with the prolapse merely of the vaginal mucous membrane, last treated of. The *treatment*, of course, is the same as that directed for *prolapsus of the uterus*.

PROLAPSUS OF THE RECTUM, HEMORRHOIDS, PILES, COSTIVENESS, CAUSES, SYMPTOMS AND TREATMENT.

WE shall include in our description of this affection, *hemorrhoidal tumors* or piles, which often occur in this part. There are two divisions of prolapsus of the rectum; the one is the falling down of the rectum proper; the other is a protrusion of the mucous membrane alone. Hemorrhoids are certain excrescences or tumors, which arise about the anus or inferior part of the rectum. They sometimes discharge blood, particularly in straining at

stool, when they are commonly known as *bleeding piles*; but when there is no discharge, they are called *blind piles*. They are often distinguished as *external* and *internal*, according as they appear externally or not. Both of these affections (for they may be regarded as distinct ones) often run into each other, being produced by about the same causes, operating on different constitutions, or on the same constitutions at different periods of life. Prolapsus is seen most commonly in infancy and old age; while piles occur most often at a middle period of life, and are more frequent in women than in men.

CAUSES.—These are *predisposing* and *exciting*. The former, are a sedentary and luxurious life, producing general plethora and acostive habit; habitual constipation; drastic purgatives; frequent pregnancies and difficult labors; obstructions in the liver, or venous circulation; a lymphatic temperament; masturbation, and general debility from any cause. The *exciting* causes, are the accumulation of fæces in the colon and rectum; the determination of blood to the rectum, from the operation of powerful cathartics; straining at stool from constipation; and long continued dysentery.

“When we reflect that, in an ordinary state of health, we consume each day an amount of food that we know, from occasional intervals in which the bowels perform their proper functions, should yield, without effort, five or six times the quantity of the customary discharge; the immense consequence of a sufficient daily evacuation of the bowels is too plain, for us to view its constant deficiency without alarm. It is true, we observe many persons who seem to enjoy a pretty fair state of health, who never have more than two or three evacuations a week; yet a critical investigation would show a very different state than that of health, in such individuals. A fevered tongue, an aching head, and inability for active bodily or intellectual effort, is an almost invariable attendant on this state; and its next result will almost to a certainty be, either piles, a permanent weakness or falling of the rectum, or an abscess, and fistulous opening at its side.

“Anatomy informs us that the length of the intestinal tube is nearly six times that of the entire body; and that

four-fifths of it is appropriated to the reception, from the stomach, of the nutritious parts of the food and the bile; while the lower fifth, ending in the rectum, is designed to contain the waste parts, or that which is to be thrown out of the body.

“The general character of our diet, and experience, is such as to assure us, that at least one-quarter of the food we swallow is excrementitious; or intended by nature to be evacuated from the system. The experience of persons who are habitually constipated, proves that no such amount, or indeed any approach to it, is ordinarily discharged. What then becomes of it? There can be no question, that it is re-absorbed into the system; for there are a sufficient number of absorbents opening into the lower intestine to effect this mischief if the bowels remain long unmoved. It is unnecessary for us to point out the injurious effect of this poisoning of the blood, with a substance so different from that pure fluid found in the upper tract of the intestines.

“It is not wonderful, that designing and knavish individuals, should avail themselves of the indolence of that half enlightened and physic-consuming class of society; those who, having a mere suspicion of the truths they occasionally hear from physicians, and from partial observation of their own systems, dare not entirely neglect this most important function, but console themselves by taking enormous quantities of quack pills. These are all made of stimulating substances, which act by forcing the intestines to throw out from their surfaces so large a quantity of the serum, or watery part of the blood, as to liquefy the hard contents of the bowels. By the excessive irritation they cause the whole nervous system of the bowels, they force them to contract, and throw off their contents, leaving the whole tract in a partial, and eventually in a state of permanent inactivity.”

SYMPTOMS.—First, of **PROLAPSUS OF THE RECTUM**: the slightest degree is indicated by a sense of bearing down and smarting, especially when at stool. After the evacuation of the rectum has been effected, the protruded portion, either returns itself, or with very slight pressure. If, however, the affection be neglected, the protrusion becomes

greater and greater—from one to two, and even six or ten inches—when it is not easily replaced. The tumor is constantly exposed to the air, and friction from the clothes and sitting, by which it becomes inflamed and ulcerated, and often fungous and varicose, exhaling blood and an offensive matter. In all cases the pain is more severe during defecation, and while standing; the protruded membrane is of a dark red color, and sometimes almost black.

The symptoms of HEMORRHOIDS are, first, a sense of fullness, itching, throbbing, heat, tenderness, and dull pain, about the anus; then, a mucous or sero-mucous discharge, and hemorrhage. The small tumors, when first protruded have but little sensibility; but when inflamed or strangulated, become exquisitely tender. They vary in size from a pea to a pigeon's egg; when small they may be felt thickly studding the rectum as far as the finger can reach. Sometimes a single swelling only projects, resembling either a red currant, or a small purple grape; these tumors vary much in size and number. They are, generally, simply varicose or enlarged veins, which often bleed very profusely, and are much aggravated in character by the straining at stool, attendant upon constipation, which is most often the cause and accompaniment of this disorder.

TREATMENT.—First, of FALLING OF THE RECTUM: the patient being placed on the back, gentle pressure should be applied to the tumor, by means of the thumbs, previously dipped in oil; or the patient may be placed on the face, the thighs separated and the nates pressed together. Sometimes it is necessary to introduce (previously well oiled) the fore finger into the rectum to remove the stricture. In children, where the irritation is kept up by diarrhœa, from worms or other cause, those affections must be removed, and the bowels should be kept open by the mildest laxatives, or by enemata. A recurrence of the disorder may be guarded against by the use of astringent injections and fomentations, of a decoction of oak bark, a solution of alum, etc., and the application of an appropriate system of HYGIENE. When there is considerable swelling and inflammation of the protruded part, as preliminary to the attempt at reduction, leeches, cold, poulti-

ces, etc., according to circumstances, may be applied with great advantage. When all means fail, it may be necessary for the surgeon to remove the protruded portion by the knife.

The treatment of HEMORRHOIDS OR PILES, is divided into the *medical*, *surgical*, and the *HYGIENIC*.

When the loss of blood is considerable, cold water, or ice, and astringents, as a solution of alum, sulphate of zinc, iodide of iron, or creosote, should be resorted to; or continued pressure may be made for the same purpose. Internal astringents, joined with opium, if there be much pain, will, also, be found useful. Great care must be taken, however, to guard against constipation; for this purpose, mild laxatives are to be used, as sulphur in combination with cream tartar, castor oil with oil of turpentine, manna and senna, with an appropriate diet, which will soon be noticed.

Should the parts be much inflamed, leeches may be applied, and lead lotions used; also, poppy fomentations, aqueous solution of opium, etc., especially where there is much itching. When there is general fever, the treatment should be antiphlogistic; besides a low diet, and clearing the bowels, Dover's powders and antimonials may be given. When the disease is chronic, and without much inflammation, great good may be expected from local astringents and stimulants; such as an ointment of galls with opium, and the addition of acetate of lead if there be a tendency to inflammation; decoction of oak bark; lotions of sulphate of zinc and sugar of lead, with extract of henbane. The balsam copaiba, or some of the turpentine applied locally and taken at the same time internally, have been found useful. The bowels should always be kept open; rhubarb, either alone or combined with a minute portion of aloes, answers a good purpose. We need not remark that all quack pills and other nostrums should be avoided. Lastly, when all these means fail, permanent relief can only be obtained by extirpation of the tumor or tumors, by means of caustic, ligature or the scissors. The nitrate of silver, in all cases, first deserves a trial.

HYGIENIC TREATMENT.—The painful diseases last considered, are most commonly the result, as has been re-

marked, of CONSTIPATION; this is the result of *unnatural* diet and want of exercise;—so we have at once the original cause of these affections before us, and the means of prevention and cure. It was evidently the design of nature that there should be a daily movement of the bowels; where this does not occur, as we have shown, evil consequences follow. We have so often spoken of HYGIENE in this work that we purpose here to notice only the subject of *diet*, briefly.

It is a law of the nature of our constitution, *that the ingestion of innutritious as well as nutritious material, is necessary for the health and well being of the same.* As the intestines require their appropriate stimulant, which is the residual portion of our food, if the article taken be *concentrated* by preparation and almost wholly nutriment, it is easy to understand, that inactivity and derangement of the bowels must be the consequence. Therefore, fine flour, rich jellies, etc., saying nothing of the absurd modes of cookery, catering to a pampered appetite, in vogue at the present day, must be a mighty scourge to the human race! Yea, almost as great an evil as war, pestilence and famine!

The food of man should have blended with it innutritious or residual material, no matter what it may be; it is best as nature has fitted it for us, with as little change by cookery as possible. But better would it be for us to partake (with our own) of the food of the stall, and even saw dust, than to pamper the taste, as is practiced by a great portion of *refined* society. For it has been proved by direct experiment, that animals will live and thrive by mixing saw dust with the same food, upon which they could exist but a short time without it.

It would be highly impolitic to prescribe a diet for every body; indeed, the proverb, "what is one man's meat," etc., here becomes particularly apposite. It is well known that different constitutions and different employments require a difference in adaptation of the quality and quantity of food. Those who labor can take with impunity food that would much distress a sedentary individual; the former evidently require more food, that which is more solid and nutritious, than the latter. Dr. Warren remarks:

“Let those who are compelled to sedentary pursuits, seasonably lay aside one-third of their ordinary food; and they will experience no loss of time in combatting the horrors of dyspepsia.” Even by those who labor, meat should be taken moderately, and but once a day; the sedentary generally do not need it. It should be cooked, always exposed to the free admission of air. Bread should be made of grain in its natural condition, that is, without separating the bran from the flour; or it may be mixed with Indian corn. It should be made properly at home, and never purchased of a class of men who are often so unprincipled as to disregard law and feeling, and tamper with the public health, by adulterating it with stale and sour flour, as well as with vile and astringent drugs.

The rule should be, *no article of food or drink to be indulged in, that is known to disagree with the stomach or bowels.* Food may disagree in various ways: it may remain too long before being digested, when it will occasion eructations, a sense of oppression or pain about the stomach, palpitation of the heart, dizziness, headache, constipation, diarrhœa, nausea, or vomiting. It may become acid, giving rise to wind, burning in the stomach, known as “heart-burn,” pain, regurgitations of the contents of the stomach, oppression, distention of the abdomen, etc. It may either produce costiveness, or diarrhœa; but in whatever manner it disagrees with the individual, it should be laid aside, and some other articles substituted.

For guarding against costiveness, then, nothing is near as good as *diETING*; though medicine may be necessary where obstructions already exist, cathartics should never be long continued for the cure of this affection. For this purpose, bread made from the unbolted wheat flour, regularly persevered in, by making it the substitute for all other bread, will rarely fail. We may, also, have recourse to ripe fruits, which are almost all more or less aperient; a few, however, are astringent and should be rejected. Generally, they are more wholesome uncooked, unless the cooking consist in plain stewing. We should name tomatoes, either raw or stewed, as an article of food well adapted for all costive individuals.

Milk and water are the natural drinks of mankind; bu

not too much of these, even, should be used. The ingestion of drinks, to a certain extent, seems to be an acquired habit; particularly their use with our food. If *mastication* and *insalivation* were perfect, they would not be needed; for in chewing, carried on moderately, the salivary glands are excited to action, and throw out sufficient *saliva* to moisten the food without the use of fluids. Hence, the use of tea, coffee, and other fluids with our meals, is injurious in several ways: 1. by hastening the swallowing of food, before well masticated; 2. by moistening the aliment with liquid instead of the saliva, which is needed in digestion; 3. by diluting the *gastric juice* in the stomach, which is the essential agent in the digestive process; it thus becomes weakened, and consequently unfitted to fulfill its important purpose.

We have before sufficiently dwelt upon the injurious qualities of tea and coffee; it may be added, that they are decidedly constipating, particularly the former. Let us close by adding, that the temperature of our drinks and food is another point worthy of attention: very hot and very cold things are unfavorable to a healthy action of the stomach; the former, by diminishing the tone of this organ, and the latter, by suppressing its secretion. Ice, iced water, and ice cream, are objectionable as articles of daily food, but are often valuable remedies in the hands of the physician. All kinds of stimulating drinks are, also, pernicious: 1. by diluting the gastric fluid, as above stated; 2. by overstimulating the stomach. All alcoholic drinks have the property of preventing the decomposition, and, of course, retarding the digestion of food.

CHAPTER VII.

UTERINE DROPSY—CAUSES—SYMPTOMS AND TREATMENT.

UTERINE DROPSY consists essentially in the excessive secretion of fluid by the lining membrane of the uterus, and its accumulation, in consequence of the obliteration of the canal of the mouth and neck. It also arises in con

sequence of ulcerous discharges within the cavity of the uterus, which are retained in the same manner.

It occurs most frequently in married women of middle age—also, during pregnancy. When the accumulated fluid arises from the lining membrane of the uterus, it is of a serous or mucous character; but where it arises as the result of organic disease, or when it has been long retained, it is frequently dark-colored and offensive.

The quantity of the fluid accumulated varies; most generally, when it amounts to more than one or two pints, a passage is forced for its discharge. Occasionally, however, the uterus becomes distended to an alarming extent; authors mention cases in which from 50 to 180 lbs., have been found.

The CAUSES of this disorder have been attributed to blows upon the abdomen, but more generally to debility of constitution, and a universal dropsical diathesis.

SYMPTOMS.—After the disease has existed for some time, the tumor of the enlarged uterus, may be perceived at the lower part of the abdomen; it is moveable and fluctuating and gives a dull sound when percussed. When the accumulation becomes large, there is inconvenience from its size, with tenderness, and a dull pain in the tumor. The menses are almost always suppressed, but leucorrhœa is sometimes present. There is often sympathetic enlargement of the breasts, with occasional secretion of milk. In the advanced stage of the disease there is general debility of constitution, with loss of appetite, irregular bowels, etc.

Uterine dropsy is distinguished from *pregnancy* by the absence of quickening and the greater roundness and softness of the tumor. It is also distinguished from other diseases of these parts by comparing symptoms. If the mouth of the uterus be completely closed and the accumulation continue to increase, death from rupture of the uterus will result, unless relief be afforded by art.

TREATMENT.—The endeavor should be to evacuate the contents of the uterus. This may sometimes be done by inducing coughing, sneezing or vomiting. If this does not succeed, if possible, a canula must be passed into the cavity of the womb.

Should the neck be impervious, it must be punctured

with a trocar or other suitable instrument ; this operation is not unattended with danger, but there can be but little doubt as to its propriety.

After the evacuation of the uterus, the next object will be to produce a change in the secretion of the mucous membrane by diuretics, purgatives and alteratives. Counter-irritation to the sacrum, and uterine injections of mineral waters or astringents will probably be found useful. The general health must by no means be neglected. A suitable diet, air, and exercise without fatigue, will be of great service.

CHAPTER VIII.

MOLES, HYDATIDS, ETC., OF THE UTERUS.

THE term *mole* has been applied by some authors to a variety of shapeless masses, discharged from the uterus, whether detached polypus, clots of blood or blighted conceptions. To make the term more significant and intelligible we shall confine it to the latter, which we shall divide into three species—excluding from the list polypus, to be described elsewhere—1. False conceptions. 2. Fleishy Moles. 3. Hydatids. The two latter species may be regarded as mere varieties or transformations of the first.

1. IN BLIGHTED CONCEPTION the vitality of the *fœtus*, having been destroyed, it remains as a foreign substance. In most of these cases, but slight traces of the fœtus are to be found, as a portion of the *umbilical cord*—the remainder having been dissolved in the *liquor amnii*.

The whole mass is observed to be a good deal changed in size and form, as well as structure, by the effusion of blood and formation of coagula.

The CAUSES are very slight which may destroy the life of the fœtus at an early period of its existence : such as mental and bodily shocks and irregularities even of the nervous and circulatory systems. It is seldom retained in the womb more than two or three months, but if not expelled it becomes transformed into the fleshy mole.

2. THE FLESHY MOLE is a degeneration of the former species; it has become more shapeless and of a denser texture; the coagula seems to have become gradually organized. These moles are found in solid masses, and with a central cavity, in which there remains some of the liquor amnii. The larger ones, which are the solid moles, are about the size of the two fists.

3. HYDATIDS, or the vesicular mole. The development of these hydatids have been accurately traced. They are found in small numbers growing upon the outside of the ovum and placenta, as yet unchanged in form. They are observed gradually to encroach until the figure of the foetus is altogether obliterated.

The hydatid varies in size, from a pin's head to a grape; and in shape, from an oval to a round and elongated form. The quantity of these contained in the uterus varies; sometimes reaching to a large amount and resembling a cluster of grapes upon the stem.

These hydatids were formerly believed to be animals, possessed of an independent existence; but this supposition is abandoned by all recent writers. They generally remain longer in the uterus before their expulsion takes place, than the other species; and they have been known to be five or six years in accumulating.

There has been a question which involves an important point in legal medicine, whether moles are the result of conception? After excluding coagula and polypus from the list, among all modern authors, there is scarcely a dissenting voice from the affirmative. Dr. Churchill remarks: "We may, therefore, conclude that moles, properly so called, whether blighted conceptions, fleshy moles, or hydatids, are truly consequent upon sexual intercourse and impregnation; but in the practical application of this judgment to forensic medicine, we must not forget that this does not imply criminality or impropriety in every case; as for instance, a widow may have conceived during the lifetime of her husband, and the death of the embryo not having been followed by the expulsion of the ovum, it may remain in utero until after the death of the husband, and then be discharged without the slightest suspicion attaching itself to her conduct."

The SYMPTOMS, for the first few months, exactly resemble those of pregnancy. The menses are suppressed, the abdomen enlarges, the breasts increase, and secrete a milky fluid, etc. But it may be distinguished by the absence of foetal movement, pulsation of the foetal heart, and the continuance of the abdominal swelling beyond the period of *utero-gestation*. The health of the patient, generally speaking, does not suffer more disturbance than is dependent upon pregnancy.

TREATMENT.—The womb, sooner or later, makes an effort to expel its contents, when the usual phenomena of labor, or abortion occurs; there is a preliminary mucous discharge from the vagina, labor pains, etc., when the mole is expelled.

The process will not require interference, unless there be considerable hemorrhage, which may be arrested by applying cold, or plugging the vagina, as directed in the chapter on menorrhagia. Should it be deemed necessary, the ergot of rye may be given, in scruple doses; or, should the uterine distention be equal to pregnancy at the seventh month, the hand may be introduced and the mole brought away.

Subsequently, the patient should be managed as after ordinary labor, but with special reference to the flooding.

CHAPTER IX.

FIBROUS TUMORS OF THE UTERUS AND OVARIA—NATURE—CAUSES—SYMPTOMS, AND TREATMENT.

THIS appellation is applied to a species of fleshy tumor, which does not ulcerate, nor is it malignant, and is of inconvenience only from its mechanical effects. Such tumors consist of a mass of irregular fibres, often collected into a number of separate lobules, which are connected together by loose cellular tissue.

These tumors have been divided, according to their mode of attachment to the uterine structure, into those which have a pedicle, and those which have not; the *pediculated*

tumor is the proper polypus and will form the subject of the next chapter. The *non-pediculated* tumor is the subject of this chapter.

Fibrous tumors may either be imbedded in the uterine structure, or formed immediately beneath the serous or mucous membranes; in the latter case, they project externally or internally, causing an alteration in the figure, and diminution of the capacity of the womb. These tumors vary in number and size. Several of them are often found in different parts of the uterus, excepting the neck, where they are rarely seen; they are found of all sizes, from that of a pea to that of a man's head; in rare instances, they have been known to weigh as much as thirty or forty pounds. They are generally composed of a white or gray fibrous tissue, surrounded with a cellular structure; here and there may be seen portions softer and harder than the general mass, and sometimes interspersed with calcareous matter, consisting of phosphate and carbonate of lime, with animal matter. Their form is usually more or less globular, but they may be very irregular; the color, when cut into, may be dull, with numerous white lines, or resplendent.

CAUSES.—Various theories have been proposed to explain the formation of these tumors; by some, they have been regarded merely as lesions of nutrition, by others, as a species of concretion around a nucleus of blood or pus. Among the predisposing causes have been mentioned a lymphatic or scrofulous temperament, chronic leucorrhœa, œibacy, barrenness, abortion, certain sedentary employments, as those of the cook, seamstress, etc. Period of life seems to have an influence upon their development; the age from thirty to forty, and that from forty to fifty years, are the terms in which they are most frequently met with.

The *exciting* causes are equally obscure. It may, as a general rule, be correct to say that the essential cause consists in a certain mode of irritation, whose persistence, at a given point of the uterus most affected, determines at that point a new mode of *nutrition* and *vitality*, the precise nature of which, it will be forever impossible to explain, but which may to a certain extent, be compared with the

ligneous excrement arising from punctures made by the *Cynips Gallæ*, on the oak twigs that produce the nut-gall; such as punctures, fissures, excoriations, *abusus coitus*, and injury during labor. (*Colombat.*)

SYMPTOMS.—In most cases, the patient complains of a weight in the pelvis, bearing down, and aching in the loins. From the pressure of the tumor upon the bladder and rectum, the evacuation of their contents may be impeded, and a frequent desire produced to void the urine and fæces; cramps in the legs and thighs may occur, or dropsy of the lower extremities. If the tumor be large it may give rise to retroversion, or other displacements of the uterus. Menstruation is often interfered with; it may become suppressed, or excessive; the latter is rare. There is sometimes a mucous discharge, but the tumor is rarely ulcerated.

Conception may take place, but abortion is extremely liable to occur at the third or fourth month; if pregnancy go on to the full period, at parturition there is danger of flooding.

In some cases there is sympathy of the breasts, which become swollen. There are, sometimes, constitutional disturbances, which are secondary to those local ones mentioned. If the patient be thin, the tumor if sufficiently large, may be detected through the walls of the abdomen, or by a vaginal examination; the two modes conjoined is better, or, by the rectum, since by depressing the tumor felt in the abdomen, a shock will be given to the finger in the vagina or rectum. The enlargement of these tumors is extremely slow: months and even years may elapse, with little or no increase of inconvenience. It should be remarked that the investing membrane becomes occasionally ulcerated without participation of the tumor. Fibrous tumors are sometimes gradually converted into polypus, by a change in their attachment, from various causes.

The *prognosis*, in general, is not very unfavorable. They may be distinguished from other uterine degenerations by comparing symptoms.

TREATMENT.—The treatment of fibrous tumors is little more than palliative. It has been supposed that iodine and mercury have the effect of reducing them, but the latter

is now scarcely ever used for that purpose. Iodine may be resorted to with the hope, in many cases, of checking their further development, but little more can be expected. It may be used internally in the form of syrup and the compound tincture; but the most eligible mode of exhibiting it, in this condition, is, in form of ointment, externally, over the tumor. An excellent ointment is composed of five grains of iodine and a drachm of iodide of potash, to an ounce of lard; to be rubbed in, as above, two or three times a day.

The patient should avoid as much as possible, the determination of blood to the uterus, and when inflammation occurs, it may be subdued as directed in the chapter on Inflammation of the Uterus; any hemorrhage that may arise must be treated as directed under Menorrhagia. Other symptoms must be met as they arise;—in particular, the evacuation of the rectum and bladder must be assisted, if necessary, by art. Cupping the loins and leeches to the vulva, are useful, according to circumstances.

These tumors have occasionally been spontaneously absorbed, and oftener, separated from their connections by ulceration, and discharged by the vagina. Operations, imitating these efforts of nature, are resorted to for the relief of the patient, which will be described under Polypus of the Uterus. It is surprising how common these morbid growths are, and how rarely they are productive of bad consequences; as has already been remarked, they are of inconvenience, principally, from their bulk and weight.

FIBROUS TUMORS are found attached to, and imbedded in the substance of the ovaries, as well as the uterus; they are often coincident in both organs. These tumors are identical in structure, are produced by about the same *causes*, give rise to nearly the same *symptoms*, and the *treatment*, also, is the same with those of the uterus. They may be distinguished by an examination *per rectum*. Complete relief may sometimes be given by pushing the tumor up beyond the brim of the pelvis.

CHAPTER X.

POLYPUS OF THE UTERUS—CAUSES—SYMPTOMS, AND TREATMENT—WITH OTHER MORBID COLLECTIONS IN THAT ORGAN.

THE term POLYPUS OF THE UTERUS is used to designate a class of tumors, of the fleshy kind, which grow from the inner surface of this organ, and are attached to it by means of a pedicle or neck. These morbid productions do not much differ in structure, from those noticed in the preceding chapter ; there is, however, a difference of form, situation, and in the symptoms resulting.

Polypus is found attached not only to the body of the uterus, but, also, to the fundus, neck and mouth of the organ. They vary in shape, size, color, etc. They are generally of a pyriform shape, but are often found of an oval form. They are found no larger than a pea, and then again, of an enormous magnitude. Some are quite white, others reddish, and others dark brown ; their surface is generally smooth. Sometimes, instead of being attached by one stock only, two, and even three, are found.

Polypus, at the commencement of its growth, is enclosed within the cavity of the uterus ; but, as it increases, it gradually dilates the neck and mouth, passing insensibly through them, and protrudes itself, more or less, completely into the vagina. The expulsive force of the uterus sometimes detaches the polypus altogether, and entirely expels it.

Sometimes veins are discovered on the surface of these tumors, but in general, they are scantily supplied with blood vessels ; and as the circulation in them is not very active, it is difficult to explain the occurrence of the dangerous hemorrhages which often take place in them.

CAUSES.—These are the same as those mentioned in the preceding chapter, as giving rise to fibrous tumors, and to them the reader is referred. As polypus has been observed to occur after abortion and parturition, it has been

conjectured that a portion of placenta, or clot of fibrine may have been retained, which served as a nucleus for organization: undoubtedly some degree of irritation is requisite for their production. They occur most frequently in those of a lymphatic temperament, and of a sedentary life. They are not common before the middle age, but attack equally the single and married.

SYMPTOMS.—At an early stage of the formation of polypus, the symptoms are extremely obscure; but when the disease is considerably advanced, they assume a distinct and formidable character. The mucous secretion is increased and often becomes purulent, constituting a constant leucorrhœal discharge, which varies much in quantity and quality at different periods. This discharge is followed, sooner or later, by a mixture of blood from the surface of the polypus. This hemorrhagic discharge occurs irregularly, as to time and quantity, seeming to depend upon the determination of blood to the uterus, from any cause; it is the most formidable symptom of the disorder, and is often sufficient to reduce the patient to a dangerous condition. The appetite becomes impaired, the bowels relaxed; dropsy of the extremities occurs, etc. The blood may be discharged in a fluid state, or in clots, some of them being accurate moulds of the polypus; it may, also, be retained till it becomes putrid. It would seem that small polypi bleed quite as profusely as large ones. These symptoms are liable to be mistaken for those of leucorrhœa, or menorrhagia simply.

As the polypus increases, the symptoms become aggravated. Menstruation is very uncertain, as regards time and quantity. There is weight, dragging sensations, and pain in the back and loins; vomiting, with an increase of the dyspeptic symptoms; finally, great debility, and the patient may sink under the continued discharge, unless the bearing down pains that occur, break the stalk and expel the polypus, which sometimes happens—when the symptoms abate. When the tumor is large, there is pressure on the bladder or rectum, producing dysuria and tenesmus.

The presence of polypus does not prevent conception, unless it be quite large, but there is a constant liability to

abortion. When a very large one descends into the cavity of the pelvis, it is a serious obstacle to delivery, and requires instant removal. Polypus has been known to occasion prolapse and inversion of the womb. We should remark, that no case of uterine hemorrhage ought to be passed over without making a *vaginal examination*; the tumor may at once be discovered, if it be not retained in the uterine cavity, by its being rounded, smooth, and insensible, and generally pear-shaped; the stalk most often may be traced up to, or through the mouth of the uterus. If the polypus still remain in the cavity of the uterus, that organ will be enlarged in proportion to the size of the tumor.

Great care should be taken to distinguish polypus from, 1. *pregnancy*; 2. *vaginal hernia*; 3. *hernia of the bladder*; 4. *cancer*; 5. *cauliflower excrescence*; 6. *prolapsus of the uterus*; and 7. *inversion of the womb*, by diligently comparing all the symptoms.

TREATMENT.—We are first to determine whether the polypus be within reach or not, by a *vaginal examination*. When it is not, and in those cases where the evidences of its existence are slight, we must be satisfied with palliative measures, in attending to dangerous symptoms, supporting the constitution, and assisting the descent of the polypus.

The hemorrhage must be treated by the horizontal posture, cold astringent injections, plugging the vagina, counter irritation, astringents with opium internally, etc. Nutritious food and tonics should be given, and wine or brandy, if necessary, to support the patient. The ergot, given at this period, may be useful in two ways, viz: by restraining hemorrhage, and by assisting in expelling the tumor.

But when the polypus is within reach, nothing short of removal should be attempted, as that alone will save the patient. There are three principal modes of doing this; the one should be selected best adapted to the circumstances: 1. By *torsion*, or twisting it off. 2. By *ligature*, the polypus being allowed to slough off. 3. By *excision*, with the knife. *Crushing* has been added, that is, by breaking the polypus to pieces, either by forceps or the

fingers, and then extracting it. *Cauterization*, formerly proposed, is now never applied.

The two plans most often preferred are, by *ligature*, and by *excision*; the peculiar advantages of either of which, the experienced physician will be able to appreciate in particular cases. When the polypus is so large as to be with difficulty forced through the passages, the free application of belladonna ointment has been recommended; also, the division of the tumor, and even incision of the neck of the uterus.

After the operation of removal, whatever it may be, emollient injections should at first be used, to be succeeded by slight astringent and tonic ones; if inflammatory symptoms appear, they should be treated as directed for INFLAMMATION OF THE UTERUS.

OTHER MORBID DEGENERATIONS OF, AND COLLECTIONS IN, THE CAVITY OF THE UTERUS.

DEGENERATIONS and morbid collections, other than those mentioned, and of minor importance, sometimes occur in the uterus.

CALCULUS OR STONE.

ALTHOUGH this is a rare affection, a sufficient number of cases are on record to entitle it to notice. M. Louis, an eminent French physician, has collected most of the cases that have been recorded by authors for the last few centuries. He mentions one that weighed nine drachms and a half; another, which weighed four ounces, but *might* have weighed a pound, had the material not been so porous. One of the most curious cases, is that mentioned by Bartholin, wherein a rough, black calculus weighed four pounds; another, equally remarkable, is reported by Ruysch, where he removed from the womb forty-two stones of different sizes.

The CAUSES of the formation of uterine stone are somewhat obscure. Louis supposed that they proceeded from the degeneration and aggregation of the morbid secretions of the organ, in the same manner as urinary and biliary

stone is formed in the bladder and ducts of the liver ; quite recently, the more general opinion has obtained, that they are produced by the changes undergone by fibrous tumors, which have been detached from their place of formation. They may, also, arise from fragments of an embryo, or mole, and in short, from any foreign body in the womb, which may constitute a nucleus for concretion.

These calculi may exist in the uterus a long time without giving rise to much inconvenience. The *symptoms* are very obscure ; sometimes there is a sense of weight and dull pain in the back and loins ; sometimes an intolerable itching of the vulva, with discharges from the vagina. Sometimes bearing-down pains come on, and the calculus is spontaneously discharged ; this may be assisted by baths and emollient injections.

When a calculus gives rise to inconvenient symptoms from its size, its extraction should be attempted by long narrow forceps made for the purpose.

OSSEOUS AND CARTILAGINOUS FORMATIONS.

THESE occur mostly at an advanced period of life ; either from similar causes as the preceding formation, or from a degeneration of a part or nearly the whole of the coat of the uterine vessels, producing sometimes complete obliteration of the mouth of the organ.

PHYSOMETRA, OR UTERINE TYMPANITES.

THIS has been applied to the accumulation of a gaseous fluid in the cavity of the womb, which is said to take place under different circumstances : it may be a secretion of the mucous membrane, or arise from the decomposition of a portion of the placenta, a clot, or of some of the lochia. This affection is so extremely rare, that many modern authors are disposed to doubt its existence. We have some remarkable accounts of it from the ancients, who supposed that the accumulation might take place to an alarming extent ; but they are now regarded as somewhat fabulous.

It is true, that immediately after delivery, the womb in its alternate contractions and expansions may draw up air,

which is expelled again with an explosive report from the vagina ; and it is probable that gas may be generated from decay of a portion of the placenta, or be secreted by the lining membrane. But these are of little consequence, as long as the mouth of the uterus remains open for its discharge ; should it by any accident become closed, it is easy to conceive how distension of the womb might take place. But, as we have already remarked, this occurrence is so rare that many physicians doubt its ever taking place.

CHAPTER XI.

CAULIFLOWER EXCRESCENCE OF THE UTERUS—NATURE, SYMPTOMS AND TREATMENT.

THE term CAULIFLOWER EXCRESCENCE, has been given to a morbid growth, from a part, or the whole, of the circumference of the mouth of the uterus ; it is sometimes, though rarely, found upon the surface of the uterine cavity. It is met with in females of all ages, and all temperaments, in the married and unmarried, without regard to habits, or residence. (*Churchill.*)

Its CAUSES are extremely obscure ; it cannot be considered the result of injuries, and Dr. Clark thinks that the disposition to it is hereditary.

SYMPTOMS.—The tumor is very vascular, of a bright fleshy color, with a smooth or slightly granulated surface, upon which are numerous small projections. The structure is somewhat firm, and disposed to bleed ; it is covered with a delicate membrane, which gives rise to a copious watery discharge. This discharge is the first symptom noticed by the patient, which sometimes becomes enormous. Soon, it is observed to be mixed with blood, and hemorrhage occurs to an alarming extent, producing all the symptoms of constitutional exhaustion. At this period bleeding may be produced by slight causes, as *coitus*, defecation, and even an examination ; during the intervals the watery discharge goes on as before. The stomach and bowels become much disordered, vomiting occurs,

and the patient may die of dropsy, or effusion into some of the great cavities of the body.

An examination *per vaginam*, reveals the appearance of the tumor as above described; it is insensible and varies in size, from that of a strawberry, to that of a bulk sufficient to fill the whole vagina and protrude at the vulva. The tumor, if extirpated, is liable to be reproduced.

It may be distinguished from *polypus* by its soft and granulated surface, and by its disposition to bleed when touched, and by the absence of a pedicle; from *cancer*, by the difference of symptoms, and by its insertion into the lip of the mouth of the uterus.

TREATMENT.—It is doubtful whether the progress of the disease can be arrested, except by excision. We should direct a recumbent posture; an avoidance of determinations of blood to the uterus; a mild, unstimulating diet; and an avoidance of mental and sexual excitement. The patient should, of course, live *absque marito*. Derivatives to the lumbar region are often useful. We should endeavor to arrest the watery discharge and hemorrhage, by cold sponging the loins and vulva, by the *douche*, and by astringent injections; for this purpose, any of the astringent decoctions, or solutions may be used. When the tumor fills the vagina, it has been recommended to pour the astringent lotion into that organ, while the patient is lying on her back, with the hips elevated; or lint, dipped in the lotion may be applied. The bowels must be kept free.

Dr. Churchill has met with complete success, in curing this affection, by first removing it with the ligature, and then applying strong caustic (muriate of antimony) to the spot from whence it was removed. And, if we do not succeed in arresting the hemorrhage, by the means above mentioned, there is no doubt of the practicability of this method, even if the tumor grow again, as it frequently will; for the patient, if left to herself, must certainly very soon die. Any one of the ligatures in common use may be applied, and when the tumor is separated, astringent injections must be used, which will check the disposition to reproduction. Lastly, we should remark, that amputation of the neck of the uterus has been recommended as a permanent means of cure for this disorder.

CHAPTER XII.

CORRODING ULCER OF THE UTERUS—NATURE—SYMPTOMS— DIAGNOSIS, AND TREATMENT.

CORRODING ULCER of the neck of the uterus is a malignant disease, and may extend to the fundus, implicating the whole organ, as well as, occasionally; the bladder, vagina, and rectum. It commences upon the mucous membrane, in the form of a small ulcer, gradually destroying the uterus, if not arrested, and with it, life. It has often been mistaken for cancer, and is doubtless very similar to that disease. It attacks females of the lymphatic temperament, especially; rarely appears before the age of forty, and most often about the period of the cessation of the menses, or soon after.

SYMPTOMS.—In some cases, this grave disease is preceded by uneasiness and pain in the pelvis, and by leucorrhœa; but in other cases, attention is first directed to it from the profuse hemorrhage, which may be mistaken for menorrhœgia simply. But upon *examination*, ulceration of the neck is discovered to a greater or less extent; with a rough, granular surface, which may be but slightly tender, or very painful. The hemorrhage and pain are not continuous, but the ulceration continues to spread.

At this period, during the intervals of bleeding, a thin, profuse and offensive discharge takes place from the vagina. There is now weakness, weight and pain in the back and loins; the patient becomes emaciated; there is sickness of stomach, with loss of appetite; the bowels are irregular; the skin becomes dry and sallow, and a low fever sets in, with a quick small pulse. The distress of the patient is often increased by excoriations of the vulva, caused by the acrid discharge. The disease may now advance rapidly, and destroy life, or it may continue for years without producing that event.

When the discharges are augmented, all the above

symptoms become aggravated, and the patient ultimately sinks from exhaustion, or is carried off by peritonitis, from the extension of the ulceration to that membrane.

There is great similarity of this disease to *cancerous ulceration*; but preceding the latter, there is extensive deposition in and about the uterus, rendering it immovable; whereas, in corroding ulcer, no deposition having taken place, the uterus can be moved by gentle pressure. By examination *per rectum*, as well as *per vaginam*, and taking into consideration the above facts, the true nature of the malady need not be mistaken.

The *prognosis* of this disease is always unfavorable, there being but little hope of a permanent cure.

TREATMENT.—Should the disease be detected early, which is seldom the case, the abstraction of blood from the part by leeches has been recommended; hip-baths may, also, be serviceable at this period. But if ulceration have commenced, we should make applications calculated to arrest its progress, and excite a healthy action, although there is seldom but little hope of doing either. The applications of caustic iodine, nitric acid, deuto-nitrate of mercury, nitrate of silver, muriate of antimony, etc., have been recommended for this purpose by different authors; those first mentioned have been found the most useful. They should be applied through the speculum, and followed by the use of emollient and opiate injections.

If these remedies fail of arresting the disease, we must rest satisfied with palliating the more distressing symptoms; for this purpose, morphine, opium, hyosciamus, etc., may be given to alleviate the pain; astringent injections may be made use of to check the discharges; and mucilaginous, aqueous, and anodyne ones, to cleanse the vagina and assist in relieving the pain. Extreme cleanliness should be observed by washing the external parts two or three times a day, with tepid milk and water; and the bowels must be kept free by mild laxatives or enemata. The diet should be nutritious but not stimulating.

It has been suggested that excision of the neck of the uterus is the more appropriate remedy; and it might be successful if practiced early, before the health becomes much impaired, or the ulceration extensive.

CHAPTER XIII.

CANCER OF THE UTERUS AND OVARIA—NATURE—CAUSES— SYMPTOMS AND TREATMENT.

CANCER is the most fearful and destructive disease to which the female genitive apparatus is obnoxious; it is the most fatal in its progress, and the least controllable by remedies. Although it is frequently met with, it is, comparatively, not a common malady. It may be defined to be a disease arising from various causes, which are often obscure: frequently from hereditary predisposition, in the the middle or advanced periods of life; commencing with a local hardness, consisting of a morbid deposit in glandular parts, which subsequently ulcerates, most commonly in its centre, destroying surrounding parts, and ultimately contaminating the constitution—being attended with emaciation, and generally considerable, and not unfrequently intense pain.

It most often attacks the uterus in the glands of the neck, at about the period of the cessation of the menses, and single women, or those who have borne no children, seem to be most obnoxious to it; young persons being mostly exempt from its ravages. The following table, from Madam Boivin and M. Duges, throws much light upon the time of occurrence of this disease.

Out of 409 cases of cancer of the uterus, there were:

Under 20 years of age,	12	From 40 to 50,	201
From 20 to 30 “	83	“ 50 “ 60,	7
“ 30 “ 40 “	102	“ 60 “ 70,	4

Following the course of the disease, from its commencement by a hard morbid deposition, that after some time, longer or shorter, ulcerates by softening in the centre, there are two distinct stages, which we shall consider separately: 1. That of hardness, known as *scirrhus*, or

cancer. Some authors have included diseases, which we have more properly described under other heads (*corroding ulcer and cauliflower excrement*) as varieties of cancer, which has given rise to much discrepancy and confusion. Other authors have made a distinction, into *cancerous ulcer* and *ulcerated cancer*; in the former the ulceration being the primary affection, and the morbid deposition secondary; we should remark, that though this species has occurred, it is extremely rare.

1. *Scirrhus stage*: At the commencement, it is distinguished by hardness, coldness, insensibility, paleness, and a deficiency of red blood-vessels—all indicating a low degree of vitality. When fully developed, it consists of a hard, firm, incompressible and unequal mass, the limits of which are not distinctly definable; its color is generally of a light grey, and when cut into thin slices, semi-transparent. Upon close examination, it is found to consist of two distinct substances: the one which composes the chief part of the diseased mass, is hard, fibrous and organised; the other is soft, and apparently inorganic.

At the commencement of scirrhus disease of the uterus, the organ, for sometime preserves its natural aspect and color, being changed merely in volume and density; as the disease advances, the tissue of the organ becomes more obscure, until it entirely loses its normal character.

2. *Cancerous stage*: Soon, portions of the scirrhus mass begin to soften, and pass into a state of unhealthy ulceration. The soft or inorganic substance, above noticed, forms a thin ichorous matter; the establishment of this condition appears to arrest the deposition, as the uterus increases but little in bulk after this period.

Cancerous tumors always have a tendency to extend to, and contaminate the glands in their vicinity. Consequently we find, that after a while the glands in the pelvis, and even those in the groin, often participate in the disease. The vagina, bladder, and rectum, and even the ovaria and tubes, may also become affected.

CAUSES.—The *predisposing* causes, are hereditary predisposition, age, constitution, mode and habits of life. It will be seen by referring to the statistical table before given, that cancer of the uterus is more frequent in pro-

portion as that organ is in a greater state of activity, and particularly just before and after the "change of life." Badly *regulated* women; those who are nervous and subject to vivid emotions; those of an erotic temperament, who give themselves up to masturbation or venery; those who pass their lives tumultuously in fashionable society; those in whom an habitual leucorrhœa, and neuralgic or rheumatic pains have suddenly ceased; finally, women who have borne many children, or have had numerous abortions, are more subject than others to cancer of the womb. We should also mention as belonging to this class, sterility, celibacy, violent grief, strong paroxysms of anger and joy, etc. Although no temperament is exempt, it would seem that women of high color and sanguinous constitution, are its most frequent subjects.

The *exciting* causes, are all those which give rise to *inflammation of the uterus*, mechanical violence, as blows, long-continued and inordinate local pressure; criminal attempts to prevent conception and to procure abortion; the presence of a foreign body in the vagina; contusions, from disproportion of the organs in married people; masturbation and venery before puberty and after the critical age; and finally, all causes capable of producing inflammatory and congestive engorgements of these organs.

SYMPTOMS.—1. *Scirrhus*: The symptoms, at first, are so very slight, as not to excite uneasiness, till the disease has made considerable progress. Then, the menses may be deranged, either by augmentation, diminution, transient suppression, or frequent and irregular return; there may be a leucorrhœal discharge, with a redder tint after *coitus*; sensations of pressure, weight and dragging in the loins, and about the anus; and painful sensations during the expulsion of the urine and fœces. Some women experience a sort of voluptuous pruritus in the genital parts; marital connexion, generally, though not always, causes more or less acute pain; to these symptoms are added acute pains in the breasts and different parts of the body, melancholy, hysterical attacks, disgust for food, and strange longings.

When such symptoms as these occur, it is of the greatest importance to make an *examination*, to ascertain the

nature of the evil; delay might expose the patient to irremediable danger, as this is the only period in which the disease is, in the least, amenable to treatment. The mouth of the uterus is found more open than usual, tumefied, hard, warm, and painful, and sometimes softened, and uneven at different points; the posterior lip is found larger and more projecting than the anterior; and the finger, when withdrawn, is commonly found covered with bloody mucus. It may often be difficult to distinguish the first stage of cancer from chronic inflammation, but in either case not a moment should be lost in the application of remedies.

It is certainly very remarkable, that so grave a disease should admit, during its progress, of the possibility of conception; this, however is the fact, for several such cases are on record.

2. *Cancerous stage*: How long the first stage may continue is uncertain; in some patients, it may last for years, and in others, for a much shorter period. There are three symptoms at this stage which deserve particular attention, viz: the *pain*, the *hemorrhage*, and the *discharges*.

1. *The pain*: The pain in cancer of the uterus is quite distinctive; it is described as *lancinating*, as though knives were being plunged into the body. It, however, varies, being sometimes *burning*, and occasionally, there is very little of any kind. Its location is through the pubes and loins, and down to the anus and thighs; sometimes it is situated in distant organs.

2. *The hemorrhage*: This occurs very soon after the ulceration commences; in many cases it precedes the pain and is the first symptom that excites the alarm of the patient. It is frequently mistaken for menorrhagia; but its real character must be ascertained by a *vaginal examination*.

The amount of blood lost varies a good deal in different persons; it is some times very large. The progress of the ulceration appears to be arrested, and the pain relieved for a short time after each flooding; though the weakness of the patient is much increased.

3. *The discharge*: The moment ulceration commences

the odor of the discharge becomes foetid and almost insupportable; its color varies from a dirty white to a dark brown, green, or black, occasionally tinged with blood. Besides being a great annoyance to the patient it now almost forbids that degree of attention from friends which is so consoling to the sick. It is also extremely acrid, giving rise to extensive excoriations around the mouth of the vagina, and extending to the anus.

After some time, the bladder and rectum become still more affected, producing much suffering from dysuria and tenesmus; and when the ulceration reaches those organs causing their contents to be discharged into the cavity of the pelvis, and even reaches to the external organs, the measure of the sufferings of the patient is full.

When a woman reaches this frightful period of the disease, she presents the most heart-rending picture of human misery; in fact, the functions of assimilation are exhausted; appetite is gone, digestion is deranged in a thousand ways; emaciation, more or less rapid, sometimes passes into marasmus; the osseous system participating in the disease, becomes fragile, and breaks of itself, as it were. The skin, which is dry, swollen, wrinkled, and adherent to the bones, assumes the dull, white color of wax, or the yellow straw color which characterizes cancerous affections; the attitude has a peculiar character in this diseased condition; the sad and drooping expression bears the impress of suffering and depression; the eyes sunken in their orbits, the livid and singularly contracted lips, the fuliginous teeth, the drawn hippocratic face, furrowed with deep wrinkles, give to the patient the aspect of a corpse: finally, colliquative diarrhœa, symptomatic of intestinal ulceration, vomiting, general dropsy, hectic fever, insomnia, intolerable sufferings, profuse hemorrhages, despair and death come to complete this sad and afflicting scene. (*Colombat.*)

Although the order of symptoms we have described, are observed in most cases of cancer of the womb, yet, of course, there is more or less variation; in rare cases, as we have remarked, there will be little or no pain, and in others, but little hemorrhage. The *prognosis* is extremely unfavorable. Care must be taken to distinguish this disease—1. from *simple induration* and *ulceration*; 2. from

fibrous tumors, moles, and hydatids; 3. from *corroding ulcer*.

TREATMENT.—Whether this formidable disease is curable, even in its earliest stages, is, to say the least, questionable. Notwithstanding, many able men have employed certain remedies against what they supposed to be cancer, and, according to their testimony, with beneficial results: those who have flattered themselves that they have succeeded in curing it, have probably been deceived by their success with ulcers resembling the one in question. The remedies which have been used at different periods with apparent success, are cicuta, bitter tonics, with alkalies, belladonna with rhubarb, hydrochlorate of baryta, cyanuret of lead, oxyde or muriate of gold, iodine, etc.

All our means should have for their object, to arrest and crush the disease at its origin; to remove all exciting causes, and prevent its return by the most attentive care. There seems to be good reason to suppose that the primary source of cancer of the uterus, is chronic inflammation of that organ; therefore, to avoid and cure this disease, upon which cancerous engorgement often, to say the least, depends, is to save the woman from the most frightful of diseases. Even when we can do no more, so long as the complaint can be kept in the first stage, the life of the patient is in no immediate danger, and her comfort but slightly interfered with.

1. *Scirrhus*: The treatment of the first stage of cancer is nearly the same as that directed for *chronic inflammation*, and *simple ulceration* of the uterus. (See those chapters.) The indications are, revulsive bleedings, exutories, and a soothing regimen; a milk diet should be directed, white meats, repose, baths, emollient, narcotic and astringent injections, enemata, poultices of the same nature, and the other remedial agents, and hygienic directions, already mentioned.

The diet should be restricted and simple; the patient should be *gradually* deprived of about one half of her ordinary food. Milk and vegetables should principally comprise the articles used; white meats and fish may be cautiously used, if milk does not agree; bread, rice, Indian, or rye mush, or that made from the unbolted wheat, are

particularly applicable, as they obviate costiveness. Every thing stimulating must be prohibited, whether food or drinks. The fruits of the season may be allowed, with tapioca, oat meal, sago, Indian meal, gruel, etc. Let it be remembered that a *low diet* is an important means in the treatment of cancer.

Bleeding should be employed, with care, where plethora exists; bleeding from the arm, if the pulse indicate it, otherwise, cupping the loins, and the application of leeches to the vulva and thighs. Tepid, *general bathing* is very useful; and mild purging, with neutral salts, rhubarb, etc., must not be neglected.

The injections must be sometimes emollient, as starch, mucilage, etc., at others narcotic, or slightly astringent, according to circumstances. *Irrigations*, or prolonged injections, either simple or medicated, are still more powerful means. *Absolute repose* must be directed, and during the day on a mattress thrown upon the floor.

Narcotics, internally, as morphine, opium, hyosciamus, and cicuta, and by injections of decoction of poppy heads, hyosciamus, etc., to relieve pain, will be found useful. Also, iodine should be perseveringly given: lime water, extract of cicuta, and the ergot have been recommended. The fœtor of the discharge may be destroyed, or much lessened, by injections of a solution of chloride of soda and creosote. For the purpose of moderating the profuse watery discharge and hemorrhage, we must resort to cooling astringents, internally, and by injection; but it should be remarked that their suppression invariably hastens the progress of the ulceration. Lastly, we should mention among the means of relieving the sufferings, and prolonging life in these disastrous cases, the use of the catheter for the purpose of relieving the bladder; and, also, in constipation, the use of mild laxatives, as decoctions of tamarinds and prunes, as well as enemata of honey and olive oil, etc., and by appropriate suppositories. Constant attention to cleanliness is to be observed throughout the disease.

2. *Cancerous stage:* The treatment now becomes more complicated, but less effective in relieving the patient. The rapidity of the progress of the disease is greatly increased and all we can expect to do by the power of medicine is,

to give temporary relief by a sedulous application of all those means just mentioned for the first stage. The question of calling in the aid of surgery must now be decided, as no remedy is supposed to be too desperate, which offers the slightest chance of relief; according to the extent of the destruction, either *excision of the neck*, or *extirpation of the whole uterus* has been proposed; but of these formidable operations, it does not come within our purpose to speak, in this volume.

CANCER OF THE OVARIA is, without doubt, the most serious disease to which those organs are exposed. It is quite as frequent as cancer of the breast, which we are soon to notice, and nearly as much so as cancer of the uterus. Its time of occurrence varies a little from the last named disease, appearing more frequently during the middle period of female life.

There are very few circumstances in which this malady differs from the one last described; it presents about the same characters and symptoms, which only vary in the first stage on account of the difference in location. Its progress, particularly in the first stage, is slower, and it attains a much larger size; it frequently occupies years in forming, and is in its last stage often associated with uterine cancer. It probably originates from, and follows, as in the uterus, chronic inflammation. Indeed, when we reflect upon the activity of the ovaria, and the derangements to which their function is subject, (which we have enumerated,) at every epoch of menstrual life, it is not wonderful that they are liable, at a later period, to more serious disease. Its treatment, when fully established, is only palliative, the same as previously mentioned for cancer of the uterus, by which life may be much prolonged. It is unnecessary here to repeat those cautions of attention on the part of the female to earlier derangements, that we have so often pointed out in the course of this work, by which, without doubt, these more serious maladies might be often avoided.

CHAPTER XIV.

CANCER OF THE BREAST—CAUSES—SYMPTOMS AND TREATMENT.

It is a sad reflection that woman, who is destined by nature to give us existence, while in the performance of those high duties, should become the victim of the most fearful diseases. Cancer of the breast, from its being more easily observable, and accessible, has excited more attention, and is more within the reach of the healing art, than the occurrences of it already described.

Notwithstanding the mammary glands are originally the same in both sexes, this disease but rarely attacks the male, while it is a common affection of the female, occurring most frequently in those in whom the peculiar function of the breasts has been brought into action by child-bearing. Its most frequent occurrence being connected with the great afflux of blood to the breasts for the secretion of milk, it may be reasonably supposed the result of a chronic inflammation there generated from various causes, which we shall more particularly describe when we speak of *inflammation of the breasts*, in Book II., of this volume. Cancer of the breast has been met with at the age of twenty and of thirty, but much more frequently at a more advanced period. There are several varieties of this disease, which it is unnecessary for us to dwell upon.

CAUSES.—First, among the *exciting* causes of this formidable disease, may be mentioned, the pressure of tight corsets, adjusted with a view of pushing the breasts upwards, or, on the other hand, to flatten them and lessen their apparent size; the inconsiderate use of discutient applications to the breasts, when inflamed or affected with simple and chronic engorgements; the sudden impression of cold air, especially soon after a confinement, and the astringent applications designed to check the secretion of milk; in short, any thing which has the effect of irritating

this organ, and giving rise to milk or congestive engorgements, produces a condition which may degenerate into cancer. Other *internal* causes may be mentioned, as irregularities and suppression of the menses; the cessation of a chronic leucorrhœa, an old issue, or piles, and certain cutaneous eruptions; the metastasis of gout, rheumatism, erysipelas, etc.—all of which may give rise to cancer, particularly when a certain predisposition to it already exists, known as the *cancerous diathesis*.

SYMPTOMS.—As these do not vary, excepting in a few slight particulars, from the general course of those enumerated under *cancer of the uterus*, we shall only mention the following unmistakable characteristics: the tumor, which is seated upon some part of the breast, is hard, unequal, indolent, insensible to pressure, movable with the fingers, and the skin is of a natural color; if this tumor have existed for some time, and particularly if it have resisted the treatment for scrofula and chronic inflammation, and become the seat of sudden, lancinating pains, its character need not be doubted.

By degrees, the tumor increases, and at length it softens in some place or places; the glands of the axilla become swollen, hard, painful, and filled sometimes with cancerous matter; the tumor breaks, perhaps through the skin, and presents the shocking spectacle of “open cancer;” the general health gives way, and the skin presents a straw colored tint. During this process, unless the patient die prematurely, or the original disease be removed by a surgical operation, cancerous tumors form in one or in several of the internal organs, and give notice of their presence by appropriate symptoms. (*Watson.*) Our space will not allow of our pursuing the subject further, in painting the *horrors* of its *progress* and *termination*; neither is it necessary, and we shall close the subject by pointing out the most appropriate remedies for its relief.

TREATMENT.—The treatment of cancer of the breast is divided into the *preventive*, the *curative*, and the *palliative*.

1. *The preventive*: This consists in combating and removing by the most suitable means, certain diseases and derangements of the functions which, it is supposed, may prove to be the sources of cancer; such as *milky engorge-*

ments, and the different acute and chronic inflammations of the breasts, scrofulous swellings, so called, etc. Timely attention to these various affections is of the utmost importance. The *preventive* treatment, therefore, is nothing more than the *curative* treatment of the pre-existing disease. It is by this method that many distinguished physicians, having dissipated the various chronic engorgements of the breasts, have believed that they have cured cancer, when, in fact, they have only prevented it.

The treatment of such engorgements and tumors of the mammæ, consists, first, in removing the causes, when they are discoverable, and then resorting to the employment of different means, which will be more particularly pointed out in Book II., under *inflammation of the breasts*. We remark here, that if the disease be in the acute stage, and the woman plethoric, a general bleeding will be useful; then the application of leeches about the tumor, which should afterwards be covered with an emollient poultice. An observance of the following directions will very much contribute to a cure: a *mild diet*, the same as mentioned under *cancer of the uterus*; demulcent and diaphoretic drinks; bathing and frictions of the skin; moderate exercise, avoiding violent movements of the upper extremities, so as not to interfere with the diseased gland; residence in a dry and well aired situation; gaiety, with quiet and agreeable amusements; and, finally, a perfect performance of all the functions of the economy.

As soon as the tumor *ceases to be painful*, by the employment of these various means, and *not before*, discutients, and resolvents, may be made use of, with the precaution, however, at first, of associating them with emollients, lest they produce inflammatory action. Poultices of flax-seed, etc., with elder flower water, infusions of camomile, decoction of roses, or soap and water, may be used; then, stimulating liniments, and plasters, as the camphorated, ammoniated, and mercurial; and, lastly, great good may be expected from the use of the tincture of iodine, externally, as well as internally. At the same time, the bowels must be kept free by mild aperients, and some of the bitter tonics and alteratives should be exhibited. Small blis-

ters, and the occasional application of leeches to the part affected, have, also, been recommended.

2. *The Curative*: Whatever designing individuals may say to the contrary, confirmed cancer is incurable by the resources of medicine alone; it is so regarded by almost all the eminent physicians of modern times; there is no other remedy than the knife. We cannot better present and fortify our sentiments upon this subject, than by making the following extracts from Dr. S. Cooper, of London: "When the breast is affected with scirrhus, or ulcerated cancer, the imprudence of tampering with the disease cannot be too severely censured. Were the disorder unattended with a continual tendency to increase, some time might be properly dedicated to the trial of internal remedies and external applications, which have acquired any character for doing good in these unpromising cases. But, unfortunately, by endeavoring to cure the disease by medicine, we only afford time for it to increase in magnitude, and at length attain a condition in which, even the knife cannot be employed to take away the whole of the diseased parts. When the case is marked by the characteristic features of scirrhus, noticed in the article cancer, the sooner the tumor is cut out the better.

"There are, also, some malignant kinds of sarcoma, (fleshy tumors,) to which the female breast is subject, which cannot be removed at too early a period after their nature is suspected or known. Indeed, though there is not equal urgency for the operation in many other tumors, yet, as the most of them are continually growing larger, and little success attends the attempt to disperse them, the practitioner should never devote much time to the trial of unavailing medicines and applications, and let the swelling attain a size which would require a formidable operation for its excision. It is, also, to be remembered, that many simple, fleshy, indolent tumors, are accompanied with a certain degree of hazard of changing into very malignant forms of disease."

Experience proves that, most often, when cancer is removed in its early stages, it is successful in preserving the patient from a lingering and awful death. Even if the disease return after a few years, as it occasionally will,

the condition of the patient is far better, and the suffering inconceivably less, by submitting to the operation; and now, that it can be done while the patient is wholly unconscious—under the influence of sulphuric ether—she ought not to hesitate. For the purpose of guarding our readers against a certain class of empirics who infest the country, professing to cure cancer, we quote the following sensible and very true remarks of Dr. Dixon's, upon the subject of "cancer plasters": "It is a deplorable reflection, that human cupidity can be found of so base a character, as not to scruple to speculate upon the infirmities and lives of the unfortunate: but so it is. We are constantly reminded of the weakness of our moral nature, by the facility with which the unfortunate are induced to use remedies boldly announced as capable of curing cancer, aided by the attestations of others, who corroborate their assertion, from ignorance of the disease.

"If the mind, under suffering, only retained its calmness, there could not be so much error on this subject. None of these empirics pretend that their remedies do not produce pain; they are all employed to 'eat out the cancer.' Several weeks' application is often necessary, according to their own account; and then, should the sore heal up, it is certainly evidence that it could not have been cancer; for, in the name of reason, how could the plaster evince such discerning powers, as to select the diseased parts and leave the sound flesh? The surgeon uses the greatest care to include, in his rapid incisions, every particle of the 'hardness,' well knowing if he does not, the disease must return: Arsenic, mercury and lead, in some of their forms are the basis of these plasters; and the inexpressible agony—as we have been told by those who have undergone their application, and, after all, been obliged, when too late, to submit to the operation—is far greater, each moment of their action, than the knife; and this continues for days, and often weeks together. It is but a short time since the coroner was called to inspect the body of the unfortunate mother of a family in this city, who had been poisoned by the absorption of arsenic from a plaster applied by one of these wretched traffickers in human life. We were called to see another, who had

lost an eyelid by the corrosive action of a similar preparation; and this, too, as she assured us, for a trifling enlargement of a little blood-vessel—‘a mere speck, the size of a pin’s head,’ as she expressed it—that had remained from infancy to her twenty-fifth year! What more conclusive evidence that it was not a cancer, could there be? Cancer never attacks an infant, as every one knows.” These cases, and similar ones, are numerous all over the Union: sufficiently so, it would seem, to demand the attention of Government, to prohibit such fatal practices.

Palliative treatment: When cancer of the breast, from extensive destruction of the parts, is no longer in a condition for an operation, or, when the patient refuses to submit to the operation, certain remedies are useful in prolonging life, and in more gently conducting her to the grave. With this view, a milk and vegetable diet, with the white meats only, should be allowed. The pain and nervous symptoms must be opposed by opiates and antispasmodics, in the form of potions, pills, enemata, etc.; also, anodyne, fomentations, and cerates to the part; and, finally, the use of baths, and the occasional application of leeches, are not to be neglected; and happy for them, if they can add to the oblivion of their ills, the sweet illusions of hope!

THERE are a variety of other tumors of the breast, that require about the same treatment as cancer; the principal of these are, the *encysted, and fibrous tumors*; which, from their liability to degenerate into malignancy, should, without hesitation, be extirpated. Finally, *scrofulous tumors* of this part, which are sometimes followed by ulcers of cancerous appearance, but readily distinguished by the absence of shooting pains, etc., rarely resist the anti-scrofulous treatment, which is by the internal and external exhibition of the preparations of iodine.

CHAPTER XV.

DISEASES OF THE OVARIA AND FALLOPIAN TUBES—ENCYSTED DROPSY—CAUSES—SYMPTOMS AND TREATMENT.

DISEASES of the ovaria and Fallopian tubes are, in general, so obscure, that we need not, in this work, enter intimately into their description. In treating of the disorders of the uterus, we referred to similar affections of these organs, for the purpose of showing their connection; such as *acute* and *chronic inflammation*, *fibrous tumors*, *displacements*, and *cancer*; all of which, are more or less common to all these organs, and occur under similar circumstances. We now refer to them for the purpose of their inclusion in one view, and of showing their relation to an important disorder, which is the subject of this chapter.

Chronic inflammation of the ovaria, from causes which will soon be pointed out, is now charged with the agency of producing these abnormal degenerations, as well as those which we are now to mention. The organs that are now under consideration, have been found, in making dissections, to contain hair, portions of bone and teeth, which are sometimes supposed to be relics of abortive conceptions, and at others, of monstrous or unnatural formations, inasmuch as they have been found in other parts of the body, and even in males, and virgins before puberty. Such preternatural products have often been met with, but as they rarely grow to a large size, their existence is seldom suspected during life. Chronic inflammation, too, besides ending in *abscess*, *induration*, and the diseases above mentioned, very often gives rise to encysted tumors, known as *dropsy of the ovaria*.

ENCYSTED DROPSY OF THE OVARIA is one of the diseases to which the female is most liable: although it has been known to attack young females who have not menstruated, it is far more frequent during the period in which the

ovaria are in the full performance of their functions. The disease consists merely in a morbid accumulation of fluid in one or more of the Graafian visicles, or in the Fallopian tubes. Notwithstanding, it is probable that the formation of these cysts is always the same, it has been divided into several varieties, which it is not necessary to notice, they having reference principally to the number of cysts, or sacks, that contain the morbid fluid, of which the disease consists.

The texture of an ovarian cyst is fibrous: sometimes very thin, and at others, on the contrary, very thick. The fluid is generally serous; it may be limpid, ropy, albuminous, gelatinous, sanguinous, purulent, of a chocolate color, or like coffee grounds, etc.: it sometimes undergoes putrefactive decomposition. The quantity of this fluid varies very much in different cases; at first, the accumulation is scarcely perceptible, but it may become enormous: from fifty to one hundred pounds, and even more, has been mentioned as having been found. At first, but one of the ovaries is generally affected, but when it is of long standing, both almost always become implicated. It should be remarked, that this disease is often combined with a cancerous state of the cyst.

CAUSES.—The disease rarely occurs before puberty, or after the “change of life,” and most commonly at that period of life during which the genital organs are most active; which is from the twentieth to the forty-fifth year; and particularly in women who have borne children. So, that age may be said to be a *predisposing* cause. The *exciting* causes are the same as those enumerated as giving rise to inflammation of the uterus: the principal of which are, external violence, such as blows and falls; irritation and excitement of the reproductive system by masturbation, and excessive *coitus*; deranged menstruation; passions and emotions of the mind, etc.

SYMPTOMS.—The symptoms of this disease, at first, are very obscure. When it becomes advanced, they so much resemble the signs of pregnancy, that the female often supposes herself in that situation: there is a gradual enlargement of the abdomen, as well as of the breasts; the menses are suppressed; there is vomiting, capricious ap-

petite, etc. The progress of the tumor is generally very slow—often requiring several years to make it perceptible externally. Before it becomes sensible to the touch, the woman, most often, has a dull pain and a sensation of weight in the groin and hip; soon after which, the tumor may be felt near one of the groins, generally characterised by fluctuation. When the encysted tumor attains a considerable magnitude, the adjoining viscera being more or less displaced, and inflamed by the pressure, attract adhesions with each other, as well as with the tumor itself; this gives rise still more to dragging sensations upon any change of position by the patient. The uterus, also, is variously displaced; it is sometimes pressed over to the side of the pelvis—at others, deeply depressed by the weight of the tumor.

When the cyst becomes large enough to push the bowels and stomach upwards against the diaphragm, the powers of digestion, as well as the respiration, are embarrassed. Obstinate constipation, and sometimes dysuria, now supervene; the fluctuation becomes more evident, and the fluid, which appears to occupy the whole abdomen, often leads to a belief that the case is one of ascites or general dropsy of this region. Sometimes, when the tumor has arrived at this stage of its development, it remains stationary for several years; but, generally, when the encysted tumor becomes very large, the patient is incapable of much motion, from the great disorder of the functions, caused by its pressure; and lastly, there is imminent danger of suffocation, painful and obstinate constipation, suppression of urine, and a hectic form of fever is liable to supervene, which is the forerunner of approaching dissolution.

Before the tumor descends from the cavity of the pelvis, it may be discovered, by an examination *per vaginam* and *per rectum*, between those two organs. After its ascent into the abdomen, an examination will reveal the elevation of the uterus. In order to distinguish it from other affections of this region, a close attention is necessary to all the circumstances attending the progress of the abdominal tumor.

TREATMENT.—At an early period of the disease, whilst

the tumor is in the cavity of the pelvis, there is some hope in a palliative course of treatment, though the success heretofore, has been very limited. A great number of remedies have been employed, which are at present abandoned. At first, alterative diaphoretics may be used, such as sarsaparilla, guaiacum, and the preparations of iodine, internally as well as externally, in the form of ointment; also, sea bathing or salt water baths; and antimonial friction, or small blisters and bleedings upon the abdomen. Diuretics may be useful, as squills, nitre, etc. And lastly, purgatives deserve a trial, in connection with the other remedies, such as rhubarb, aloes, croton oil, etc., in small doses. These, with a low diet, and compression of the abdomen, are about all the means that can be resorted to with a prospect of producing absorption of the effused fluid. Sometimes relief may be obtained by pushing or assisting the tumor out of the pelvis, into the abdomen. When the cause of the disease can be detected, it must, of course, be instantly removed; an appropriate system of HYGIENE, also, should not be neglected.

When the tumor has ascended into the abdomen, it is generally advisable to postpone surgical interference as long as possible; but when it becomes so large as to much interfere with the vital functions, the fluid should be evacuated by the operation of *tapping*, which, though somewhat dangerous, is not very often fatal. This operation is resorted to as often as becomes necessary from a re-accumulation of the fluid. A remarkable case of this kind, is on record in the Philosophical Transactions of England for the year 1784, wherein the complaint began after a miscarriage, at the age of twenty-seven. From the year 1757 to 1783, when she died, she had been tapped eighty times, and had in all, evacuated 6631 pints of fluid, or upwards of thirteen hogsheads. The largest quantity taken away at any one time was 108 pints.

Finally, we should remark, that from time to time, surgeons of talent have attempted the removal of diseased ovaria by the knife, which has been done with success. Still, when we compare the chances of its being successful with the great number of deaths that have resulted from it, and consider the formidable nature of the opera-

tion we cannot forbear being unfavorably impressed in regard to its practicability. It is our opinion, that in the majority of cases, the chances of life for the female, are in favor of a palliative course of treatment; this will often enable her to arrive at the allotted age of life, under comfortable circumstances.

WE here conclude our remarks upon this part of our subject, viz.: THE PHYSIOLOGY OF WOMAN AND HER DISEASES, INCLUDING ALL THOSE OF HER CRITICAL PERIODS; by which, is understood, of course, the physiology and diseases *peculiar* to females; those relative to PREGNANCY AND CHILDBIRTH, WITH THE MANAGEMENT OF PREGNANT AND PARTURIENT FEMALES, which figure in our Title Page and Table of Contents, are sufficiently numerous and important, to constitute a separate consideration, and will form the subject of Book II., of this volume which immediately follows.

Though it is evident from the sad and lengthened picture we have just traced in enumerating the various maladies to which woman is subject, that there is truth, though exaggerated in the declaration of Democritus in his letter to Hippocrates, in which he says "*Uterus sexcentarum ærumnarum in mulieribus causa.*"—and that though many of them are extremely serious—it is also evident, that we may generally hope for their prevention and cure, by applying in due time, the various HYGIENIC and REMEDIAL agents at the same time enumerated.

It was never intended by a beneficent Deity that woman, one of the most beautiful objects of creative power, should become the subject of numerous and painful diseases. We have no hesitation in saying, in conclusion—being greatly impressed of its truthfulness—what is of the greatest importance for females to understand *that, in general, women may avoid most, if not all, of the disorders to which they are incident in their present condition by conforming to the intentions of Nature in their creation, or in other words, by living physically and mentally according to the normal organic and moral laws.*

BOOK II.

THE PHYSIOLOGY

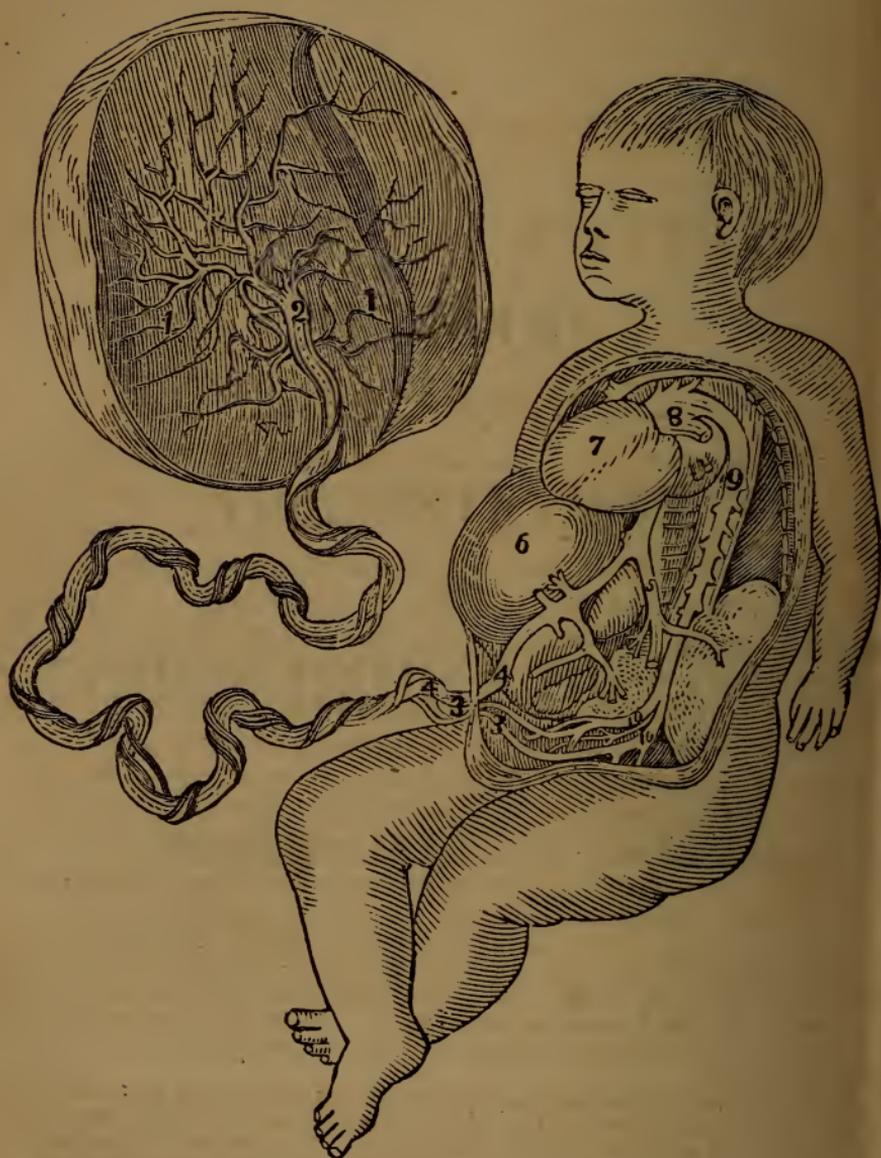
OF

PREGNANCY AND CHILDBIRTH

WITH THE

DISEASES INCIDENTAL THERETO.

THE FŒTAL CIRCULATION.*



* THE CHILD is represented with the trunk and abdomen laid open, and the PLACENTA or AFTER-BIRTH, with the UMBILICAL CORD consisting of two arteries and one vein; the mode of connection is seen between the placenta and child, for the nourishment of the latter.

1. 1. The placenta. 2. The umbilical cord or vessels—their union with the placenta is seen. 3. 3. The umbilical arteries. 4. 4. The

THE
PHYSIOLOGY AND DISEASES
OF
PREGNANCY AND CHILDBIRTH.

PART I.

INTRODUCTORY REMARKS.

NOTWITHSTANDING the term *disease* has been applied to designate the various sympathies which are called forth by PREGNANCY, it is retained only for the purpose of giving a more intelligible explanation of the temporary complaints that arise in by far the greatest majority of women while in that condition. The state of pregnancy, may be regarded as an *altered*, but cannot with propriety be termed a *morbid* state; on the contrary, it is well known, that in order to have this process carried on agreeably to the arrangement of nature, it is essential that the fœtus and uterus, both retain, almost perfectly, their healthful integrity. For if either the one or the other become diseased to any extent, the intentions of nature of forming a

umbilical vein. 5. The ascending vena cava which discharges into the right auricle of the heart, carrying the placental blood into the circulation of the child. 6. The left lobe of the liver. 7. The heart. 8. The aorta. 9 The descending aorta artery. 10. 10 The iliac arteries—the commencement of the umbilical veins is seen, which return the blood to the placenta.

The blood is brought from the placenta, (which during gestation is adherent to the uterus of the mother) by the umbilical vein; much of it is spent in its passage through the liver—the remainder is carried into the left hepatic vein, and from thence by the ascending vena cava into the right auricle of the heart. During fœtal life, there being a passage from the right to the left side of the heart by the *foramen ovale*, much of the blood passes through that opening, the communication by the lungs not being established till respiration takes place. From the left side of the heart the blood is discharged into the aorta; finally, it passes downwards to the iliac arteries, and is conveyed from thence back to the placenta by the umbilical arteries.

new and living being, will certainly be frustrated. Still, while they are preserved in the most healthy state, they possess the power of exciting deranged, and, under certain circumstances, diseased action, in other parts; and Dr. Denman remarks, what most practitioners of midwifery have observed, that those women are less subject to abortion, and ultimately fare better, who have such symptoms as generally attend pregnancy, than those who are exempt from them.

Pregnancy, then, should be regarded as a **PHYSIOLOGICAL** condition, which sometimes borders so closely on the **PATHOLOGICAL**, that it is difficult to distinguish between them; this derangement is mostly owing to a disregard of **HYGIENE**, and infraction of the **ORGANIC LAWS**, by the female. Before proceeding to the consideration of this condition, for the purpose of imparting progressive knowledge, we shall notice the *hygiene of marriage*, and *certain malformations and conditions*, which, when they are present, prevent altogether, or render the occurrence of, gestation extremely perilous to the female.

We shall, then, proceed to point out *certain hygienic rules relative to the normal union of the sexes*, which will be the substance of what C. L'Isere says upon the subject, an observance of which, is of immense consequence to the human family; this, with *malformation of the pelvis and genital organs of the female* will form subjects for the first two chapters. We shall afterwards, and before speaking of **PREGNANCY**, treat of *impotence and sterility*. The *diseases* of pregnancy will be included in a separate section.

SECTION I.
PHYSIOLOGY OF PRÉGNANCY.

CHAPTER I.

HYGIENIC RULES FOR THE NORMAL UNION OF THE SEXES,
WITH REMARKS ON VICIOUS CONFORMATIONS OF THE FE-
MALE GENITALS, WHICH PROHIBIT THE APPROACH OF THE
SEXES.

IF, on the one hand, the condition of virginity, in our civil institutions, is a state of violence against the impulses of nature, very different from the free state of the young females of animals who are subjected, at the period of their loves, to the yoke of passion ; and if, on the other hand, it is generally admitted that marriage is the state most favorable to the happiness, well-being, and health of man, it is important to respond to the call of nature, as soon as the complete development and perfect conformation of all the organs allow. In the infancy of the world, the sexes obeyed in their union only the natural sentiment which attracts them towards each other ; but philosophers, physicians and legislators, made marriage one of the chief objects of their meditations. Seeking to determine the more or less advantageous influence which might result from it to the people, whose happiness they sought to assure, all agreed that the most serious inconveniences might flow from the premature union of the two sexes. In order to prevent the evil effects of marriage before the full development of the constitution, legislators have determined its epochs. Lycurgus and Plato fixed it at seventeen years for girls, and Aristotle at eighteen. Among the Romans, women were authorized by the Poppœan law, to marry at the age of twelve years ; lastly, the Athenians,

less scrupulous, permitted marriage as soon as the individuals believed themselves fit to fulfill its end. This law, *fatal to population in general, and especially dangerous for women*, accorded with the customs and warlike policy of the people of Athens. As it would be both useless and fastidious to cite all the laws and opinions relative to marriage, we shall confine ourselves to saying, that the period ought to vary with the difference of the place, of climate, of people, and with the degree of civilization—since these several circumstances may hasten or retard the first appearance of the menses and the age of complete nubility.

The French laws, before the Revolution, forbade legal union, for girls, before the age of twelve years; but, by the present code, they cannot enter into the conjugal tie until they have reached the age of fifteen complete. The French legislators have permitted marriage at this early period after birth, because they deemed it necessary for the interest of good manners, inasmuch as accidental connections between the sexes might occur at that period, to leave some means by which to repair a fault, and legitimatise children, who, but for this provision, would have a false, and unhappy position in society. Moreover, if it be recollected that marriage is the most effectual means of removing the evils resulting from the violent desires which are often excited in young girls, at an early period, by the education they received, and by the prevailing customs of society, it will be agreed, undoubtedly, that the civil code has been digested with the utmost wisdom. Nevertheless, regarding woman only in her physiological aspect, we think that *from eighteen to twenty-five is the age at which women may marry most advantageously for themselves and for their children*. Besides, there is a rule by which we may always guide ourselves, which is *to place at least two years between the time of marriage and the first appearance of the menses*.

It is rare for the constitution to have acquired, before this period, the development necessary for the reproduction of the species. M. Lachaise, in his Hygiene, remarks: "If the indispensable process of nature, occupied with the completion of its organization, are broken in

upon by the premature enjoyments of marriage, the female will be exposed to a thousand risks, in her new position ;—become pregnant, she will be unable to support, without the greatest difficulty, and at the expense of her health, the innumerable and unavoidable inconveniences of that condition ; she will be liable to abortions and hemorrhages, and the pangs of childbirth may cost her, perhaps, her life ;—become the mother of delicate and sickly infants, she will pass her youth in uneasiness and tears ; give to the offspring of her love an impoverished milk ; yield herself in order to rear them, to cares and watchings beyond her strength ; hasten for them the approach of old age, and tear herself, perhaps, from life at a period when she is ordinarily strongest and most active.” Though premature marriages are not invariably followed by such fatal consequences, we may say that they always influence more or less, the physical and moral condition, and hasten the termination, already too precipitate, of youth and beauty.

In women who are well formed and fully developed, the first enjoyments generally produce a favorable impression upon the constitution ; nevertheless, it sometimes happens that the genital organs become the seat of inflammation, or that newly-married persons suffer from some spasmodic disorders which readily yield to absolute repose of the organs, to the employment of general baths, sedative drinks, narcotic and emollient enemata and lotions ; lastly, to general depletion, where the pulse is full and the reaction very violent.

While a moderate enjoyment in the marital embrace generally produces useful effects, when too often repeated it occasions lassitude, feebleness and general depression ; the beauty is soon destroyed, the grace and freshness of youth are soon withered ; finally, when the abuse of coitus is kept up, it may determine inflammations and ulcerations of the vagina and uterus, leucorrhœa, uterine hemorrhage, disorders of the digestive and nervous apparatus, acute and chronic gastritis, attacks of hysteria and nymphomania, feebleness of all the senses, loss of memory, stupidity, moral inferiority, caries of the vertebræ, aneu-

risms, especially of the heart, pulmonary consumption, marasmus and death.

Under all circumstances, young married persons ought to proportion their pleasures to their forces, and should recollect that the first conjugal approaches require certain cares and precautions, the forgetfulness of which might lead to the most unhappy results. When the consummation of the marriage meets with too great resistance, especially when there is disproportion between the organs, the husband, young, full of vigor, and sometimes inexperienced, instead of abandoning himself to all his transports, should seek to overcome the obstacles with care and circumspection. In general, the difficulties which the first essays of marriage present, are least during the period of the menses and for some days afterwards. We may remark, also, that the use of unctuous substances of emollient fomentations, and of general baths, and that the effusion of blood, even, which generally follows the first attempts may determine a useful relaxation in cases of difficulty. Nevertheless, if too great a resistance should be met with, far from making violent efforts that might endanger the life of the female, some unnatural conformation ought to be suspected, and the assistance of a surgeon be evoked against an obstacle, which he, alone, can surmount without risk.

As conception is the most natural consequence of the marital connexion, and though the reproduction of the species is the chief end of the institution of marriage, they are yet certain circumstances, which, however imperious the senses, and however powerful the laws of the social condition, should be held as authoritative enough to forbid the sexual approach, as regards some women, in whom it threatens to become the fruitful source of dangerous diseases, and often, indeed, the cause of death itself. Among the number of deformities which contraindicate marriage for such persons, we should place in the first class those which are capable of preventing the act of generation, or that of parturition, such as insufficient capacity of the pelvis, or absence of the vagina. The first-named fault of conformation would place the woman under the cruel alternative of undergoing the Cæsarian

operation, or that for the section of the symphysis pubis ; or, at least, of seeing her offspring sacrificed and extracted piecemeal.

In general, we may presume that there is vicious conformation of the pelvic cavity, whenever we find a curve in the vertebral column, which allows the last lumbar vertebra to sink in towards the posterior and upper part of the pelvis ; where the haunch bones are not very apparent, and are very much elevated on one side ; where the thighs are closely approximated to each other, and, in fine, where a curve in the long bones and swelling of their articular extremities indicate a general rachitic condition. It is true, however, that we have seen some horribly deformed women, with a well formed pelvis, and lying-in very easily ; while there are others, who, with all the appearance of a regular conformation, cannot bring their children into the world, and almost inevitably perish, because they have the superior strait of the pelvis with an antero-posterior diameter of not more than two inches. Parents who should suspect the existence of such pelvic deformity in their children, ought never to consent to their marriage, without first taking the opinion of a capable physician ; for though an examination into the facts of such a case gives a shock to the modesty of the female, such a sentiment ought not to be put in balance against the life both of a mother and her child.

Among the disorders that ought to be admitted as obstacles to a legal union, we place, pulmonary consumption, aneurism of the large arterial trunks, idiocy, insanity, and even epilepsy, where that disease continues after the age of puberty.

CHAPTER II.

VICIOUS OR ABNORMAL CONFORMATION OF THE FEMALE PELVIS, AND GENITAL APPARATUS—CAUSES AND TREATMENT.

THE pelvis as well as most or all of the female genital organs are subject to malformation, either congenital or

accidental. And, although some of these are beyond the resources of art, as absence of the womb, vagina, ovaries, etc., there are many susceptible of remedy; as for example, cohesion of the labia and nymphæ, obliteration and narrowness of the vagina, etc.

DEFORMITY OF THE PELVIS.

By deformation of the pelvis is understood, when it is sufficiently altered, either in its form or dimensions, to render delivery difficult, dangerous, or impossible. All deformities of this cavity, are usually classed under three heads; *excess of amplitude, narrowness, and faulty direction of its axes.*

It would seem before examination that a very large pelvis ought to be rather an advantage to child-bearing, than the contrary: but observation proves that this is not the case. This conformation, besides conducing to displacement of the uterus in almost any direction, also favors the descent of the womb and consequently prompt termination of labor, exposing the woman to those accidents that follow rapid delivery—the principal of which are inversion of the uterus and hemorrhage.

There may be simply a want of amplitude, or, which is much more common and dangerous, partial narrowness, changing the diameters of the inlet, cavity, or outlet; or several of these deformities may be conjoined. (*See the normal pelvis at page 20.*) These different abnormal conformations give to the pelvis a great variety of forms, which our limited space will not permit us to dwell upon.

These various faults of conformation change more or less the planes and axes of the pelvis. The most common deformity of this kind, is projection of the sacrum towards the pubis, the hollowess of the lumbar region or back, being augmented.

The effects of all these faulty conformations are, to render labor either painful, tedious and difficult, or impossible. We should remark that those of the second class, or *narrowness from deformity*, are the most embarrassing. As we spoke sufficiently in the last chapter of the manner of detecting these deformities, and it not coming within our

purpose to speak of the modes of "mensuration" of the pelvis, we shall pass on to the *causes*.

CAUSES.—Deformities of the pelvis may take their rise in childhood, or may be produced after adult age. In the former case they are commonly the result of rickets, where there is softening of the bones: the child by too much standing upon the feet, sitting, or lying upon the back, favours that part to give way which is least resistant. The action of the powerful muscles which surround the pelvis, also, in certain cases, favor the production of this condition. In the latter case, or after the first periods of childhood, these deformities are generally the result of *mollities ossium*, either general or partial, of irregular action of the muscles, and of bad attitudes. Young girls, who, for the purpose, as they suppose, of obtaining elegance of form by increasing the prominence of their hips and the depth of the lumbar hollow, keep the head and pelvis thrown strongly backwards while they project the abdomen and breast as far forwards as possible, never think that they run the risk of never being able to become mothers, without exposure to the greatest danger. A diseased hip wearing an artificial limb, fractures, etc., also, sometimes give rise to this condition.

THE TREATMENT of course consists only in avoiding the *causes* as far as possible, and of avoiding when necessary the social relation in which the female exposes herself to become pregnant, and consequently to the Cæsarian section, or some other painful operation. Women have not been afraid to become pregnant again, after having undergone this formidable operation. Dr. Velpean says, in speaking of the grounds of opposition to *pelvic mensuration*: is it really the attraction of pleasure that always induces them to yield to the brutal husband that the law has given them? Is it fair to compare a woman who fears above all things to lose the affections of a man to whom she is united for life, to a young girl, who, free from all entanglements, ought to think first, and above all, of her own safety?

OCCLUSION AND ABNORMAL CONFORMATION OF THE EXTERNAL
SEXUAL ORGANS.

1. UNION OF THE LABIA is sometimes found to exist in female children at birth. When it is complete, nothing is to be seen but a seam, the vagina, clitoris urethra, etc., being all enclosed. This condition is announced soon after birth, by the crying of the infant, when a fluctuating tumor may be detected above the pubes, and there is all the symptoms of suppression of the urine; death will soon be the consequence, unless measures be taken for remedying the difficulty.

In some cases the cohesion is not complete, and the urethra is sufficiently open to give free passage of the urine; in others, the obstruction is such, as only to admit of its escaping drop by drop. In the former case, it is of no inconvenience till the period of puberty, when it obstructs the flow of the menses; but of this we have already spoken. (See Tardy Appearance of the Menses.)

This condition is not always congenital; it may be occasioned by inflammation, brought on by laborious labor, a burn, a wound, or a laceration; by excessive coitus, and finally, in children, by excoriations from acrimony of the urine, friction, want of cleanliness, etc. It is said that some of the Ethiopian tribes make sure of the virginity of the female by uniting the sides of the labia as soon as they are born, with silken thread, leaving only sufficient space for the natural discharges; when married their lords make the necessary section for their restoration.

Cohesion of the nymphæ always accompanies that of the labia, but it may exist independently of the latter. Its *causes* and *treatment* are the same.

TREATMENT.—The treatment consists in an operation suitable for the restoration of the parts, as nearly as possible, to their normal condition. In all cases it should be performed as soon as discovered, particularly when the cohesion is complete. In infancy, as we have elsewhere stated, the knife is not necessary, unless the union be firm. But at a more advanced period, the operation must be performed by means of a bistoury guided with a director. To prevent reunion, a piece of lint, or a compress

spread with cerate, should be interposed until the cure is complete. Strict cleanliness must be observed, to assist which, recourse should be had to emollient baths and lotions, according to circumstances.

2. EXCESSIVE DEVELOPMENT OF THE NYMPHÆ, which we have already adverted to, at page 32, Book I., may arise to such an extent as to interfere with the functions of the female, and be a source of inconvenience and pain, in consequence of excoriations from friction in walking: in such cases their excision is sometimes necessary. Many travellers have stated that in several countries of the East, this operation is a very common one—being resorted to by some as a rite, and by others for the purpose of preventing a pretended deformity. It has, also, been stated, that certain women and men, whose sole business it is to excise exuberances of the genitalia, go about the streets crying aloud, “*Here is a good circumciser!*” etc. A sharp knife and a pinch of ashes comprise the whole apparatus for carrying out this strange custom.

3. UNNATURAL GROWTH OF THE CLITORIS, as we have remarked at page 33, has given rise to the supposed existence of hermaphrodites. During the first month of uterine life, this organ is much larger than at birth—at which time it is still considerable, but is found diminished at the age of puberty. In some women, however, it attains a much greater development, than is ever found in early life. It has, occasionally been found from one to six inches in length,* when it may become the source

* Dr. Harris of Philadelphia has recorded an interesting case of this kind, which, for the purpose of illustrating what has been mistaken for the fanciful being, known as *hermaphrodite*, we will give a brief abstract of: A child was born in Chester county, Penn., of doubtful gender. The gossiping women present, were called to inspect an unusually large clitoris, and to decide the infant's sex, when the little stranger was pronounced a female, and named Elizabeth. As she advanced in years, the clitoris enlarged, and in appearance and size resembled, the *penis masculinus*; she also, grew robust, assumed a masculine appearance, delighted only in the labors of the field and manly sports. At eighteen years of age, she was nearly six feet, had moustaches on the upper lip, reversed the decision in regard to her sex at birth, and exchanged the female attire for man's apparel, and her name for Rees, at the same time threatening summary vengeance against any person

of disgraceful and disgusting depravity. It is reasonable to suppose from the intense sensibility of this part, that it is often the cause of unnatural excitement, masturbation, etc., leading to the most degrading immorality.

In the TREATMENT of such enlargements, cooling and astringent applications with saline purging should first be resorted to—at the same time avoiding exciting food, indolence, improper associations, sentimental reading, etc. When these fail, amputation of the salient organ should always be recommended, which is performed without subsequent inconvenience to the female, and with producing very little pain. Thus, it is consoling to reflect, that the female may be rid of a disgusting infirmity, which sometimes gives rise to uncontrollable depravity, with perfect safety. Instances are not wanting, in which, girls have been entirely cured of masturbation by this operation, which had resisted all other means. In such cases a competent surgeon should always be consulted.

4. IMPERFORATION OF THE FEMALE URETHRA is generally a consequence of complete cohesion of the labia, but exists sometimes by itself, from its being covered by a thin and delicate membrane. When its existence is suspected, no time should be lost in giving relief by puncturing the membrane, by means of a suitable instrument.

When there is a narrow opening through which the

who should venture from that time to speak of her as a female. She now abandoned all female duties, and was employed on a farm, performing all the duties of a husbandman.

She never menstruated; at the age of twenty-five had a very strong beard; was industrious and enterprising, and increased rapidly in wealth, by the purchase and sale of farm stock. Being remarkably athletic and impetuous in her temper, she was the terror of the whole neighborhood, and was always victorious in personal conflicts.

About this time she purchased a large and fertile farm, and married a woman whose name was Elizabeth. In the marriage state, she manifested some affection for her companion, and professed great enjoyment in conjugal pleasures—the clitoris having now attained the enormous length of six inches. It is needless to say that there could be no offspring; indeed, she often said to her companion, “I have no generative power, and if you ever become pregnant, I will put you to death.”

This extraordinary female lived until she was upwards of fifty years of age, and died in possession of a large estate, which she had accumulated by industry and enterprise. She came to an untimely end by arsenic administered by the hand of her treacherous companion.

urine escapes with difficulty, it should be overcome by the daily use of bougies, beginning with one of a small size. When there is occlusion of the urethra through a great part of its extent, the bladder must necessarily be punctured; if this be too long delayed the child will inevitably perish.

FAULTY CONFORMATION OF THE INTERNAL ORGANS.

1. IMPERFORATION OF THE VAGINA may be congenital, or it may arise from accident in after life. It produces no inconvenience till the age of puberty arrives, when there is great distress, from secretion and accumulation of the menses. An imperforate hymen is the most common *cause*; but sometimes other membranes are formed beneath it; and occasionally the walls of the vagina are adherent throughout its whole extent, forming, instead of a tube, a solid body. It is sometimes produced by inflammation in consequence of injuries from childbirth, or criminal attempts at abortion.

At puberty, when the menses accumulate, the *symptoms* so nearly resemble those of pregnancy, that learned physicians have repeatedly pronounced it thus, while, in fact, the patient was still a virgin. There is enlargement of the abdomen, pain in the back and loins, swelling of the breasts, nausea, vomiting, etc. All of these symptoms are greatly increased at each menstrual epoch. If relief be not obtained, the accumulation becomes enormous, giving rise to the most painful and dangerous symptoms—hysteria, convulsions, etc. If there be absence of the womb or ovaria conjoined, with an imperforate vagina, there is no menstrual secretion, and consequently no inconvenient symptoms.

TREATMENT.—When there is an obstructing hymen some authors have recommended that it be ruptured by the point of the finger; but very often it will be necessary to resort to the knife or trocar for puncturing it. The operation should be carefully performed, so as to give the patient the advantage of the *moral importance* attached to the hymen. When the walls of the vagina are adherent, their

separation requires great care and skill. We have before spoken of these subjects; (see Book I., page 34, and 102.)

2. NARROWNESS OF THE VAGINA may be congenital or arise from various accidental causes. Instances are met with in which this organ is barely pervious, being but a few lines in diameter. It, of course, does not admit of the uses for which it was designed by nature. This difficulty may be often overcome by dilating the passage with bougies, commencing with a very small size, as we have directed at the close of the chapter on Painful Menstruation, Book I.

Narrowness of the vagina does not always prevent conception, although its effects are extremely embarrassing. Several cases are on record in which dilatation was effected after a tedious labor, and others wherein the process was assisted by incisions. We should remark also, in conclusion, that this condition always produces difficult and painful menstruation,—when *an examination* should be instituted, for the purpose of ascertaining the exact nature of the difficulty.

NARROWNESS AND COMPLETE CLOSURE OF THE NECK OF THE UTERUS sometimes occur, while the vagina itself may be perfectly free from obstruction. It may generally be detected by the *touch*, and the plan of treatment is about the same as that directed for the vagina, though more difficult, in consequence of its being less easily accessible.

OBSTRUCTION OF THE FALLOPIAN TUBES, either complete or incomplete is sometimes met with after death. It may be congenital, but is more often accidental from inflammation. This affection is beyond the reach of art.

3. ABSENCE AND MALFORMATION OF THE INTERNAL ORGANS.—The records of medicine contain no instance of the complete and simultaneous absence of all the internal genital organs. In extremely rare cases, one ovary only with its tube has been found, and half of a womb. Both ovaries have been found absent, while the remainder of the organs remained in a natural condition.

The womb alone has been found absent and also coincidentally with absence of the vagina, with a perfectly natural appearance of the external genitals. In such cases of course there is no menstrual secretion; but when the uterus and its appendages are present, with absence of the vagina, the secretion may take place, and give rise to all of those symptoms mentioned when speaking of *Imperforation of the Vagina*. Under such circumstances relief has been afforded by forming an artificial canal between the rectum and bladder. These cases are extremely rare. The womb has also been found divided into two equal or unequal parts, either partially or entirely—constituting what has been called a *double uterus*.

The vagina has been met with *double*—that is, divided by a septum into two canals; and only one third of its usual length and diameter; it has been also wholly wanting, as we have before intimated, with the bladder and urethra in immediate contact with the rectum. In extremely rare instances, an unnatural vagina has opened into the bladder, the urethra, the rectum, and externally upon the anterior surface of the abdomen. These deformities are not incompatible with health, and may remain unknown till the menstrual secretion takes place, and is discharged by these unnatural routes.

It has long been observed that those females who have an absence of the ovaria, whether it be combined with absence of the uterus or not, approach in character to the male; the delicacy of mind and body is exchanged for the firmness, and an approach to the physical peculiarities of the male. They have very small breasts, hard features, more or less beard, and are fond of manly sports and exercises. There may be, however, serious faulty conformations, as absence of the uterus only, or of the vagina, or obstructions of the latter named organ, in which there is, to every external appearance, perfection of the female frame. It would be highly imprudent to say the least, for such an individual to contract the marriage relation, for which she is wholly unfitted. Every mother should know sufficiently of her daughter, and of the existence or non-existence of such grave difficulties, to avoid an event

which is sure to bring only disappointment and misery to the bosom not only of the female but also to her partner.

In all cases marriage should be postponed until after the eruption of the menses ; or, at least, until a proper inquiry and examination shall have decided in regard to the fitness of the subject to assume the responsible duties and functions of the marital relations.

CHAPTER III.

STERILITY AND IMPOTENCE—CAUSES AND TREATMENT.

WOMAN, before the period of puberty, and after the change of life, according to the design of nature, is incapable of fecundation ; there may be some exceptions to this rule, which are to be regarded only as departures from the normal condition. During suckling also, when the vital forces are concentrated upon the organ of lactation, the female is generally found to be barren, particularly for the first few months following the birth of the child ;—though the exceptions here are more numerous than in the former case. But there are many diseases and abnormal circumstances, which, when they occur, independently of these circumstances, render the female sterile during the child-bearing period.

By *sterility*, is understood an incapacity for fecundation, notwithstanding there is nothing to prohibit copulation, which is, apparently, accompanied with all the conditions necessary for conception ;—depending, probably, upon torpor or weakness, or absence of some of the internal organs.

Impotence, on the other hand, indicates a want of power, or inability for copulation, either depending upon some physical impediment or abnormal conformation, or upon weakness of the generative apparatus.

CAUSES.—Among the causes of *impotence* may be enumerated absence of the vagina, or its accidental obliteration, from inflammation, narrowing of that canal, from contraction or a tumor, etc. ; cohesion of the labia or nymphæ ;

too great firmness of the hymen, or the existence of any other membrane in the vagina; excessive enlargement of the clitoris; prolapsus of the uterus or vagina, etc., many of which, as has been seen in the preceding chapter and elsewhere, are amenable to treatment.

The causes of *sterility* are often very obscure: it is probable that they are often connected with some abnormal condition of the ovaria—either their absence, want of development, or with diseases of these organs, producing degeneration of structure; absence or obliteration of the Fallopian tubes; absence, occlusion, curvature, or chronic inflammation of the womb; and other malformations and disorders of the genitalia which give few or no signs of their existence during life. Diseases of the uterus, such as cancer, polypus, displacement, dropsy, etc., act sometimes, but not invariably, as causes of sterility, as we have remarked when treating of those various disorders.

Dysmenorrhœa, menorrhagia and profuse leucorrhœa, particularly that species which affects the glands of the neck of the uterus; impermeability of the neck; suppression or absence of the menses, etc., are also frequent causes. The latter, or absence of the menses, has been regarded as a sure sign of barrenness; but it is well known that there are exceptions. Notwithstanding, the presence of the menstrual discharge has always properly been regarded as the most certain indication of an ability for fecundation.

Sterility has been observed to be more common in hot and very cold countries, than in temperate latitudes. Debility, either of the generative powers alone, or of the whole system from any cause, and particularly when induced by masturbation and an abuse of venereal pleasures, is a common cause in all climates, but more especially in warm ones, where there is a greater excitability of temperament. It is well known that the whole class of prostitutes are barren from this cause. Also absence of voluptuous desires, from this cause, or from an approach in resemblance of the female to the male; such as is observed in women with small breasts, and who have a general masculine appearance, strong hoarse voices, and brown skins, with more or less beard, and hair in unusual places for the sex;

an excessive embonpoint, and finally, too frequently repeated and too violent transports.

Unsuitable marriages, as to disparity of age, as well as to a similarity of temperament in the parties, often prove unfruitful. It frequently happens that a young couple who are both very vigorous and passionate, will have no children; also that a couple who are both lymphatic, cold, and one where both are highly intellectual, are sterile. This seems to be wisely ordered in nature for the purpose of preventing parents from transmitting to their offspring undesirable or monstrous constitutions. Such connections after having been broken asunder by divorcement, and each party made new engagements, have repeatedly proved that the fault was neither in the one or the other; for they have both had children by being united to their *opposites* in temperament. This was the case with Napoleon Buonaparte and Josephine, who, as Larrey has remarked, were both too highly intellectual to produce the necessary excitement—thus the coldness of each repulsed the other; yet when separate, they gave proof that the deficiency was in neither, but only in their unfitness for each other. It is known that Catherine de Medicis brought forth the first one of her ten children, after having been married ten years to her husband, Henry II.; also, that Anne of Austria gave birth to Louis XIV., after twenty-two years of barrenness.

It has been observed in Europe that fewer children are born in Provinces where the inhabitants are poor, idle, weakly and wretched; also, generally, that in years of famine or scarcity, public calamities, epidemics, fasts and privations, the number of births are sensibly diminished. On the contrary, it is known that many more children are born in a fine and healthy climate; in countries where the arts and sciences, industry and commerce flourish; where the earth is fertile and the air salubrious. It is recorded by Dr. Hecker that after the rage of the great epidemic of the fourteenth century, called the "Black Plague," a greater fecundity of women was every where remarkable. During the three years of its prevalence, the mortality is computed at 25,000,000 souls. Those women who live in a state of opulence, are habituated to a too stimulating

diet, abuse the use of stimulants, as wine, spirits, tobacco, etc., are very often unfruitful;—this extreme being quite as unfavorable as the opposite—that is, where there is entire destitution.

Notwithstanding all these occasional causes, it frequently happens that there are no certain signs by which to ascertain the cause, or to distinguish a barren from a fruitful woman. The late discoveries, however, concerning the development of the ovaria, mentioned under the subject *menstruation*, enable us much better to understand such obscure cases. It is very probable that the ovaria of some women are not properly developed; that though they may menstruate *largely*, these essential organs are not normally evolved; or, that being ripened, the ovæ are almost immediately discharged with the menses, on account of some organic deficiency of power. M. Pouchet is of opinion that the precise time wherein fecundation is impossible, can be correctly indicated, as there is a time between the periods of the menses when no developed ovum will remain. The question is not settled whether the rupture of the Graafian vesicle and escape of the ovum takes place antecedent to, in the midst of, or at the close of the menstrual flow; and it is very probable that this period is variable, and can never be fixed upon. It has been supposed that conception is more likely to occur immediately after the menstrual flow, but this point does not seem to be sufficiently established; however, as there is more activity in the genital apparatus about this period, and the mouth of the uterus is more open, and as the ovum may not be discharged with the menses, it is probable that conception is more liable to occur immediately before, just after the discharge has disappeared, or several days after it has ceased.

Let us remark in conclusion, that too early marriages, and self abuse or masturbation, are frequent causes of sterility, as also are marriages against the inclination; and although voluptuous desire on the part of the female very much favors conception, perfect indifference is not absolutely incompatible with that event; finally, intense mental application, depressing emotions, certain humid

localities and states of the weather, are found to exercise a very unfavorable influence.

TREATMENT.—When barrenness depends upon faulty conformation, displacement or disease of the womb, we may hope to obviate it, as we have seen in the preceding and other chapters of this work, by operations, or by medical treatment appropriate to the disease: as we have treated of all these conditions in preceding pages, and as the cure is often evident from the various causes just pointed out, an extended notice of the treatment here cannot be necessary.

We should remark in the onset, for the purpose of shielding the reader from imposition, that there is no greater fraud practiced upon the credulity of the public, than that of blazoning forth *specifics for the cure of barrenness*. The “*Lucina Cordials*,” “*Tinctures*,” etc., so absurdly sold for this purpose, it is well known, are composed of a few ingredients, which, although they act as a temporary irritant, in the end serve to prostrate still more those very powers designed to be restored. Cantharides and phosphorus can rarely or never be employed with advantage in this condition, under the most favorable circumstances.

When there is indifference to the joys of wedlock, from a lymphatic and cold constitution, or from debility, general or partial, the cause, if known, must first be suspended; then resort should be had to a generous diet, tonic baths and drinks, as sea or fresh cold water bathing, and mineral spring waters; the diet should be substantial, as black meats, eggs, oysters, jellies, with a cautious use of good wine, chocolate, sage, mushrooms, celery, vanilla, and the various nourishing and exciting articles. Finally, where there is approach to impotency from loss of power on the part of the female, might be recommended in addition, the reading of erotic romances, and frequentation of the ball-room and theatre—all to be timely employed so as to excite without debilitating. On the other hand, if sterility depends upon excessive ardor and voluptuousness, as frequently happens in newly married individuals, a directly opposite course should be pursued, as cooling drinks, cold milk, light, emollient food, cold bathing, long walks, labor, etc., with an abstinence from all indulgen-

ces. If of two strong a constitution, recourse may be had in addition to venesection.

When it is supposed that barrenness arises from deficiency of action of the ovaries, electricity may be tried with some hope of success, with stimulating lotions and frictions to the loins and groins. Where the woman is excessively fat, exercise and excitation of the mind as well as the body will be useful: as romance reading, the internal use of spices, mint, aloes, nutmeg, etc.; also, frictions and stimulating lotions to the groins, thighs and loins. In all cases we should recommend the sexual approach just before and after the menstrual flow, with proper intervals of rest. In conclusion, we should remark that when sterility is supposed to depend upon excessive sensual gratification, the parties should moderate their desires, either by a temporary separation, or by self control. None of the means we have now recommended should be expected to produce an immediate change, but they should all be timely and continuously applied with particular attention to the stomach, bowels, and general health; by following out this course many remarkable cures have been performed, with little or no aid from medicine.

CHAPTER IV.

THE ORIGIN OF HUMAN LIFE—CONCEPTION.

THE establishment of the function of menstruation, as we remarked when treating of that subject, is the evidence that nature has designed and is now ready, to produce an independent and living being: or, in other words, that the phenomena of that discharge is but a prelude to the more important function by which the species is reproduced. This is the period, remarks L'Isere, in which woman is called to the fulfillment of her most important task. Without ceasing to love, the female arrives at length to a calmer and happier state; having become both wife and parent, she finds new duties, she experiences new sentiments;

thus, the love of offspring, her conjugal tenderness, the education of her children, the management of her domestics, are the sole objects that attract her regard and fill up her happy existence. It is then that she has come to the possession of the purest happiness, a happiness connected with the love of her family and secured by the moral qualities inherent in her sex.

By the term CONCEPTION is understood the formation of an *embryo* or the rudiments of a new being. There are several other terms used to designate the same event, which strictly speaking, are only applicable to different stages of the process: as *generation*, *fecundation* and *reproduction*; but this distinction, it is not necessary here to make.

Reproduction in the human species constitutes one of the most astonishing phenomena of nature. It has, in every age of the world, engaged the attention of the greatest physiologists, and been perseveringly investigated by the most celebrated philosophers. Indeed, can anything in the universe interest man so much—the only being on this earth whose prerogative it is to think—as his own origin, and to ascertain its mechanism? But many of the investigations so ably and resolutely conducted have only served to show how deep is the mystery that veils the origin of life!

At different periods of past time have been entertained numerous speculations and opinions relative to this marvellous process. Drelincourt, who lived in the seventeenth century collected from the writings of his predecessors two hundred and sixty-two “groundless hypotheses” concerning *generation*; and it is certain, observes Blumenbach, that Drelincourt’s own theory formed the two hundred and sixty-third! Most of these theories may be divided, according as the germs were supposed to proceed from the male or female parent, into classes: *first*, exclusively from the male, which is the theory of the *Spermatists*; *second*, exclusively from the female, which is that of the *Ovists*; *third*, from a union of the male and female germs, which is the theory of *Syngensis*. Other modifications of these classes of theories at a later day give us that of *Evo-*

lution, or the supposition that the germs, which are subsequently unfolded, already exist perfectly formed in the female; and the theory of *Epigenesis*, which assumes that the seed of the two sexes unite in the womb upon chemical principles, mutually attracting and combining with each other. Without stopping to dwell upon these theories, many of which are exceedingly curious and interesting, we should remark that that of *absorption* has also more recently been advocated; this theory maintains that the seminal fluid of the male is absorbed from the vagina, carried into the circulation, and is subsequently deposited in the ovaria impregnating one or more of the ova. Lastly, the theory which has more recently and universally obtained, and which is still believed by those who have not received the new doctrine, is as follows: the semen of the male upon being deposited in the vagina, passes through the uterus and one of the Fallopian tubes, and is thrown upon the ovaria by its fimbriated extremity, when impregnation takes place;—in about one week afterwards (by this time the ovum being increased in size) the fimbria seizes the egg or product of conception, and conveys it along the tube into the cavity of the uterus, where its growth takes place.

Our limited space not allowing us to discuss the plausibility or unplausibility of this theory, we shall satisfy ourselves by stating that the latter approaches nearer the truth than most of the preceding opinions, and that, though no one of them is wholly destitute of foundation, ALL have recently been superceded by a *positive* theory, founded upon close observation, multiplied researches and experiments, embracing all the preceding, and the truth of which is not doubted by any one who has given it an examination. These observations, which are still progressing, were made by M. Gendrin, and M. Negrier of France, Raciborski of Germany, and Robert Lee of London; we have before spoken of them, when treating of menstruation, by which that phenomena is satisfactorily explained. (See the *Physiology of Menstruation*, Chap. III., Part III., Book I.)

M. Pouchet in his *Theorie Positive de la Fecondation des Mammiferes*, etc., Paris—lays down certain funda-

mental physiological laws, concerning generation, an addition to which is made by Dr. Meigs, as follows :

Law I. There is no exception in favor of the human race ; *the phenomena of human generation obey laws analogous to those of the mammalia.*

Law II. In all animals, *generation is effected by means of ova* : some inferior creatures only furnish exceptions to this law.

Law III. In all the animal series, *ovula pre-exist to fecundation.*

Law IV. Physical obstacles prevent the seminal fluid from coming into contact with the ovula while within the Graafian vesicle.

Law V. In the entire series of animals, *the ovary incontestibly emits ova independently of fecundation.*

Law VI. In all animals, the ovary emits ova at determinate epochs, connected with a periodical sur-excitement of the genital organs.

Law VII. Fecundation never takes place in a mammal, *except where the emission of ova coincides with the presence of the menstrual discharge.*

Law VIII. The emission of the menstrual discharge in women corresponds with the phenomena of excitation observable in the mammalia during the rut of the zoological species, and particularly in the females of the mammalia.

Law IX. Fecundation has a constant relation to the discharge of the menses. It is, moreover, easy to point out the inter-menstrual period, wherein conception is physically impossible, and also that wherein it is probable.

Law X. There are certainly no ovarian pregnancies, properly so called.

Additional Physiological Laws, by Meigs.

Law I. Fecundation in mammals, when normal, occurs in the womb.

Law II. Abdominal and tubal pregnancy do not prove that fecundation takes place in the ovary, nor that this is what determines the emission of the menses.

Law III. The Fallopian tubes do not normally contract, except from the interior towards the exterior, for the transmission of the ovum to the uterus.

The conclusion, from the foregoing, is evident: conception takes place in the human female in the same manner as it is observed to occur in the females of most animals, particularly the *mammalia* order.

The OVARIA of the female, when fully developed at adult age, contain a large number of vesicles or eggs. They were formerly supposed to be only ten or fifteen in number, which were contained in "Graafian vesicles," and that one of these escaped at each impregnation. But it is now ascertained that they are very numerous—in fact, that the ovaria is nearly composed of them. As long as they remain imbedded in their primitive condition, they are very minute in size. But one or more of them at a time, is continually being ripened, when it attains about the size of a pin's head; this occurs monthly, and its discharge takes place giving rise, as we have elsewhere remarked, to menstruation. Or, if a vesicle be ripe, it is liable to burst every time the sexual congress takes place, when the ovum which it contains is taken up by the fimbria of the tube, which at this time is erected, and is carried into the uterus, and escapes through the vagina, unless it meet in its passage through the uterus some of the seminal fluid of the male. If this latter occur *it becomes impregnated* and is retained; thus we have the whole process of conception. The time occupied in its passage is supposed to be about seven days; though of this we are not certain, and some believe that the ovum immediately descends and is brought in contact with the semen of the male, at the time, or very soon after the marital embrace. Its growth now takes place, and the menstrual fluid is retained for the formation and growth of a membrane to envelop the child, as will be explained hereafter. If, by any irregularity, two vesicles be detached, twins is the result; if three, triplets, and so on.

BEFORE closing this chapter it may be well to take a brief view of the principal reason adduced in favor of conception taking place in the ovaria instead of the uterus; it is this, that occasionally, the ovum has been retained, and its growth taken place, either in the ovary, Fallopian tube, or the cavity of the abdomen, arising, as is alleged,

from some interference in the process of nature in carrying the germ to the cavity of the uterus. If there are really any well-authenticated cases of extra-uterine pregnancy on record, as there appear to be, their occurrence must be otherwise explained than has been heretofore attempted. As most or all (?) of such conceptions have been imperfect or diseased, may we not reasonably suppose them to be depraved ovæ merely, that have been developed in, or escaped from the ovaria, during some abnormal excitement of the female? Or, which is quite as reasonable as the other, the embryo may have escaped from the cavity of the uterus soon after conception had there taken place. Or, if the semen of the male has sometimes found its way into the tubes, and conception abnormally taken place, it may be regarded as an unnatural occurrence.

Other arguments might be adduced of greater force than the preceding to prove the fallacy of ovarian conception as a natural process. According to this theory the Fallopian tubes must perform a double action; that of carrying the semen to the ovaria, and then of propelling the ovæ in an opposite direction, to the uterus—thus not only performing a double action, but *two directly opposite actions*. According to some experiments mentioned in the Medical and Physical Journal, vol. ix., p. 36, it appears that females of an erotic temperament, and who indulge in lascivious practices, may have something similar to conception, an escape of ovæ, while in a virgin state without ever having known the sexual congress. Several instances are recorded in which *hair, teeth and bones* have been discovered in young women, who there was the strongest reason to believe had had no sexual commerce with men!

FINALLY, we should remark, that after conception has taken place, the mouths of the uterus and Fallopian tubes become closed by the formation of the *deciduary membrane*, leaving a *corpus luteum* in the ovaria in place of the detached egg—which is larger and more permanent when the expulsion of the ovule is followed by conception, than that which happens at the ordinary menstrual period.

CHAPTER V.

THE ORIGIN OF HUMAN LIFE—PREGNANCY OR UTERO-GESTATION.

WE are greatly indebted to recent discoveries for information concerning the primitive development of the embryo : there is probably no other department of physiology which has been so remarkably enriched by modern investigations as this. All these researches tend to establish the fact that the early development of the human embryo takes place upon a plan analagous to that of animals much lower in the scale of formation than man.

At first, the ovum exists in the uterus as a small membranous egg, filled with a drop of transparent fluid known as the *vitellum*. Its sides are composed of two delicate membranes, the outer one of which is called the *chorion*, and the inner one the *amnion*. The *deciduary membrane* which we adverted to in the last chapter, is semi-fluid and opaque, being secreted immediately after conception takes place, and lines the whole uterine cavity. When the ovum arrives at the extremity of the tube, it finds the orifice closed by this material, which it pushes away as it advances into the cavity of the uterus. The ovum is thus placed between the side of the womb and the deposit, the latter of which it turns back and reflects. That part of it which remains in contact with the uterus is called *decidua vera*, and that part of it which is pushed away before the advancing ovule *decidua reflexa*. The latter, at first, is just large enough to enclose the ovum which is no larger than a small pea ; while the former is as large as the whole uterine cavity. In process of time the embryo is found to have grown large enough to fill up the whole cavity of the womb ; and as it always carries the reflected part of the decidua along with it, it follows that at last the two are brought into close contact, and from the pressure become completely glued into one.

The ovum, upon passing into the uterus, generally attaches itself to that organ at a point near the tube by which it entered ; but in some instances it becomes moved to the fundus, or falls down to the neck, attaching itself there ; but wherever it happens to fix itself there is the seat of the placenta. The ovum, as has been remarked, during the earlier period of pregnancy, lies between the deciduary membrane and the uterus, with the chorion in contact with its naked surface. At the end of the fourth or sixth week the entire surface of the chorion is found to be furnished with numerous *villi* by which it is attached to the uterus, ultimately forming the *placenta or after-birth*.

The following account of the progressive development of the fœtus, is from Dr. Seavern, of London : Impregnation having taken place, and the ovum conveyed to the interior of the uterus, its presence may be demonstrated as early as the *eighth day*, when a mucilaginous semi-transparent drop will be found adherent to the interior of the uterus, generally towards its fundus.

At the twelfth or thirteenth day, it is increased in size, and forms a vesicle filled with a turbid, flocculent fluid, in the centre of which will be seen a dark spot, the *punctum saliens*, or heart of the fœtus.

At the twenty-first day, the embryo is increased to the size of a large ant.

At the thirtieth day, it resembles in size and figure a maggot, curled up. At this time, the budding projections of the limbs are visible, but their shape is not defined.

At six weeks, the size of the fœtus is about that of a bee ; the clavicles, scapulæ, and other bones, are traceable ; the limbs are not yet formed, but are still rounded prominences, not having acquired their relative length, or definite shape. The nose, the eyes, and the mouth, are distinctly visible, and the head is larger than the rest of the body.

At two months, the various parts are so much developed that we can sometimes decide upon the sex ; the features are enlarged ; the heart, and the course of the larger vessels, can be traced.

At three months, the fœtus is still further developed: its length is three inches, and the genital organs are sufficiently formed to enable us to distinguish its sex. The liver is large in proportion to the other abdominal viscera, the lungs small, the bones of the extremities are forming, as well as those of the head and spine.

At four months, the parts are all progressively increased, and the length of the fœtus is rather more than five inches; a small quantity of *meconium* is found within the intestines, and the movements of the fœtus are felt by the mother, although very feebly and indistinctly.

At five months, its length is from six to seven inches, the nails are beginning to be formed, the muscles are traceable, and the mother perceives that its movements are growing gradually stronger.

At six months, it is from eight to nine inches in length, meconium is found throughout the whole of the intestinal canal; and if an abortion takes place, the child is sometimes born alive, but seldom breathes more than a few minutes.

At seven months, it is between eleven and twelve inches long; and if now expelled, it is called a premature birth, and the child is capable of being reared.

At eight months, it measures from fourteen to fifteen inches.

At nine months, it is from eighteen to twenty-two or twenty-three inches in length.

The increase in the size of the womb commences at the fundus, immediately after the descent of the ovum. The organ, during the first four months, remains in the cavity of the pelvis; after which time it begins to rise, and at about the fifth month reaches midway between the pubes and umbilicus or navel, and gives a fulness to the lower part of the abdomen; at the end of the sixth month it reaches the umbilicus, which it protrudes; it continues to ascend, and during the seventh month arrives midway between the navel and ensiform cartilage of the sternum; at the end of the eighth month it reaches the ensiform cartilage, fills the abdomen, pushing the intestines upwards and backward's, and often interferes with the function of respiration; during the ninth month instead of

ascending, it increases somewhat in size and becomes a little lower than previously. During the first three months, the mouth of the uterus is lower in the pelvis, and directed a little more forwards than usual; when the uterus rises above the brim of the pelvis it is directed backwards; at the sixth month it is said to lose one-fourth of its length; at the seventh, one-half; at the eighth, three-fourths; and at the ninth, it is obliterated, so that upon examination the finger comes in contact with the rounded lower end of the uterus.

THE PLACENTA OR AFTER BIRTH, (see page fronting Book II.) is a vascular, spongy mass, of a circular form, and generally measures about six inches in diameter, though its form and size vary in different subjects. It is an inch or more in thickness in the middle, and becomes gradually thinner towards the edges. Its outer surface is uneven and adheres to the lining membrane of the uterus from which it receives blood for the nourishment of the child, which is transmitted by the umbilical vein. Its inner surface is smooth, excepting the slight eminences formed by the bloodvessels, and is covered by the same membranes, the amnion and chorion, which envelope the fœtus and umbilical cord. It consists essentially of arteries and veins connected by cellular substance, and is formed from the chorion. As soon as the ovum reaches the uterus, the chorion being in contact with that organ, begins to give out *villi* which increase relatively with the growth of the embryo till they become blood vessels and form the substance of the placenta as above remarked. The use of this organ is to form a reservoir of blood for the nourishment of the child. There is generally a placenta for each child, but not invariably.

The UMBILICAL CORD or navel string, (see page fronting Book II.) consists of two arteries and one vein which connect the fœtus to the placenta, carrying blood for the nourishment of the former. Its length though variable, is generally from one and a half to two feet. Cases are recorded in which it was four and six feet, and others in which it was only a few inches in length; but these are extremely rare. It is sometimes thicker and some-

times more slender, but generally about the size of the little finger. The three vessels of which it is composed are lengthened continuations of the *villosities* which are given out by the ovum upon its reaching the uterus. The vein commences in the placenta by numerous branches, and passes into the circulation of the child through the navel. The two arteries pass from the hypogastric arteries of the child, through the naval to the placenta, which they penetrate. These vessels are inclosed within their covering, and twisted around each other. If by any accident the cord is severed, the fœtus dies. Two cords have been met with, connected with one placenta, and *vice versa*. In other instances the vessels are supernumerary or deficient. When the cord is wholly wanting, the embryo must of course be imperfect: it is either soon expelled, or degenerates into a mole covered frequently by hydatids.

The DECIDUARY MEMBRANE consists of two layers, the *decidua vera, or externa*, which is in immediate contact with the uterus, and the *decidua reflexa*, which is next to the chorion. At first they are separated by a fluid; but as pregnancy advances, this is absorbed, and the two membranes become closely adherent. It is highly vascular, receives its blood from the uterine vessels, and seems to be designed to assist in the nutrition and preservation of the embryo before the elaboration of the placenta.

The CHORION AND AMNION are thin, transparent membranes, very much resembling each other, enveloping and affording coverings for the embryo. The former is external, and assists the latter in forming a bag of waters, which is secreted by the amnion, and called the *liquor amnii*.

The LIQUOR AMNII is a fluid enclosed by the above noticed membranes, in which the fœtus floats. It varies much in different subjects;—in quantity, from a few ounces to a gallon, or more; in quality, from a clear, inodorous fluid, to one that is turbid and somewhat putrid. It was formerly supposed to be concerned in giving nutriment to the fœtus; but its real use appears to be, to protect the embryo from injuries, and form a soft wedge to

dilate the passages during labor, without injury to the child or mother.

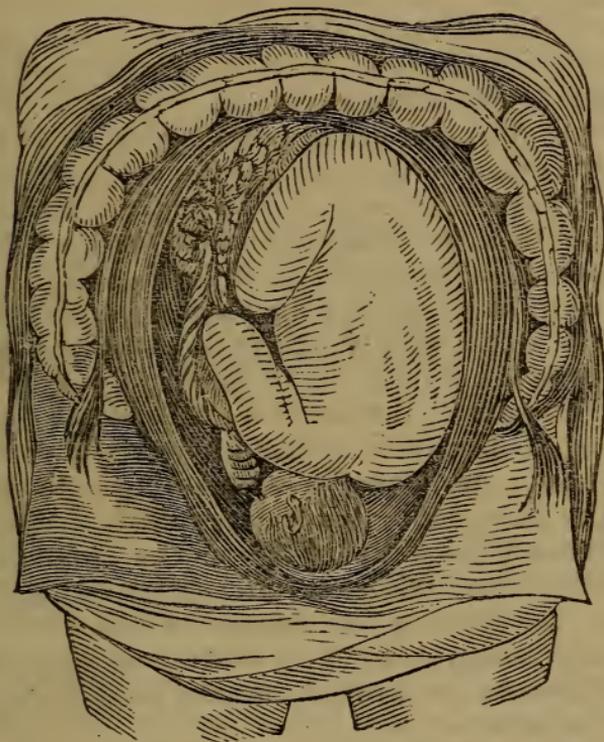
The placenta, cord, and membranes, now described, constitute what is called the *secundins* or *after-birth*, which are products of pregnancy, and of no use after the termination of gestation; consequently, they are then discharged.

THE FŒTAL CIRCULATION, obviously, has a different route from that which is established at birth after respiration takes place. (See the Figure fronting Book II.) The stomach of the embryo digests no food, nor do the lungs inspire air, neither of which is needed, as the blood that nourishes the child is derived directly from the uterus of the mother, which is propelled thither by the maternal heart, and after circulating through the fœtus, is returned by the veins through her lungs, for the purpose of being purified, to the heart again, to take the same course. The child, in fact, may, with propriety, be considered a part of the mother's body during its fœtal life.

The umbilical vein of the cord, is formed by the convergence of innumerable branches in the placenta, which unite into one vessel; this vein passes into the abdomen of the child at the navel, distributing blood to the vessels of the liver, and connects by the *ductus venosus*, directly with the vena cava inferior. The latter, also receives the blood from the liver by the vena porta, and transmits the whole to the right auricle of the heart, which also receives the superior cava. During fœtal life there is a communication by a valve, called the *foramen ovale*, from the right to the left side of the heart, which becomes closed and obliterated after respiration is established. Through this valve much of the blood passes into the left side of the heart. From the left ventricle, it escapes into the aorta, and from the right ventricle into the pulmonary artery; this latter, instead of conveying all its blood to the lungs, disposes of about three-fourths of it through the *ductus arteriosus* to the descending aorta. A portion of the blood is sent from the aorta to the head and upper extremities; but the remainder passes downwards to the iliac arteries, and what is not distributed to the lower extremities, is returned to the placenta by the umbilical arteries

of the cord, which pass from the internal iliac arteries, and join the vein of the cord at the umbilicus or navel. The pulsation of the foetal heart varies from one hundred and thirty to one hundred and forty beats per minute. (See the FŒTAL CIRCULATION.)

FIG. 5.*



As soon as the child is born and respiration established, the circulation is admitted through the lungs, and the foramen ovale becomes permanently closed. If by any irregularity it should remain open, the whole surface of the body of the child becomes of a leaden or blue color, which results from the non-oxygenization of the blood; if this state continue, the child dies, sooner or later, asphyxiated. Those vessels which were alone subservient to the

*The child *in utero* at full term. Its position is represented in the uterus, the front walls of which, are taken away; the intestines are pushed upwards and backwards, to give it room.

fœtal circulation, soon become obliterated, existing only as ligaments, and the last vestiges of the fœtal peculiarities are at an end.

WHEN we compare the GRAVID UTERUS, OR FULL PERIOD OF PREGNANCY, with the unimpregnated organ, we can but be astonished at the change, in size, which has taken place during gestation. The virgin uterus is from two and a half to three inches long, about two broad, and one inch in thickness, with a cavity about the size of the kernel of an almond ; its superficies are about sixteen inches. But at the end of the ninth month of gestation it has attained a length of twelve or fourteen inches, a breadth of from nine to ten, and a thickness of from eight to ten inches ; its superficies is now estimated at 339 inches, having increased more than 519 times its original size !

As we have already given the progressive development of the fœtus, we have only to remark, that this augmentation in volume takes place more gradually in the earlier months of pregnancy, than after the fifth month ; particularly during the last three months its growth is very rapid. The increase in size is not so much owing to the addition of muscular fibre, as to the enlargement of the uterine vessels ; indeed, the walls of the uterus maintain about the same degree of thickness throughout every stage of pregnancy, as existed before conception took place. The blood-vessels, however, are very much enlarged, carrying torrents of blood ; the lymphatics and nerves, also, are increased in size.

The position of the child *in utero*, at full term, is seen in the above representation. During the whole period, the fœtus is bent forwards upon itself so as to form a kind of circle ; but, until near the close of gestation, its position is not stationary. As the child floats nearly loose in the liquor amnii, the laws of gravity, principally, determine its position.

The natural duration of pregnancy in the human species is commonly said to be nine months ; but it may be more accurately estimated at forty weeks, or 280 days. Yet many instances are recorded, which are undoubted, of its continuing ten months, and even longer. Some au-

thors mention pregnancies of twelve, thirteen, fourteen, fifteen, and even eighteen months, the correctness of which may be doubted. Dr. Merriman, of London, has given a table of the births of 114 mature children, from which we learn the following: three were born in the thirty-seventh week; thirteen in the thirty-eighth week; fourteen in the thirty-ninth week; thirty-three in the fortieth week; twenty-two in the forty-first week; fifteen in the forty-second week; ten in the forty-third week; and four in the forty-fourth week; of which latter, one was born at three-hundred and three days, one at three hundred and five days, and two at three hundred and six days.

The instances are common in which children born at seven months complete, live; instances are recorded wherein they have survived at six months complete, but such cases are comparatively rare; those which are mentioned as having lived at the fifth month, are somewhat incredible. The law recognizes *six months complete*, as being the least time in which they are capable of surviving.

ABNORMAL PREGNANCY.

BY ABNORMAL PREGNANCY is indicated all those which deviate from the natural order, whether as to place, time, appearance, or form.

BY EXTRA-UTERINE PREGNANCY, is understood those which occur out of the womb; the embryo, generally imperfect, has sometimes been found in the ovaria, sometimes in the Fallopian tubes, and sometimes in the cavity of the abdomen. Another species may be added known as *interstitial pregnancy*, when the fœtus is developed in the midst of the fleshy fibres of the uterus. This, however, strictly speaking, does not belong to the class we are now considering. We adverted to these cases when speaking of the theories of conception in the last chapter: the remarks there made need not be repeated. Much that has been written upon this subject can only be regarded as fabulous. The phenomena attending them, and the length of time that they have been known to continue,

which has been sometimes many years, and their occurrence in virgins, render it impossible to regard them otherwise than as utterly different from ordinary pregnancy. Instances are mentioned in which the fœtus has been retained in this manner for upwards of fifty years. They are of such rare occurrence that these strange deviations from the intentions of nature have been doubted altogether. The tubal species seems to be the best substantiated, being more common than the others.

The cause of extra-uterine pregnancy, is very obscure. All those who have attempted to assign one, have imputed its occurrence to some irregularity in the detachment of the ovum; either that it arises from *unnatural excitement* in the female without sexual congress, or, that it is occasioned by fright during *coitus*. When the child has been found in the abdomen, it has by many been supposed to have escaped from the womb. In almost all such cases the fœtus has been found very imperfectly developed. It is happily of rare occurrence, but when it takes place the termination is often unfavorable.

By *SUPERFŒTATION*, is meant the impregnation of a woman already pregnant. As it is well known that the mouth of the uterus is closed soon after conception has taken place, by the secretion of the decidual membrane, it appears unreasonable that such an event should happen; and many distinguished physicians doubt its occurrence altogether. Still, it is well known that females in twin-deliveries, have produced infants of different sizes, and various colors, and within a few weeks, and even months of each other. We believe that these cases are mostly explainable in the following manner: the expulsion of a twin may take place before its full term, while the other is carried till the ninth month; or one of the germs may prove to be a blighted conception, and have the appearance, when born, of being a fœtus of several months. When they have been of different colors, it is known that the mother received the embraces of a white and black man within a very short time of each other. Or it may be the result of a double uterus.

Finally, then, it would appear that if *superfœtation* be

ever possible, the second embrace must take place almost contemporaneously with the first ; and even then it might, perhaps, be more properly regarded as a case of twins simply, whether they belong to one or two fathers.

MOLE PREGNANCY results from the destruction of the vitality of the embryo during the first few weeks of its existence. If its expulsion does not take place, it may be retained and continue to grow till it forms a fleshy mass known as *mole or false conception*. See chapter on *Moles, Hydatids, etc.*, Book I., where this subject is fully explained.

DEFORMITIES, MONSTROSITY AND MARKS, called also *lusus naturæ*, are of various kinds. They may consist of *deficiency, excess or misplacement* of parts, or members of the body. For example, we frequently meet with persons who have an extra toe and finger, and more commonly those who have the *nævus materna*, or mother's mark. The nose, the palate forming *hair lip*, one or more of the limbs, etc., have been wanting. In short, almost every part of the body, in different cases, has been found wanting, in excess, or misplaced. Some of these monstrosities are, of course, incompatible with life, others are so slight as to permit a continuance of life, while others are capable of being remedied by operations.

A variety of opinions are entertained in regard to the causes of these deviations from the original intention of nature. while a majority regard them as the product of the imagination of the mother, others trace them to a variety of injuries during gestation : as blows on the abdomen. the pressure of corsets, etc. If we add to these, frights, unpleasant sights, severe mental agitation, and other similar impressions, we probably have what are often, at least, the true causes. All twin monsters are simply the result of the growing together of the embryos, probably from some slight cause.

That all these irregularities of nature are produced from comparatively slight causes, appears evident from the fact that monsters in chickens, may be produced at plea-

sure, only by a slight increase of the heat of the eggs during incubation.

BY FALSE PREGNANCY, is indicated a variety of affections that may simulate true pregnancy; some of them are products of conception, while others are quite independent thereof. We may mention among these, *moles, amenorrhœa, dropsy, tympanites, polypi, cancer of the womb, ovarian dropsy, etc.*

As we have treated of these various affections in separate chapters in Book I., of this volume, and shown wherein their symptoms differ from those of true pregnancy, we have here only to recommend the reader to study them in connection with the signs of pregnancy, which follow in the next chapter.

IS IT POSSIBLE TO PROCREATE EITHER SEX AT PLEASURE? The answer to this important question has been sought for, from the time of Hippocrates downwards. The father of medicine taught that, as the strongest side belongs to the strongest being, in both animals and the human species, the right testicle and the right ovary produce male germs, while female germs come from the left. And thus has arisen the grave expedient of lying on the side where the germ of the sex desired is to be found, during a fruitful congress. We have only to remark that it has been demonstrated, that the basis of this hypothesis is entirely false.

Without following out the different suppositions by which physiologists hoped one day to be able to ascertain the conditions which cause one sex to be born rather than the other, we should state that it has been demonstrated by experiment upon animals, that the stronger the male at the period of fecundation, the greater is the chance of obtaining males. Consequently, it is probable, as Velpeau remarks, that the nature of the sex is determined by that one of the couple, whose prolific power, whether absolute or relative, is greatest at the moment of conception.

We have thus, by adverting to this point, included *eve-*

rything of any importance connected with this part of our subject, and shall proceed to consider the *signs of pregnancy*, and afterwards its diseases.

CHAPTER VI.

THE SIGNS AND PHENOMENA OF PREGNANCY.

HIPPOCRATES remarked, that first, the female feels a disposition to faintness, slight shivering, colic pains, with a rumbling sensation, first in the uterus, and then throughout the whole abdomen. This first condition, which is not constant, neither is it noticed by all females, is succeeded by pregnancy, *and its signs*. The *eyes* lose their brilliancy and become languishing; the *eyelids* become dark, and are surrounded by a livid or leaden circle; the *nose* becomes sharper, the *mouth* wider, the *chin* more prominent; the *face* becomes pale and covered with reddish spots of various sizes and numbers,—sometimes of a milk color,—finally it may be said to become masked. The general state of a woman in this condition, is plethoric, as is indicated by the pulse, which is quicker and fuller than ordinary. The blood, upon being drawn, is found to have the buffy coat, indicating an increase of fibrine. Sympathies are excited in distant organs, which are often distressing, giving rise to various caprices of disposition and taste. We should remark, before proceeding further, that the diagnosis of early pregnancy is often no easy task, but one which requires great care and discrimination. The following are the principal *signs* to be relied on:

1. CESSATION OF MENSTRUATION is one of the most important signs, if the female have previously been regular, and there is no evidence that this function is suspended by cold, serious disease in other parts of the body, depressing emotions and passions, or a low state of the general health; when any of these affections supervene, they give rise to dizziness of the head, etc, (see Suppression of the Menses, Book I.,) by which they may be distinguished from

pregnancy. In extremely rare cases menstruation has been known to continue for a month or so after impregnation, the discharge being produced by the lower part of the uterine cavity, which is not yet occupied by the decidua membrane; in still more rare cases, the menses have been known to flow throughout the whole period of utero-gestation;—but these are exceptions. If, at the second period, the menses are absent, it may be deemed conclusive, or very nearly so, that conception has taken place.

2. MORNING SICKNESS, and sometimes vomiting, is present in most cases, but not all.

3. ENLARGEMENT OF THE BREASTS, areola around the nipples, and secretion of milk, are good symptoms, but are sometimes, as has been seen, produced by uterine disease.

4. SALIVATION is often produced by the irritation of pregnancy, when there is a frequent disposition to spit.

5. ENLARGEMENT OF THE ABDOMEN, which might be supposed one of the best signs, taken by itself, is one of the worst, and is not to be relied on. This arises from the fact that it may be produced by numerous other causes; and very unjust and painful suspicions have been attached to unmarried females from this doubtful symptom.

6. ENLARGEMENT OF THE UTERUS is a symptom of more value, when estimated by a prudent physician, than the preceding; early in pregnancy its neck becomes lower in the vagina, and as pregnancy advances, the neck shortens, until at full term, nothing is left of it but a narrow ring.

7. QUICKENING, or movement of the child, is the only infallible sign of pregnancy—when we are assured that it is not the result of the woman's fancy. This may occur at any time after the third month, though the fourth is the most common. It may be felt by bareing the abdomen, and applying the hand over the tumor, previously dipped in very cold water.

8. BEATING OF THE FETAL HEART, is another infallible sign. By the use of the stethoscope, or even by applying the ear directly to the abdomen, it may be heard beating at the rate of one hundred and thirty or forty per minute. These signs, of course, do not exist till after quickening, and not then if the child be dead. If it be a twin pregnancy, two fetal hearts may be heard.

9. THE URINE is more abundant, more pale and limpid than ordinary.

10. A CAPRICIOUS APPETITE generally exists ; sometimes there is an entire loss of it, at others it becomes ravenous, then again the female has a desire for the most indigestible articles, such as ashes, clay, lime, charcoal, unclean insects, etc.

The *moral* condition of the pregnant female, is also subject to many changes. Some who were before naturally gay, and amiable, now become melancholy, cross, unsociable, and *vice versa*. "In a good many women," remarks Velpeau, "the passions, although previously moderate, acquire an extraordinary violence, cannot be subdued, and cause the commission of the most atrocious crimes ; in others, there are merely some singular desires, such as to eat a particular kind of fruit, meat, or game, or some particular dish, no matter at what price ; an irresistible tendency to steal objects of small value, or for which they have no use, and corruption of their manners or character. There are some whose wit is never more lively, more penetrating, more agreeable ; while others fall into a sort of stupidity and apathy, quite unnatural in them. In general, the activity of the intellectual faculties is augmented, whether in the whole, or only in part ; in one case the memory, or a taste for the arts and sciences, is modified ; in others the judgment becomes exquisite, or the imagination is exalted to such a degree, that some women have, during their pregnancy, attained to a surprising degree of perfection in those works of genius, those arts or sciences, which they had previously cultivated with indifference, and without success ; some lose their senses and become insane, always at the same period of their pregnancy ; others are seen in whom mania never disappears, and who never become composed except during this function."

Notwithstanding the multitude of *signs of pregnancy* already noticed, in some cases the most skilful, in estimating them, are deceived. This arises from the fact that certain affections and conditions of the uterus, intestines and abdomen, may take on nearly all these symptoms. Numerous cases are on record in which false decisions in

pronouncing young females pregnant, have led to the most melancholy and lamentable results; the errors have only been discovered when it was too late to remedy the evils produced. Whole families have been broken up, characters destroyed, and women have been driven to suicide to escape the taunts of their associates, or had their whole lives embittered, when their perfect innocence has appeared. These evils have, in part, originated from the fact, that young women, illegitimately pregnant, generally deny the fact, maintaining that they are slandered, thus producing error in the opposite direction: this has led many skilful physicians to disregard entirely the assertions of the subject, and rely altogether upon appearances, which may be deceptive.

As during pregnancy, there exists a much greater degree of vitality in the uterus, than previously, there occur a variety of modifications, both anatomical and physiological. Many diseases supervene, are suspended, or disappear. It has been noticed that an advanced stage of pulmonary consumption, and a number of other different diseases, such as obscure chronic inflammations, and even serious organic lesions, seem to retrograde during pregnancy, and often give place to a flourishing state of health. After parturition, some of these do not return, and are found to be permanently cured; while, again, many of them thenceforth progress towards a fatal termination with increased and frightful rapidity.

CHAPTER VII.

HYGIENE* AND MANAGEMENT OF PREGNANT WOMEN.

WHILE a pure atmosphere is of the highest importance to health at all periods of existence, it is during the pregnant state, especially, that it becomes indispensable. Hippocrates, and many others, have remarked the bad effects of a damp or too dry an atmosphere, upon pregnant women, and assert that it predisposes to abortions and to

* Being a continuation of M. Colombat's remarks upon this subject.

premature labors. They ought, therefore, as far as possible, to breathe an atmosphere which is pure and exempt from all extremes of cold or heat, dryness or humidity.

Their clothing should be loose, and so arranged as to avoid all pressure upon the breasts, chest, abdomen, and stomach. Pressure upon these organs may interfere with the growth of the mammæ and the development of the nipples; it may augment the embarrassment of respiration, prevent the enlargement of the uterus and its ascent in the abdomen; and, lastly, become a cause of abortion, or of displacement of the gestative organ. Pregnant women should especially avoid the use of corsets with busks or whalebones, which are very hurtful, while the pressure they exert from above downwards acts upon the uterus, forces it to develop itself in a dependent situation, and becomes a powerful cause of prolapsus of the uterus, and according to some authors, a cause of deformity of the fœtus, even. They ought to wear, therefore, elastic and very large corsets only; for which should be substituted, after the fifth month, an equally elastic binder, which, embracing the abdomen in every direction, maintains the uterus in a normal position, and, as far as possible, prevents the wrinkles and cracks which are generally the result of pregnancy. During winter, pregnant women ought to take care to wear flannel drawers, in order to escape the action of the cold upon the thighs and external organs, which are more exposed to it because of the prominence of the abdomen, which shortens the under clothes, and pushes them forwards. They ought to endeavor, likewise, to protect the mammæ, the shoulders, and the superior extremities, from cold. Inattention to this precept has sometimes occasioned very extensive inflammation of the breasts, followed by abscesses, which have not generally been cured till after delivery. Circular compression of the inferior extremities is no less dangerous, especially towards the latter months of gestation, for, by retarding the flow of the fluids, they produce œdematous engorgements and varicose dilatations of the inferior extremities.

The use of warm baths, which were always proscribed by the ancients, in pregnant women, is nevertheless very

useful. As they promote the cutaneous perspiration, relax the tissues, and cleanse the skin, they are suitable for primiparous women, and especially for those of advanced age, whose soft parts are hard and resisting, and whose uterine and abdominal parietes are distended with difficulty; they are prescribed, also, for the purpose of relaxing the symphyses of the pelvis, of softening the external parts of generation, of preventing lacerations, and to facilitate labor. The use of baths is suitable also for nervous and irritable women, who are very subject to colics and convulsions; they are injurious in those who have much embonpoint, in those of lymphatic temperament, and who are subject to edema and hemorrhages. Persons of the latter description, should make use of them only for purposes of cleanliness, therefore, and should remain in them as short a time as possible. In some cases, cold baths may be proper. Foot-baths ought to be allowed, only for the purposes of cleanliness.

Bleeding ought to be avoided, unless some accident happen, or unless called for by some particular indication. It sometimes becomes necessary, at all periods of pregnancy, in plethoric women, in whom the pulse is strong, full, and accelerated, and who suffer from insomnia, from excessive agitation, from headache, or from nasal, pulmonary, or uterine hemorrhages. Bleeding at the arm in these cases, is generally preferable to any other mode of abstracting blood.

The derangements of the digestive functions, and the state of sanguine plethora, which are the general results of pregnancy, sufficiently indicate that pregnant women ought, especially during the early months, *to make use only of light food, containing but little nutritious matter, of easy digestion, and selected chiefly from amongst the vegetables.* Nevertheless, towards the middle of gestation, the period at which the appetite re-appears, and the digestive functions are generally re-established, it becomes proper to relax the severity of the regimen, and allow of more food at each repast; with the precaution, however, of renewing the latter often enough to supply sufficient nourishment, without overloading the stomach. The reprehensible custom of making pregnant women *eat for*

two, as it is vulgarly expressed, is the more pernicious, because it occasions a super-excitation of the digestive organs, which is generally followed by more or less obstinate vomiting, colic or diarrhœa. We must remark, however, that the tastes and desires of the patient should be respected, provided they do not concern articles evidently injurious. Though it is wrong to yield to all their caprices of appetite, it is also wrong to resist desires which often persist in spite of them, and which are sometimes the indications of nature itself. It is proper to remark, moreover, that the excessive use of warm drinks may be hurtful, by debilitating and relaxing the stomach; and that the abuse of fermented drinks, of liquors, of tea and coffee, and of irritating condiments, is equally pernicious, by increasing the already too great excitation of pregnant females, from which may result convulsions, uterine hemorrhages and abortions. The use of ice drinks, which is often one of the best means of allaying gastralgia and vomiting, may also become a cause of abortion.

In some women, we find disorders of the intestinal excretions, and of the urinary secretion. Emollient enemata will be useful to calm, not only intestinal and vesical irritations, but also to facilitate digestion, to prevent and overcome vertigo and cerebral congestions, and even to aid in the primipara, the dilatation of the genital parts, at the moment of delivery. Nevertheless, their habitual use should be restricted to the well-ascertained cases that require them; for they may lead to constipation and intestinal torpor, and an abnormal relaxation of the genital organs. One ought especially to be very circumspect as to the use of purgative injections, which, in consequence of the relations existing between the rectum and womb, may bring on contractions of that organ, and thus give rise to miscarriage. As a general rule, purgatives ought to be rejected upon the same considerations; and the conduct of those who prescribe what are called *precautionary purgatives*, cannot be too much condemned. The use of emetics ought also to be proscribed; and notwithstanding they are often taken, without effect, by women who desire to make a criminal use of them, still they should never be resorted to except in cases of absolute necessity.

Exercise, which ought never to be carried to the extent of fatigue, is very useful for pregnant women; it maintains a regular action of all the functions, prevents the attack of many diseases, and is often a means of cure. The most suitable mode of exercising for such persons, is walking, both morning and evening, during the fine weather, and at noon during the winter. The length of the walks should be calculated agreeably to the state of the strength and habits of the woman; yet there are women who cannot go out their full time except on the condition of keeping perfectly still, and in a horizontal posture. Riding on horseback, or in a carriage, and dancing, exposes her to shocks that are the frequent causes of hemorrhages and abortion. Moreover, women in a state of pregnancy, ought to enjoy protracted sleep, which, in that state, they require more than at any other period of their lives. We ought, therefore, to treat the state of insomnia and agitation to which they are liable, especially in the last months of pregnancy, by baths, exercise, and blood-letting, and by some gentle narcotic, such as distilled lettuce-water, and orange-flower water, to which may be added some drops of sulphuric ether. The preparations of opium do not always succeed so well.

The exalted state of the sensibility in pregnant women, rendering their sensations more acute, and their emotions more energetic, they ought to shun the occasions of violent impressions upon the physical and upon the moral constitution; and all objects capable of affecting the imagination, should be cautiously kept out of their way; such as tragical spectacles, the sight of mutilated people, of the lame, and of all persons affected with loathsome diseases. As they are, in general, persuaded, that the sight of such an object may give rise to a similar deformity in the child in utero, they are violently agitated whenever they meet with it. Besides, the records of disease are full of cases of serious disorders, as convulsions, hemorrhages and abortions, brought on by the sight of some repulsive object, by fright, by a paroxysm of anger, a fit of joy, of hate, of jealousy, or other acute emotion of the soul. From among the numerous histories of this sort, we shall quote only one, from the writings of Sue. It is the case

of a woman who was so much affected by the prediction of a gipsy, who foretold that she would die, that she made her will, and died in the eighth month.

It would seem ridiculous, to believe in the injurious effects of longings and desires, and the prejudices which pretend that the woman's imagination may exercise a powerful influence upon her child, and that when she longs for any thing, or is powerfully affected by any object, there is established a deformity resembling the object of her fright, upon that part of the infant's body that corresponds to the part of her own surface which she happens first to touch with her finger, after experiencing the sensation. However, as these various causes may produce violent agitation in credulous females, and exert an injurious influence upon the fœtus, it is requisite to pay great attention to the state of her mind, so that she may be treated with gentleness and respect, and especially with indulgence as to her caprices and oddities, which are for the most part involuntary. As abortion is often the consequence of the voluptuous and tumultuous ecstasies of the venereal indulgence during pregnancy, the conjugal embrace ought to be interdicted during the early months, particularly to newly-married women, and to those who have already been subject to abortion. In case, however, of excessive desire in both parties, there might be more inconvenience in resisting, than danger in gratifying it, with moderation. As, during the last six months of gestation, the danger is much less than in the first three months; the indulgence of the habit may be enjoyed with less restraint.

SECTION II.

DISEASES OF PREGNANCY.

SOON after conception has taken place, the uterus assumes new strength, and radiates to other parts of the economy, the most extraordinary sympathies, and the most powerful re-actions. Some of these have been mentioned as *the signs of pregnancy*, most of which require no other attention than a regulation of the habits of the individual; but others that are sympathetic or physiological, which often take on a pathological appearance, and are known as *the diseases of pregnancy*, may be divided, for convenience, into classes: the *nervous*, the *plethoric*, and the *mechanical*—which take place at different periods of utero-gestation. We shall somewhat modify these divisions—1. Treating of abortion or miscarriage; 2. Disorders of the chylopoietic viscera or the digestive functions; 3. Disorders of the circulating system; 4. Disorders of the respiratory system; 5. Disorders of the nervous system and senses; 6. Disorders arising from mechanical pressure or distention; 7. Diseases of the genital organs during pregnancy. We shall, then, proceed to treat of them, according to these divisions, in as many chapters.

CHAPTER I.

ABORTION OR MISCARRIAGE—CAUSES—SYMPTOMS AND TREATMENT.

BY ABORTION is understood the expulsion of the *fœtus* from the uterus before it has attained a sufficient degree of development to enable it to exist independently of the mother; if it occur before full term, and the child have

acquired an organization sufficiently perfect to enable it to live, it is called a *premature labor*. It should always be regarded an "untoward event," as it generally exerts an unfavorable influence upon the health of the female.

Abortion has been observed to occur most often in the early months of pregnancy; consequently, as it becomes advanced, the chances of this accident taking place are lessened. According to the records of Drs. Collins, Beatty, Deubel, and Madam Lachapelle, out of 41,699 deliveries, 530 were premature births or abortions; making 1 in 78 1-2.

CAUSES.—These we shall divide into the *predisposing* and *exciting*. The *efficient* cause, of course, is constituted by the contractions of the womb, assisted by the muscular power of the mother.

The *predisposing causes* may exist in the woman or in the ovum; most often in the former. According to Velpeau, women who are plethoric, who menstruate abundantly and regularly, who are irritable, excessively sensitive, nervous, hysterical, lymphatic, of a fair complexion, weakly, sickly, who have large eyes and a bluish sclerotic; persons affected with syphilis, scurvy, rickets; those who have a badly formed pelvis, some organic lesion, or any chronic disease; those who are asthmatic, dropsical, affected with cancer; those who are badly nourished, *and those who compress themselves by lacing, or wear their clothes too tight*, miscarry more frequently than others. Marshy and unhealthy countries; certain atmospheric constitutions, formerly noticed by Hippocrates, which render abortions really epidemic at some seasons; watchings and fatiguing occupations are also classed among the predisposing causes of miscarriages. On the part of the reproductive organs, all the chronic affections to which they are subject, might be mentioned; as adhesions, displacements, cancer, polypus, profuse uterine leucorrhœa or dropsy, etc.

Many of the diseases to which the child is liable after birth, may manifest themselves before—thus giving a disposition to abortion; ulceration and disorganization of the head, lungs, liver, peritoneum, and in fine, of every part of the body has been observed as early as the third month.

Circumvolutions of the cord around the child's neck, its shortness, excessive length, or its containing knots, may also cause the death of the child, when it will be, sooner or later, expelled.

Exciting causes. The predisposing causes that we have mentioned, are, alone, very often sufficient to bring on the expulsion of the ovum; when this occurs the abortion is said to be *spontaneous*. Notwithstanding, it is almost always attributed, and often erroneously, to some accident or particular circumstance which is known as the *exciting*, and passes as the principal cause; as great exertions, yawning, coughing, sneezing, vomiting, the act of voiding the fæces and urine; the impressions of joy, disappointment, sorrow, anger; strong odors of any kind; *coitus*, violent dancing and other movements, riding in a carriage or on horseback, leaping; and in fine, all violent commotions of the body, and blows or falls upon the abdomen. To these may be added all acute diseases, as fevers, inflammations, especially of the womb; dysentery, colic, constipation, convulsions, etc.

Now, although many of these causes seem frequently to give rise to abortion, it should be understood by the reader, that they would rarely produce it without the antecedent existence of some one of the predisposing causes above enumerated; and that they most commonly are merely coincidences. The same may be said of emetics, drastic purgatives, and emmenagogues, taken for criminal purposes; blood-letting, from the foot or otherwise; hip and foot baths. Mechanical means which have been recommended in cases of deformity of the pelvis, acupuncture, and certain manœuvres acting directly upon the ovum, but which, unfortunately, are resorted to by infamous people, it will soon be seen, are often no more successful than the foregoing, and attended with the greatest danger. It has been thought that many of these causes act by *detaching the placenta*; but if it be considered that the ovum is perfectly filled with the fœtus and liquor amnii, and that the uterus is filled exactly by the ovum, it will be evident, as Dr. Velpeau remarks, that motions impressed on the womb by external shocks, are as incapable of separating the placenta from the womb, as they

would be to separate two bladders, one contained within the other, and the inner one full of fluid ; the most active and *imprudent women, those who give themselves up to the most violent exercises, do not, on that account, fail, most generally, to go their full term ;* while many others are found to abort in spite of the most minute precautions, and the most persevering attention.

Dr. Mauriceau relates the case of a woman, seven months gone with child, who, in order to escape from her chamber, which was on fire, got out of a third story window, when she fell on to the stones and fractured her arm ; but her pregnancy was not disturbed. Madam Lachapelle mentions that a female who was pregnant, and affected with deformed pelvis, threw herself from the top of a stair, with the view to bring on abortion, and thereby avoid the Cæsarian section : she died a few days afterwards from her injuries, but there was no abortion. Marieceau also speaks of a woman who was bled eighty-six times in one pregnancy, and who, notwithstanding, at the end of it, was delivered of a fine large child. Delmotte saw powerful evacuants produce gastritis, peritonitis, and even death, without being followed by abortion ; Velpeau had the care of a young female who, with the design of concealing her dishonor, had produced a violent abdominal inflammation by taking medicines to procure abortion : she died on the eighth day without any symptoms of miscarriage. We should add, however, that where some peculiar predisposition exists, these powerful means may produce that event, while in others they may give rise to *monstrosity or malformation of the child.*

There is a predisposition to abortion common to all women ; that is, at the menstrual periods,—an epoch when a fluxion towards the womb occurs, which disposes the detachment of the ovum. Finally, those women who are so *unfortunate as to acquire the habit of aborting,* are rarely afterwards able to carry the fœtus beyond the period at which they are accustomed to miscarry ; the oftener this is repeated, the more difficult it is for them to carry it to full term. Such individuals are doubly unfortunate ; it not only prevents their becoming the mothers of living

children, but also gives rise to a state of bodily debility from which they severely suffer.

A great number of medicines are supposed capable of producing miscarriage ; but there is no certainty in their action, however powerful they may be. She who resorts to them, *is guilty of tampering with her own life, in addition to the crime actually intended.* The remarks of Dr. Velpeau are particularly apposite in illustrating our views upon other means that are sometimes resorted to: “the *mechanical* causes, or certain *manœuvres* recommended by some authors, in cases of deformity of the pelvis, and which, in the midst of our refined society, are also employed by degraded wretches, not less criminal than the unnatural women, who are not ashamed to submit to their disgusting ministrations, must be arranged among the same class, with emmenagogues and drastic purgatives. Those who make use of them most frequently fail of attaining their object, and succeed only in seriously injuring the womb. I once prescribed for a female, in whom such attempts had brought on a flooding which conducted her to the verge of the grave ; she suffered horribly from pain in the interior of the pelvis for two months, notwithstanding which abortion did not take place, and she is now a prey to a large ulcer of the neck of the womb. I opened the body of an unhappy creature who suffered from the like attempts, which did not succeed any better than the one above mentioned. M. Girard, of Lyons, mentions a similar instance. Very recently a young woman, who became pregnant against her wishes, succeeded by such manœuvres only in producing an organic lesion of the uterus, which, after frightful sufferings, led her to the commission of suicide.” The same, also, applies to bleeding and all other unnatural attempts to bring about a premature expulsion of the foetus.

SYMPTOMS.—These vary according to the stage of the pregnancy, and the nature of the causes which produced it. During the first two months of gestation, and when the result of some disease, the ovum, then of small size, is often expelled with little or no pain or hemorrhage ; this kind of miscarriage does not much differ from a slight attack of hemorrhage, or a difficult menstruation. When

pregnancy is further advanced, however, the expulsion of the fœtus may produce the phenomena of an ordinary labor; but it is generally preceded by weakness, chills, languor, paleness of the face, palpitation, fetid breath, swelling and dark color of the eyelids, loss of appetite, nausea, thirst and pains in the loins. There may be also, elevation of the pulse, the breasts become flaccid and secrete a serous liquid instead of milk; there is a discharge from the vulva, at first of a thin humour, then of blood; absence of the movements of the child; and lastly, falling of the abdomen, uterine pains which gradually become stronger and more frequent, till the mouth of the uterus is dilated, when the ovum is expelled, which most often puts an end to the hemorrhage.

When abortion is the result of some powerful exciting cause, the action of such cause is immediately followed by an abundant, and frequently dangerous flow of blood, that does not cease till the discharge of the fœtus and its appendages takes place, which is accomplished by severe pains; these symptoms resemble those of labor the more closely in proportion as the age of the fœtus is more advanced; the same is true in regard to the lochial discharge and milk fever.

When the child has ceased to live it is generally soon expelled from the uterus; it may, however, remain for several weeks or months, and even years—if the membranes remain unbroken, and no air have penetrated the uterus—passing sometimes into the state of *adipocire*; or, it may degenerate into a *fleshy mole*. (See that Chapter in Book I.)

Abortion is much more dangerous than a natural labor; the least dangerous, is that which is produced by disease of the ovum, and the most so, is that which is *forced*, without the existence of any predisposing cause. The danger of the female is also less in proportion as the pregnancy is more recent, and the neck of the womb is more yielding. It often disposes the womb to chronic inflammation, ulcers, and other organic lesions.

TREATMENT.—This presents two indications: first, to prevent it by every possible means; and second, if this

be impossible, to hasten its termination and attend to the state of the mother.

If the female be irritable and nervous, she should be protected from moral and physical commotions; she may avail herself of travelling, and if weakly she should take strengthening food, repose, and moderate exercise only; tonic medicines may be often advantageously used. She should avoid violent exercise, indigestible food, tight dress, emotions of the mind, and unpleasant weather. If there be a disease of the uterus or other organs, it should be carefully attended to. When signs of plethora and congestion exist, blood taken from the arm will be useful, which may be repeated near the time of the menstrual period, according to circumstances. But this latter remedy should not be indiscriminately resorted to in all cases, as is practised by some physicians. According to Dr. Physic of Philadelphia, if the patient have had repeated miscarriage she may employ with the greatest success, an anodyne enemata, consisting of a wine glassful of boiled starch, mixed with forty drops of laudanum, to be taken at bed time, and repeated every night till quickening takes place. (*Meigs.*)

When hemorrhage occurs, the patient should immediately assume the horizontal posture and maintain absolute rest upon a hard and fresh mattress. Cold, astringent and ascidulated drinks should be exhibited, external revulsives, the application of ice; antispasmodics and anodyne preparations ought to be employed, if there exist symptoms of nervous agitation or convulsions. Should there be much congestion, bleeding from the arm may be resorted to, but with great caution. Bathing should be avoided so long as there is hope of opposing the abortion. When the hemorrhage is great, resource should be had to the tampon or plugging the vagina; this may arrest the bleeding and the abortion too—or by the accumulation of blood which it causes in the uterus, it may determine the contractions of that organ and thus assist in the expulsion of the ovum. The ergot should only be used as a last resort as it generally hastens the expulsion of the fœtus.

When all these means fail and abortion is known to be inevitable by the dilating of the mouth of the uterus, the

delivery of the woman should no longer be retarded. Composing, anodyne drinks should be administered, and belladonna ointment to the neck of the uterus, or emollient anodyne injections into the vagina will be useful. Should the ovum be detained too long in the neck, the finger may be introduced to assist its escape; the uterine contractions may be excited by frictions to the abdomen, etc. The subsequent treatment, delivery of the placenta, and care of the female, is the same as that of an ordinary labor.

CHAPTER II.

DISORDERS OF THE CHYLOPOIETIC VISCERA OR THE DIGESTIVE FUNCTIONS—CAUSES—SYMPTOMS AND TREATMENT.

NAUSEA AND VOMITING.

NAUSEA AND VOMITING so frequently accompany pregnancy, that their existence is generally the first sign of the occurrence of that condition. The former, although but the first stage of the latter, often exists alone and is more distressing than vomiting itself. They are *caused* by the sympathetic action of the impregnated uterus upon the stomach. They generally come on soon after conception, and cease after the third or fourth month. Sometimes, however, they continue throughout the whole pregnancy, while again they cease at the usual time, but re-appear in the latter months. In some patients they never occur.

The vomiting most commonly appears in the morning; it may take place, also, in the course of the day, and particularly just after meals. Some are able to retain little or no food, while others are relieved by taking it. It sometimes causes much emaciation and debility, and if the vomiting be frequent and violent; it may excite abortion. It is always important to carefully distinguish whether it is produced by pregnancy or gastric derangement. Though

sometimes the vomiting is exceedingly distressing, the prognosis is not often unfavorable.

TREATMENT.—The woman should compose her diet of the lighter articles of food, and those that are found by her to be most easily digested. When there is a desire for those which are unsuitable in appearance, it may be better for them to be taken than no food at all. Some women find relief from a little Madeira wine, brandy, or some other liquor, either after meals or before; others, from mineral waters, bitter tonics, as columba root, a few drops of laudanum or ether, mint-water or syrup of poppy heads, extract of cinchona, and quinine. Counter irritation has been found useful, either by cups or mustard over the stomach, or to the spine. The application of an opium plaster, or a cloth wet with laudanum, to the pit of the stomach, will often give relief. It is frequently necessary, also, to exhibit mild purgatives, such as rhubarb, castor oil, a Seidlitz powder with syrup of senna, or manna, and emetics even. The employment of some of these with a spare diet, and the use of acidulated and gummy drinks, lemonade, baths, and emollient enemata, according to circumstances, will rarely fail of benefitting the patient. Finally, we should remark, that when there is much plethora present, bleeding from the arm, and afterwards the employment of antispasmodics and opium, will be an advantage.

SALIVATION OR PTYALISM.

THIS is characterized by an excessive secretion from the salivary glands; it generally appears soon after conception, and ceases about the fourth month; but in some cases lasts throughout gestation, or does not appear till a short time before labor. It is far more inconvenient than dangerous, and seems to depend upon the increased vitality of the uterus. When it is slight, nothing need be done but to regulate the habits of the patient; when it is excessive, the bowels should be kept free by laxatives, enemata, and a suitable diet; counter irritation by mustard or leeches may be resorted to, and *slightly* astringent gargles, as well as draughts of balm, mint and canella water.

ODONTALGIA OR TOOTHACHE.

THIS affection is generally a dental neuralgia which is more common during the earlier months of pregnancy ; it commences with more or less violent pains along the lower jaw, or in individual teeth when any are diseased. Its effects upon the female are often very distressing ;—she loses her sleep and appetite, digestion becomes impaired, and if not relieved, abortion may result.

In the TREATMENT, sub-carbonate of iron, with rhubarb, has been recommended, with anodyne lotions and poultices. Relief is often obtained from the application of a blister behind the ear on the affected side, and leeches or scarification to the gums ; when the pain is intermittent, quinine with opium should be tried. In addition to these, when there is any inflammation, mild purging with saline cathartics, low diet, diaphoretic drinks, warmth and vapors to the head and mouth, should be used. When there is a carious tooth, it must be at once extracted, unless the patient be so irritable as to make us fear abortion ; under such circumstances relief may often be obtained from the essential oils, creosote and opium.

CAPRICIOUS AND FASTIDIOUS APPETITE.

DURING the earlier months of pregnancy, the appetite diminishes, or is altogether lost ; but in the third or fourth month, it generally returns, and sometimes becomes voracious. But the most remarkable peculiarity met with, is when there is a disgust in the female for the articles of diet of which she was previously fond, and a desire for the most unreasonable substances : such as chalk, plaster, charcoal, flies, spiders, etc. The old writers abound in strange stories of the *longings* of pregnant women : Castro relates that a female who took a fancy to a *bite* of a baker's shoulder, could not be satisfied till his consent was purchased. Langers mentions a woman who satisfied her depraved appetite by killing her husband, making a meal of a part of him, and salting the rest. Others are mentioned as having devoured pepper, brown paper, and broken stones. These caprices are more common in the

early months of pregnancy, and although many of such accounts are fabulous, it is well known that sometimes their wonderful tastes are carried to an excess amounting to monomania.

In the TREATMENT, as it is often useless to try to divert them from their caprices, there is no reason for denying them any thing, or for refusing to yield to a well-marked appetite, unless, indeed, the substances longed for are evidently hurtful. It is readily conceivable, that a disappointed wish, and an ungratified longing, carried to a certain extent, may produce dangerous consequences to the mother, and thus interfere with the formation and development of the embryo. (*Colombat.*) This condition is generally accompanied with gastric derangement for which purgatives and often emetics are requisite; antispasmodics, opium, ether, etc.; and if there be plethora, bleeding; and finally, bitter infusions with a little wine. Exercise should be taken, and excessive eating and drinking must be avoided.

HEARTBURN OR CARDIALGIA.

THIS affection may occur at a very early period of pregnancy, but in general, is not troublesome till towards the latter part. It consists of a sensation of burning pain in the stomach, with an eructation of a disagreeable acrid fluid, and commonly occurs in women who make use of heavy, indigestible food, fried dishes, alcoholic drinks, etc.

In the TREATMENT, a change of diet, exercise, purging, with slight counter irritation to the pit of the stomach, or a dose of magnesia, will often remove it; also the subcarbonate of soda and potash; or a spoonful or two of lime-water, in half a cup of milk, two or three times a day, may be used. To these should be added a somewhat restricted diet of easily digestible substances, a residence in the country, with moderate exercise, and bitter tonics when the stomach is enfeebled, with an occasional purge of rhubarb and aloes, or colocynth and emetics. When alkalies fail, acids are often found to give relief.

IN addition to the affections of the stomach during preg-

nancy now considered, we sometimes find others of a similar character: indeed, we may have almost every variety and shade of affections ever met with in this organ; such as *dysphagia* or difficulty of swallowing, characterized by spasmodic contraction of the esophagus; *hæmatemesis* or vomiting of blood; *jaundice*; and finally, there may be every variety of *dyspeptic* symptoms.

The TREATMENT of these various affections is very simple; in general it is necessary to do little or nothing for them as they commonly cease after the fourth month of pregnancy: when some of these conditions of the stomach last longer, they seem to become the means by which nature prevents plethora, a state most likely to exist during pregnancy. The patient may, for the dyspeptic symptoms, employ bitter infusions, as gentian, camomile, wormwood, mint, and rhubarb, with a little wine, or mineral waters; at the same time taking food only in small quantities, and of proper quality; also a few grains of nitre in lemonade, a little ether, or other antispasmodic, taken frequently and in small quantity. The *difficulty of swallowing*, if treated, may be met with counter irritation by mustard, blisters, etc., and by antispasmodics as ether and fluid extract or infusion of valerian; also by warm bathing. For the *vomiting of blood*, may be given slight astringents, with opium, purges and acids, with counter irritation (over the stomach) by blisters. For *jaundice*, the state of the stomach and bowels should be attended to on general principles—purging once in two or three days will be beneficial; also alteratives, diaphoretics, opiates, and tonics, according to circumstances.

GASTRALGIA AND CRAMP OF THE STOMACH AND BOWELS.

THIS affection is characterized by acute pain in the region of the stomach, and by a dragging sensation at the epigastrium, known also as *nervous colic*. It seems to depend upon an affection of the stomach and bowels brought on by errors in diet and mental emotion; when violent, the patient is obliged to sit down, bend herself forwards, and press the epigastrium and bowels. It has sometimes caused abortion. (*Burns.*)

The TREATMENT does not much differ from some of the foregoing affections. During the paroxysm, a large flax-seed poultice, sprinkled with mustard, should be applied hot to the epigastrium. At the same time, a table spoonful of the extract or tincture of valerian, syrup of ether or poppey heads, opium, or some other antispasmodic, should be taken internally. The return of the paroxysm may be prevented by baths, enemata, warm and stimulating drinks, warm external applications, gentle purging, tonics, four or five grain doses of the sub-nitrate of bismuth, and the sub-carbonate of iron, with valerian. Finally, with these should be associated a regimen composed of aliments of easy digestion, which should be taken only in small quantities, with a little wine. Moderate exercise should be taken, and the whole habits of the patient must be properly regulated.

CONSTIPIATION OR COSTIVENESS.

CONSTIPATION is a very common affection in pregnant females, and is generally caused by the pressure of the womb upon the intestines during the latter stages of pregnancy; it may also depend upon sympathetic irritation. When it exists to any extent, it produces loss of appetite, headache, indigestion, restlessness, sadness, sleeplessness, and capricious temper; lastly, it may give rise to piles and even abortion.

As to the TREATMENT, we have already mentioned the most approved methods, at pages 224-28, Book I, to which the reader is referred. It is best always to avoid drastic purgatives, and depend upon a mild and laxative regimen. The following, from Colombat, embraces all necessary directions: white meats, dressed vegetables, particularly sorrel, lettuce, spinach; cooked or very ripe fruits, such as cherries, melons, grapes, prunes, strawberries, and oranges. We should add to these, the employment of warm baths, the use of vegetable or veal soup, lemonade, or cream of tãrtar water, decoctions of tamarinds, prunes, etc., sweetened with honey. The bread of the patient should invariably be made *from the unbolted wheat flour*; or Indian corn and rye may be used.

Should these measures fail, recourse must be had to emollient and laxative enemata of molasses or honey, with castor oil or senna, or suppositories. It may be necessary to take internally, manna, castor oil, or Seidlitz powders. Lastly, we should remark that sometimes the fæcal matters become so impacted as to render it necessary to extract a portion of the mass with a scoop, spoon-handle, or the finger.

DIARRHŒA, DYSENTERY AND TENESMUS.

ALTHOUGH, as has been seen in the preceding section, the majority of pregnant women are more or less affected with constipation ; yet there frequently exists an opposite condition from about the same causes. Some are habitually subject to diarrhœa or loose discharges from the bowels, others to periodical attacks of it, while again it may alternate or co-exist with constipation ; for we occasionally find the discharges fluid in consequence of irritation in the lower portion of the intestines, while accumulations are taking place above it. When the evacuations are mixed with blood, it is called *dysentery* ; and when there is a constant and painful desire to go to stool, the affection is known as *tenesmus*. The last named condition depends upon the diarrhœa and dysentery ; and when accompanied by fever and colic, has been known to produce abortion.

TREATMENT.—When diarrhœa is slight and occurs at the commencement of pregnancy, the female retaining her appetite and strength, it may be treated simply by a careful diet, rice water and other bland articles, and emollient enemata. If it do not subside, a gentle purge of rhubarb and cream tartar may be taken, with baths, fomentations, and in severe cases the application of leeches to the anus ; or enemata with laudanum, and Dover's powders at night, and during the day tonic bitters, as gentian or camomile with a little ipecacuanha. If it run into dystentery the treatment must be more energetic ; while opium is given internally, or chalk mixture with kino or catechu, the diet should be simple as above ; or twenty drops of laudanum may be given in an enemata of starch and repeated several

times a day according to circumstances. When tenesmus is present the treatment is the same. With the internal use of the bitter tonics and ipecac, the greatest good is to be expected from a proper diet, such as rich soups, feculent substances, white meats, fresh eggs, and other substances easy of digestion; at the same time the bowels must be kept free by the use of castor oil and emollient enemata.

CHAPTER III.

DISORDERS OF THE CIRCULATING SYSTEM—CAUSES—SYMPTOMS AND TREATMENT.

SANGUINE PLETHORA.

WE have elsewhere remarked that the general condition of the system during pregnancy is that of *plethora*: some physicians have believed that this state is the sole cause of the diseases of pregnant women—which opinion to a certain extent only is true, as we sometimes observe the opposite condition. It seems to be caused by the direct effect and sympathy of the gravid uterus and the disorders of other organs, upon the circulation; also, other causes which concur to produce it, independent of the menses, are the increased nutrition during gestation, a want of exercise, and too much and too nutritious food.

The SYMPTOMS of plethora are generally more marked towards the sixth or seventh month; they are fulness and hardness of the pulse; the face is highly colored; the lips, eyes and nostrils are red and injected; the gums are painful; the veins are swollen; there is dizziness, ringing in the ears, bleeding at the nose, etc.

The TREATMENT, principally consists in the use of a vegetable diet containing but little nourishment; laxatives, diluent drinks, emollient enemata, and moderate exercise. When there is a disposition of the constitution to relieve itself by a discharge of blood from any part, bleed-

ing from the arm should be carefully employed, as the most dangerous consequences may be apprehended from hemo:rhage in some vital organ.

PALPITATION OF THE HEART.

Most of women suffer at some period or other of their pregnancy from palpitation; nervous and hysterical females are the most subject to it, and the pulsations of the heart are sometimes so strong as to arouse the patient suddenly from sleep, or oblige her to stand still if she be walking. She feels the heart strike violently against the ribs which shakes the whole body; sometimes there is a frequent and marked intermission; the respiration becomes hurried with giddiness, imperfect vision, and noise in the ears. The cause of palpitation depends upon a nervous constitution and sympathetic irritation of the uterus; it is very often also, connected with plethora. The exciting causes are errors in diet, mental emotions and passions. It often constitutes a troublesome and painful inconvenience.

TREATMENT.—During a paroxysm the patient should be placed in a position that affords the greatest relief; if there be much plethora, blood may be cautiously abstracted; then she should be treated by antispasmodics, as opium, ether, and asafoetida. During the intervals attention should be given to the bowels; enemata, mild purging, tonics, a suitable diet, and moderate exercise in the open air, with an avoidance of tight dress and mental emotions, will much aid in relieving and restoring the patient. She should sleep with the head elevated, eat but moderately, and abstain from wine, tea, coffee, liquors, and all exciting articles.

SYNCOPE OR FAINTING.

SYNCOPE consists in a complete and generally sudden loss of sensation and motion, with a suspension of respiration. It occurs most frequently at the time of quickening, and sometimes periodically with an interval of several days or weeks. The attack generally lasts only four or

five minutes, during which the countenance, lips and mouth, lose their color, and there is a complete loss of consciousness ; it terminates by an insensible return of the respiration and pulse, when frequently the contents of the stomach are discharged. It seems sometimes to be a consequence of palpitation, and arises from the same causes carried further. It also sometimes results from plethora and the opposite state anemia ; motion of the child ; strong emotions ; sudden sounds ; certain odors, and tight dress.

TREATMENT.—The woman should be immediately placed in the horizontal posture, be relieved of all dress that might obstruct the motions of her breast, abdomen, neck, and limbs ; should be made to inhale strong odors, as of ammonia, burnt feathers, etc. ; frictions should be made over the region of the heart and other parts by dry cloths, or cloths wrung out of brandy or alcohol ; fresh air should be freely admitted, and cold water sprinkled on the face ; finally, sinapisms may be applied to the arms and legs. When she recovers her consciousness, she should swallow a little wine or other alcoholic drink diluted with water. During the intervals, the state of the bowels should be attended to, tonics and antispasmodics exhibited, with a light and nourishing diet ; also moderate exercise should be taken in the open air, and all exciting causes strictly avoided.

CHAPTER IV.

DISORDERS OF THE RESPIRATORY ORGANS—CAUSES—SYMPTOMS AND TREATMENT.

DYSPNŒA OR DIFFICULT BREATHING.

DIFFICULTY of breathing may occur at any period of pregnancy ; first, in the early months from nervous irritation ; second, about the middle of gestation from plethora ; third, during the latter months from mechanical pressure of the gravid uterus against the diaphragm,

which is more common in women with narrow chests and contracted pelves. The presence of organic disease of the lungs may also give rise to it. The exciting causes, are excessive fatigue, mental emotions, and the impressions of certain odors. The oppression is sometimes so great as to produce a state bordering on suffocation, when the patient is obliged to maintain a vertical position, or place herself for relief on the knees upon cushions with the elbows on other and more elevated cushions, and in this way obtain sleep, or at least repose.

TREATMENT.—During the early months of pregnancy, dyspnœa may be relieved by antispasmodics or diffusible stimulants, such as valerian, ammonia, ether, syrup of poppies, asafoetida, etc., with tonics during the interval. When the attack arises from plethora, venesection should be resorted to, with purgatives, low diet and enemata. When it depends upon mechanical pressure, the patient must take a position most favorable to respiration: to prevent suffocation, bleeding may be resorted to; the food should be taken only in small quantities at each meal so as to prevent distending the stomach, while every thing difficult of digestion, and which produces wind, as well as all tight dress, must be avoided; laxative drinks and enemata will be found useful in diminishing the size of the abdomen. Lastly, when organic disease of the lungs exists, the treatment must have reference to such disease.

COUGH.

FREQUENTLY connected with the preceding described affection, but often independent of it, is a dry, troublesome cough, either constant or recurring in paroxysms, occasioning much distress. The cough which is peculiar to pregnancy, is of a nervous character, unaccompanied by mucous expectoration, occurs in the earlier months, and is caused by the sympathetic influence of the womb; but there is another, much more dangerous, which it is important to distinguish, produced by pulmonary engorgement or catarrh, characterized by mucous, and sometimes bloody expectoration, and often soreness of the throat; this may be caused in the earlier months by cold, and in the latter

by lessening of the thoracic cavity on account of the gravid uterus pushing up the diaphragm and intestines. The former is of little moment compared with the latter, which may give rise to fever, headache, hæmoptysis, etc. In all cases, cough should be immediately attended to, as it may excite abortion, and determine or increase pulmonary inflammation.

TREATMENT.—For the relief of the nervous cough, opiates and antispasmodics, with mild expectorants and counter irritation, will generally succeed. But when it depends on pulmonary engorgement, particularly if plethora be present, it will be necessary, in addition, to abstract blood. Mucilaginous drinks with syrup of poppies or morphine, Dover's powders and paregoric, with counter irritation, may be resorted to with success. The bowels must be kept free, by laxative enemata and aperients.

HÆMOPTYSIS OR SPITTING OF BLOOD, AND EPISTAXIS OR BLEEDING FROM THE NOSE.

HÆMOPTYSIS, though a rare affection, sometimes occurs both in the earlier and latter months of pregnancy; it is one of the most dangerous complications of the pregnant state. Women of sanguine temperaments, and those who wear tight clothing, are the most obnoxious to this affection. There may be an expectoration of blood simply, secreted from the bronchial, mucous membrane, which occurs more frequently at the commencement of pregnancy, or, the blood may be derived from the rupture of some small arterial vessel in consequence of coughing while the lungs are engorged with blood; or lastly, it may depend upon organic disease of the lungs, as phthisis. These latter kinds are always unfavorable to the patient, particularly if she had been much troubled with cough before conception. This affection is to be distinguished from *vomiting of blood*, before adverted to, by the blood coming from the stomach being black, grumous and often mixed with the food; while that which comes from the lungs, on the contrary, is vermilion in color, frothy and almost pure.

TREATMENT.—This consists, first, in the employment of

bleeding and counter irritation, to relieve the local plethora ; and then in the use of opiates, and antispasmodics, as directed under the preceding affection, for the purpose of quieting the cough and irritation ; to these should be added astringent, cold and acid drinks, low diet, and perfect quiet, both of body and mind.

Epistaxis, or bleeding from the nose, occurs more frequently in pregnant women than the preceding, but should be regarded rather as a healthful evacuation than as a disease. When it is excessive, however, it may be arrested by keeping the head elevated and covered with cloths wet with cold water and vinegar, or by keeping the arms elevated, and applying cold between the shoulders. It is sometimes necessary to resort to plugging the nasal passages.

CHAPTER V.

DISORDERS OF THE NERVOUS SYSTEM AND SENSES.

INSOMNIA OR SLEEPLESSNESS.

SLEEPLESSNESS is one of the most troublesome complaints to which pregnant women are subject. It most often affects females of a nervous or hysterical habit, though it is sometimes the result of plethora : the latter, however, generally gives rise to the opposite condition or drowsiness. It may occur at any period of pregnancy, but is most common during the latter months, and seems often to be caused by heated rooms, too little exercise and motions of the child. If it continue for any great length of time, the stomach and bowels become deranged, and the patient complains of great weakness and misery. Sometimes the rest is disturbed by frightful dreams, and at others, the female is unable to sleep during the night, but obtains rest during the day ; this latter should not be confounded with the want of sleep.

TREATMENT.—This should be commenced by freeing the bowels, a soothing and light diet; anodyne enemata may then be used, or, the fluid extract or tincture of valerian; and in confirmed cases, small doses of morphine or some other opiate, may be taken at bed time. Sponging the whole body with cold water before going to bed, especially in warm weather, may be successful; and lastly, if there be much weakness, tonics should be exhibited combined with sedatives and antispasmodics; or if there be much plethora, venesection should not be omitted.

HYPOCHONDRIASIS OR DESPONDENCY, AND DISORDERS OF THE INTELLIGENCE, MORAL INCLINATIONS AND AFFECTIONS.

WOMEN of uncommon delicacy and impressionability, from ignorance of the condition of pregnancy and parturition which are only natural processes, and would always terminate favorably were nature allowed its course unhindered, are apt to represent to themselves the most alarming danger; the various symptoms that arise, *certain impressions* made by hearing of the accidents of others, often excite fears of something being wrong, and anticipations of serious consequences, when in reality, there is nothing unusual, and not the least danger, if the patient but quiet her alarm. So that when a pregnant female becomes melancholy and unhappy, which is often evinced by tears, we should sympathize with her, and moreover inform her the exact truth concerning her condition, lead the mind away from its morbid reflections, and comfort her affected sorrow with the blessings and joys which await her, when she will be "blessed among women," by becoming a mother.

How deplorable, remarks Dr. Montgomery, must be the condition of the mind in a woman, who, led astray by the profligate from virtue's paths of pleasantness and peace and then abandoned, is compelled to consider her pregnancy a curse instead of a blessing, and has, in addition to the ordinary troubles of that state, to bear up against the agony of disappointed hopes, of affections misplaced and cruelly misused, to endure the present scorn of socie

ty, and the anticipation of a still increasing shame, for which she is to find no "sweet oblivious antidote" of power to "pluck from the memory a rooted sorrow," or "raze out the written troubles of the brain!" How often has such a state of mind been followed by convulsions, or ending in insanity, has armed with the weapon of suicide the once gentle hand of her who, to use the words of W. Hunter, "might have been an affectionate and gentle wife, a virtuous and honored mother, through a long and happy life." Who can help being interested in such unfortunate beings, and instead of assisting in pushing them downwards, of lending a helping hand for their consolation and restoration to happiness and joy?

Cases of disordered intelligence, and of the moral inclinations and affections, are extremely rare, and have been greatly exaggerated: pregnant women have been known to become thievish, to have elevation of the intellect, becoming poetical or musical, while others have lost all intellectual activity. Goubelly knew a woman who never had a sound judgment except when she was pregnant; but she then lost her memory, which, after parturition, she recovered but at the expense of no judgment. Baudelocque mentions one who ate nothing with so much pleasure as the articles of food that she had stolen, while going to market for her provisions. We have already adverted to the case of a woman who, taking a fancy to eat a piece of the flesh of her husband, whom she tenderly loved, assassinated him, and satisfying her depraved appetite, salted the rest for the purpose of prolonging the pleasure. Vives speaks of a woman who would, perhaps, have miscarried, had she not been allowed to bite a young man's neck, one of her acquaintances. Finally, Colombat speaks of a woman who threw three of her children into a well, and then plunged to the bottom herself; she had two absent children: happily for them, the youngest had not been sent to her in time, agreeably to her order, and the elder child did not eat any of the poisoned cake that she sent it.

TREATMENT.—As to the moral management of the melancholic woman, the honest truth should be told her, concerning her suffering and danger, which is far more

effective than attempting to make light of her case. Attention should be given to the bowels, exercise, cheerful society, and above all the female should be informed how unfounded are her fears, and how much a happy termination of parturition depends on a composure of mind. Generally, the above noticed caprices and maniacal states, disappear after delivery without treatment. When there is congestion of the brain with a hot skin and quick pulse, no time should be lost in bleeding the patient, applying counter irritants, and purging her.

CEPHALALGIA OR HEADACHE.

HEADACHE, next to nausea and vomiting, is, perhaps, the most common complaint of pregnant women. There are three varieties: the first is of a nervous character, arises in delicate constitutions, occurs in the early months from sympathy with the uterus, or may be brought on by vivid emotions of the mind and grief; the second depends upon plethora, occurs in robust constitutions and generally at a later period than the first; the third variety depends upon disorder of the stomach or bowels, as constipation, which is caused by errors in eating and drinking. When the headache is purely nervous, there is little danger; but when it depends on congestion it requires immediate attention, lest it give rise to convulsions. A temporary form of paralysis has been observed connected with the nervous variety.

TREATMENT.—Nervous headache may generally be relieved by antispasmodics or diffusible stimulants; such as valerian opium, camphor and ammonia, with laxatives or enemata and baths; by *eau de cologne* applied to the head, and counter irritants; and lastly, by rest and sleep. When there are symptoms of plethora the treatment should be active; blood-letting and purgatives are principally relied on, and should be repeated until the pain be relieved; blisters to the nape of the neck and enemata, are also, useful. The diet should be vegetable and mild, and the bowels kept in a soluble state; air and exercise are also indispensable, particularly in the last named variety, with an avoidance of all stimulants and emotions.

PUERPURAL CONVULSIONS.

CONVULSIONS may attack the female during pregnancy, parturition, and after delivery. We shall here depart somewhat from our proposed order, as it would be very inconvenient to describe in this place the convulsions of pregnant women, and those which occur during parturition in another part of the work; we shall therefore include them all under this article. Convulsions, incident to the pregnant and parturient state are of three varieties, the *hysteric*, the *epileptic*, and the *apoplectic*. The hysterical attack does not differ from that described in Book I. (See *Chapter X., Part IV.*)

EPILEPTIC CONVULSIONS are much more frequent than either of the others; according to the reports of several physicians in England, out of 38,306 cases of labor, there were 79 cases of convulsions; or one in about 485. Women of all temperaments are subject to the attack, but the sanguine and those with their first children, particularly those with short necks, and of short, square forms, are the more liable. (*Collins.*) First among the *causes* of these convulsions is the irritation of the uterus, which bestows power upon many other causes that in the common course of life give a predisposition to convulsive disorders, but would not alone, always produce them: women in their first pregnancy; those of plethoric constitutions, or who have rachitic and deformed systems; those who are intemperate in eating and drinking, or the use of stimulants; those who wear tight dress or corsets, and give themselves up to venereal pleasures, passions and emotions of the mind; and, in fine, those who, in any way transgress the laws of HYGIENE, and thus engender an irritable condition of the system, are most subject to this formidable affection. Convulsions may also be produced by severe labor, pains, lacerations, exposure to cold, and walking about too soon after delivery; they are also, sometimes, brought on by the power of imitation, or from fright by seeing another affected.

The SYMPTOMS are almost identical with those of ordinary epilepsy. After a premonitory stage, longer or shorter, of headache, ringing in the ears, obscure vision,

giddiness, flushed face, temporary loss of sensation, nausea and vomiting, the patient loses all consciousness; the countenance assumes a bluish tint, the eye becomes fixed, the angles of the mouth are drawn backwards, there is a discharge of froth, the hands are clenched, the body becomes rigid, the head turns over backwards, and the tongue is protruded through the half-open mouth; the respiration which at first was hurried, becomes suspended and the action of the heart sometimes almost entirely ceases. The duration of the attack varies from three to five and even ten minutes, when the respiration and circulation gradually resume their natural course, the rigidity is followed by complete relaxation—and accompanied by stertorous breathing and moanings, consciousness is gradually restored without any recollection of what transpired during the paroxysm. It almost always happens that there is a repetition of the attack—the frequency of which increases the danger—the torpor and sleep being prolonged in proportion as they are more frequently repeated; in some cases, they recur at determinate periods.

Death sometimes takes place during the convulsion, or the stupor which follows it; and when the woman survives, the life of the child is endangered: the *prognosis* is always very serious, as it is liable to give a permanent shock to the brain or nervous system.

APOPLECTIC CONVULSIONS, rarely or never occur except towards the termination, or after the conclusion of labor, and they are then, as we have remarked, very rare. They arise from about the same causes as the preceding variety. There may occur nearly the same premonitory symptoms, but the convulsions are much less marked; there is no frothing at the mouth, little or no distortion of the face, and the patient lies in a torpid state, with stertorous respiration and flaccid muscles, from which she rarely recovers.

TREATMENT.—At whatever time the attack takes place, all physicians are decided upon the propriety of immediately letting blood in large quantity, which is to be repeated according to circumstances; leeches may also be employed. At the same time cold water is to be poured

upon the face, while the patient should be properly held by assistants, without violence; the tongue, when protruded, should be pushed back into the mouth, and a piece of fine cork may be made use of to retain it there, lest it be seriously lacerated. Great benefit will be derived from the administration of a strong purgative, for example, calomel and jalap; if they cannot be given by the mouth, enemata should be resorted to. Emetics should not be prescribed, unless the convulsions depend upon an overloaded stomach. Cold should be applied to the head by a bladder filled with ice, and the patient put into a warm bath, if there be one at hand. After the lapse of some time, blisters may be applied to the neck and extremities; this is particularly necessary when the stupor is prolonged; they should, however, be removed before vesication takes place. Finally, after the paroxysm has somewhat subsided, an opiate, combined with an antispasmodic, may be given. This mode of treatment applies whether the convulsions occur previous to, during, or after labor. The process of gestation or parturition, need not be interfered with more than usual, unless there be some particular indication for such a course; when the woman is in labor, however, it is always desirable to effect delivery as soon as practicable.

NERVOUS AFFECTIONS OF THE EYES AND EARS.

WHEN we consider the many irritations that arise in different parts, during pregnancy, it is not surprising that the eyes and ears should not escape. When the eyes are affected, it appears to the patient as though surrounding objects were moving in various directions, or she fancies that she sees objects in the air, flashes of light, and a great variety of imaginary forms; she sometimes sees every thing double, or lastly, vision becomes indistinct or is entirely lost. The sense of hearing may become obtuse, either in one or both ears, or, on the other hand, it may be more acute than usual; there may be singing and other noises in the ears, or, lastly, the sense of hearing may be entirely lost. There may be also derangement of the sense of smell. In the majority of cases

these various affections are purely nervous; but they sometimes depend upon plethora or congestion of the brain. They are generally merely temporary.

TREATMENT.—When they are nervous, very little need be done; the bowels should be attended to, a small blister may be applied behind the ears, and antispasmodics, as valerian, united with tonics, and sometimes opiates may be prescribed with benefit. The diet should be mild and vegetable, with an occasional enemata. If there be evidence of congestion, blood-letting will be necessary, the application of leeches, and one or two brisk purgatives.

CHAPTER VI.

DISORDERS ARISING FROM MECHANICAL PRESSURE OR DISTENSION.

UNDER this chapter should be arranged, when they occur during pregnancy, *hernia* of the womb, *prolapsus*, *retroversion and anteversion*, *obliquity*, etc., which we have treated of in Part IV. Book I. of this work, to which the reader is referred.

HEMORRHOIDS OR PILES.

WE have already treated of this disease in Chapter VI. Part IV. Book I.; as the *symptoms* and *treatment* are the same when the affection arises during pregnancy, a prolonged description here is unnecessary. The disease occurs most often in women of a feeble and lymphatic constitution, during the latter stages of pregnancy, and is caused by the pressure of the gravid uterus; it also arises in the early months from the use of drastic purgatives, errors in diet, and constipation. There is frequently considerable fever, tenesmus, bleeding and excoriations; the disease is a source of great suffering, and may be so severe as to produce abortion.

TREATMENT.—First, the bowels should be freed by a mild laxative, as sulphur and cream tartar, or electuary

of senna, after which, anodyne enemata may be used, and leeches applied around the anus; emollient and narcotic fomentations and ointments are also very useful. The diet should be liquid, and the drinks cooling. To check the bleeding, if profuse, astringent fomentations and injections, pressure, and plugging the rectum, should be resorted to, according to circumstances. (*See Chapter VI. Part IV. Book I.*)

INCONTINENCE OF URINE.

By this term is understood an inability to retain the urine; there is a frequent and painful desire to discharge the water, and, if not instantly gratified, it is passed involuntarily. The patient's sufferings are often intense from scalding, itching, and pain of the external parts. Incontinence arises during the early months from irritability, in consequence of the sympathy of the uterus; at a later period, it is owing to the pressure of the enlarged uterus upon the bladder.

TREATMENT.—During the early months, the bowels should be kept free, leeches may be applied to the lower part of the abdomen, or warm anodyne fomentations, which often, alone, give relief. At the same time opium or hyosciamus may be given internally, with mucilaginous drinks; injections of a solution of borax or alum, are, also, often very useful. At a later period, little can be done, except to await patiently the termination of gestation; cold, local sponging may be useful, and when excoriations arise, they are to be treated with mucilaginous fomentations and astringent lotions. Gentle laxative medicines and enemata should be occasionally exhibited. The diet should be vegetable and unstimulating.

DYSURIA AND RETENTION OF URINE.

THERE may be a difficulty in voiding the urine, or it may be impossible to evacuate it from the bladder; this may occur either during the early or latter months of pregnancy. In the early months, it is caused by a sympathetic irritation of the neck of the bladder, and after-

wards, by the pressure of the uterus upon the same ; it may also be caused by displacement of the uterus.

TREATMENT.—When dysuria arises from irritation, relief may be obtained from the application of leeches, from anodynes, mucilaginous drinks, and warm fomentations. When the retention depends upon compression, it may sometimes be avoided by changing the position ; if it be complete, the catheter must be used, and repeated as frequently as may be necessary. Attention should also be given to the bowels and diet.

VARICOSE OR DISTENDED VEINS.

DILATATION of the veins, though not a very dangerous or troublesome affection, is one of the most frequent to which pregnant women are subject. It is found most often during the latter half of gestation, and generally affects the veins of the lower extremities, and more rarely those of the labia majora, the vagina and mouth of the uterus ; occasionally the veins of the whole body are implicated. It generally affects one side more than the other, and occurs, mostly, in women of a lax and plethoric habit ; the principal if not sole cause, is the pressure of the gravid uterus upon the large venous trunks of the body. Varicose veins appear under the form of indolent, oblong, round and uneven knots, which generally disappear under pressure, but immediately return again ; they diminish by rest in bed, and increase upon resuming a vertical posture. The bleeding from rupture of a small varicose vein is easily suppressed by pressure, but not always so when it occurs in a large vessel. After delivery the veins gradually return to nearly their natural size, unless the disposition to the affection be kept up by repeated pregnancies. It should be remarked that there is a great liability to inflammation of a portion of these veins after delivery.

TREATMENT.—The affection cannot often be cured till after delivery, when it generally subsides spontaneously. The disposition to it, however, may be lessened by keeping the bowels in a soluble state, by rest in the horizontal posture, and by means of a laced stocking or bandage

firmly applied in the morning when the veins are least distended. When but one limb is affected, the patient should recline on the opposite side ; when the rupture of a vein takes place, firm pressure will generally control the hemorrhage ; the diet should be mild, and constipation carefully avoided. If the affection persist after delivery, the resources of surgery are generally successful in giving relief.

ŒDEMA, ANASARCA AND ASCITES, OR DROPSY DURING PREGNANCY.

ŒDEMA OR ANASARCA, signifies a dropsical state of the lower extremities ; while by ascites is understood, dropsy of the abdomen : the former generally exists with the latter, but often exists independently of it ; and occasionally there is an edematous state of the whole body. Dropsy is most common in women of a feeble and lymphatic body, and is caused by the pressure of the gravid uterus during the latter months of pregnancy ; there is also another and more active kind depending upon plethora. It is often confined to the feet and legs, but is liable to involve the thighs, vulva and hips. The limb appears swollen, semi-transparent, pits upon pressure, increases towards night, and is found diminished in the morning. That which arises as the consequence of pregnancy is not dangerous, and disappears after parturition ; it gives rise merely to sensations of weight, and when the effusion is extensive, interferes with sitting and walking. Sometimes, however, there is fever with much tenderness, and an attack of erysipelatous inflammation may end in abscess.

When œdema is complicated with ascites or effusion into the abdomen, which is rare, all the symptoms peculiar to abdominal dropsy will be present, which is liable to interfere with the development of the ovum.

TREATMENT.—For dropsy dependant on pressure, it will perhaps be sufficient to keep the bowels in a soluble state by mild purgatives, to which diuretics may be added, with rest in the horizontal posture. Dry frictions and aromatic lotions as well as gentle compression by a roller bandage, may, also, be tried. When the swelling

is large and where the size of the labia offers an impediment to labor, and particularly when abscess is apprehended, the fluid should be evacuated with the point of a lancet; if an abscess form, it must, also, be punctured. When the dropsy is general and accompanied by fever, the treatment must be more active; brisk purging and blood-letting are to be principally relied on. On the contrary, when the patient is feeble and debilitated, a generous diet and tonics will be necessary. Lastly, when there is dropsy of the abdomen, it is sometimes necessary to resort to *tapping*.

PAINS AND CRAMPS IN THE BREASTS AND OTHER PARTS,
DURING PREGNANCY.

THE breasts of some women, on account of the sympathetic influence of the uterus, become painful and swollen in the early months of pregnancy; in others, pains come on towards the close of gestation from the distention of the skin from secretion of milk. These pains, generally, require no medical treatment; in the more serious ones, however, relief may be obtained from applying warmth, emollient fomentations, and opium or belladonna plasters. The bowels should be attended to, and all the habits of the patient carefully regulated.

Cramps and irregular pains in various parts of the lower half of the body are not uncommon in pregnant women during the time intervening between the fourth month and delivery; they attack the sides, back, abdomen and lower extremities, being caused by the pressure of the gravid womb upon the nerves or stretching of the ligaments. They sometimes commence by a sensation of numbness or pricking, and are very severe: when they come on suddenly, they cause the patient, sometimes, to fall. These pains, no doubt, are increased by deranged digestion, constipation, fatigue, mental irritation, etc.

TREATMENT.—The patient may often find relief by assuming the horizontal posture, and by rest; also, by friction with some stimulating lotion; the application of anodyne plasters, or opium internally; baths; a flannel bandage to support the abdomen; by attention to the con-

dition of the stomach and bowels ; and finally, by patience, which is quite as important a remedy as any other—for these affections are all temporary, and terminate with the pregnancy.

CHAPTER VII.

DISEASES OF THE GENITAL ORGANS DURING PREGNANCY.

THERE are several affections to which the reproductive organs are obnoxious during the pregnant state, the management of which does not differ from that already mentioned for their occurrence in the unimpregnated condition ; we here mention them for the purpose of including *all* the diseases of pregnancy and thus making this part of our subject complete. Such are UTERINE HEMORRHAGES occurring during pregnancy, which are less dangerous to the mother than to her child ; for the TREATMENT, *see chapters on Abortion and Menorrhagia.*

PRURITUS OR ITCHING OF THE VULVA is not of unfrequent occurrence, as we have already remarked ; *see Chapter VI., Part II., Book I.*

OEDEMA OF THE LABIA sometimes occurs independently of dropsy of the lower extremities, but is oftener associated with that affection, and is produced by the same causes : the management does not differ from that directed in the preceding chapter for *dropsy during pregnancy.*

VAGINAL LEUCORRHEA may be excited during pregnancy by any of its ordinary causes, but in addition by the irritation of gestation : *see Chapter on Leucorrhœa, Part IV., Book I.* DISCHARGE OF WATERY FLUID, requires much the same management.

INFLAMMATION AND RHEUMATISM OF THE PREGNANT UTERUS, are produced by the same causes as in the unimpregnated state : *for the treatment of the former see chapter on Inflammation of the Unimpregnated Uterus ; for the latter see chapter on Irritable Uterus.*

MENSTRUATION DURING PREGNANCY is a very rare occurrence : females are stated to have menstruated once or twice after conception, during the first four, five and six

months, and even throughout the whole period of gestation; and what is still more remarkable and rare, women have menstruated during pregnancy and *at no other time*. These occasional occurrences are well established by acute observers and physicians of eminence, but they may be regarded as departures from the normal course of nature; the discharge may proceed from the lower portion of the uterine cavity before the ovum is sufficiently large to fill it, or from the vessels of the neck, or from the vaginal mucous membrane.

It, in general, requires no particular medical treatment; it may be well for the patient to preserve the recumbent posture during the continuance of the discharge, for the purpose of guarding against miscarriage; her clothing should not be too warm; her diet should be moderate but not stimulating, and her occupations cheerful; in fine, in this, as well as all the affections of pregnancy, let the female guard her interesting condition against the evils to which she is obnoxious, by an appropriate system of **physical and mental HYGIENE**.

PART II.

THE PHYSIOLOGY AND DISEASES OF CHILDBIRTH.

SECTION I.

PHYSIOLOGY OF CHILDBIRTH.

WHEN pregnancy has passed through all its stages, according to the design of nature, and the fœtus has attained its last, and a sufficient degree of maturity, to enable it to exist independently of the mother, “the birth of man takes place;” the phenomena attending the expulsion of the fœtus from its maternal connection, which may be likened to the effort by which a tree casts off its fruit when fully ripe, is called *childbirth*, *parturition*, or *labor*. This, as has already been seen, generally, occurs at the end of nine calendar months and a week—ten lunar months—forty weeks, or 280 days: a few days may be allowed either way.

If labor take place at the time here indicated, it is said to be *at term*; if pregnancy extend beyond this period, it is said to be *tardy* or *retarded*; if it take place between the seventh and ninth month, it is known as *premature* or *precocious*; finally, if it occur before the seventh month, it is called *miscarriage* or *abortion*. Labor, in all these cases, is accompanied by about the same phenomena.

CHAPTER I.

THE CAUSES OF LABOR.

HIPPOCRATES, with all the ancients, believed that the child was born by its own efforts. Numerous opinions, respecting the cause of labor, were formerly held, which have no connection whatever with the true cause. An Arabian physician of the eleventh century, contents himself by saying: "At the proper time, labor comes on at the command of God;" and in modern times, a physician of our own country, remarks: "We know no more of the immediate, *exciting cause* of labor, than we do why strawberries ripen in June, and peaches in August. It is a law established by the Creator: that is all we know about it."

But while the *exciting* or *determining* cause of labor yet remains unknown, the same periodicity which characterizes the other uterine functions, is observed here also. Abortion and premature labor, when not the result of accident, generally occur at what, but for conception, would have been a menstrual period. It has been remarked by Stark and others, that the normal period for childbirth, also, corresponds to a menstrual period; and it is well established, that labor takes place at about the tenth period after the last appearance of the menses—there being, sometimes, a variation of a few days, which depends upon, whether conception took place immediately before or after menstruation.

We know, from direct observation, that the *efficient* cause of labor, is principally constituted by the *contractions of the uterus*. If the hand be applied over the womb during a pain, its contractions may be distinctly felt; when, from necessity, we are obliged to introduce the hand into the cavity of the uterus, it often happens that we are compelled to suspend progress during each contraction; and sometimes the hand of the operator, for a

short time, becomes paralyzed, losing all power, and is soon forcibly expelled. Several cases are reported, in which pregnancy occurred in a prolapsed womb, and the labor terminated spontaneously, while the uterus was between the thighs of the mother. Though it is seen by these examples that the contractions of the uterus are sufficient for the expulsion of the child, nevertheless, in most cases the womb is sustained and assisted by the action of the diaphragm and abdominal muscles.

The function of parturition is almost entirely involuntary; many women have been unconsciously delivered, by spontaneous efforts alone, while in a deep sleep, or lethargy, produced by criminal attempts. A female may, however, by the power of the will, retard or delay labor for a few hours, and in this sense, it may be considered partially voluntary, like unto the excretion of stool, and the emission of urine; so, also, on the contrary, a woman who *bears down*, or enforces her pains will sooner get rid of the product of conception.

When the womb has reached its enormous and last degree of distention, it, by gradual and slight contractions, dilates its neck; when the orifice is sufficiently large, the uterus, redoubling its own efforts, rarely fails to receive the assistance of all the muscles of the body, and particularly of the diaphragm and abdominal muscles.

CHAPTER II.

THE MECHANISM AND PHENOMENA OF SPONTANEOUS OR NATURAL LABOR.

THE term NATURAL LABOR has been applied, by some authors, to those cases in which *the head of the child presents*, and the process is concluded, in due time, by the unaided powers of nature, with safety to the mother and child; other authors have classed, as *spontaneous*, all labors that terminate under the sole influence of the powers of the organism, whether *the head present*; *the breech*, including the hips and loins; *the inferior extremities*, in-

cluding the knees and feet; *the superior extremities*, including the shoulder, elbow and hand; or other presentations, such as *the back, abdomen, sides*, etc., which are extremely rare. On the contrary, those labors that are difficult, in any way endangering the life or health of the mother or child, are known as *difficult*, troublesome or complicated.

Notwithstanding, the latter classification would seem to be more philosophical and convenient, there is no denying that the head of the child ought to present and be delivered first; and that when any other part descends first, it may, strictly speaking, be regarded as *unnatural*; yet in any of the presentations above noticed, the labor may be spontaneous and fortunate. We shall, however, follow this division, as it is believed that all discrepancy disappears by substituting the word *spontaneous* for *natural*. Any part of the head may present, constituting a variety of *positions*, and the same may be said of the other presentations, which it is not necessary for us to dwell upon. Head presentations form a very large proportion of the sum total; out of 20,517 cases of labor, recorded by Madam Boivin, there were 19,810 head presentations, 372 breech presentations, 238 of the inferior extremities, and 80 presentations of the superior extremities.

In order that a labor may be spontaneous, or terminate without foreign aid, perfection of form and a healthy constitution, are requisite on the part of the woman; and on the part of the child, it is important that it be normally developed, that one of its extremities present, and that it be not of a size disproportioned to the capacity of the pelvis. Notwithstanding the number of these conditions, *difficult* parturition is comparatively rare; while *spontaneous* childbirth constitutes a very large proportion of the whole number of labors. Out of 20,357 labors that took place at the *Maternite* of Paris, 20,183 were brought to a conclusion by the hand of nature alone.

The mechanism of labor is an ingenious contrivance, and consists in the application of mechanical principles to the accomplishment of delivery. The child, instead of descending in a strait line from the uterus, as might be supposed by one unacquainted with the anatomy of the

parts, has to pass through *a crooked, bony canal*; it, in fact, during its passage, describes *a perfect half circle*. When the head presents, it enters the brim of the pelvis diagonally, with the vertex turned towards one acetabulum, generally the left; after, in this manner, passing through the superior strait, it makes a quarter turn, so that the face lodges in the hollow of the sacrum; this motion brings the long diameter of the fœtal head to correspond with the long diameter of the outlet, which is exactly the reverse of that of the superior strait. The head now passes the inferior strait, (at the same time the shoulders are passing the superior) when it makes another quarter turn so as to bring the long diameter of the shoulders to correspond with that of the inferior strait. And thus this spiral progression continues, from the moment the head engages in the superior strait, until the body of the child is expelled from the mother.

For the convenience of description, it is customary to divide the process of labor into stages, some making more, and others less: we shall make three stages. The first, extending from the commencement of labor to the complete dilatation of the mouth of the uterus; the second, ends with the delivery of the child; the third, is occupied by the expulsion of the afterbirth. Another period may be added, called the *preliminary signs of labor*.

The PRELIMINARY SIGNS, in some women, are scarcely noticed; in others they are but slight, while in many they are well marked. From two to fifteen and even twenty days before parturition, the abdomen diminishes in size, from sinking down of the womb; the motions of the child are increased; the external labia become swollen, and sometimes painful; the respiration, appetite and digestion are better; the female regains her former gaiety, is more disposed to activity, and is often induced to believe that her term is further off than she had supposed. There is a sense of weight in the pelvis, a frequent disposition to stool, and to void the urine, caused by the pressure of the uterus; the pelvic cavity becomes relaxed and softened; there is a more active secretion of mucus in the genital passages, and a *glairy matter*, more or less abundant, escapes from the vagina.

Towards the close of gestation, there is painless contraction of the uterus, by which the neck of that organ becomes insensibly dilated. Sometimes, however, from over-fatigue of the patient, indigestion, constipation, cold, etc., these contractions become painful, simulating the pains of labor; they are known as *false* or *spurious pains*, and may occur at any period of gestation, but are not common until towards its termination. They may be distinguished from the true pains by the following differences: they commence in the upper part of the abdomen, are of limited extent, recur at irregular intervals, but are not attended with the glairy mucous discharge, do not dilate the mouth of the uterus, or protrude the *bag of waters*; true pains, on the contrary, are accompanied by phenomena quite the reverse of this. These pains should be treated by aromatic purgatives, sedatives, and by regulating the habits of the patient.

The FIRST STAGE OF LABOR, at length, begins: it is marked by slight colic pains, which gradually, and at considerable intervals, become more intense; the external genitals are moistened by the secretion of glairy mucus. The pains now increase, while the womb contracts, compressing the fœtus, and forcing it downwards. The woman is now frequently troubled with evil forebodings; she becomes low-spirited, loses all courage, weeps, and sometimes says she is going to die. It is said that animals, also, fall into this state of fear at the commencement of labor, refuse to eat and drink, seeming to be occupied with some threatening danger.

The pains not only increase in severity, but at the same time become longer and more frequent; the discharge of mucus increases, and streaks of blood are found mixed with it; the mouth of the womb by degrees dilates, and the lower portion of the fœtus is protruded into the upper part of the vagina, and is known as the bag of waters; the woman becomes irritable, impatient, and difficult to control; the pains are preceded by rigors, there is heat, quickness of the pulse, a flushed face, and great thirst; nausea, vomiting, and cough; and in irritable women, the anguish and restlessness are so great as to resemble delirium. When a contraction is over the restlessness ceases,

the mouth becomes moist, the pulse, the skin, and in fine, everything, returns to its natural state ; the bag of waters has returned into the cavity of the uterus ; and though the nausea is suspended, the abdomen, often remains more or less tender. Each pain produces the same series of phenomena, but the remission, which grows shorter and shorter, is more complete. The mouth of the uterus, gradually yields, and becomes sufficiently dilated for the passage of the child's head, which terminates the first, the longest, and most fatiguing stage of labor ; though not always the most dangerous.

In the SECOND STAGE OF LABOR, the contractions become stronger, last for a longer period, are not so far apart, but are followed by a more decided calm. The courage of the woman returns, and they sometimes sleep during the short interval between the pains. The bag of waters being more and more compressed in the upper part of the vagina, at length, in the midst of one of the most violent pains, bursts ; and the child, forced downwards by the same contraction, takes the place of the membranes and prevents the escape of the rest of the waters. Soon, the pains succeed each other with greater rapidity, each one being ushered in with a shiver ; the severest ones are often preceded by another which is milder ; or they may alternate with each other. The woman, now, almost in spite of herself, is compelled to second her pains by contracting the abdominal muscles, and making the most violent efforts ; she lays hold of the sides of the bed, or anything within her reach, plants her heels upon the mattress, draws a long breath, and contracts the muscles of the abdomen with her whole power while the diaphragm is pushed downwards with great force, and all the muscles of the body act with the same energy ; the neck and face become engorged with blood, the eyes sparkle, sweat pours from the skin, and at length this great contraction ends in rapid sobs, which soon restore calmness.

After a short time another pain comes on, followed by the same phenomena ; and soon again, another, which is somewhat stronger, and pushes the head of the child into the vagina ; the bearings-down are now redoubled ; there are cramps in the thighs and legs ; the vagina is unfold-

ed and enlarged in every direction. As the head approaches the inferior strait, the coccyx is pushed backwards, the perineum is elongated and becomes thinner, the labia are put on the stretch and completely unfolded: nature now rallies her remaining muscular power, and by a few contractions, still more powerful than the former, triumphs over all resistance, and the head, or presenting part, escapes through the vulva; this is followed, generally after a few minutes, by the body of the child, which is expelled by a moderately strong contraction. The second stage is now finished, and the state of intense suffering is exchanged for perfect ease.

The THIRD STAGE OF LABOR includes the detachment and expulsion of the placenta or afterbirth. In most cases it is partially or wholly detached by the same contractions which expel the child, remaining in the uterus or vagina; sometimes, however, it is expelled with the child. In the former case, after an interval, varying from a few minutes to an hour and a half, the average being fifteen or twenty minutes, the uterus again actively contracts, but much less forcibly, and expels it along with a gush of clots of blood.

The labor is now concluded. One of the most melting scenes, remarks Velpeau, a scene best adapted vividly to affect the human heart, is presented to the eyes of the philosophical accoucher. To those piercing cries and violent agitation, to those transports of despair, those excessive efforts, which seem to be intolerable, instantly succeeds a delicious calm, full of charms, and interrupted only by the happy idea of being a mother. The newborn child cries, and all the sufferings of the mother so courageously borne, are forgotten; passionate expressions of satisfaction are substituted for those of pain; sobs of happiness succeed to the sobs of despair; and this sudden transition from the extremest dread, from a frightful state of anxiety, to the height of joy and of the tenderest affections, is, in sensible, amiable women, one among those appearances which most imperiously demand our admiration for a sex whose other claims to it are so numerous!

We should remark, that the foregoing phenomena are not found in all women, or in all labors of the same women; but chiefly in those who are young, vigorous,

and in labor for the first time : in different cases are found a great variety of appearances.

The duration of labor is much shorter in savage than in civilized life ; in hot, than in cold countries. Labor, in this country, lasts from four to eight or twelve hours ; the average term may be stated at from four to six hours. Out of 15,850 cases recorded by Dr. Collins, of England, 13,012 were terminated at the end of six hours, 2,072 required twelve hours, 262 eighteen hours, 240 twenty-four hours, and 264 required for their termination over twenty-four hours.

THE most essential phenomena of labor require further notice : they are, as has been seen, the contraction of the uterus, or *pain*, the *dilatation* of the neck, the *formation of the bag of waters*, and the *discharge of glairy mucus*.

Labor-pains. Common use has rendered the word *pain* synonymous with *uterine contraction* ; and although it is true that they begin, progress, and cease together, and that it is generally by the pain that we estimate the strength of the contraction, yet we are sure that the one is not wholly dependent on the other. For, although, no labor can be terminated without contraction on the part of the uterus, it is known that many have taken place without pain. The pains, at first slight, and known as *little pains*, commence in the loins, gradually extend round to the abdomen, and down the thighs ; when the labor is fairly set in, they are known as *grinding pains*. During the first stage, the action of the womb is involuntary, and it can receive no assistance from bearing-down efforts till the fœtus be forced into the cavity of the pelvis. During the second stage, however, nature employs all her efforts for the expulsion of the child ; the pains now are changed in character, and are known as *great or bearing-down pains*. At first, each pain continues less than half a minute, and the interval of calm is about fifteen minutes ; towards the close of labor, however, the duration of the pain increases to a minute or a minute and a half, while the interval of calm is reduced to four or five minutes.

The *cause* of labor pains has been supposed to be the contractions of the uterus : they have also been attributed

to other causes. But the majority of writers at the present day are of opinion that no normal muscular contraction was designed to give rise to pain, and are agreed with Dr. Churchill, that the cause of suffering is, first, the forcible distension of the neck, next the pressure of the fibres during contraction upon the nervous filaments, and lastly, the dilatation of the passages. Madam Boivin, who speaks from what she has experienced in her own person, advocates this idea, and thinks that the contractions of the womb are not more painful than those of the bladder and other muscular organs. It should be remarked that the amount of suffering much depends upon the habits of life; among savages it is slight, but it is excessive in civilized life.

The dilatation of the passages. The process of dilatation, which depends upon the contractions of the uterus, is slow at the commencement of labor, but is effected with rapidity towards its close; it has been remarked that more time is required to enlarge the mouth of the uterus to the size of a crown piece, than to completely dilate it,—when its diameter is about three inches. The real cause of it, as we have intimated, is the contraction of the uterus: by this the fœtus is pushed against the orifice which acts like a wedge, and the membranes containing the liquor amnii, known as the bag of waters, are protruded into the upper part of the vagina; when the waters are discharged, the child takes its place, and assists, also, in completing, sufficiently for its passage, the dilatation.

This constitutes the first stage of labor, the length of which, depends upon the amount of resistance to be overcome; it is greatest with first children, and in women of advanced age; the mean time may be stated at from three to four hours.

Discharge of glairy mucus. This term is given to a clear, yellowish, white colored matter, which escapes from the vagina during labor; it sometimes resembles the white of eggs; it escapes in small masses during the contractions, and sometimes appears several days before labor commences. The quantity discharged is sometimes very small, and at others, very large; when it is wholly wanting, the labor is said to be a *dry* one; when red streaks

are observed in it, it is called by the women a *show*. This glairy matter is secreted by the mucous membrane of the vagina, and its use is to lubricate the surfaces over which the child is to pass.

The bag of waters. This name has been given to the protrusion of the membranes of the fœtus, containing the liquor amnii, into the upper part of the vagina, during labor. It is round, ovoid or globular, its shape varying according to the opening through which it escapes. During a contraction, the bag is tense and elastic; after this is over, it becomes wrinkled, or is found to have disappeared. It is formed by the contractions of the uterus, and its use, as has been seen, is to dilate the mouth of the uterus, without injury of the parts. It generally breaks and discharges its contents, near the close of the first, or at the commencement of the second stage of labor; but it sometimes happens that it is ruptured before the commencement of labor, and at others, that it is not ruptured at all. When its rupture is delayed till it nearly reaches the vulva, and it does not break in the centre, the head of the child carries away a portion of it, and is born covered with what is called a *caul*. It was anciently predicted that a child born in this way would be *lucky* if the caul happened to be of a certain color; talismanic powers, have, also, been absurdly attributed to it.

CHAPTER III.

IS PAIN IN CHILDBIRTH A MORBID SYMPTOM?

CHILDBIRTH or parturition is a natural function; and why the human female of civilized life suffers more during the performance of this function, than she does in savage life, or more than the female of the brute creation, is a question of deep interest and of the greatest moment to our race. It is generally known that among the Indian tribes of our country, the women not only do not require the assistance of art in their delivery, but as labor approaches, they retire *alone* to some secluded spot, near a

stream of water, where nature, true to her intentions, does not forsake them; after having washed the infant, and bathed themselves, they almost immediately return to their usual occupations;—thus presenting a spectacle very similar to what is observed in the inferior animals. The same facility in labor exists among many of the Eastern and African nations; also an approach to the same is observed among a certain class in our own country,—those, who, from their necessities, exercise much in the open air, and live a natural life.

Washington Irving, who travelled among the Indians, relates that, “a squaw belonging to the company, who was pregnant, one day left the company, and the next day overtook us on her horse, with her infant in her arms, and rejoined our party.” Long, remarks: “One evening, I asked an Indian where his wife was. ‘He supposed she had gone into the woods to set a collar for a partridge.’ In about an hour she returned with a new-born infant in her arms, and coming up to me said in Chippeway, ‘*Oway, Saggonash, payshik shomagonish!*’—Here, Englishman, is a young warrior.” Other instances of this kind are not wanting but these are sufficient for our purpose. What a striking difference is here, compared to the great preparations and management, during a labor of a fashionable American woman!

“In a state of natural simplicity,” says Crantz, “women in all climates bear their children easily and recover speedily. The Greenlanders, mostly, do all of their common business just before and after delivery; and a still-born or deformed child is seldom heard of. In proportion as we remove women from a state of simplicity to luxury and refinement, we find that the powers of the system become impaired, and the process of parturition is rendered more painful.”

A medical writer still further remarks: “To what else, but the *perversion of our nature*, is the origin of these difficulties to be ascribed?—by deviating from her established laws in our habits, customs, and fashionable way of living—our erroneous diet, want of exercise, *tight lacing*, and various other fashionable vices common to civilized society: to these is woman indebted for the chief

portion of the pains of labor, as is proved by those who live more *agreeably to Nature's laws.*"

Dr. Dewees has the following, to our subject, very apposite remarks: "With respect to the facility of labor, it would be wrong to suppose that the labor of the female brute is performed upon different principles from that of the human female, because she is, for the most part, exempt from pain; for truly the same general process occurs in both, and in each the uterus exerts the same kind of action. The only difference is, the one is performed with pain, and the other without. Whatever difference, therefore, there may be in the pain of each, must arise from artificial causes. This would seem to be proved by the consequences which seem everywhere to follow civilization and refinement. The consequences of domestication may be traced in those animals which participate with man in his departure from his original simplicity; for we are informed that the artificial condition in which the cow is placed, in our large cities, subjects her to more difficult and dangerous labors than those in the natural or less artificial state." We shall here leave this subject, allowing the reader to decide whether the question at the head of this chapter is answered, and close the chapter with the following judicious remarks from Dr. Velpeau:

Inasmuch as spontaneous parturition is a natural function and not a disease, are we thence to conclude that the art of the accoucher is unnecessary, and that women in labor need no assistance? Some physicians, misled by mistaken philanthropy, have thought so. In animals, say they, pregnancy brings no inconveniences, and delivery is almost unattended with pain. The wives of the Ostiacks, who are still strangers to the refinements of European civilization, are delivered of their children upon the spot where they happen to be, and immediately resume their accustomed occupations, or continue their march, if they happen to be on a journey. I, like Roussell, have seen a young girl who found means to conceal from her parents both the humiliating proofs of her weakness and the operation that delivered her from it. What practitioner is there who has not had an opportunity of making

the same observation? The pregnancies of these poor creatures being illegitimate, it would seem as though they had no right to be sick!

But these remarks in no wise prove that women ought to be left to themselves during parturition. In the first place, it is false to say that parturition in animals never requires any assistance, and is never accompanied with serious accidents: sows, mares, cows, etc., are even, in general, quite ill, in bringing forth their young, and country people are by no means ignorant of the fact. Does it follow, because some women, when compelled by imperious motives to deliver themselves in private, or without taking the least precaution, escape from the serious dangers with which they supposed themselves to be threatened, that all others may imitate them without exposure to more imminent perils? If there be some whose health is not disturbed by such painful experiments, how many others are there who become the victims of their temerity? Will people never be tired of referring us back to a period of primitive nature, that everybody talks about, and nobody understands? By attempting to substitute the exception for the rule, we inevitably fall into absurdity, and that is what happened to the elegant Roussell. The business of the accoucher, doubtless, is not to put himself in nature's place where a labor is natural; but somebody ought to be with the woman who is able to give her proper directions, to foresee accidents, to recognise them, and to remedy them when they do take place; to apply the resources of art when necessary, and at the opportune moment; who, by the confidence he inspires, calms all her fears, and gives courage and resignation, by tranquilizing her in regard to the future; but who differs more and more from the mere spectator, in proportion to the extent of his knowledge and skill.

CHAPTER IV.

HYGIENE AND MANAGEMENT OF WOMEN IN CHILDBIRTH.

It cannot be too frequently repeated, nor too strongly impressed on the minds of all women and practitioners of midwifery, that in a *natural labor*, there is very little to do,—notwithstanding the sufferings of the patient may be severe: the accoucher has only to calm the woman's fears, endeavor to fortify her patience, regulate her diet and evacuations, check improper efforts, receive the child, tie the cord, and assist in delivering the after-birth, in the most cautious manner. The intelligent and prudent practitioner is well aware of the impropriety and danger of any interference for the purpose of *shortening or hastening* the natural process of delivery. I am fully convinced, remarks Dr. Denman, that in the far greater part of really difficult labors to which I have been called—and I must not conceal the truth on this occasion—many of those which have been under my care originally, were not of that description from unavoidable necessity, but were rendered such by improper management in the commencement, or during the course of labor. It must not be inferred from this that women in labor never need assistance; but it often requires great care and much knowledge to decide when nature can no longer be trusted, and it is necessary to call in the assistance of art.

Hygienic management. In cities, for a lying-in chamber, a quiet, well-aired, back room should be preferred; one sufficiently spacious, and with facilities for giving it a *moderate and agreeable* degree of warmth, only. Plants, flowers, and odors of all kinds, should be dispensed with, and every thing disagreeable to the woman, including all useless persons, should be removed from the apartment.

Food and drinks. If a rapid delivery be expected, all kinds of aliment will be injurious, as the digestive powers are, temporarily, suspended. On the contrary, if the la-

bor progress slowly, light broths or pottage may be allowed; but, in general, meats, bread, fruits, strong tea, coffee, chocolate, spirits, etc., should be prohibited: this applies more particularly to strong and healthy women; sometimes a female who is feeble but in tolerable health, may, with advantage, at the commencement of labor, take a moderate breakfast. Most women, under such circumstances, have but little desire for food, and readily perceive that they ought not to eat; but not so with *drinks*; on account of the excessive heat observed in most labors, there is a constant desire for the ingestion of fluids. Any simple drink may be allowed; either water, or decoctions and infusions of elm, marshmallows, barley, gum, dandelion, etc; in general, all acids, wines, aromatic and heating drinks, should be prohibited. It is only in debilitated constitutions, that a few spoonful of wine may be given, providing there be no counter-indication from nervous excitability.

Excretions. The state of the fœcal and urinary excretions always require attention. Constipation may act injuriously not only by retarding labor, but by promoting the formation of hemorrhoidal tumors; the labor may also be protracted by the accumulation of urine. Therefore, the woman should be directed, naturally, to evacuate the rectum and bladder while she is able to do so; if her efforts be insufficient, for the former purpose, a mild laxative may be taken, or, what is better, an enemata of tepid water, or a decoction of marshmallows or flaxseed; for the latter purpose, the catheter should be employed; sometimes a male catheter answers a better purpose.

The moral state. Parturition, remarks M. Velpeau, is a function that seeks the shade, that may be obstructed by indiscrete looks, and which as far as possible is made a mystery of by modest women. The accoucher ought to understand that the mother, the aunt, grand mother, or sister, are not always considered as the most agreeable attendants in this painful moment. As a discreet, as well as a circumspect and prudent interpreter, he ought to dismiss without distinction, every one whose presence is not desired by the woman. How careful should he be himself! impassible and firm, of an impurtable coolness, he

must, notwithstanding, know how to compassionate the distress of which he is a witness, encourage, console, amuse ; inspire her with boundless confidence, and great familiarity by the affability of his conduct, by reasoning that everybody can understand, by his patience, the amenity of his temper and the gravity of his manners ; he should be able to procure obedience without restraint, and by all the means which are suggested by moral philosophy, his own understanding and education, incessantly combat the discouragement and dread of all sorts, and sadness and alarms to which the most resolute as well as the most timid women sometimes give way.

Dress, lying-in bed, etc. The dress during labor, should be light, and only of moderate warmth ; it should be loose and so arranged as not, in the least, to compress the abdomen, breasts, neck, or limbs. The best lying-in bed is one with a tight, sacking bottom, covered with a mattress. with bolsters, pillows, etc., so as to form an inclined plane. In the country, a bed is often made by tying together, face to face, six or eight chairs. A strong and well-formed woman may be delivered on any kind of a bed, or even on the floor, and in almost any posture. There are some who prefer being delivered standing, with the elbows resting on the mantel piece, a table or chair ; or, on their knees upon the floor. The object should be, to assume a position, comfortable, and one not likely to be interrupted.

There can be no fixed time at which a woman should place herself on the lying-in bed. It is not necessary for her to lie down until the membranes are ruptured, unless it be for the purpose of rest as often as she feels fatigued ; she had better do so as soon as the head engages in the passage ; but where the pains are weak and far apart, even if the membranes have given way, she had better move about as long as her strength will permit. Again, should the pelvis be a very large one, and the mouth of the uterus be dilated without rupture of the membranes, or should the labor progress too rapidly, she should lie down early. We should remark that the woman, during the pains, may lie on her left side with the thighs drawn up, and a pillow between the knees, or on her back

with the thighs half flexed, and the feet resting on the bed; the former is the most common position in this country; during the intervals she should be left to choose her own posture.

Touching the woman. The TOUCH is performed at different periods of labor, for the purpose of ascertaining whether labor has commenced, what part of the child presents, how far the labor has advanced, etc. Rigorously speaking, says Velpeau, it would be sufficient to touch three times during a labor; once at the commencement, to learn whether the womb is contracting; a second time, just as the waters break, to make ourselves positively sure of the position; and a third, when the pains and efforts have acquired a certain degree of strength, in order to see whether the parts engage properly in the excavation; but, generally speaking, unless the vulva and vagina are irritable, we may repeat the operation more frequently.

Touching, although it may be annoying to the woman, cannot, safely, be dispensed with. Almost every physician has been, frequently, kept out of his house all night for the purpose of being near a patient supposed to be in labor, having been refused the privilege of making an examination; upon its being acceded to, the mouth of the uterus has been found closed, and sometimes he has been obliged to announce that the woman had not reached her full term by two or three weeks. It is extremely vexatious to be thus baffled by the backwardness of the patient to submit to an operation that is inevitable. In performing the operation, the finger had better be oiled and introduced during a pain; when a remission takes place we should minutely examine the parts.

The *diagnosis* is thus briefly stated by Churchill: The *head* may be known by its hardness, by the sutures and fontanelles. The *breech*, by its softness, by the cleft between the buttocks, the anus, or coccyx, scrotum, or vulva. The *knee*, by its rounded form, by the condyles of the femur. The *foot*, by its long form, its being at right angles with the leg, the nearly equal length of the toes, the narrow heel, etc. The *elbow*, by the olecranon process rendering the joint sharper than the knee. The *hand*

by its shortness, the unequal length of the fingers, and the divarication of the thumb.

Conduct of the woman. The *courage* and *will* of the patient may exert great influence on the progress of labor. The by-standers, and sometimes the practitioner, very wrongly direct the patient to *bear down*, as soon as the pains become somewhat strong; such conduct can only be the fruit of ignorance, for before the membranes are broken or the os uteri dilated, such efforts only exhaust the woman to no purpose. But at the end of the first stage, or as soon as the child engages in the passage, the womb powerfully contracts, and there is felt a desire to bear down independently of the woman's will; now that the general muscular power is *solicited*, she should *bear down* with all her might—suspending all effort, however, as soon as the womb ceases to act. - There are some timid women, who are restrained from assisting the contractions for fear of making their pains too sharp; such should know that nothing can save them from the pain, and that by so doing the period of delivery is protracted. Others there are, who give themselves up to immoderate efforts; such should be informed, that they expose themselves to serious consequences, such as congestion of the brain, bursting of the large veins, hernias, etc.

Conduct of the attendant. We are told by authors of accouchers, who, placing themselves between the knees of the woman, with the coat off and sleeves tucked up, forcibly dilate the passages under the pretext of accelerating the labor!; and that sometimes females themselves, not knowing the dangers to which they are thereby exposed, are the first to ask for it! This can never be done with safety; and the poor creatures who submit to such procedures, run the risk of having a natural labor converted into a complex one, which may prove fatal not only to the child, but to the mother. Sometimes, when there is much rigidity and irritability of the parts, it may be useful to introduce one or more fingers for the purpose of applying some mucilage or belladonna ointment; but further than this, interference is not permissible.

When the efforts are violent, and just as the head reaches the vulva, it has been recommended to support

the perineum by pressing against it with the hand or fingers, for the purpose of preventing laceration; but this is not necessary, unless the contractions be extremely violent,—and even then it may prove an evil instead of a benefit, unless care be taken not to prevent the descent of the child.

Receiving the child. As the head passes through the vulva, it should be received into the right hand, allowing it to make the usual rotation, and carrying it forward as the pains expel the shoulders and body of the child; the left hand should be employed in clearing its mouth of any mucus or membrane that may be there, and before the shoulders are expelled, in feeling to ascertain whether there be any coil of the cord around the child's neck, as occasionally happens to the imminent risk of its life. When the child is born it may be laid on one side with its back to the mother.

Separating the child. If the child be in good condition, it will cry very soon after being born; when respiration is established, it should be brought into view, and after tying the cord, separated from the mother, rolled in flannel, and given to the nurse. The ligature, which should have been previously prepared, may consist of a piece of fine tape, or several pieces of thread, which, after waiting until pulsation in the cord has ceased, should be placed around it at about one inch from the navel: the cord is then to be cut by the scissors. Some authors recommend the application of a second ligature about an inch from the first, and the cutting of the cord between them; and this becomes always necessary when there are twins. Before the child is dressed, the end of the cord should be examined, and if any oozing of blood be observed, another ligature should be applied nearer the navel; this fragment of the cord withers, and generally falls off in five or six days.

The hand should now be placed over the womb, for the purpose of ascertaining (from the size of the uterus) whether there are twins; if not, the *binder* may be applied, which should extend from the chest, embracing the whole abdomen and hips; if another or other children be

found, their delivery must be proceeded with in the same manner as the first.

Delivery of the afterbirth. After the uterus contracts and detaches the placenta, (which it generally does within ten or twenty minutes after the expulsion of the child) it is commonly very soon expelled into the vagina ; this may be ascertained by making *gentle* traction on the cord, when it will come away. But if it be not yet detached, no force should be used ; all that is required, is *patience*, with occasional frictions by the hand over the uterus. After the placenta has been delivered, the *binder*, if necessary, may be tightened, the soiled sheets and clothing should be removed, and the vulva and other soiled parts, cleansed, without any exertion on the part of the woman. Stimulants and sedatives should be dispensed with, unless there be some particular indication ; in general, *rest and quiet* are the best and only necessary restoratives. The pulse and uterine tumor may be examined from time to time in order to see whether all is right.

Management of the child. The child at birth is found covered with an unctuous matter, which adheres closely to the skin ; this is more easily washed off with a weak solution of soap and water, or wiped off by a napkin, after being diluted with a little olive oil, mucilage, or grease of any kind. Some persons recommend that the child be plunged into a *cold* bath ; but such conduct, to say the least, is extremely questionable and dangerous in a being so frail as that of a new-born infant : the same may be said of alcoholic or strengthening baths. There is, however, no objection to a tepid or moderately warm bath of water simply.

After wiping the child dry, the bandage or *binder* for the support of the navel, is next to be applied. A light compress, with a hole in the centre, should be placed over the navel, with the end of the cord put through the opening ; over this and around the abdomen, a bandage should be passed, long enough to go once and a half round. This band, if too tight, would do harm ; on the contrary, if too loose, it would slip off and do no good. It may be continued a week or two, and even a few months, if the navel project too much. The dress of the child, whatever

the style may be, should be loose, and not too warm or cumbersome. It does not need "molasses and water," or any thing else, to expel the *meconium*, excepting the mother's milk; the child should be put to the breast in a few hours.

When the child does not breathe. The child may be born in a state of *defective vitality*, *syncope*, or *apoplexy*. The former conditions may be produced by uterine hemorrhage, too early detachment of the placenta, or defective nutrition: there is very little pulsation in the cord, only feeble efforts at inspiration, and but little action of the heart. In such cases, we should defer the division of the cord, apply warm flannel and rapid frictions, with or without stimulants, to the body and extremities. Or, a warm bath may be tried, sprinkling with cold water, tickling the nose or fauces with a feather, electricity, and slightly stimulating enemata; and lastly, inflation may be tried by a proper tube introduced into the larynx, or passed through the nose.

Apoplexy of the child may be caused by prolonged labor, pressure from a narrow pelvis, etc. In such cases, the surface is blue, the face livid, action of the heart labored, with but feeble pulsation in the cord. The *treatment* consists in relieving the circulation by dividing the cord, allowing from a half to an ounce of blood to escape before tying it. If this does not succeed, cold sprinkling, warm baths, friction or inflation may be tried. Our efforts, in such cases, should be continued for a considerable length of time.

Tumors of the scalp of the child, which we should advert to, most often subside without treatment: they are caused by pressure during labor, and consist of the effusion of serum and blood under the scalp. When they persist several days, spirits or stimulating lotions may be used, and if unsuccessful, the tumor should be punctured, and simple dressings applied.

Bleeding of the cord from incomplete closure of its vessels after the falling off of its remains, is difficult to arrest, but fortunately, is not of frequent occurrence. The navel should be filled with alum, or some other astringent, and retained by a compress and bandage. Dr. Churchill

suggests that the naval should be stretched open, and filled with plaster of Paris, either dry or moistened, which would probably become solid in spite of the hemorrhage.

CHAPTER V.

MANAGEMENT OF DIFFICULT LABOR.

By difficult or tedious labor, is indicated those cases which terminate without manual or instrumental assistance, but are prolonged beyond the usual time, and are attended with unusual suffering. The danger of a prolonged labor depends upon the stage in which the delay occurs: thus, delay in the first stage, involves little or no danger, either to the mother or child, notwithstanding it may continue for several days; while delay in the second stage, which must be vastly shorter, is of more serious consequence. The continued suffering may produce a great degree of fatigue and depression of spirits, and the patient often expresses a great dread of the result and importunes for assistance; but the strength is seldom much impaired, and the condition of the patient is not unfavorable;—the nervous shock not being severe in the first stage. The most common *cause* of delay, is *inefficient action of the uterus*, and occurs mostly in delicate, feeble women, those of lymphatic temperament, and who are confined for the first time; it may also arise from a derangement of the digestive organs, mental depression, plethora, etc.

In the *TREATMENT* of these cases, nature needs very little or no assistance; *time and patience are the principal remedies*. The patient should be encouraged, cheered and amused: all depressing circumstances must be kept from her; she should keep up and walk about during the day as much as possible, resting occasionally on a sofa. The bowels, if necessary, must be freed by a dose of castor oil, or enemata, and the diet should be nourishing but bland. When there is much plethora, blood may be abstracted with advantage. After this, if there be much

irritability and exhaustion, opium may be given for the purpose of procuring sleep. Such means are very often successful in inducing uterine contraction.

After all obstructions, in this manner, are removed, and the action of the uterus is not vigorous enough, almost all accouchers agree in regard to the propriety of administering the *ergot of rye*, providing no counter indication exist. The circumstances under which it may be given are the following: 1, if the mouth of the uterus be soft and dilatable; 2, if there be no obstacle to a natural delivery; 3, if there be no *head symptoms*, nor excessive irritability. On the other hand it should be prohibited: 1, if the mouth of the uterus be hard and rigid; 2, if the pelvis be deformed, or if there be any serious obstacle to delivery in the soft parts; 3, if there be *head symptoms*, or much irritability.

The powder of the ergot is generally preferred, and may be given in fifteen or twenty grain doses; half a drachm to a drachm of the tincture, or from five to ten grains of the extract; any one of which may be given with an interval of twenty minutes, until three doses shall have been administered, unless the effect be produced sooner. If it succeed, the pains are found to grow stronger soon after its exhibition. We should remark, that it ought not to be resorted to on slight occasions, and that, although it may often anticipate the use of the forceps, it sometimes produces disagreeable consequences. Stimulating purgative enemata, and stimulating frictions externally, are also, often very beneficial in assisting uterine contraction.

Rigidity of the passages. Labor sometimes becomes difficult, particularly in women with the first child, and those of advanced age, in consequence of a rigid state of the mouth of the uterus, and of the soft parts. There are very few cases, if left alone, that would not overcome these obstacles, though at the expense of considerable fatigue, and in a few cases of slight laceration of the neck. The most effectual remedy for rigidity is venesection; but it can be often obviated without resorting to this: by warm mucilaginous injections; warm hip-baths; and lastly by nauseating the patient with tartar emetic, which rarely

fails. Patience, here also, is one of the most important means.

Toughness and weakness of the membranes. The membranes generally give way as soon as the mouth of the uterus is fully dilated; but they sometimes, *from abnormal firmness*, remain entire, thus causing delay. On the other hand, they may be ruptured at too early a period; this may occur from weakness of the membranes, from violence, careless examinations, etc. In the former case, the membranes may be ruptured: but the delay should not be attributed to this cause on slight grounds. In the latter, all that is necessary is time and patience.

Obliquity of the uterus. This may occur during pregnancy from the position in which the patient lies, either one way or the other; and the relaxation of the walls of the abdomen may cause "pendulous belly." These cases sometimes occasion delay and may be remedied by placing the patient on her back, or in other positions according to circumstances; also, when it becomes necessary, by raising up and supporting the tumor of the abdomen by a bandage.

Retained placenta. If the afterbirth be retained beyond from four to six hours, notwithstanding the use of those means directed in the preceding chapter, its delivery requires assistance. It may be retained for want of uterine contraction, or on account of a firmer adhesion than usual to the uterus. In the former case *gentle* traction on the cord, frictions to the abdomen, and exhibition of the ergot rarely fail; in the latter, it sometimes becomes necessary to cautiously introduce the hand (previously oiled) in the form of a cone, and gently detach the placenta by gradually peeling it off, acting from the edge towards the centre: the hand should then be allowed to be expelled along with the afterbirth by the contractions of the uterus.

Hemorrhage or flooding, complicated with, or after delivery, requires to be treated essentially in the same manner as directed in the chapters on Abortion and Menorrhagia. In the former case the patient must be kept perfectly at rest, the vagina plugged, cold applied, and opiates with astringents given internally: when the proper period arrives, the labor should be terminated as soon as practicable; either by the use of the ergot or instruments, ac-

ording to circumstances : the latter is rarely necessary. When flooding occurs after delivery, the placenta should be extracted as soon as possible : the ergot is here useful in two ways : by bringing on contraction, and arresting the bleeding ; in addition, all those means above mentioned should be resorted to for arresting the hemorrhage.

Labor, complicated with convulsions, is to be treated as directed in Chapter V. Section II. Book II.

THERE are certain classes of labor, (happily of rare occurrence) of which it does not come within our purpose to speak in this work : such as *powerless, obstructed or complicated*, and *instrumental labors*. These arise from different causes, the principal of which are the following : great debility of constitution ; tumors, and other diseases of the uterus and pelvis ; narrowness of the vagina and os uteri ; deformed pelvis ; ovarian tumors, etc.

Obstetric operations may be divided into three kinds : 1, those which are not intended to injure the mother or child, as induction of premature labor, version or turning, the use of the vectis and forceps ; 2, those which involve the destruction of the child, but which are not intended to injure the mother, as craniotomy ; and 3, those in which danger is involved, both to the mother and child, as the Cæsarian section.

The use of instruments and manual operations are not unattended with danger : neither should be resorted to, and particularly the former, except *in aid of nature*, or unless the life of the mother or child can be saved by their employment.

SECTION II.

DISEASES OF CHILDBIRTH.

CHAPTER I.

CONDITION OF THE PATIENT AFTER DELIVERY—MANAGEMENT OF WOMEN IN CHILDBIRTH, WITH VARIATIONS FROM ORDINARY CONVALESCENCE.

UPON examination of a woman a few hours after delivery, we observe considerable change both locally and generally. The *nervous system* is found to have received a shock more or less severe, there is disturbance of the *respiratory and circulating systems*, the *secretions* are altered, and there is great exhaustion. When these effects are moderate, they gradually subside, providing the patient be kept from all disturbance and excitement, and obtain a few hours sleep.

The *uterus*, after delivery, contracts more or less firmly: this is beneficial in emptying the uterine cavity, diminishing the mouths of the uterine vessels, and preventing hemorrhage. The same as during labor, so following it, after a short period of contraction, there is an interval of relaxation; this, gradually, reduces the size of the uterus, and about the eighth or tenth day, it becomes small enough to descend into the pelvis. The *mouth of the uterus*, after remaining open for some days, gradually closes. The *vagina*, which was enormously distended, and more or less inflamed and sore, shortly becomes reduced in size, and the outlet resumes its natural capacity in a shorter time than would have been supposed possible. The integuments of the abdomen, remain flaccid and loose for a considerable length of time; but if it be properly

bandaged, neither too tight nor too loose, they return to their natural condition in the course of a month or two. Women in a first confinement, do not often suffer from *after pains* ; but in subsequent labors, the contractions of the uterus above noticed are accompanied by pains more or less severe : they generally come on in about half an hour after delivery, and may continue thirty or forty hours, or longer.

The discharge of blood which accompanies labor, continues for some time after : soon, its character changes, when it is known as the *lochia*, or in popular language the "show" or "cleansings." This watery discharge continues of a red color for three or four days, when it becomes greenish or yellowish, and generally ceases in three or four weeks ; though sometimes it ceases within a few days after delivery. The breasts, generally, begin to enlarge about twenty-four hours after delivery, which is accompanied by stinging pains : at about the end of the second day, they become large, tense, and sore. The secretion of milk now takes place, which soon becomes abundant ; that which is first secreted, often acts as a purgative upon the child. Frequently, though seldom with first children, milk is secreted during labor, and the woman can give suck immediately afterwards.

Management of the woman. After having given a description of the condition of the female, we shall now recur to her management. The room in which the woman is put to bed should be slightly darkened ; she should be kept perfectly quiet, very few persons should be allowed with her except the nurse, little talking should be allowed, and no whispering. The horizontal posture must be preserved, all mental emotion and excitement avoided, and the patient be kept calm and cheerful, and allowed to sleep. The state of the pulse should be narrowly watched, as it is often the first evidence of *wrong*.

Very soon after the conclusion of labor, (after having cleansed the parts with tepid milk and water, containing a small portion of spirit,) a warm napkin should be applied to the vulva, which should be changed at short intervals.

The washing, for the sake of cleanliness and to aid in restoring the parts, should be repeated twice a day. The

after-pains require no treatment, unless the patient be deprived of sleep, when an aromatic purgative, or a dose of laudanum may be given. The only attention which the *lochia* requires, is, that the napkins should be changed sufficiently often, and applied warm, as the impression of cold might be followed by its suppression.

The patient, who is generally in a state of perspiration, should be allowed to *cool gradually*; the bed-clothes should be light but comfortable, the room kept cool and fresh. Let it be remembered that the female cannot assume the upright posture without the risk of hemorrhage and displacement of the womb; so it should, on no account, be permitted.

The patient should be reminded to void the urine within six or eight hours after delivery, or sooner; if she be not able to do this, after having applied a cloth wrung out of warm water, the catheter must be used. It is quite as well that the bowels remain unmoved for twelve or fifteen hours after delivery; after this, if necessary, a discharge should be procured by a dose of castor oil, senna and salts, or rhubarb.

When the breasts become tense and painful, the best remedy is the application of the child; the sooner this is done the better, as the secretion and escape of milk will be facilitated, and engorgement, perhaps inflammation, of the breasts avoided. Relief may, also, often be obtained by friction with warm oil, or emollient fomentations, and at the same time giving an aperient dose. They should not be kept excessively warm, and all compression and astringent applications with a view of preventing the *coming of the milk*, are dangerous in the highest degree.

The *diet*, during convalescence, is of great importance. The patient, for the first four or five days, should be confined to bland articles—gruel, whey, arrow-root, panada, milk, etc., with a little toast or biscuit. After the *milk fever* has subsided, she may take, providing there be no counter-indication, some broth, and on the eighth or ninth day, some fowl or fish.

All that concerns the diet, and the assumption of the upright position, or making exertion, is of the utmost importance. The patient should not leave her bed, even to

have it made, before the fourth day ; and she should make very little or no exertion for the space of eight or nine days : in some cases, fifteen and even twenty days' confinement, is indispensable. Most of the diseases which affect a woman in child-bed, remarks Velpeau, may be attributed to the thousands of visits of friends, neighbors, or acquaintances, or the ceremony with which she is too often oppressed : she wishes to keep up the conversation ; her mind becomes excited, the fruit of which is headache and agitation ; the slightest indiscreet word worries her ; the slightest motives of joy agitate her in the extreme ; the least opposition instantly makes her uneasy, and I can affirm that among the numerous cases of peritonitis met with at the *Hospital de Perfectionnement*, there are very few whose origin is unconnected with some moral commotion.

VARIATIONS FROM ORDINARY CONVALESCENCE.

1. *The nervous shock* is sometimes severe, which is known by the great exhaustion, hurried breathing, dulness of the senses, and anxious and suffering expression of the countenance. Reaction is long in taking place, or it may take place imperfectly or excessively. The best remedy in these cases is opium, given in a large dose, or in small and frequently repeated ones ; stimulants, also, in moderate quantities, will be very useful ; as ammonia, musk, or, wine or brandy and water, which should be discontinued when reaction takes place ; the diet should be nutritious, but bland.

2. *The state of the pulse* should be attentively estimated, which requires great care, as it indicates the general condition of the patient : it will be quickened when a large coagulum is contained in the uterus, when there is disturbance of the bowels, and when inflammation exists. Soon after delivery, the pulse falls, but becomes more frequent when reaction takes place : if it exceed one hundred, no time should be lost in ascertaining the difficulty.

3. *The uterus*, instead of gradually decreasing in size, occasionally, at the fifth or sixth day, becomes less firm and increased in bulk, which threatens an attack of in

flammation. Under such circumstances, hot fomentations should be applied to the abdomen, and a warm purgative given, which will favor the expulsion of clots, if any there be, and diminish the tenderness. The *vagina* may be attacked with inflammation more or less severe, when it requires about the same treatment; extreme cleanliness should be observed, and vaginal injections of warm water may be tried.

4. *The after-pains.* Instead of the *after-pains* coming on half an hour or an hour after delivery, being moderate, and ceasing after a short time, they occasionally commence with great severity as soon as the labor is terminated, and are of long continuance. The best remedy, is the application of hot flannels, emollient fomentations, and a full dose of opium, to be repeated if necessary. They sometimes continue at intervals unusually long, and are increased by applying the child to the breast: relief may be obtained by enemata, aromatic purgatives and opium.

5. *The lochia.* Although variations in the quantity and quality of this discharge generally excite the alarm of the patient, yet, great differences often occur, without any evil result. The discharge sometimes ceases a few hours after delivery, particularly after the birth of imperfectly developed and still-born children; on the contrary, it may continue unusually long; or, again, be excessive, or diminished, and continue the usual time. A sudden suppression of the lochia may take place from violent and sudden impressions or emotions, cold, and the use of astringent injections, which commonly gives rise to serious affections; such as inflammation of the uterus or peritoneum, and nervous disorders.

The TREATMENT of sudden suppression of the lochia, consists in the employment of a hot foot-bath with mustard, the application of hot fomentations and emollient poultices to the lower part of the abdomen and vulva, and injections and enemata of the same sort. Blood-letting, when indicated by the state of the pulse, or where plethora exists, the application of leeches to the thighs and labia, cupping the loins, and sinapisms to the feet and limbs are valuable remedies. In nervous women, antispasmodics

must be used ; in those of feeble constitutions, stimulants are necessary.

When the lochia is excessive, or continues beyond the usual time, tonics, as bark, iron, etc., should be allowed, with a better diet. When it ends in the establishment of *leucorrhœa*, it should be treated as directed in that chapter. If it become acrid, and excoriate the external parts, strict cleanliness must be observed, with the use of astringent lotions and vaginal injections of warm water. Lastly, if this discharge become offensive, as it sometimes does from the decomposition of a small portion of the afterbirth, it should be treated by injections of warm water or a very weak solution of chloride of lime.

6. *The milk fever.* The variations of the period at which the milk is secreted are of little or no consequence. If the fever be excessive, it must be moderated by emollient fomentations, purgatives, and the frequent application of the infant to the breasts. In some rare cases no secretion of milk takes place, then the child will require a wet nurse. When the nipples are imperfect, they should be drawn by an adult, or the breast pump ; if these do not succeed, the effects of the secretion of milk must be obviated by tartar emetic, saline purgatives, and fomentations.

Laceration of the perineum, when they occur, generally get well of themselves ; all motion should be avoided, and the woman kept mostly on her side so as to favor the discharge of the lochia and pus. A longer confinement than ordinary must be observed, and sometimes it becomes necessary to apply *caustic*, take up certain points with the needle, etc., which belong more properly to surgery. The same may be said of *lacerations of the vagina*, (*constituting vesico-vaginal fistula*) of the *neck, body, and fundus of the womb*, which are of extremely rare occurrence.

INFILTRATION of the external genitals, from injuries in the passage of the child, may be so extensive as to prevent the discharge of the lochia. If the swelling be lymphatic and not painful, it will generally disappear upon making a few punctures. When there are signs of inflammation, resource should be had to emollient poultices fomentations, and if necessary to leeches.

There are other accidents and diseases incident to the lying-in; *inversion and prolapse* of the womb and vagina, *anti-version and re-troversion* of the uterus, *inflammation*, etc., of the vagina and womb—all of which we have treated of in Book I. The other diseases of parturition are, *puerperal peritonitis, uterine and crural phlebitis, metritis, phlegmasia dolens, cutaneous eruptions, inflammation of the breasts, etc.*, which we shall now proceed to treat of.

CHAPTER II.

PUERPERAL FEVER, INCLUDING PERITONITIS, UTERINE AND CRURAL PHLEBITIS—CAUSES—SYMPTOMS AND TREATMENT.

PUERPERAL FEVER is not of rare occurrence, and is, perhaps, the most fatal disease to which lying-in women are exposed. It is more frequently accompanied with inflammation of the *peritoneum*, though it may commence from inflammation of the *uterus and its appendages*, of the *veins and absorbents of the uterus*, and of the *crural veins*; in either case, if the inflammation continue a sufficient length of time, the peritoneum generally becomes implicated, and a train of symptoms arises, very similar in character, which, by the common consent of authors, is called *puerperal fever*. This disease may commence a few hours after delivery, but rarely occurs after the first two or three days. It may be accidental and *sporadic*; or it may prevail as an *epidemic*, when it is a most dreadful and deadly affection, seeming to be contagious.

Although differences of opinion still exist in regard to the contagious quality of certain forms of this disease, it is well known that the epidemic form may arise in the way of *contagion*: this horrible malady, remarks Dr. Watson, may be communicated from one lying-in woman to another by the intervention of a *third person*; and doubtless it is so carried and propagated, in many instances by midwives and accouchers.

CAUSES.—The *sporadic* form of this disease is supposed

to arise from difficult labors ; from clots, or fragments of the placenta retained in the uterus ; suppression of the lochia ; arrest of the secretion of the milk ; constipation ; diarrhœa ; violent mental emotions ; stimulants ; cold ; binding the abdomen too tight ; violence during labor ; exertion too soon after labor, and from an attack of erysipelas.

The *epidemic* form of puerperal fever is produced by *contagion*, or by a *distempered state of the atmosphere*. In 1831, a physician of London, examined the body of a woman who died a few days after delivery, from peritonitis ; the next morning he safely delivered a woman, who, two days afterwards, was attacked with severe rigors, acute pain of the abdomen, a rapid, feeble pulse ; she died four days from the period of attack. The same physician, soon afterwards, attended two other patients, both of whom fell victims to the same disease ; he also bled a young woman for pleurisy : an erysipelatous inflammation extended from the wound up the arm, and the patient died in four or five days of phlebitis. Similar cases to the foregoing have not been uncommon either in this country or Europe ; it has repeatedly prevailed as an epidemic in *lying-in hospitals*, when most of those attacked have died ; in private practice, it is less fatal. A physician of Philadelphia, extensively engaged in obstetrical practice, lost almost every patient that he attended for several weeks ; he left the city, exchanged every article of his wearing apparel, and, after appropriate ablutions, and remaining away a week, returned ; but to his great consternation, the first case he attended, terminated fatally from an attack of puerperal fever ! He was now satisfied that the disease, in his case, was not transmitted by his person or clothes, but was propagated by atmospheric influence. Other physicians, under similar circumstances, have been successful in divesting themselves of the poison by such airings and purifications, and no more cases have occurred in their practice.

SYMPTOMS.—The attack generally commences within forty-eight hours after delivery ; there are, however, some exceptions : its occurrence may be delayed some days, or it may, in rare cases, commence before labor. There is,

usually, a rigor, or shivering fit, succeeded by hot fever, terminating in perspiration, with a rapid pulse, tenderness upon pressure, and pain low in the abdomen; soon, a universal swelling takes place, and the womb can no longer be felt. The lochial discharge is most often arrested; but sometimes it is undisturbed. The urine, which is voided in small quantities at a time, and with pain, is turbid; there is usually tenesmus, vomiting of green or yellow, bitter matter, which at last becomes black. The brain and nervous system is, sometimes, involved, producing delirium and stupor; finally, there is extreme prostration, ulceration of the mouth and throat, and the disease may terminate in *resolution*, which is the most favorable; in *suppuration*, when fluctuation of the matter is usually perceptible; and lastly, in *mortification*, which is accompanied by a treacherous calm, in the midst of which, the patient expires.

We should remark, that puerperal fever may arise and progress without being attended by any *acute* symptoms. The disease usually runs its course in three or four days; it may, however, be protracted, from five to ten or twelve days. The *epidemic* is the more malignant form—one-half, two-thirds, and even more, of those attacked, dying; the accidental or *sporadic* form, is much less fatal.

TREATMENT.—Of all acute diseases, remarks Dr. Gordon, the plague excepted, the puerperal fever is, perhaps, the most dangerous. But this can only be true in reference to the most malignant form, for, generally, not more than one case in ten has proved fatal; and some physicians have attended many cases, during a long practice, without losing a single patient. The majority of writers recommend copious bleeding, and it cannot be denied that this is the appropriate treatment for most cases; yet, there are some cases, characterized by an absence of acute symptoms, that do not well bear this.

When the pulse is quick and firm, there is no time to be lost; blood-letting, from the arm, is the proper remedy. Dr. Gordon recommends, at the beginning, the abstraction of from twenty to twenty-four ounces, to be repeated if necessary; but the quantity taken must depend, in all cases, on the condition of the patient. Also a large num-

ber of leeches to the abdomen—fifty or more, may be applied, according to circumstances, and followed by fomentations, or a large, light, bran poultice. The next antiphlogistic of considerable power, is calomel, in combination with ipecac and opium, which may be given in large doses, or smaller ones, frequently repeated: when the bowels are affected, the opium should be continued alone; this remedy may be used after bleeding, or instead of it, where the abstraction of blood is inadmissible. If the bowels be constipated, an enema of turpentine and castor oil should be given; or, they may be given by the stomach, combined, if necessary, with Dover's powder. When the diarrhœa is copious, it may be restrained by opiates and astringents.

The use of emetics has been recommended, and may be useful in the earliest stages of the disease. Blisters to the abdomen are useful as soon as the acute stage is passed. Mercurial ointment may be used externally to the abdomen at the same time that calomel is given internally; sinapisms to the feet should also be tried. Some physicians have met with great success in the use of copious purging—with the oil of turpentine, calomel and jalap, etc. Nitre, ipecac, Dover's powder and opium, should be used as diaphoretics, and to assuage pain. Finally, as soon as the inflammatory symptoms subside, the patient must be supported by the use of wine and porter, bitter infusions, quinine, and a nourishing but bland diet.

From our remarks upon the contagious character of puerperal fever, the necessity will be seen for every possible precaution, particularly in the epidemic form, by ablutions, change of dress, fumegations, ventilation, white-washing and painting the rooms, etc.

CHAPTER III.

PHLEGMASIA DOLENS OR MILK-LEG—CASES—SYMPTOMS, AND TREATMENT.

THIS disease consists in a swelling of one or both legs a few days after delivery, accompanied with pain and tenderness. It rarely involves both limbs at once, and it is said that the left leg is more frequently affected than the right. This affection was called *milk-leg* from its having been formerly supposed to be caused by a metastasis and deposit of milk; but it is now believed to depend on obstruction of the venous circulation of the lower extremities, which arises from difficult labor, the impression of cold, and uterine irritation.

It most commonly commences in the calf of the leg, though sometimes it begins in the pelvis; in either case, there is generally a chill, followed by intense fever and pain, which gradually affects the whole limb: sometimes, however, it is confined to a part of it. The limb soon becomes enlarged, and sometimes reaches an enormous size. The affection ordinarily lasts from four to six weeks, when the limb gradually becomes smaller; but it sometimes ends in suppuration and death: the part affected most often remains somewhat enlarged through life. The constitution suffers considerably during the attack: there is thirst, a quick pulse, loss of appetite, derangement of the bowels, and general restlessness.

TREATMENT.—In the acute stage, antiphlogistics are indicated: the application of leeches in the vicinity of the pain, to be followed by poultices, saline purging, bleeding, if there be much plethora, cooling drinks, and Dover's powder, to relieve the pain. When the acute symptoms subside, the limb should be gently supported by a flannel bandage, and a slightly stimulating liniment may be employed: blisters, also, have been highly recommend-

ed. Tonics will be required internally, as bark and quinine, with wine or porter, and a nourishing diet. After some time recourse should be had to slight exercise, air, sea-bathing, and a general system of HYGIENE.

CHAPTER IV.

SORE NIPPLES—SCANTY AND PROFUSE SECRETION OF MILK—MILK-CONSUMPTION—RETENTION AND ALTERATIONS OF THE MILK.

SOMETIMES, particularly in females with first children, the nipples become excoriated or "chapped." This arises from forcible sucking of the infant, from the state of moisture in which these parts are kept, and from friction of the clothes.

To prevent, as well as to cure, this affection, the nipples should be washed twice a day with soap and water, and dried; for the excoriation, a lotion of borax, or some other astringent, should be frequently applied, and followed by a little powder of elm bark. Should there be much inflammation, emollient fomentations and poultices will be necessary, which may be followed by some simple cerate—the popular remedy of wax, and fresh butter answers a good purpose. Certain shields, made of india rubber and other substances for the child to draw through, will often relieve the irritation. The child may be nursed, notwithstanding the use of remedies, and care should be taken that the milk be not allowed to accumulate too much, which may give rise to inflammation and abscess of the breasts. Exposure to cold air and friction of the clothes should be avoided.

THE quantity of milk secreted varies much in different women; there are some who cannot support one child, while others can nurse several. When there is an exuberance of milk, it is of no consequence, unless the woman's health be affected. The secretion may fail, either wholly or in part, in consequence of a want of develop-

ment of the mammary gland, debility, violent emotions, hemorrhages, leucorrhœa, bad digestion, abuse of venery, menstruation during the lactation, chronic disease, as phthisis, the application of astringents to the breast, and acute diseases;—these causes may lessen or completely arrest the secretion of milk.

In many instances, a failure of this secretion is beyond the resources of art; in others, as where the woman is weak and emaciated, the difficulty may be often removed by means of tonics, a nutritious diet, and by means of frictions to the breasts, either dry or aromatic. At the same time the condition of the stomach and bowels must be attended to, and any known cause or disease that exists, removed. Where all proper means are unsuccessful, the woman should abstain from nursing her child. Very young women, and those who are advanced in years, give milk in smaller quantity, and that which is not so good as others. The secretion of milk is often suspended, and sometimes completely dried up, from the effects of anger, fright and violent grief.

By MILK-CONSUMPTION is designated a too abundant secretion of milk, which is accompanied by emaciation and loss of strength on the part of the mother. There may be merely an exuberance of milk attended, perhaps, by pains in the back, slight lassitude, loss of sleep, and thinness of the milk, which is digested badly by the child: this may, in general, be remedied by exercise, a vegetable diet, the use of pure water simply, a less frequent application of the child to the breast, slight purging, and by diuretic and sudorific drinks. The practice of *eating for two*, as it is termed, during lactation, is highly pernicious.

But when the profuseness of milk is preceded by loss of appetite, pain in the chest, burning sensations in the stomach and throat, and lastly, by loss of strength and emaciation, it is known as *nurse's consumption*, and may result in serious consequences, unless obviated. It generally appears in those who nurse too long, or those who persist in suckling when the constitution is unfit for it. This may be remedied by weaning the child, the use of food of easy digestion, moderate exercise and agreeable

diversion, slight purging, mineral waters, frictions to the mammæ, bathing, the use of sedative drinks and tonics, according to circumstances. Involuntary discharge of the milk, requires the use of tonics, astringent applications to the nipples, and when there is excessive sensibility, of sedative drinks.

RETENTION OF THE MILK—This sometimes happens in consequence of excessive secretion without augmentation of the excretion, and again, when there is malformation of the nipple which is generally incurable. The breasts become distended and painful, and contain hard lumps: true inflammatory engorgement may supervene, unless prevented by appropriate treatment. The indications are, first, to have the breasts emptied by a vigorous child, or an adult, or else by a young puppy, or lastly, by the breast pump. The breasts should be kept warm and at rest, the patient restricted to a low diet, and laxatives with diuretic and diaphoretic drinks should be used. Should inflammatory symptoms appear, emollient poultices must be applied; and finally, if the female be entirely incapable of suckling, active purging in addition will be necessary, to obviate, as far as possible, the secretion of milk.

ALTERATIONS OF THE MILK—It assumes a yellowish color in inflammations of the breast, a saltish taste in general inflammatory diseases, and after nervous affections, becomes thin like water or of a greenish color. • It contracts the odor and color of certain substances when eaten by females: as garlic, madder, etc. Menstruation during lactation renders the milk thin while pregnancy renders it thick and unnourishing for the child. Salt meats, highly-seasoned food, salad and fruits, render the milk more abundant, but thinner; spirituous drinks, excessive sleep, late hours, and abundant excretions, on the contrary, diminish this secretion; very young and aged women always have milk of inferior quality.

All these variations have an unfavorable influence upon the child, and are the cause of the destruction of a large number of children in all classes of society; they should, therefore, be obviated as soon as possible. This may, in

general, be effected by changing the diet of the nurse ; by curing the affections which give rise to alterations ; by an appropriate system of general HYGIENE ; and, lastly, by changing the nurse, or by weaning the child when of proper age.

CHAPTER V.

INFLAMMATION AND ABSCESS OF THE BREAST—CAUSES— SYMPTOMS AND TREATMENT.

INFLAMMATION OF THE BREAST occurs most often four or five days after delivery ; it may, however, be developed at any time during lactation, or at the period of weaning. It makes its appearance mostly in those who have a great flow of milk, who endeavor to avoid suckling, who wean suddenly, and in those who have too long or too short nipples ;—and is *caused* by the engorgement of milk where its excretion is difficult from any cause, the action of cold, excessive heat, astringent applications, mental emotion, and violence. Generally, but one breast is affected ; but sometimes both are attacked at the same time, or again, successively. The severity of the *symptoms* will depend upon the extent of the inflammation : there are generally, chills, heat, local pain and soreness, with a circumscribed hardness, a quick and full pulse, headache, thirst, etc.

Simple engorgement, generally, terminates in *resolution* ; but the more inflammatory kind is liable to end in the formation of *abscess* ; it also, sometimes, passes into cancerous induration. (See Cancer of the Breast, Book I.) The formation of matter is marked by shivering, throbbing pains, and fever of an intermitting character ; there is fluctuation in the tumor, which generally points in the neighborhood of the nipple, and if left to itself a sufficient length of time, discharges. New abscesses sometimes form beneath the first, which dispose to others even, and the patient may sink from protracted suffering.

TREATMENT.—The *preventative* treatment consists in the early application of the child to the breast, and in the

avoidance and removal of causes; or the breasts should be drawn by an adult, or by the glasses made for that purpose; by purging; keeping the breasts warm; by frictions of oil, or a poultice of flax-seed meal and water, containing soap, and a little sub-carbonate of potash. Nothing astringent should ever be applied.

When there is much inflammation, with heat, pain, etc., recourse should be had to venesection, followed by the application of leeches, and the use of *cold* emollient and narcotic poultices or lotions; saline purging, with a little tartar emetic; rest in bed; a low diet; and in nervous females, by sedatives; the milk should be drawn at intervals, and the breasts supported in a sling. These means have for their object, to prevent the formation of matter.

But when, notwithstanding these exertions, suppuration takes place, we should facilitate the process as much as possible by the application of *warm* emollient poultices—of elm, flax-seed, or bread, which should be frequently repeated. The bowels must be kept free, and opium given to relieve pain and procure sleep. When the formation of matter is perceptible from the fluctuation, an opening should be made for its discharge, lest it spread and form sinuses in different directions; a little lint may be introduced to prevent its closing too soon. The poultices, with the addition of soap and alkaline solutions, may be continued for some time longer. We should here remark, that if the engorgement terminate in induration, it should be treated as directed under *Cancer of the Breast*. (See that Chapter.) Finally, the patient should be supported by a nourishing diet, and if necessary, by the use of tonics, as bark, quinine, or bitter infusions, and wine or porter. If other abscesses form, they must be treated in the same manner.

PART III.

INFANCY.

CHAPTER I.

IN WHAT MANNER THE CHILD MAY BE INFLUENCED BEFORE ITS BIRTH BY HEREDITARY CAUSES.

WE remarked, when speaking of the development of the fœtus, that the child, before its birth, may be considered as a part of the mother's organization. Although no direct nervous connection has been observed to exist between them, it is known that the life and growth of the child are wholly dependent on its maternal system; the same blood, whether pure or impure, which circulates in her blood-vessels, also carries *nutrition* and *growth* to the child. These processes are so closely connected in the two beings, that when the maternal source of supply is cut off by cessation of her functions, the child also dies; and every powerful impression made upon *her system*, every change in *her health*, extends to *her offspring in embryo*.

These are important facts, and of the greatest moment to the human race: the reality of hereditary influence is no longer doubted. The child receives its organization, *either good or bad, physical and mental*, from its parents. It is well known that a father whose system has become debilitated, or impressed by any disease, communicates a similar affection to his offspring: the mother, also, transmits her infirmities in the same manner, and seems to have a *more marked* influence upon the organization of the child than the other parent. The most prominent and fearful diseases in the list, which are thus transmissible,

are *tubercle* or *scrofula*, only one form of which is pulmonary consumption; *insanity*, *dyspepsia*, *gout*, and *cancer*; and there is no doubt in our own mind that *the predisposition to most of the obstinate chronic diseases which afflict mankind, are imparted in the womb*; the parents first impressing their own systems with diseases by infringement of the ORGANIC LAWS, and then transmitting them to future progeny: thus, in the language of Scripture, "the sins of the parents are visited upon their offspring, even to the third and fourth generation;" and we might add, *much beyond*, unless the disease be arrested by crossing the races, and then by much care in after-life,—or the race *become exterminated*, which is the tendency of such flagrant infraction of the laws of nature.

Infirmities, or debility of constitution in parents, then, are transmissible to their offspring. Parents frequently live over again, remarks Dr. Gregory, in their offspring. For children certainly resemble their parents, not merely in countenance and bodily conformation, but in the general features of their minds, and *in both virtues and vices*. Combe remarks, that those who desire bodily and mental soundness in their offspring, ought carefully to avoid intermarrying with individuals who are either feeble in constitution, or strongly predisposed to any very serious disease: and above all, the *greatest care should be taken against the union of the same morbid predisposition in both father and mother*. By improving the health of the parents, when such unfortunate circumstances exist, the future offspring, will, of course, participate in their increased vigor.

Besides the direct inheritance of an infirm constitution, there are many other causes which may deteriorate the race. The union of parents *too nearly allied in blood*, is a prominent cause, as is seen among some of the royal families of Europe, and also, in private life. Marriage before the full maturity and development of the constitution, particularly in delicate females, as well as great disproportion in age between the parents, are prominent causes of infirm health in children. The state of the parents *at the time of conception*, has also been observed to permanently influence the health of their offspring. It

is highly probable that even temporary disturbance of health at this time, will have this effect. "Anxiety of mind or unusual depression of spirits in the father," remarks Dr. Combe, "have been found imprinted in ineffaceable characters on the organization of the child; and not a few instances are known, in which *idiocy in the offspring has been the result of accidental intoxication on the part of a generally temperate father*. I have lately heard of an unequivocal case of this kind; and a stronger motive to regularity of living, and moderation in passion, can scarcely be presented to a right minded parent, than the simple statement of their permanent influence on his future offspring. Many a father has grieved over, and perhaps resented, the distressing and irreclaimable follies of a wayward son, without suspecting that they actually derived their origin from some forgotten irregularity of his own."

Also, besides temporary affections, drunkenness, depression of spirits, habitual dyspepsia and bilious complaints, in either or both parents, we should mention as among the most important causes which affect the condition of the future infant, the *health, state of mind and conduct of the mother during pregnancy*. These are so important that we shall devote a separate chapter to their consideration.

CHAPTER II.

INFLUENCE OF CERTAIN CONDITIONS IN THE MOTHER ON THE HEALTH AND CHARACTER OF HER OFFSPRING DURING PREGNANCY.

ALTHOUGH popular belief has gone beyond the real truth in always ascribing moles, or the *mother's mark*, as it is called, to her imagination, as it may be produced by other causes (as we have before shown,) yet, there are many proofs of the reality of the mother's influence on the constitution of her child unborn: some of these we alluded to in the last chapter. It is known beyond a reasonable

doubt, that strong mental emotion, distressing anxiety, violent agitation of body or mind, may and do prevent a proper development of the fœtus. If the lungs, brain, stomach, intestines, or other parts be but imperfectly formed, they will in after life, be liable to be affected by disease from causes which, otherwise, would have no influence. This shows the importance of pregnant females, leading a tranquil life and avoiding all violent, mental and bodily agitation. We believe there are but few mothers who would not deny themselves of impulses and gratifications, were they convinced that in proportion as they indulge, in the same ratio, is the chance of injury to be sustained by the new being within their bosom!

That severe mental perturbation in mothers during pregnancy, frequently gives rise to a morbid timidity of character, and even to nervous and epileptic diseases in their children, is proved by numerous well-known instances.

A single member of a family is sometimes observed to be thus affected, which cannot be otherwise accounted for. The constitutional aversion to weapons, and danger of every kind, shown by James I., of England, is ascribed, and not without reason, to the constant anxiety and apprehension under which Mary lived during the period of gestation. So, the philosopher Hobbs ascribed his own excessive nervous sensibility and timidity to the fright in which his mother lived, on account of the threatened Spanish invasion, which upon news of the approach, brought on premature delivery. The last case in illustration of this subject, which we shall mention from among many similar ones, is that recorded by Baron Percy, an eminent French military surgeon, as having occurred after the siege of Landau, in 1793. The women of the town were kept for some time in a constant state of alarm, by a violent cannonading, when the arsenal blew up with a terrific explosion. Out of 92 children born within a few months afterwards, Percy states that SIXTEEN died at birth; THIRTY-THREE languished for from eight to ten months, and then died; EIGHT became *idiotic*, and died before the age of five years; and TWO came into the world with numerous fractures of the bones, caused by the convulsive starts

of the mother excited by the fright. So that about two out of every THREE, were actually killed through the medium of the mother's alarm!

These instances, with much other evidence, are sufficient to establish the existence of a direct relation between the *general condition* of the mother, and the *general constitution* of her child. This, indeed, is not wonderful: as the child in the womb is virtually a component part, for the time, of her own body; it necessarily follows that whatever affects the general health and action of the system, must affect *all its parts*. If by anxiety of mind, or neglect of her health, digestion be impaired, and her blood rendered impure, how can it be otherwise than that the health of the infant must suffer, seeing that it is nourished by the same deteriorated blood which is insufficient for her own health?

It was believed for a long time, and is at present by some, that the *longings* or imagination of the mother, is the principal cause of the *marks* and deformities with which some children are born; but it has been shown that in many cases, there is, in reality, no coincidence between the object longed for and the nature of the deformity. In many cases, *longing* is followed by no mark in the child, while the latter sometimes occurs where no particular longing was experienced by the mother. And though deformity may occur in consequence of a *strong* impression made by some dreadful object upon the mother, in general, the true cause is of a deeper kind, affecting the whole economy. It is in this manner that good or bad temper, sound or broken health in the mother, exert a constant and positive influence on the offspring. The ancient Greeks seem to have understood this: pregnant females were by them held sacred; no one, under a severe penalty, was allowed to disturb or vex them; their chambers were provided with the most beautiful specimens of sculpture and painting, such as the figures of Apollo, Narcissus, Castor and Pollux, etc., that they might dwell upon their fine proportions, with that complacency of spirit, which beautiful objects always inspire. For the same reason, the Spartans took their wives to the battle field,

that their children unborn, might be influenced by the songs and triumph of victory.

An eminent medical writer has made the following very true and judicious remarks: "By many women, pregnancy is regarded with alarm, as a period full of danger, and worse than doubtful in its result. But it is a consolation to know, that this period is not naturally fraught with danger, but is rendered perilous only, or chiefly, by neglect or mismanagement. From the moment of conception, if there is one duty more paramount than another, it is the obligation on the part of the mother to *secure for herself by every possible means, the highest state of mental and bodily health of which her constitution is susceptible*; and this is the more binding upon her, that its performance involves no sacrifice which is worthy of the name, and none which is not amply compensated to her by its favorable results."

The condition of the mother, then, exercising a marked influence upon the health and intellect of her offspring, it behooves her to contribute, by a well regulated system of physical and mental HYGIENE, to her own health, cheerfulness, and comfort—at the same time avoiding the indulgence of appetite, indolence, the excitement of passion, violent exercise, and in short every kind of excess and social dissipation. There is nothing of so much consequence for a pregnant woman, as to observe *moderation and simplicity of diet*, and avoid the use of heating food and stimulants. Next to this, it is important that the mother engage in some healthy and invigorating occupation, which shall properly employ her intellectual, moral and physical faculties, and divert her attention from herself. Gloomy and harrassing impressions should be guarded against; she should breathe a free and pure air; sleep in a large and well-ventilated room, on a bed neither too soft nor hard, and without curtains; she should give great attention to cleanliness; take regular exercise in the open air; and, finally, dress *loose*, avoiding every species of compression of the breasts, waist, and abdomen. As we have treated of these subjects elsewhere, further remark here is unnecessary. (See Chapter on Hygiene, and Management of Pregnant Women.)

Before closing this chapter we should advert to the prevalent notion, that an unusual supply of food is required during pregnancy, on account of the growth of the new being, derived from the maternal system. Now, although it is true that the mother imparts nourishment to the fœtus, yet nature herself has made provision for that demand by the suppression of the menses, to which women are at other times subject. When, therefore, during pregnancy, the health is good, there is no need of increasing the quantity or changing the quality of food, unless it be made more simple, which is, indeed, generally required; nothing but evil can result from attempting to *sustain strength for two*, by too nutritious a diet. Yet, it is proper to remark that the opposite extreme should also be avoided, that is, an insufficient diet. "Child-bearing is a natural and not a morbid process; and in the facility with which healthy, regular living women pass through it, we have abundant evidence that the Creator did not design it to be necessarily a time of suffering and danger. Where the mode of life and the habitual occupations of the mother are rational, the more nearly she can adhere to them during pregnancy, the better for herself, and consequently the better, also, for her infant."

CHAPTER III.

HYGIENE AND MANAGEMENT OF INFANCY AND CHILDHOOD.

USHERED into a world where everything is absolutely new to it, and where its safety depends at every instant on its proper treatment, the infant is thrown at first entirely upon its mother for support and protection, and these are secured to it by the strongest feeling which woman can experience,—that devoted love of offspring which seldom fails even amid the agonies of death. Ignorant of its own nature, and of everything around it, the infant is wisely denied a power of motion or action which it could use only to its own detriment. Unable as it is to act for itself, ripened consciousness would have added miseries to its

lot, without a single compensating advantage ; and, therefore, it passes its earlier days in sleep and dozing, and wakes up only for a moment to satisfy its predominating instinct,—the appetite for food, on which its future development depends.—*Combe*.

As we have previously spoken of the development of the child before its birth, and pointed out the causes which may influence it, also the mode of detaching it from the mother, and its treatment at birth, there only remains for us to consider briefly, the *clothing, food, exercise, air, sleep, intellectual and moral training*, etc., which are best adapted to secure a healthy childhood, and lay the foundation for a vigorous maturity.

CLOTHING.

THE principal qualities required in the dress of infants, are *lightness, looseness, softness, and warmth*. The former practice of swaddling the infant like a mummy, is so inconsistent with known principles, that we need scarcely mention it. Whatever tends to compress the body, legs or arms, should be emphatically forbidden. The dress should always admit of being easily applied and changed ; and while it affords protection to the whole body, it ought to admit of the fullest expansion of the chest and abdomen, and freedom of motion in the limbs and joints.

For dress in winter, flannel is preferable, but not next to the skin. For the first few months, the clothing should be long and flowing so as to protect the feet ; but after there is desire for motion, this should be changed and the feet dressed in warm stockings and easy shoes. The neck, shoulders, and arms should not be left bare, as is practiced by many, for it is attended with the greatest risk and actual danger. The head is commonly kept too warm : the thinnest possible covering is sufficient, excepting when the child is carried into the open air.

Our remarks concerning dress apply equally to the bed-clothes to be used during the many hours of sleep, which are very often injurious from overheating the child.

The evils of TIGHT-LACING having been generally made known, we shall here take leave of this subject by re-

marking that the principles of dress here laid down, whatever may be the style, should not only be observed during childhood, but throughout life.

FOOD AND DRINK—WEANING.

THE natural food of the infant, from the time of birth until its teeth appear, is the milk of its mother :

“ She who to her babe her breast denies,
The sentient mind, the living man destroys.”

When from any cause, the mother is forced to desist from nursing, she had better procure a substitute. A nurse should be selected with sound health, free from hereditary taint ; who is temperate, cheerful, orderly ; one whose child is of about the same age, and who is of a temperament similar to the mother's.

We have already spoken of the quality of milk which is best adapted, and that which is least so, for the nourishment of the child, and of the means of obviating all *alterations*. (See Chapter IV., Section II., Part II., Book II.) The same general regimen should be observed by a woman who is giving suck, as has been directed for her during pregnancy. (See the Hygiene and Management of Pregnant Women.) Her diet should be simple but nourishing, with an avoidance of highly-seasoned food and stimulating drinks. She should also take sufficient exercise and sleep ; attend to all the bodily functions, and avoid excessive emotion and passions, as they may prove highly detrimental to the child which she is nourishing.

If the mother or nurse be able to supply milk in abundance, and the child continue healthy, more solid food will be injurious until the appearance of the teeth. After this event, which occurs from the seventh to the tenth month, and before, if the nourishment derived from nursing be insufficient, boiled milk, diluted with one-third or half tepid water, according to the age, and slightly sweetened, may be used ; or, recourse may be had to thin barley-water, arrow-root, tapioca or panada. The administration of medicines to infants is a frightful source of mortality, and should not be resorted to without the advice of a competent physician.

As a general rule, the child should be weaned at the age of nine or ten months;—before, if the mother be afflicted with scrofula or any other disease, or it should not nurse at all;—but later, if the infant be weakly or sickly. After weaning, the diet should consist of the above named articles, to which may be added pulverized crackers or portions of bread and simple liquids. Care should be taken not to overload the stomach. By degrees (it should never be hurried) the stomach is brought to bear more solid substances.

“Regulation of the food,” remarks Dr. Warren, “is of primary consequence towards the formation of a good constitution. The most common error in relation to it, consists in the use of too much. Parents are uneasy when their children eat but little, and would encourage them to eat against their inclination. No mistake can be more pernicious to health; and if persevered in, disease will infallibly result from it. When the child wants appetite, instead of being compelled to take food, it must be compelled to take exercise, unless positively ill, and then it must be compelled to take medicine. The quantity of liquid given to young persons is decidedly injurious. Animal food should be sparingly taken by young persons who use little exercise; and children generally do not need it. Bread and milk, and fruit, are the best articles for those who do not labor. Wine is highly pernicious to young persons. It is a slow but certain poison. Before the body has attained its full growth, there is an overplus of excitability; and if to this is added the powerful agency of wine, or any other stimulating drink, the constitution cannot fail to be hurt. Females are more injured by stimulating drinks than males, because their system is more susceptible to physical excitement.”

EXERCISE, AIR, SLEEP, BATHING, INTELLECTUAL AND MORAL TRAINING, ETC.

THE powers of the system during the first month or two of infant life being occupied in nutrition, the time of the child is principally spent in sleep and taking nourishment. Exercise, during this period, of course, can only be of a

passive kind. There should never be any haste to excite a child to premature exertion, or to endeavor to make it sit and stand. During the early months, therefore, exercise should consist in carrying the infant gently about the nursery, or into the open air, and in gentle friction with the hand over its whole surface. Afterwards, with proper precautions, it may, in pleasant weather, ride in a carriage. The length of time spent in sleep should be left mostly to the natural inclination of the child: repose should not be too much enforced by rocking, or moving lullabies. The quack "cordials" and "anodynes," given for the purpose of procuring sleep, are often highly injurious, and ought to be dispensed with.

Pure air is quite as essential to the formation of a good constitution as proper food; and it would seem even more so, when we consider that the influence of the air we breathe never ceases for a single moment of our lives. Vitiating and deprivation of air, are justly reckoned among the most common causes of scrofulous disease and mortality in infants. The nursery, and rooms devoted to sleep, should, therefore, be *elevated, large, airy,* and easily ventilated. The practice of crowding several children and nursery maids into a small room, in which also washing and cooking are sometimes carried on, is highly injudicious, and at variance with the duty of parents to the welfare of their children. Overheating such rooms is also very injurious. For the same reasons care should be taken that the infant does not slip beneath the bed-clothes, and thus cut off the most important source of vitality during its sleep: the head should always remain uncovered. Plants, flowers, and perfumes ought to be wholly banished from a sleeping apartment. We need not remark that the night and bed clothes should be, daily, thoroughly aired.

Frequent bathing in infancy is of the first importance to health. The whole surface of the body, and particularly the foldings of the skin and joints, should be carefully washed every morning in tepid water, and dried by gentle rubbing with a soft napkin. The best time for such ablution is when the child is first taken out of bed: in hot weather, it may be repeated with advantage in the evening. Cold water for this purpose has been justly

condemned, as exposing the infantile frame to a sudden change of temperature, which it is not able to bear. The strictest cleanliness must be observed in immediately removing every soiled article of dress.

Sufficient exercise and pure air are indispensable conditions of health. As soon as children are able to creep and walk, they should not be in the least restrained—though care ought to be taken to guard against improper exposure. In fine weather a child cannot be too much in the open air, exercising its muscles in its own way. Early attempts at walking, by the aid of an attendant, as we have before intimated, ought to be forbidden.

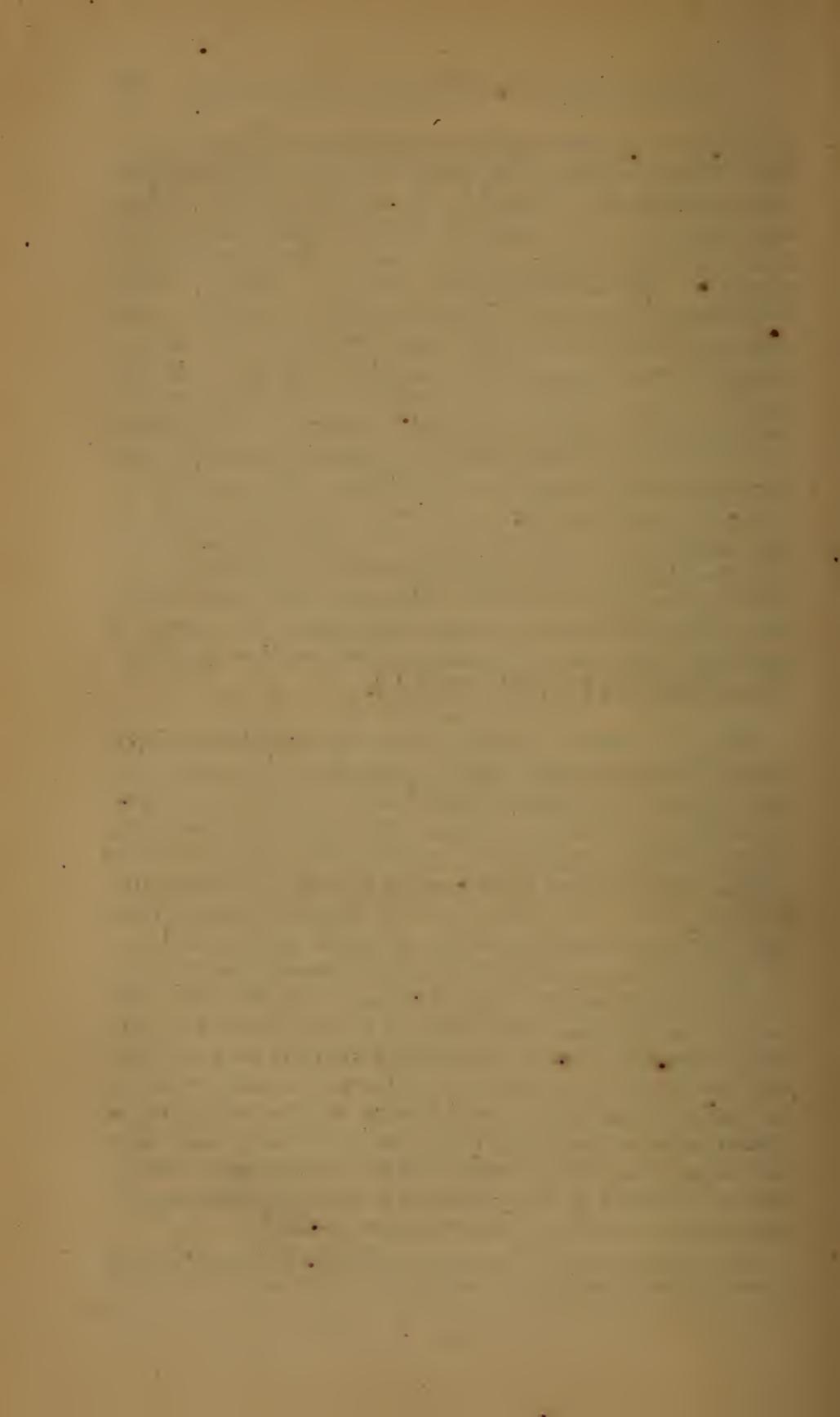
Had we room, we should here speak of the depressing influence of parental severity. That most abused of all sayings, "Spare the rod," etc., often leads to the most deplorable results. Stern language even, and restraint of motion, song, laughter, and sport, in children, are the causes of much suffering and permanent injury. We should also advert to the influence of an *upright form and full chest* on the health, which are to be acquired by an appropriate system of physical education. Too much of the time of young persons is devoted to literary pursuits and sedentary occupations, and too little to the acquisition of corporeal vigor. For further information on these subjects, we must refer the reader to Combe on Infancy, Warren on the Preservation of Health, and Dewees on Children, all of which are excellent works, and should be read by every mother.

"If more time were devoted to air and exercise, and less to mere accomplishments—if less strenuous efforts were made to cram much ill-assorted knowledge into the mind in a very limited period—than usually is the case in the present day, an improved state of nervous energy and of constitution generally would result. There would, consequently, arise a race of females possessed of stronger minds, and better able to make good wives and healthy mothers, than those too frequently met with in the easier ranks of life. Of all the physical influences by which the human constitution is permanently impressed in early age, there are none so powerful as *light, air and exercise*. Females, while the frame is being developed, should strictly observe early hours, so that the period of repose

It should never be prolonged much after the dawn of morning. The propriety of *sleeping* in a large, well-ventilated room, cannot be disputed. It will be prudent, where more than one must sleep in the same apartment, to have separate beds, each no larger than is necessary for one person.* We should add that *walking, dancing, riding on horse back, the use of the triangle, the plays at ball with both hands, dumb bells, and battledoor*, are the best modes of exercising, where *useful occupation* is insufficient;—to be employed so as to invigorate without over-fatiguing. Young persons ought never to sleep with the aged, or infirm. For a bed, a mattress, not too soft, is the best: the bed-clothing should be light. The constant use of frictions and bathing in cold water, over the whole surface of the body every morning, should not be neglected. The food should be simple, and contain a sufficient quantity of unnutritious matter. There are other cares which the young girl requires as she approaches the period of puberty; but of these we have already spoken at length. (See Chapter I., Part III., Book I.)

WE will conclude by entreating the attention of mothers and others to a revision of our present modes of living. Our organization, both physical and mental, is regulated by unchangeable laws;—laws as fixed and never-varying, as those which regulate the motions of the planets in their orbits. Let females timely make friends of worthy physicians,—those men, who, in every age of the world, have with untiring zeal labored for the good of mankind, and to whom we are indebted for all our knowledge concerning the prevention and cure of disease. At the same time let the female avoid empiricism in all its alluring forms; and by the aid of the educated physician she may hope, not only to be able to ascertain the laws of health,—but by an early resort to the preventative and curative means, which experience has proved to be efficacious,—she may also hope to be able to cure most of the diseases to which she is incident: *Principiis obsta: sero medicina paratur cum mala per longas invaluere moras.*—Ovid.*

* The principles of art are hindered; medicine is furnished too late when disease is aggravated by long delay.



BOOK III.

ELEMENTS

OF

WOMANHOOD AND MANHOOD:

LOVE, MARRIAGE,

AND

HEREDITARY TRANSMISSION.

“A book about marriage for the family? Scandalous! Rather write thirty romances about adultery — something imaginative, something amusing. You will be much better received.”—MICHELET.

ELEMENTS OF WOMANHOOD AND MANHOOD.

CHAPTER I.

ELEMENTS OF REPRODUCTION IN THE SEXES. — WOMANHOOD. — MANHOOD.

THE MASCULINE AND FEMININE ELEMENTS OF REPRODUCTION pervade the universe, extending alike to the animal and vegetable kingdoms. The blending of these two elements constitutes the creative or reproductive power of plants and flowers as well as insects and animals, and is subject to certain fixed natural laws. These laws must be known and observed, in order, by culture, to produce a more beautiful, healthy, and perfect model in plant or animal.

THE OBJECT OF SEXUAL DISTINCTION in the human race, is the reproduction of human beings as perfect, physically and intellectually, as belong to the species. Plants, flowers, and fruits, also domestic animals, are improved and perfected by culture; and why not the human race? Man alone is neglected, or, rather, neglects himself.

KNOWLEDGE REQUIRED. — To improve, beautify, and ennoble the human race, and produce a more exalted manhood and womanhood, ought to be the object of science and religion. What power have parents over the organization of their children — their bodies as well as their souls? Look, ye fathers and mothers, at your deformed and suffering progeny! This is your work! Will you transmit to your children healthy or diseased bodies? What kind of souls — true or false, loving or hating?

It is conceded that man needs a certain amount of knowledge to enable him to *cure* disease. How much more important, then, that he should be educated so as to be able to *prevent* disease! *Where there is no violation of natural laws, there is no disease.* A perfect organization and development is the right of every child to demand of its parents.

To the Laws of Reproduction must we look for the improvement of our race, to expel disease from the body and soul. No religious, social, or political prescription will avail anything. A new manhood and womanhood must precede the reorganization of society. How health, beauty, and strength can be substituted for disease, feebleness, and deformity both of soul and body, we shall proceed to indicate.

SEXUAL ELEMENTS. — The distinctive characteristic of a woman is such as to qualify her to become a *mother*, and that of a man to become a *father*. Neither sex can reproduce without the other. The *ovum*, or germ, as has been seen, is already formed in the matured female; but it is the *semen* secreted by the male organism, which, by coming in contact with the ovum in the womb, impregnates it, and causes it to become a living being. These are known as the *sexual elements*; and this process is called conception, and is contributed to alike by each, man and woman.

Take away the sexual element from a man, and he is no more attached to a woman than to a man, and *vice versa*. It constitutes the great attraction of one for the other, and is the ever present bond which binds them together. Each needs the aid of the other, not only to reproduce, but as the basis, when properly directed, of the most exalted social relations.

The reproduction of the species, then, is the object of sexual distinction, and to satisfy the social wants of man and woman.

FORMATION OF THE SOUL. — The process by which the body of the child is formed during *gestation*, or pregnancy, is quite plain and obvious, after reading the chapters of this work devoted to those subjects. The agency of the parents is made visible, and connection between the mother and child actually known. But from

whence comes the *human soul*? Is it also derived from the parents, as is the body? If so, is not its constitution more or less influenced by, or under the control of, its progenitors? According to the modern *Spiritual* theory, the soul is a *substance*, though composed of matter so refined as to be invisible, like electricity.

DO NOT WASTE THE SEXUAL ELEMENT.—At the period of puberty, then, the *semen*, otherwise known as the *spermatic fluid* of the male, and ovum or germ of the female, are secreted and elaborated in their natural organs, for the purposes of reproduction. These elements of procreation are the most refined product of every portion of the human functions, body as well as soul, and require for their perfect formation, the utmost harmony and vigor of our entire organization. The retention of these elements in the system is necessary to produce perfection of health and beauty in man and woman. They constitute the manhood and womanhood of the soul as well as body. The expenditure of these elements, except for procreation, is useless; and when done for sensual gratification, particularly before the maturity of all the organs, the energies of the body and soul are blasted; the brain and nerves become exhausted, and transmit weakness to the muscles and disorder to all the functions of mind and body. Thus result loss of memory, loss or want of the affections, imbecility of body and soul, idiocy, and insanity.

Says the *sensualist*, What! am I to enjoy this expenditure but rarely during life? We answer, The retention of this element in the system is an ever-present enjoyment. In case not wasted, it becomes re-absorbed into the system, carrying health, beauty, energy, and life everywhere, and giving a capacity for enjoyment in body and soul, little dreamed of by the victim of passion.

SOLITARY INDULGENCE.—He or she who expends this life-element in *solitary indulgence*, sinks below the brutes, who never practise it. And what shall we say of the lewd and lustful, whether legally so or not (married or unmarried)? Which does the greatest violence to nature? There is, perhaps, little distinction between the two. How many husbands and wives ruin their own health by

yielding to this *sensualism*, bringing desolation upon homes otherwise full of life and beauty! How much disease, deformity, and weakness transmitted to the bodies and souls of their children!

The following case of an erring clergyman and his wife, reported by a physician, is here introduced to illustrate our subject, and is only one of constant occurrence:—

“He, a bright young man, educated in a New-England college, graduated with honor, and, after a course of theological studies, entered the ministry, was ordained, and settled. She, the daughter of a merchant, had received a polished education, and was the pride of the family. They were married. He was beloved and admired for his eloquence. But, after a while, irregularities were discovered in his appearance and conduct; something seemed to be wrong with him, which was attributed to his devotion to his profession. Finally he became insane, was sent to an asylum, grew worse, pronounced incurable, and again taken to his friends.

“As for the wife, soon after the husband’s insanity, she became insane, and was sent to an asylum in another state. She became much improved, and returned to her father’s house.

“Upon an investigation by the friends of each, it was discovered that the husband had long and fearfully abused his manhood, and had long lost the power of self-control, and that it was unsafe for him to see his wife, who also felt the same necessity.

“The result of this marriage was two children,—a son and daughter. The son was a perfect picture of him, and the daughter of her. Both were in feeble health, and the most perfect specimens of nervous excitability,—the natural and necessary result of the great wrong done by their father to himself and their mother.

“Contrary to all expectation, and contrary to the usual result in such cases, after careful and long nursing and treatment, this minister improved in health, body, and mind, and recovered sufficiently, after a long time, to again form a re-union with his wife and children, and resume his profession a wiser man.”

“As the cause of his insanity and unhappiness, he related the following circumstances: When quite young, at school, in common with other scholars, he acquired the habit, and nightly pursued the practice of, solitary indulgence by self-abuse. This he continued through his collegiate course and theological studies, up to the time of his marriage. Several times his health gave way, which was imputed to hard study. After marriage, he indulged his sensuality so excessively, that his insanity became complete; and his wife, pure and healthful when married, became the victim of his lust, and also insane.

“The children begotten under these circumstances were irritable, nervous, and weakly,—monuments of sexual abuse, and victims of the violated laws of reproduction in their parents.”

Husbands and wives, fathers and mothers, listen to the voice of experience and reason. Would you assist in eradicating disease and darkness from the earth, and causing it to be peopled by a nobler type of beings? If so, remember, "Knowledge is power." Instruct your fellow-beings, particularly the young, and first your own children. Teach them the noble uses of all their organs of the body, and show them the destruction which awaits any violation of their tender nature. Thus, in a word, become ministers of grace and angels of mercy to a corrupt and bewildered world.

CHAPTER II.

LOVE AND MARRIAGE.

THE FAMILY RESTS UPON LOVE, says Michelet, and society upon the family. Hence, love goes *before* every thing. In natural history, we notice birds and animals tending towards the married state.

LOVE, THE NATURAL AIM OF WOMAN. — In the human species, we see that the natural aim of woman is to first love; second, to love but one: third, to love always.

As for man, the increasing use of spirits, tobacco, and other narcotics, obscure his mind, isolating him from love and home, and giving him a preference for solitary enjoyment and the dreary pleasures of a polygamic life, which impose upon him little or no responsibility. This state of things, enervating to man, is debasing to woman, he profiting by her misery.

Woman, unless hindered, is more pure and faithful than man, her love continuing in an equal course, like the flowing of a beautiful river — forever.

RESCUE THE WOMAN. — Happy he who, seeking a companion, a partner, or mate for life, rescues a woman from her loneliness, and frees her from the weakness and misery of seclusion, and elevates her, strengthens her, and makes her his own. In delivering her, he also delivers, strengthens, and elevates himself.

SHE WILL RESCUE YOU. — When once set free by you, from what will she not rescue you in return? From the servitude of your base passions! You will not leave home to seek the abodes of infamy, nor wander in the streets in quest of love or intoxication. Look at that feeble, pitiable, young, old man, so pale, *diseased*, melancholy, and debased! *True* love will preserve you from this, and might have preserved him.

He who has with him a reliable and loving wife, goes to his daily toil strong in purpose and inspired with cheerfulness and content. He leaves at home one beloved, to whom he can always return and find an open and loving heart ready to greet him and sympathize with his disappointments.

NON-EXPENSIVENESS OF MARRIAGE. — Many remain single, frightened at the expensiveness of matrimony; yet they expend much more, after all, than if married. They live expensively at the restaurants; frequent the theatres; smoke, and often resort to intoxication; or they contract temporary marriages, secret and shameful, lasting sometimes for months, but often only for a week or an hour. These, while completing the utter degradation of the woman, ruin also the man, physically, morally, and mentally. Those infamous diseases infecting the haunts of vice, when contracted, complete the picture of ruin and despair.

We say, then, as a rule, that *marriage* is less expensive than living single; in other words, *two persons spend less than one*. And if the wife be not incited to extravagance in dress by female friends, she expends almost nothing; and we might say, with truth, that "*four persons spend less than one*;" for she supports the two children besides.

A WIFE A FORTUNE. — Young man, if you have a good wife and a good trade, you are free. Free from vice and extravagance, you can laugh at the hosts of uneasy millionaires. You can say, "Let them wear out their lives in amassing riches. I love; and in that, I have found mine." "Do not fear that you will tire of her, for she will ceaselessly change. Do not fear to confide in her, for she will never change." — *Michelet*.

MENSTRUATION: CAUSE; PURITY OF. — The period of puberty in females, announced by the appearance of the menstrual discharge, occurs, in this country, usually between the thirteenth and sixteenth years. It is hastened by a warm climate and certain modes of life in cities, and retarded by a cold climate and living in the country, free from the excitement of city life. See pages 38-84.

It was believed by the ancients, that woman is *impure*; that her monthly sanguineous discharge was a *purgation*. Hence, the command of Moses, that man should not approach her at a certain period of the month. But it has been proven by science, that she is pure; the blood is the same as found elsewhere. It has been established that the ovaries exist in woman, and that, each month, an ovum or ova matures, burst their envelopes, and make their way into the uterus; so that, every month, this ovarium is ruptured or torn, and then subjected to the healing process. Instead of being any thing shameful, this periodical function is the most essential of her organism; and upon its regular and healthful appearance, depends her health, beauty, and happiness. "What you call a *purgation*, you fools! is the sacred wound of love, in which your mothers conceived you."

Although a natural and as essential a function of her organism as breathing, yet, imperfectly organized as women are in civilized life, the recurrence of the menses is generally a period of physical and mental prostration. The week preceding this event is one of trouble, more or less; and in the few days which follow it, there exist languor and weakness, now known to be caused by the healing of an internal wound. So that woman is an invalid one week out of every four; that is, every woman who does not blot out her sex by excessive labor, as the peasant women of some countries do. It is at this time that her nature calls for the tenderest love and sympathy of man.

KNOWLEDGE REQUIRED. — In early life, men, as well as women, should be taught to understand the reproductive functions and the relations they bear to her health, beauty, and happiness. They ought to know that, upon the regular recurrence of the *menses*, depend her qualifications to become a wife and mother. It should

be understood by every husband, father, son, brother, and lover. Such knowledge would save woman from much suffering, and bind the sexes in a tenderer and holier union.

SHOULD BE ACQUAINTED.—Man and woman, previous to entering the marriage relation, should be acquainted with the mental as well as physical conditions of the person with whom they are to be united. Let each ask, Is his or hers a fit physical and mental organization to be united and blended with mine in our children? For the souls of the parents, in their leading tendencies, as a general rule, will pass into the souls of their children.

No man or woman, then, should enter the conjugal relation until they become acquainted with the physical and mental constitution of the one with whom he or she seeks to be united. It may be accounted an insult to inquire into this matter, which is, however, of too much importance to be neglected. If your own soul be pure, it will shrink from a union with a person deformed with passion, mean, cowardly, and avaricious, whose appetites are unnatural, and who aspires merely to the gratification of an animal nature. Shun such an one for a companion, though they possess untold wealth and faces and forms of unsurpassed beauty. Such a marriage will crush your moral nature and entail upon your children an eternity of degradation.

LOVE; PASSION.—As an element of marriage, the *passional nature* should here be adverted to. That there is a distinction between *love* and *passion*, is obvious. Although marriage love is the deepest and tenderest sentiment of the soul, it may not exist without passion. Still, they are essentially different unless there is a defective organization. In a *perfectly organized* man and woman, the desire for sexual gratification would exist only as the effect of pure love, and thence the passional nature would be in abeyance and under the control of wisdom and reason. Instead of this, however, it is lamentable that love is generally subject to animal passion. Men and women — most often, the former — are fearfully diseased in this respect. They indulge and seek to stimulate this

passion to the utmost without love. Reason, conscience, wife, children, and life even, are all sacrificed to sensual desire! The inevitable consequence is physical and mental degradation in the man and woman and their offspring

This instinct, when once aroused (even though very obscurely felt), acts upon the mental faculties and moral feelings, and thus becomes the source, though almost unconsciously so to the individual, of the tendency to form that kind of attachment towards one of the opposite sex, which is known as *love*. This tendency cannot be regarded as a simple passion or emotion, since it is the result of the combined operations of the reason, the imagination, and the moral feelings; and it is the engraftment, so to speak, of the psychical attachment upon the more corporeal instinct, that a difference exists between the sexual relations of man and those of the lower animals. In proportion as the human being makes the temporary gratification of the mere sexual appetite his great object, and overlooks the happiness arising from spiritual communion, which is not only purer but more permanent, and of which a renewal may be anticipated in another world, does he degrade himself to the level of the brutes that perish. Yet, how lamentably frequent is this degradation! — *Carpenter*.

INCAPACITY MUST BE KNOWN. — We have before remarked that woman is evidently designed, by her physical and mental constitution, to fulfil the relations of a wife and mother; also the husband, of a father. Particularly, the man, if well organized and truly developed, will seek a woman for a wife capable of crowning him with the dignity of progeny. But neither has a right to attract the other into the relation of marriage, knowing their incapacity to fulfil this deep and holy want of their natures, without a full acknowledgment of the fact. They may meet as friends, and, if they choose, may sacrifice this part of their being to their beloved, but have no right to cause this sacrifice by concealment. In the case of woman, in a perfect nature, *desire* does not, at first, take so distinct a form as in man; and there are many, perhaps, who would marry with a knowledge of incapacity in their husbands. Well would it be for husbands full of passion and vigor, to remember this fact, and, when they first approach the loved ones of their hearts, not demand a rude consummation of their desires, until, by endearing expressions, they induce a cheerful compliance with this con-

centrated expression of their love. Through sweet tenderness, such charming favors will be granted as otherwise might not have been conceded.

ONENESS REQUIRED.—In true marriage, there is ordained a oneness of the flesh—a perfect unity. Lovers should create in themselves, by a lifelong study, a common basis of ideas and an alliance of their two wills. There should be a free union of hearts—an absolute interchange of lives.

INITIATE THE DAUGHTER.—Parents should prepare their daughter for marriage both physically and mentally. They should and generally do watch over her virtue, that she may be found a virgin by her husband.

Marriage being *consent*, the daughter beforehand should be initiated into what she is about to undergo; that her husband may assume the right to constitute himself the judge of her past morals, virtue, and purity.

DUTY OF THE HUSBAND.—The husband ought not to emulate ancient barbarism, *under any circumstances*, by beginning the union with distrust, by debasing or humiliating a poor, innocent girl. When she has had a misfortune, even a *weakness*, he may be sure that she will love him who rescues and adopts her, instead of the ingrate who deceived and outraged her. How would it be if she should inquire about the previous morals of her husband? Her whom he esteems sufficiently to confide to her his future life, he ought to place confidence in at once and for all past time. “He takes her for better or worse.”

Have pity on her! Be kind and gentle to her! Appreciate her situation; care for her; re-assure her. Let her know that you are not her enemy; on the contrary, a most devoted friend, entirely at her service. Be discreet, full of tact, understanding and respecting her situation. Encourage her to the utmost. Tell her this:—“I am thine. I am a part of thee. Take me as thy mother and thy nurse. Confide wholly in me. Thou art my wife and my child also.”

CREATE YOUR WIFE.—The girl or young spouse, after being born again (into the kingdom of love), desires nothing better than to be taught and remodelled by her lover or husband. She adopts his creed and people, confiding her body and soul to him. She believes in him. He should therefore endeavor to separate her from all evils surrounding her, from any faults of education or association she may have; in a word, re-make, re-create her. "Love loves more what it *makes*."

Just before or after the time of the monthly crisis (if not too painfully near), is the time to be chosen to make lasting impressions upon her. This profound renewing which she suffers with so much pain, makes her the gentlest and most pliable of beings. "As soon as you love her, envelope her, isolate her from bad influences. Every folly of woman is born of the stupidity of man."

LOVE, A NECESSITY IN WOMAN.—Woman cannot live without man. It has been truly said, that all her ailments proceed, either directly or indirectly, from the womb, the organ of love and maternity. What causes her headache, colic, etc.? Not being loved enough. It is different with man: excepting climate, his maladies proceed mostly from the digestive organs. He eats and drinks too much, carrying invigoration to excess.

CONFIDE IN EACH OTHER.—As in matters of business, also in matters of the heart, the wife and husband should consult and confide in each other; should deliver up their last secret, by telling each other every thing.

A wife is a fortune, especially when she is poor. Then, though she has nothing, she brings you every thing. If you wish to ruin yourself, marry a rich wife.

SHE LOVES BUT ONE.—Woman is the mortal enemy of polygamy. She wishes for the love of one only, and to give herself to one alone—her husband—and belong to him forever.

At all times, when fatigued and having exhausted or lost his mental vigor, man takes in a new supply from woman, from her soothing presence, her chaste bosom. In his dark moments, when he is in trouble and seeks in vain his star in the heavens, he looks toward woman, and, behold! his star is in her eyes.

LOVE, NOT IN A CROWD. — What influence can you have over a woman in society? None at all; in solitude, every influence.

“ Do not sow seed by the wayside;
Do not plant trees in the torrent;
Do not love amid the crowded haunts of men.”

A POOR WORKER. — Woman, so often interrupted by sickness, is a very bad worker; particularly, during the week of the *menses* and the period when she is *enciente*, is she an invalid. It is the paradise of marriage, that the man shall work for the woman; spare her the hardships of labor and rude contact with the world.

TIME OF CONCEPTION. — After long investigation, it has been proven by science, that conception only takes place at the time of the menses; that is to say, near the time when the discharge announces the appearance of the ovum, or ova — a little after, or a little before. Hence, there is barrenness during a part of the month.

TIME OF MARRIAGE. — During the week of the sanguinous crisis, for obvious reasons, marriage should not take place. During this period of relaxation, languor, and it may be suffering, nothing should be done to unduly excite a mind already confused and terrified as if by an approaching tempest.

NOBILITY OF LOVE. — Love in woman is an exalted and noble thing. She stakes her life upon it.

Love creates love, and augments it. The secret of loving each much is, to occupy ourselves much one with the other; to live much together.

Every time woman consents and yields to man's desire, she testifies her willingness to die for him.

EFFECT OF VARIETY. — Man, wearied, bewildered, palled, and disgusted with the mania for variety and *hurly-burly* of life, which robs him of all his strength, takes cowardly refuge in a different but more fatal enervation; in a dull *narcotism*; in vague and barren dreams; the fumes of tobacco; the stupefaction of alcohol. But he who lives according to reason, will understand that woman con-

stitutes the best narcotic and the best stimulant. The two alternated intoxications, the two opposed deliriums, which bestow balance of reason, are found healthful and vivifying in the breast of woman rather than in all this false life.

THE WIFE RENEWS THE MAN. — The wife is a true sister to the man in the labors of life; more than sister and more than wife to console him, and to rest his weary head at night. She comforts his fatigue — a nurse; she lulls him to sleep, and, taking him again into her bosom, brings him forth with renewed life, forgetful of all things, and rejuvenated for the joyous waking of the morn. Such is the power of marriage, but not of transient pleasure. The longer it lasts, the more is the wife a mother to the husband; the more is he her son. It is their guaranty of immortality. United thus, who shall disunit them?

ADULTERY OF THE WOMAN. — Are the adultery of the woman and the adultery of the man equally guilty? Yes, as an infidelity, a violation of vows. No, in a thousand other respects.

FEARFUL CONSEQUENCES. — This treachery of the woman carries with it fearful consequences; that of the man does not. The woman does not simply betray her husband; she yields up his honor and his life. She makes him gossiped about, ridiculed, pointed at, hissed. She puts him in peril of death; of either killing a man, or remaining a butt; it is almost as though she let an assassin into the house by night.

He will suffer a moral assassination all the rest of his life; never knowing whether her child is his child, obliged to rear and provide for a doubtful progeny, or to amuse the public by a trial which, whether he gains or loses, makes his name a by-word and a jest.

RESPONSIBILITY OF WOMAN. — It is folly to say that the woman has no more responsibility than the man. He, by his activity and strength, supports the family; but she is its heart. She alone knows its mysteries: she alone holds the secret of domestic happiness, the whole assurance for the future; she alone can attest a legitimate inheritance. A wife's falsehood may falsify history for a thousand years.

What is the bosom of woman, if not our living temple, our sanctuary, our shrine, where burns the light of God forever, where we each day are re-created? If she delivers this up to the enemy; if she permits this fire, which is her husband's life, to be stolen, it is more dreadful than to plunge a knife into his heart.

No punishment could be severe enough, if she knew what she had done; but she is, nearly always, very far from ever dreaming of it. — *Michelot.*

CHAPTER III.

PARENTAGE — HEREDITARY TRANSMISSIONS.

HEROES BORN OF THE MOST ELEVATED LOVE. — Woe unto the children of darkness, the sons of drunkenness, who were, nine months before their birth, an outrage on their mothers.

He who is born of a nocturnal orgy, of the very forgetfulness of love, of a profanation of the beloved one, will drag out a sad and troubled life.

On the contrary, it is a sublime, a mighty blessing to be conceived in the light; when a man's love is directed not to the sex indiscriminately, not to any woman whatsoever, but to this single woman; to this heart which belongs to him, saying, "*She, and no other;*" when it is mirrored in her smile, in her beautiful, quiet eyes, which reflect the dawn on him; in her charming surprise and her artless impulse, which say, "Yes, yes; I was dreaming of you."

The profound and perfect harmony of the heart, the exquisite sense that love, in its most obscured moments and in its hidden light, preserves of the loved object, is that which produces divine fruit — a son of liberty and of light. Both are *desirous*. It is, doubtless, of the most elevated voluntary love that heroes have been born. — *Michelet.*

UNION OF OPPOSITE ELEMENTS. — It has generally been promulgated, in modern times, that persons should marry their *opposites* in order to produce a superior progeny; that the qualities, physical and mental, should be *crossed*. There is, doubtless, more attraction in individuals between opposite or contrary qualities of body and mind.

This is true, also, to a certain extent, with races, the most energetic of which have sprung from opposite or seemingly opposite elements. According to a recent French author, the blending of the white man with the black woman produces a race of extraordinary vigor. "Such is the virtue of black blood," says he, "that wherever a drop of it falls, everything revives. No more old age — a young and puissant energy; it is the very fountain of youth." See pages 387-393.

UNION OF THE SAME ELEMENTS. — However plausible the doctrine of *crossing* the races may have been, it is now pretty certainly

settled, that the highest degree of vigor may be attained by a *concentration of the energetic races*. It is proven, that the blood of all races cannot be blended with impunity; a degradation follows. There must be a strong sympathy, in order to be successful, though seemingly opposed. The progeny of the strong and perfect, resulting from a union with the weak and inferior, will be but of an ordinary quality; while that resulting from a union of strength and perfection on both sides, will be a concentration of vigor and genius.

This principle is understood and practised in breeding and rearing horses and other animals. The famous race-horse Eclipse was produced by a successive union of the accumulated blood of a pure race, unimpaired by combining.

MARRIAGE OF RELATIVES.—In regard to the marriage of relatives, it has been said, that if wedded love be added to the love of kindred, there will be *too much love*. But the contrary is seen among the Hebrews, who, notwithstanding being allowed to marry their cousins, and sisters even, were seen running after the daughters of the Philistines. The Greeks married their half-sisters until this custom was abolished by the laws of Solon. This race was regarded as the most beautiful in the world, though not very productive. But Greece looked only for heroes, not numbers, which, in a short time, exhausted the race by too great a concentration. The Romans married no closer than their cousins.

Much has been written of late upon the subject of marriage between relatives; and we are forced to the conclusion, not only from experience of the ancients, but also from our own times, that such unions are productive of strength in the progeny of the strong; while that of the weak will further degenerate. Care should be taken that the same disease or morbid tendency do not exist in both husband and wife.

CROSSING OF QUALITIES.—As “like produces like,” it is obvious that persons of extreme characteristics should not seek to further accumulate and enhance such personal qualities in their offspring. For instance, the tall should marry the short; the corpulent, the lean; the passionate, the gentle; the studious and gloomy, the

sprightly; the timid, the brave; the weak, the strong, and so on; and the extremes in the parents will be corrected in their offspring. By the same rule, the fair-complexioned and red-haired should seek to marry brunettes.

It is a known fact, that "like love not their like" so well as something different. Still, the dispositions of married people must assimilate in some particulars. The sanguine and warm-natured ought not to be united with the cold and phlegmatic, or there is danger that the continued soft caresses of love might excite disgust. So, in marrying *opposites*, the nature and disposition must be such as to divert and excite, not shun each other

This crossing of the most prominent qualities in partners is an admirable arrangement, establishing, as it does, an equilibrium, and preventing extremes; for the union of dwarfs produces dwarfs, and the union of giants produces giants. Also the children of parents alike irritable, alike lymphatic, alike diffident, etc., inherit the concentrated qualities of both to such an extent as to become seriously disagreeable.

The uniting and blending, however, of all races in one universal marriage, a beautiful dream of love, were it possible, would probably result in a certain colorless, faded element, fatal to love itself.

THE HUSBAND'S DUTY.—The wife should not be made the passive means of pleasure to the husband. Unless shared in by her, there should be *none* for him. The selfish impatience of the man, desiring only self-gratification, excites and irritates her only to be disappointed. Can the man be satisfied with the brief pleasure taken by force from cold marble? The children of such a marriage are to be pitied. Marriage exists only in the interchange of sentiments of the heart and those mutual, salutary raptures which console and renew life.

PERIOD OF BARRENNESS.—Woman should never be impregnated without her consent. It is for her to say, if feeble, or ill, or badly formed, whether she will accept that risk of death. At her request, the husband should refrain, especially at the time of the

development of the ovum (during menstruation and the week following). Is she sterile during the intermediate period? She ought to be, up to within a few days of the menses, as the ovum is wanting, though *it may be* produced or developed by passion.

FECUNDATION EXTENDS LONG INTO THE FUTURE. — Impregnation in woman transforms her in a lasting manner. The widow frequently bears to her second husband children resembling the first.

It is the same with animals. The bee is impregnated for a year; the hen, for her whole brood; and most insects, for several generations. The mare once impregnated by an ass, ever after presents nothing but asses, or, at best, colts of an awkward appearance, thus betraying the inferiority of the first love.

This law among animals, which devotes the female to her first love, seems to be the same in the human species. The first love and the first child appear to extend to those of the future; the father of that child extending his paternity to those which the woman may have by a second husband or by a lover!

In former times, it was observed that adulterous women had children resembling the husband. Hence, the adage that "The son of adultery pleads for his mother." It has also been seen that widows, impregnated during their first marriage, have afterwards had children by a second and dearly beloved husband, resembling the first husband, long dead and but little regretted. Here, neither fear nor love had any influence.

"If it were always thus, if the first impregnation infallibly modified the woman forever, adultery would be impossible (at least in its results). The possession of the husband being unalterable, the only one deceived would be the lover."

HEREDITARY TENDENCY TO DISEASE. — In addition to our own diseases, which may be said to be accidental, we frequently have to cope with those which we get from our ancestors, which lie awaiting the day of our weakness. The purest, the most virtuous, and the most beautiful, may none the less possess a germ in her blood which may, ere long, develop itself.

As we often resemble our parents in external forms, says Dr.

Wood, so also do we inherit their internal peculiarities, and consequently all the morbid tendencies growing out of them. It is not diseases, generally speaking, that are inherited; it is only the peculiarity of structure or constitution which serve as predispositions to disease. We are not born with the scrofula, gout, rheumatism, etc., of our parents, but only with that condition of system which favors the development of those affections when other causes operate. The inherited *diathesis*, however, is often sufficiently strong to lead ultimately to the disease without other cause. We see this fact constantly illustrated in consumption and gout. Nay, the hereditary disease will often be developed, notwithstanding the most determined measures to prevent it which sagacity and experience can suggest.

The inheritance may descend from either parent, or both. It has been supposed, that the peculiar diseases of the mother are more apt to be found in the son, and those of the father in the daughter; but the accuracy of the opinion may be doubted. When only one parent is affected, it often happens that the offspring escape entirely, taking after the healthy parent exclusively; but when both are diseased, and in the same way, the chances of escape on the part of the children are greatly diminished. Hence the danger of constant intermarriages between near connections, who may be supposed to have the same defects of constitution. The morbid tendencies thus go on, accumulating from generation to generation, until families, and even races, become extinct. Sometimes the hereditary malady passes over one generation, to fix upon the next. The child escapes, but the grandchild is affected. This fact admits of easy explanation. It is only the tendency that is received from the parents. This may remain latent from the absence of causes calculated to call it into action; or, counteracting circumstances may exist, which shall prevent its development. The tendency is, nevertheless, handed down to the next generation, which may be less fortunate in relation to the influences that bear upon it.

Occasionally we observe family predispositions to disease which have no prototype in the immediate or even remote ancestors. One child after another falls a victim to the same disease, from some

inherent vice of constitution; and parents themselves of sound health may thus be completely stripped of their offspring. This sometimes happens from a vicious system of physical education and is much more frequent among the rich than the poor. But in other instances, the defect is received from the parent, and exists from birth. In such cases, however, the disease cannot, in strictness, be said to be hereditary.

Complaints dependent upon inherited peculiarities of system are apt to appear earlier in life than similar complaints of a different origin. The most common hereditary diseases are scrofula or consumption, cancer, rheumatism, or gout, and insanity. Although none of these diseases are *always* hereditary, being also produced by other causes, still it is known, that by far the greater percentage are of that class. Dyspepsia and many other chronic diseases are also often hereditary in character.

VENEREAL DISEASES are often the primary cause of hereditary tendency to disease. They may be ranked as among the most terrible curses of the human race, and arise from inoculation, generally intercourse with a diseased person. They are of two kinds, *syphilis* and *gonorrhœa*, the former of which is by far the most fatal. A few days after coition, a slight pimple forms, accompanied by itching, followed by an ulcer, called a *chancre*. When properly treated, these sores are immediately destroyed by the application of caustic, or there is danger of extensive erosion and destruction of the parts affected. There are also swellings in the groins, forming *buboes*. After a few months, *secondary symptoms* set in, and there are ulcerations of the mouth and throat, and scaly eruptions on the skin in various parts, culminating sometimes in the destruction, not only of the organs of generation, but of the nose and mouth. In other cases, even when the disease *seems* to have been cured, after the lapse frequently of many years, it re-appears, acting with great violence upon various parts, extending even to the bones. Health, beauty, and life itself, are frequently destroyed by this terrible malady, contracted mostly by the young in a thoughtless moment, for the want of a little timely knowledge and advice.

SYPHILIS IS TRANSMISSIBLE from the parent to the child. It may be inherited from one or both parents. It is very common for a man, who does not himself display a single symptom of any kind, and who appears to be in perfect health, to beget a syphilitic child. — *Hutchinson*. In all stages of *constitutional syphilis*, the taint may be transmitted to the child, the degree of severity depending upon the period which has elapsed since the presence of active symptoms. Syphilis may affect the *fœtus* at an early period, and is the cause of miscarriage in the mother; or, in case the child lives, it may be imperfectly organized; and, in consequence, may result diseases of the lungs, liver, kidneys, and other organs, too numerous to mention.

CONSUMPTION, ETC., TRANSMITTED. — That the tuberculous constitution is transmitted from parent to child has long been a popular belief, and regarded as fully established.

Parents whose digestive organs are habitually disordered, who suffer from gout, the injurious influences of metallic and other poisons, such as mercury, malaria, *syphilis*, chlorosis, or the debility of advanced age, so that a cachectic state is induced, entail upon offspring begotten during such morbid states of the parents to an extent still undetermined, but obvious and appreciable; a tendency to the tuberculous constitution not necessarily to be expressed by the growth of tubercle in the lungs, but certainly and surely by various forms of dyspepsia, and a precarious state of health. — *Aitken*. Or, similar causes may also produce cancer, insanity, etc.

A disordered state of the health of the mother, resulting from disease, or unhealthy mode of life, depressing passion, etc., influence the state of the child *in utero* to a great extent. There are many other causes, such as debility, resulting from impure air, improper quantity and quality of food, etc., etc. So long as poverty and misery exist on the one hand, or dissipation and enervating luxuries on the other, so long will the causes be in operation which induce numerous diseases.

INFLUENCES BEFORE BIRTH. — It is certain, that nature designed that the race should be perpetuated and perfected here. And

to this end exists the *sexual element* in man and woman, impelling them to comply with the requirements of their being. In reproduction, it is necessary that the affections and moral powers should take a prominent part. In case animal instinct only is concerned, the result must be a progeny morally inferior.

The period of *utero gestation* is an important one for the child. It is at this time that it is constituted for good or evil. It then receives the elements of character, of body and soul, and natural tendencies, which, in a measure, guide it afterwards, when it enters upon its independent existence.

Children often struggle into existence against the wishes of their parents. When the soul of the mother rebels against the existence of the new life within her, and does not hesitate to use every means to destroy it, to prevent the development of her child instead of promoting it, what must necessarily be the character and disposition of that child? Is it a wonder that such a child lives to curse the day of its birth, and those unnatural parents who gave it being? What a state of society is that which prompts woman to hate her unborn babe, and to seek its destruction! Most unnatural and brutal, though called Christian and civilized.

THE CHILD OF LOVE. — Love should watch over the child previous to its birth and afterwards. Its every stage of development, from the first to the last, should be hailed with joy, hope, and faith.

How infinitely is a love origin to be desired! How above all price is a love ancestry! Talk not of an ancestry of princely title; of knightly deeds in war and slaughter; talk not of a parentage of wealth, of station and dignity, in church or state. More to be valued is a lineage of love than an ancestry of untold wealth, or of the most honorable titles and standing. This love lineage is a foundation on which the soul may build for eternity. — *Wright*.

RETAIN THE SEXUAL ELEMENT. — The husband has no right to demand sensual intercourse with the wife unless acquiesced in by her, and never under the following circumstances: *during the sanguineous discharge; during gestation and lactation*; and never unless the pleasure is reciprocated by each, with a desire for children.

Retain, then, the *sexual element*, and expend it only for off-spring. This is the voice of reason. When so retained, it conduces to the health, beauty, strength, and activity of the body and mind; to the nobleness and energy of the soul; to the refinement and social enjoyment of home; and to the progress of the human race.

CONDUCT OF THE PARENTS.—Whatever circumstances or diseases affect the parents must also affect their *germs*, as being a portion of their systems. Consequently each, the father and mother, impresses upon the child its own peculiar conditions of body and soul, whether disease and deformity, or health and beauty. A great obligation, then, rests upon parents, to see, so far as they can, that everything is done to give perfection of existence or organization to their future progeny. For some time previous to blending the two elements in which the child is to originate, parents should abstain as much as possible from artificial stimulants; adopt a simple diet, keeping aloof from all occasions and scenes calculated to produce unusual excitement of the mind, and, by calmness, endeavor to call into activity the most ennobling elements of their nature. Let perfection of offspring be the ruling motive, instead of sensual gratification.

The woman, after receiving into herself the life-germ of a new being, should forego all practices and indulgencies which conflict with her own health and the perfection of the child. During the period of pregnancy, let the wife be surrounded with tender care and happy influences. Let her avoid stimulants; adopt a plain diet; avoid excessive toil and fatigue; and be kept from depressing gloom, anxieties, and irritations. Above all should she abstain from all arousing of the sexual instinct and carnal intercourse with her husband.

ACQUIRED DISEASES TRANSMITTED.—Bad conditions in the parents are as likely to be transmitted to children as good tendencies. We have already spoken of the many diseases capable of being transmitted, and alluded to acquired tastes and tendencies which are also transmissible. Some, whose organizations were originally quite sound, acquire diseased conditions by unnatural

indulgence and practices. Prominent among these causes, besides sexual abuse, are the use of alcoholic spirits, opium, and the excessive use of tea and coffee; and, last, but not least, miscarriage or abortion, often criminally produced, though not without carrying a long train of evils to the suffering victim.

DRUNKENNESS.—A woman of wealth and fashion, naturally healthy, became addicted to strong drink, and exceeding passionate. She had four children. They were all either deformed, deaf and dumb, or diseased, and died early of consumption. One was a demon of temper and a drunkard.

In another case, the wife was healthy, accomplished, and beautiful. Her husband became a sot, and when drunk, sought and obtained intercourse with his wife. An idiotic child was the result.

SEXUAL ABUSE.—A man and woman, both healthy at marriage, afterwards, by abuse of their sexual nature, became debilitated and diseased. They had five births; the first, an abortion produced by sexual abuse during pregnancy. The living children were all diseased at birth, and died young of scrofula and consumption.

SOLITARY SEXUAL ABUSE.—Unfortunate is the woman and her children, who marries a man addicted to this vice. If he was unable to control his passion before marriage, he will not do it afterwards. Before, he only ruined himself; now, he implicates also a wife, and brings into the world a weak and suffering progeny.

A young man, by self-abuse from childhood, wore out his vital powers of body and mind at the age of twenty-one. His memory left him; he became incapable of studying, and lost all relish for society and the world. In accordance with the advice of friends, he married. The result was an idiotic, imbecile child. The father paid the penalty of his outraged nature by a short, miserable life by dying early with consumption.

A young girl at school early acquired the habit of solitary abuse. Her spiritual life left her; her digestion became impaired, and the period of puberty was not announced by the usual developments of the breasts, etc. Still, she was tormented with an insatiable

sensuality, which could not be appeased. She married, but, receiving little pleasure from the usual marital relation, resorted yet to artificial abuse as a means to appease her unnatural desires, until complete exhaustion, insanity, and death, terminated her useless life. There was no conception in her case.

SEXUAL ABUSE DURING PREGNANCY.—A man and his wife, when married, possessed vigorous constitutions. The husband gave himself up to an unnatural passion, and insisted upon connection with his wife very frequently during pregnancy. He often forced her to yield, regardless of her tears and entreaties to spare her for her child's sake. The child was born, but lived only a few weeks. There was another conception, followed, in this instance, by an abortion produced by the husband's insisting on his *legal right*. Within a week after this event, he still insisted upon sexual intercourse with his wife. The man and wife both afterwards died of consumption; he, the victim of passion, and she, the victim of his lust, under the sanction of law and religion in a civilized (?) country!

EFFECTS OF ABORTION.—A young lady, in an unguarded moment, yielded to the embraces of her lover, and conception followed. Instead of their marrying, she thought to avoid dishonor by procuring abortion. This was successfully accomplished by an *abortion doctor*, though not without great injury to the health of the lady. She afterwards married the same lover. Several conceptions were followed by miscarriage as often, at the same period as the first one was produced, until the lady finally succumbed to debility, and died.

In another case, a married lady, who had successfully given birth to four children, destroyed the fifth conception. This she again repeated, destroying the sixth. She then conceived again, but could not succeed this time in procuring abortion. The child was born fearfully diseased, and lived but four months. Shortly after, the mother died also, the victim of self-abuse and violence.

MENTAL CONDITIONS DURING PREGNANCY.—Medical books abound in facts showing that the physiological as well as the psy-

chological conditions of the mother during pregnancy, may and do affect the child, producing deformities, such as marks on the skin, absence of a limb, etc. To avoid such dangers, women should be educated to habits of calmness and presence of mind under sudden emotions and in the presence of exciting scenes and deformed objects. The development and happiness for life of her unborn babe may depend upon her calmness and self-possession. Anxiety, terror, or emotion, prolonged for some time, is likely to prove more injurious than a sudden impression.

EFFECTS OF LACTATION.—It is fully established, that nursing infants are affected by the physical and mental condition of the mother during lactation, and often exposed to suffering, and even death, by some great terror or emotion of the parent. No secretion so evidently exhibits the influence of the emotions of the mind as that of the breasts; which is, doubtless, owing partly to the fact of the delicate digestive system of the infant.

ALCOHOLIC SPIRITS, as well as strong tea and coffee immoderately used during nursing, have been known to cause great restlessness and suffering in the child, and are thought to impress permanent excitability and derangement upon its nervous system.

EFFECT OF ANGER AND TERROR.—Children have frequently been thrown into convulsions, after having been nursed by mothers while excited by an ungovernable anger. A child in the most perfect health has been known to die upon its maternal bosom while being nursed, after the mother's experiencing great fear and terror. Also, an infant has been known to die in a convulsion, in consequence of being nursed by a mother after hearing of the death of a dear friend.

TRANQUILLITY REQUIRED.—The secretion of milk proceeds best in a *tranquil state of mind* and cheerful temper; then it is abundant, and agrees well with the child. A *fretful temper* lessens the quantity of milk, and causes it to produce fever and griping in the child. *Anger* has a similar, though still greater effect. *Grief*,

anxiety of mind, as well as *fear* and *terror*, — all, as before remarked, have a powerful influence.

SUBSTITUTES. — Taking in view all these circumstances, infants often should not be nursed at all by their mothers, but by another woman of placid temper; or, other aid may be necessary for the nourishment of the child. This is also often necessary in consequence of ill-health or diseased conditions in the mother.

We should also remark, that those passions which are generally sources of pleasure, when carried to excess, alter and even entirely check the secretion of the *mammæ*, or breasts. Also, a diet disagreeing with the mother is known to disagree with the child.

IMPORTANT FACTS. — Let all deeply ponder upon the foregoing facts. It is certain that the conditions of the parents, particularly those of the mother before and during gestation and lactation, have a lasting effect upon the welfare and happiness of their children, as well as themselves and their homes, forever. Let the mother, then, be guarded from all unnatural excitements and unhappy emotions. Let her condition be one of sweet serenity, and holy love and reverence for the new life which is being developed within her own.

THE TRUE PHYSICIAN. — Disease is an *effect*, not a *cause*; an evil to be prevented. Physicians are designed to minister also to the spiritual principle. They should be clergymen, or clergymen should be physicians. Their pursuits should be essentially *prophylactic*. They must banish consumption, scrofula, erysipelas, rheumatism, contagious diseases, and every species of individual affliction, by commencing at their foundation. They must ascend the pulpit, and teach the inhabitants of the earth concerning hereditary impressions; explain how parents influence their children while in the embryotic state; explain how the human mind and body are under the control of surrounding circumstances; how the entire individual can be *manufactured* perfect or imperfect; how the spiritual principle acts upon the organization. They must teach the philosophies of anatomy, of physiology, of chemistry, of mechan-

ism, of electricity, of magnetism, and of psychology. If clergymen will not teach these fundamental truths of nature, and of true religion; if they combine their intellectual and pecuniary powers against the promulgation of these principles on the Sabbath; if they clamor about desecrating the holy institutions of antiquity, — then congregations must arise in their strength and demand the *true physician*.

The true physician places his hand upon *moral* as well as upon physical disease. He cures the maladies of future generations by closing the floodgates of individual excesses; he manufactures good and healthy organizations by improving and perfecting the individuals by whom future generations are developed. This is the mission of the true physician. — *A. J. Davis*.

DIETETIC PREPARATIONS

AND ADDITIONAL FORMS OF PRESCRIPTIONS.

BARLEY WATER.—Wash clean some pearl barley, and to two ounces of barley add one quart of water. Add a few raisins, or some lemon peel and sugar, and boil slowly till reduced one half. Then strain and sweeten. As nourishment in inflammatory diseases.

RICE WATER.—Wash well two ounces of rice, and add two quarts of water. Boil for an hour and a half, and then add sugar and nutmeg to liking. This, mixed with milk, forms an excellent diet for children.

VEGETABLE SOUP.—Take one potato, one turnip, and one onion, with a little celery. Slice, and boil in one quart of water for an hour; add as much salt as is agreeable, and pour the whole upon a piece of dry toast. To be used when animal food would be improper.

PANADA.—This may be made by boiling some slices of soft bread for five minutes in a quart of water; then beat the bread smooth and mix with it a little of the water, a bit of fresh butter, and sugar and nutmeg, according to circumstances. Or, it may be made by grating some bread or pounding a few crackers; then pour on boiling water, beat it well, and add sugar and nutmeg or cinnamon.

INDIAN GRUEL.—Put three large table-spoonsful of Indian meal, sifted, in a quart of water; wash with several waters, turning them off as the meal settles; boil for twenty minutes, stirring all the while; then add a little salt. It may be strained, sweetened, a little butter added, wine or nutmeg, according to circumstances. Oat meal, and other kinds of gruel may be prepared in the same manner.

MUTTON, CHICKEN, VEAL AND BEEF BROTH.—To one pound of either of these, lean, allow one quart of water; add a little salt, parsley, or an onion, and put in large pieces of the crust of bread. Boil slowly, and skim for two or three hours. Barley, rice, etc., may be added, if expedient. Broth may be made more speedily by slicing and pounding the meat; it is also, made more palatable by first *broiling* it.

BEEF AND CHICKEN TEA.—Cut into shreds one pound of lean beef, or take quarter of a chicken with all the fat striped off and bones broken;

boil for twenty minutes, skimming, and add a little salt. The former is very nourishing.

TAPIOCA, ARROWROOT AND SAGO, are prepared by washing thoroughly, and then boiling sufficiently; then a little wine, nutmeg, or milk may be added according to the fancy and circumstances.

WINE WHEY.—To a pint of milk, while boiling, add a large wine-glass of Sherry or Maderia wine; after it again boils, remove it from the fire and let stand a few minutes. Then remove the curd, pour the whey into a bowl, and sweeten it.

CALVES' FEET JELLY.—To two calves' feet, add one gallon of water, and reduce by boiling to a quart; strain, and when cold, skim. Add the whites of six or eight eggs well beaten, a pint of wine, half a pound of loaf sugar, and the juice of four lemons—all to be well mixed. Now, boil the whole for a few minutes, stirring constantly, and strain through flannel. The wine, when objectionable, should be omitted.

TAPIOCA, SAGO, AND RICE JELLY.—These are made by taking a proper quantity of any one of them, washing and soaking in water sufficiently; then boil gently till they form a glutinous mass, and add lemon juice and peel, wine, sugar, and cinnamon; or, season according to fancy. **Arrowroot and bread jelly** are made in much the same manner.

ADDITIONAL FORMS OF PRESCRIPTIONS.

PURGING ENEMA.

Oil	Soft Soap	one ounce,
Oil	Colocynth	two scruples,
Epsom Salts	Water	one pint.
Sugar	Useful in hysteria, colic and convulsions.	
Senna	do do	
Boiling Water	do do	

ENEMA OF OPIUM.

Infuse the senna for an hour, dissolve the sugar and salts and mix the oil by agitation.

Laudanum	thirty drops,
Decoction of Starch	four ounces,
Useful as an anodyne.	

ALOETIC ENEMA.

Aloes	two scruples,	TURPENTINE ENEMA.
Carb. Potash	twenty-five grains,	Oil of Turpentine
Decoction of Barley	half a pint,	Eggs
Mix and rub together.	Useful in	Rub together, and add nineteen
Amenorrhœa.	ounces of barley water or decoction of starch.	

ANTISPASMODIC ENEMA.

Tinct. Asafetida	two ounces,	TONIC PILLS.
Ext. of Bark	one ounce,	

Ext. of Gentian.....one ounce, pills. Dose—one every two or
 Sul. Iron.....half a drachm, four hours. Useful in uterine
 Pulv. Myrrh.....one do hemorrhage.
 Oil of Anise.....ten drops,
 Syrup of Ginger.....q. s.
 Mix and make into sixty pills.
 Dose—three twice a day.

EMMENAGOGUE PILLS.

Sul. Iron.....one ounce, Mix—one or two table-spoonsful to
 Carb. Potash.....sixteen grains, be taken from two to four times a
 Myrrh.....one ounce, day in inveterate leucorrhœa and
 Pulv. Aloes.....half a drachm, chronic menorrhagia. If borne
 Mix thoroughly, and make into by the stomach, an addition of
 thirty pills. Dose—three, once one or two drachms of the pow-
 or twice a day. Useful in sup- der of cubebis may be made.
 pression of the menses, where
 there is no counter indication.

LAXATIVE PILLS.

Pulv. Aloes.....half a drachm, Inf. Oak-bark.....six ounces,
 Pulv. Rhubarb..... do do Pulv. Galls.....thirty grains,
 Soap.....one scruple. Tinct. Catechu.....two drachms.
 Mix, and with water form a mass, Powerfully astringent—in chronic
 and divide into twenty pills. leucorrhœa. To be used from one
 Dose—two or three at bed time or to three times a day.
 before a meal. Useful in habitu-
 al constipation.

ASTRINGENT PILLS.

Sugar Lead.....twelve grains, IODIDE OF IRON MIXTURE.
 Pulv. Opium.....one do Iodide of Iron.....eighteen grains,
 Gum Arabic and Syrup, of each a Tinct. Columba.....one ounce,
 sufficient quantity to make six Distilled Water.....seven do
 Mix. Tonic. One or two table-
 spoonsful to be taken two or three
 times a day. A piece of iron wire
 should be kept in the phial.

COPAIBA MIXTURE.

Bal. Copaiba.....one ounce,
 Mucilage G. Arabic....two do
 Spts. Lavander.....two drachms,
 Camphor Mixture.....five ounces.

ASTRINGENT INJECTION.

Inf. Oak-bark.....six ounces,
 Pulv. Galls.....thirty grains,
 Tinct. Catechu.....two drachms.
 Powerfully astringent—in chronic
 leucorrhœa. To be used from one
 to three times a day.

IODIDE OF IRON MIXTURE.

Iodide of Iron.....eighteen grains,
 Tinct. Columba.....one ounce,
 Distilled Water.....seven do
 Mix. Tonic. One or two table-
 spoonsful to be taken two or three
 times a day. A piece of iron wire
 should be kept in the phial.





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