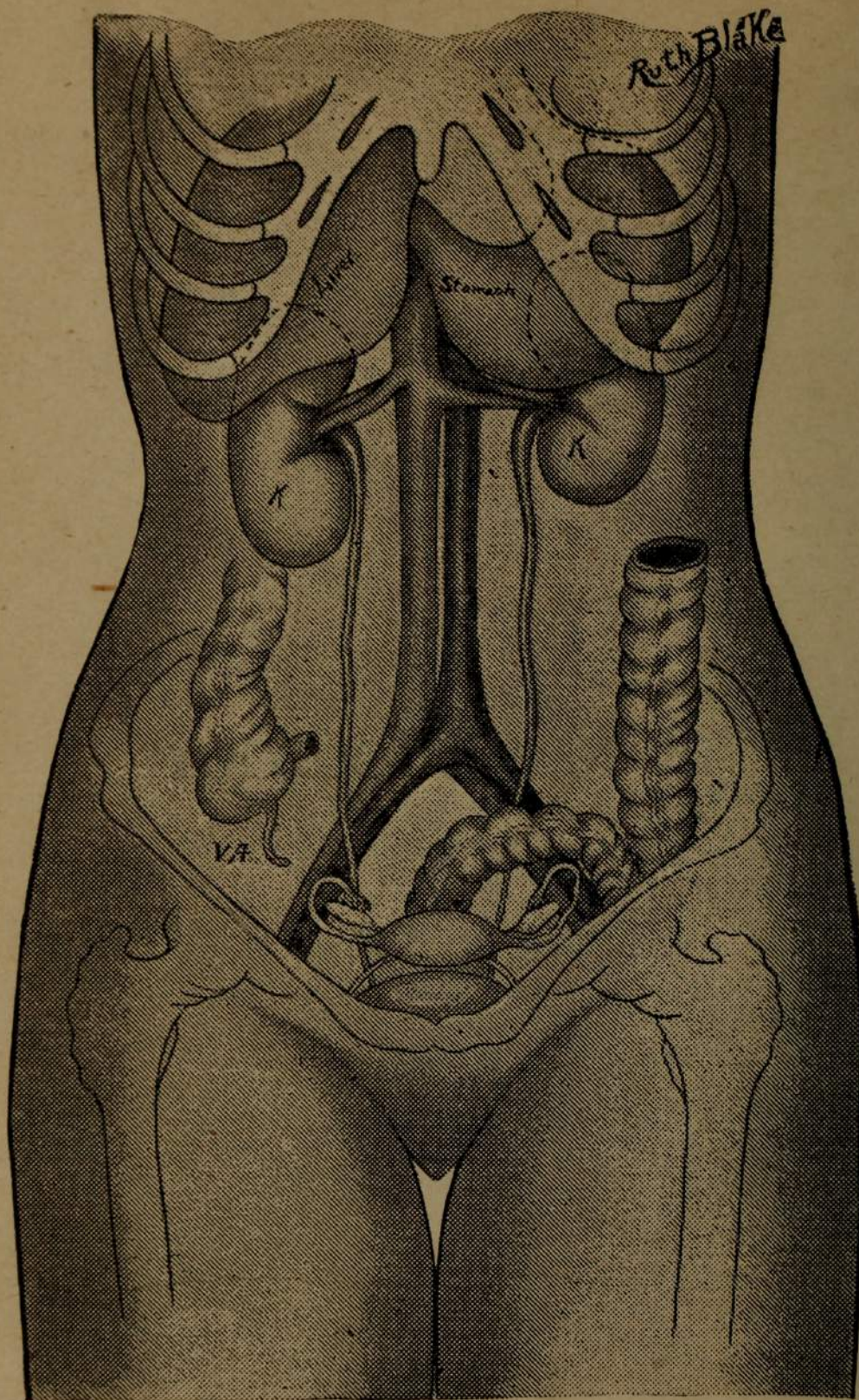


THE NEW TOCOLOGY



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THE PERFECT WOMAN.

POPULAR EDITION

THE
NEW TOCOLOGY

The Science of Sex and Life

PHYSIOLOGY AND HYGIENE OF THE VITAL ORGANIZATION
— HEALTH AND BEAUTY —
EDUCATION AND CHARACTER-BUILDING

BY

ELI F. BROWN, M. S., M. D.

AND

JOSEPH H. GREER, M. D.

“WOMAN, KNOW THYSELF”



REVISED EDITION

ILLUSTRATED BY RUTH BLAKE, M. D.

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OBEY NATURE'S LAWS!



6.5.13.20.19.21.
THE purpose of this volume is to give in concise form, and in plain, clean, common-sense language, the all-important information about sex and procreation and the appertaining laws of health and hygiene as established by the best modern authorities.

Primarily intended for wives and mothers, it will be found of special value as well to parents and educators who desire to teach the rising generation the vital truths of sex life. How to teach these truths has been a vexing problem to many teachers and parents, and a modest, compact and scientific exposition, such as this work presents, has long been needed.

In all the vast realm of knowledge there is no subject of greater importance. Unfortunately for the well-being of mankind, there is no other subject upon which the great majority are so densely ignorant. A veil of mystery and prudishness has been cast over these vital facts and truths. But the innocence that is innocent only through ignorance, is in danger of being lost through ignorance, and, therefore, of little value or merit, like any other virtue that is virtuous only because it has never been tempted. It is not necessary to give examples. It is the duty of parents to instruct the young and thereby fortify them against a fall into a terrible sin through ignorance. This volume is intended to be placed in the hands of the innocent by their parents. It was written both from a pedagogical and from a medical point of view.

That portion of this work relating more particularly to health and hygiene is based on the principle that "whatever lowers the vital force of a well person will never restore the vital force of a sick one." Every disease is the result of a

PREFACE.

violation of some natural law. Every such violation is a wrong, and as an addition of two negative quantities cannot make an affirmative, so two wrongs can never make a right. This is common sense, and the following fundamental principles are becoming daily more and more recognized by enlightened people both in and out of the medical profession:

Poisons are not remedies.

Symptoms and pains are not disease, but only the messengers bringing warning of disease to the brain. To silence the messengers and leave the disease unchecked is folly.

Prevention is better than cure. The great elements of prevention are: (1) Knowledge; (2) cleanliness, physical as well as moral and mental; (3) hygiene and sanitation.

Mind and thought influence the bodily health no less than physical and material conditions. A healthy body needs a healthy mind, and a healthy mind cannot exist without a healthy body.

The illustrations will prove an especially valuable feature. The more important ones were made by Ruth Blake, who is not only a thorough artist but a fully qualified medical practitioner. Nothing like her work has ever before been presented in a volume intended for general circulation.

That this book may help to destroy ignorance, that terrible breeder of evil and suffering, and thereby bring happiness and sunshine into every home, is the earnest desire of

THE PUBLISHERS.

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PART I.

LIFE, SEX,
AND THE
REPRODUCTIVE ORGANS.

BY
ELI F. BROWN, M. S., M. D.

PART I.

CHAPTER I.

Offspring.

LIFE is the supreme thing; health and vigor are its full and happy expression. To know one's self and to conform to the vital laws which control personal existence and well-being, is the part of prudence and wisdom. Ignorance is always a source of danger; blind experience is an extremely unsatisfactory leader; carelessness is reckless and treacherous; the violation of the laws of life, whether willful or not, is fatal alike to the innocent and the foolish.

In the realm of life, there is no escape from the hurtful results of evil acts; no atonement is to be found for vital sins. To the transgressor nature is relentless and pitiless, neither forgetting nor forgiving an injury: who violates must suffer. It is no less true that conformity to the behests of life increases life: to him who has, and who rightly uses, more and more abundant life is given. Health flushes the cheek of him who lives well, nerves his arm with strength, endows his brain and soul with force, fills his daily cup with refreshing cheerfulness and vigor. Who obeys, receives new gifts.

No other feature of one's organism is more deeply vital, none more impressive in its influence upon the vigor, health and happiness of the individual, than is the reproductive function, the sexual part. Yet no other organs, it would seem, are more often shamefully abused; about no other part is there, usually, such gross ignorance. Comparatively few of those who are otherwise intelligent and prudent live wisely in their sexual life. Unfortunately, an unwarranted prudishness restricts the freedom of instruction in regard to the sexual

element in life. So forcible is this reserve that parents generally ignore the instruction of their children respecting the sexual nature. Sons grow to young manhood and daughters enter womanhood in ignorance of the purpose and proper care of their sexual parts, excepting as they learn about sex and the sexual organs in chance and uncertain ways from their own unguided feelings and observations, or from such doubtful sources of information as servants and evil-minded companions. Thus it is that parents, who are anxious and earnest for the greatest welfare of their children, permit a false idea of modesty to blind them to some of the simplest and most vital needs in the education of the young beings intrusted to their care and dependent upon them for intelligent guidance.

As good health is the choicest of all blessings and the most urgent need of the individual in the stirring affairs of life; as virtue and chastity are the most sacred of all moral attributes, it would seem that the tender boy who is soon to become a man, and the delicate girl who is early to enter into the wonders of womanhood, should be well informed about sex, so that these offspring of the home, the hopes of the future, may escape the misfortunes of misplaced confidence, of accident, of ignorance and of blind impulse.

Let the young man endow himself with that definite information of his own being which shall help to form a proper basis for correct judgment, for self-control, and for manly and upright conduct; let the young woman know fully and forcibly the peculiar character of her feminine nature, that she may cherish her virtue as the rarest jewel of her crown, and appreciate both the blessings and dangers that attend her sexual life. There is no safety for either man or woman save in definite information, and this can be acquired only by a careful consideration of what has been ascertained to be true in human experience.

Every living thing begins its career in life as a cell which forms a part of the parent's body. After a season of preparation, during which time it remains attached to its mother, the embryo which has been formed from the original cell is sep-

arated from her and begins its existence as an individual living being.

The character of the offspring is determined so definitely by its parentage, that, during its whole life, it must remain like its parent in many important respects. This natural likeness of the offspring to the body which produces it, preserves the various kinds of species of creatures among living things. There is no vital law more universal and unchangeable than this law of transmission of sameness of kind, which governs the nature of offspring and perpetuates the various types of vital existence.

The reason why the young being is of the same kind as its parent is simply because the embryo is a portion of the mother's body; hence, as it grows, it remains the same in kind, and must ever continue to be like the original body from which, as a part, it was derived. Any familiar class of living beings will furnish illustrations of the truth of this law. Thus a grain of Indian corn is formed by the parent plant as a part of itself; when this grain is ripe and is planted, it grows, and, in growing, must produce a plant like the parent corn plant: it cannot become wheat, nor can it be oats. The egg of the goose is formed by the mother bird from a part of herself; when this egg is hatched, the young bird is necessarily a goose; it cannot be a robin, nor is it possible for it to be an eagle. The calf, born of the common cow, is formed by the mother from a part of herself; when it is separated from her by birth, it must be of the cow kind; it cannot be a deer, nor can it be a bear. So, also, the child of human parents is formed by its mother from a portion of herself and must be a human being like her; it cannot be anything else.

All living things die. There is nothing more certain than that every plant and every animal which has fulfilled its allotted season of life must disappear by death. Individuals perish, yet the race or species is continued by the origin and life of other individuals of the same kind. These new things take the place of such as die, and, in turn produce others like themselves, and then pass away by death.

In the world of plants, the reproduction or succession of individuals is accomplished chiefly by the formation and growth of seeds. Each seed is made by a parent plant, and contains within itself some nourishment together with a living germ. This germ is really a tiny plant, ready to begin to grow as a separate plant under suitable conditions for such growth. Thus, if the seed is properly planted in the soil, the moisture and warmth of the earth cause the embryo within the seed to begin to grow. All plants which produce seeds have certain parts of themselves which perform this important duty. These parts are the flowers which the plant bears, often so noticeable for their sweetness and beauty. The showy portions of the flower soon drop away, but a part, called the pistil, still clings to the parent stem and perfects the seeds. The stamens and pistils of the flowers are properly called the organs of reproduction of the plant, for they are designed to make the seeds which are the plant's offspring. These parts of the flower are to the plant what the sexual organs are to animals.

In many ways the lowest kinds of animals resemble plants, and the reproduction of such animals is often as simple as the formation of seeds and buds by plants. In some of the very lowest kinds, the adult or fully grown animal simply divides itself into separate parts, and each of these portions becomes a new individual which grows to maturity, to be divided again and again into new and distinct individuals. In other cases among the lower animals, the young are derived from the parent bodies as new buds and bulbs are formed by some kinds of plants. These "buds," on being separated from the mother animal, grow as distinct individuals, or, it may be, they remain attached to the parent stock and grow as branches do upon trees, thus forming a cluster or colony of animals. Such animals are little more than plants, and are wanting in all of those distinctive features of animated bodies which distinguish the higher animals from the other forms of creation.

In animals such as fishes and birds, with few exceptions, the female forms eggs within herself, which correspond precisely to the seeds formed by plants. An egg, like a seed,

contains a living germ, the same in kind as its parent, and, also, nourishment for the early growth of this germ or embryo. During the process of hatching a bird's egg, the embryo within the egg becomes a young bird, which breaks from the shell at the appointed time, quite able to begin life on its own account.

In animals of the highest orders, among which the human being is included, the egg is retained within the mother's body until the young animal is ready to be born alive, after which it is nourished for a brief season by the mother's milk. All such animals are called mammals because they nurse their young, and the mother is called the mamma.

The human being is not unlike the other mammals in these respects, excepting that the human offspring is less strong after birth and needs the attention of its mother for a much longer time before it is able to care for itself in the world. However greatly man may excel the brute in mental and moral endowment, the human being is not otherwise an exception in the animal world, but is like other mammals in all essential respects, subject to the same laws of life, health, development and reproduction.

PART I.

CHAPTER II.

Sex.

AS HAS been stated, the offspring is derived from its parents and is designed to continue the species, or kind of being, to which it belongs. Thus a living being produces other living beings; out of life, life comes. This act of a living being in producing from itself a living offspring is what is meant by sexual function, and the parts of the body engaged in performing this important and wonderful process are the sexual organs.

In all the higher classes of animals, and in most of the plants as well, the production of offspring requires the action of two sets of sexual organs, the one female, the other male. Neither set is capable of acting alone: each set must contribute its share in forming the germ or embryo which finally becomes the new individual. In all the highest kinds of animals, these different sexual organs, when fully developed, are in different individuals, so that two individuals, one male, the other female, are really the parents of every offspring. The male is called the father, or papa; the female is known as the mother, or mamma.

The difference between the father and mother is what is meant by sex. She from whose body the young being is born is the mother; she is female; she possesses the female sexual organs; she furnishes the original cell which becomes the embryo, and she nourishes this embryo as a part of herself until it is ready to begin life as a separate animal. The father, or male, furnishes a cell from his sexual organs, which cell is at once separated from him and is put into the cell within the mother's body, so that the original cell of the

mother becomes a double thing, being now a part of herself and containing a portion of the father. After contributing this germinal element to the female, the male has nothing more to do in forming the young being. He is the father, however; he is male; he possesses the male sexual organs. Both are truly the parents of the offspring, and, as its growth is made from two parts, one from each of them, the new being is not an exact repetition of either parent, but is like them both. While the offspring may show more marks of resemblance to the one or the other, it necessarily has the character of both parents blended in its own.

It would seem that the mother does much more toward producing the offspring than the father does. This is true. She does vastly more in developing the embryo by the nourishment which she furnishes to it from her own blood, and by the impressions which her mental conditions make upon the sensitive organism of the offspring while it is yet a part of herself. But the thing which she is thus developing—the original cell which becomes the embryo—is so surely a combination of both parents, and the embryo formed from it is also so certainly a growth of both these elements in one, that the father's characteristics are retained and grow just as do those of the mother, and are quite as fully shown in the offspring as hers. Thus a child having a negro mother and a white father would be neither negro like its mother nor white like its father, but would combine in itself, both physically and mentally, the marks of each in about an equal degree of prominence.

PART I.

CHAPTER III.

The Sex of Plants.

"Flower in the crannied wall,
I pluck you out of the crannies,
Hold you here, root and all, in my hand,
Little flower; but could I understand
What you are, root and all, and all in all,
I should know what God and man is."

—*Tennyson.*



THE sexual organs of plants are usually more easily seen and understood than are those of animals. For this reason it may be well to examine their arrangement and learn their action upon one another in producing the seeds by which new plants are derived. A cluster of common cherry blossoms will serve for the purpose. In the interior of any one of these blossoms there is a circle of small club-like parts called stamens. Each stamen consists of a slender stem below, at the upper end of which stem there is a tiny bag or cavity, filled, when ripe, with a yellowish dust. When the stem is thoroughly ripened, this bag bursts open, and the dust from within is scattered about the stamen, and may be borne many feet away by the wind. This dust from the stamen is called pollen. Although the pollen seems to be only a kind of dust, it is true that every grain of this dust is a living cell from the stamen, and, while yet alive, it may drop upon the open mouth of a pistil to aid in making a seed. These stamens are the male organs of the flower, and the pollen cells are designed to act upon the cells contained within the female organs.

Just within the circle of stamens, and occupying the center

of the blossom, is the part known as the pistil. This is the female organ. The pistil has a large, full part at the lower end, called the ovary, inside of which are the ovules or cells which are to become the seeds. A tube leads up from the ovary and opens at the outer end as a kind of tiny mouth, the lips of which are wet with a dewy moisture.

Both the stamens, as male organs, and the pistils, as female organs, help in forming the embryo in the seeds.¹ Thus a live grain of pollen from the stamens must fall on the wet lips of the pistil, and, by growing there for a brief season, send its tiny rootlet down into the ovary to the tender ovules there inclosed. If, now, the rootlet of the pollen cell deposits a part of itself within one of the ovules, the latter will form a seed and contain an embryo which will grow to be a plant. But if this does not occur, the ovule cannot become a seed. This action of the pollen cell on the ovules is called fertilization. After fertilization is performed, the stamens can do no more toward forming the seeds; they wither away. But the pistils, with their precious contents, remain fastened to the stem and are nourished by the plant until the seeds within the pistils are ripe and perfect. The ripened pistil is the fruit of the plant. If a seed from the ripe pistil is properly planted, the embryo within grows and begins to form a new plant like the parent plants.

This is, in brief, the action of the sexual organs of plants upon one another in reproduction.

¹ In some kinds of plants, the flowers containing the stamens are on separate plants from those which contain the pistils. Such a plant as bears only stamens in its flowers is called staminate. It is really a male plant, and cannot bear fruit. The plant whose flowers bear pistils only, is called pistillate. It is a female plant. It can bear fruit provided the pollen comes to it from some male plant of its kind. In some kinds of plants, the stamens and pistils are in separate flowers, with both kinds of flowers upon the same plant. In most cases, however, each flower contains both stamens and pistils.

PART I.

CHAPTER IV.

The Sex of Animals.



THE sexual organs of animals are, usually, less easily examined than are those of plants, for they are often quite hidden within the animal's body. But the same general plan exists in animals as in plants. In any case, the organs of the male are so constructed that they supply sperm-cells for fertilizing or impregnating the germ-cells of the female. These cells from the male are to be compared with the pollen cells of stamens, except that they come off from the male in a kind of liquid called semen, which the male puts into the organs of the female. The wind cannot carry this fluid, as it does the pollen dust, so that it is necessary for the organs of the male animal to enter the organs of the female, or to come into close contact with them, in order that the semen may reach the cells of the female.¹

These living cells, sperms as they are called by some writers, from the male animal, have a long name. They are called spermatozoa. They, like the pollen, are simply living cells thrown off from the father, and are a necessary part in forming the beginning of the embryo that becomes the offspring.²

¹ This is not true of fishes, however. The spawn and milt from the female and male fishes are thrown into the water by each and the two kinds of germs meet in the water outside of and away from the bodies of both parents.

² The spermatozoa are extremely minute cells, usually not exceeding $\frac{1}{600}$ of an inch in length. Each cell has an enlarged triangular portion, to which there is attached a fine hair-like part. By its wave-like motion, the cell has the appearance of some kinds of animalcules. It is, however, simply a cell, having a kind of motion common to many other forms of germinal matter, both vegetable and animal.

The female organs are to be compared with the pistils of the flower. They are open to receive the male organs, or, at least, to receive the semen. These female organs contain, at some place within themselves, the ovaries which have in them the cells, or ova (eggs), that are to become embryos. The spermatozoa must find their way to these cells of the ovary, and, by entering them, furnish the element from the father that aids in forming the embryo. This is the purpose of sexual intercourse.

With this brief statement of the sexual relations of animals in general, this portion of the text closes. The remaining part treats particularly of the sexual organization of the human being, both male and female.

It is supposed by the author that the reader has, at least, learned the ordinary facts of human anatomy, physiology and hygiene, as they are presented in the elementary text-books of the common schools; hence, all details of the structure and use of the other parts of the body are omitted here.

PART I.

CHAPTER V.

The Sexual Organs of the Human Being.



THE sexual organs of the female occupy the front lower portion of the abdomen and the central part of the pelvic cavity. The colon passes behind these organs, while the bladder is placed in front of them. The principal divisions of this set of organs are the vagina, the uterus, the ovaries, and Fallopian tubes. The vagina is a soft, muscular tube, more than an inch in diameter, and four or more inches in length. It opens out of the body through the vulva, which forms a mouth for it. At the outermost part of the vagina, a tube from the bladder also opens into the vulva. The innermost part of the vagina is connected with the uterus, for which cavity the vagina forms a passage-way. The walls or sides of the vagina rest against each other, closing the passage, except as they are pressed apart by the presence of something in the vagina; the walls are formed chiefly of muscle and are lined with mucous membrane.

The *uterus* is a hollow, muscular body about one-third as large as the closed fist, and has the shape of a flattened pear. It is above the vagina, with the tapering portion pointing downward and backward, and extending into the upper part of the vagina. The walls of the uterus are thick and strong. The cavity within is small and flat, somewhat triangular in form, and is lined with delicate mucous membrane. The neck of the uterus is about as large around as the thumb, and the opening through this portion into the interior of the uterus is not much greater in size than a common goose-quill. The main cavity of the uterus is connected with the ovaries, one

on each side, by means of minute tubes called the *Fallopian tubes*. The uterus is the part in which conception occurs and in which the child is formed. Although so small at first, if conception occurs the uterus increases in size to accommodate the growth of the child within, and, after the birth of the offspring, the uterus returns to its former size again. The uterus is supplied with a vast number of blood-vessels, so that during pregnancy the young child receives its nourishment from the mother's blood through the blood-vessels that fill the lining membrane of the uterus.

The *ovaries* are two in number, one on each side of the uterus, at a distance of three or four inches away. This places an ovary in each side of the abdomen near the groin. They are joined with the outside of the uterus by broad ligaments which aid in holding both them and the uterus in posi-



Fig. 1.—The human ovum, greatly enlarged.
(a) The Graafian vesicle enclosing the ovum. (b) The free ovum escaping and ready for impregnation.

tion, and they are also connected with the interior of the uterus by means of the Fallopian tubes. Each ovary is a roundish, flattened body, about an inch and a half in length, less than an inch in width, and about half an inch in thickness. The ovaries are the peculiar and important division of the sexual organs of the female; in them are formed the germ-cells from which offspring is formed. On close examination, each ovary is found to produce and to contain a great number of cells or vesicles. These are really minute ova (eggs), called the *Graafian vesicles*. Each of these vesicles is composed of a sac or covering, within which is a germinal or embryonic cell (Fig. 1). The larger of these vesicles vary in number

from ten to twenty, and in size from that of a grain of mustard-seed to that of a pea, while there are great numbers of still smaller and less mature ova in the mass of the ovary.

At the time of each monthly period a large, ripe Graafian vesicle bursts, and the ovum thus set free from the ovary makes its way through the Fallopian tubes into the uterus; this ovum is retained in the tube and in the cavity of the uterus for several days, during which time it may become impregnated

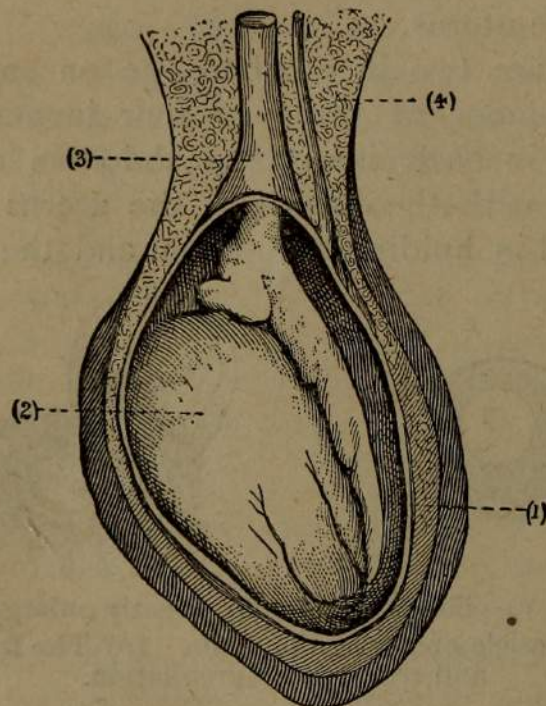


Fig. 2a.--The testicle, natural size, scrotum partially cut away. (1) Cut edge of the scrotum. (2) Body of testicle. (3) Spermatic cord. (4) Spermatic artery.

and form an *embryo* in the uterus. If not impregnated, it passes out with the menstrual flow, or is destroyed and absorbed.

The Fallopian tubes are two slender tubes which extend from the upper portion of each side of the uterus to the ovaries. The outer ends of these tubes are singularly fringed and made to connect with each ovary in such a way that the ova from the ovary may pass through these tubes into the uterus.

The male sexual organs are somewhat more simple and are more nearly external than are those of the female. They

consist of the testicles with their tubes and the member with its glands (Fig. 2a). These testicles are the peculiar and important sexual organs of the male, for it is their purpose to produce the spermatozoa, or sperm-cells. The testicles are two in number. They are firm, oval glands, about the size, and somewhat the shape, of small hen-eggs. They are suspended from the lower front portion of the body and are inclosed by the *scrotum*. The interior of the testicle is a delicate and complicated glandular structure. From each testicle there is

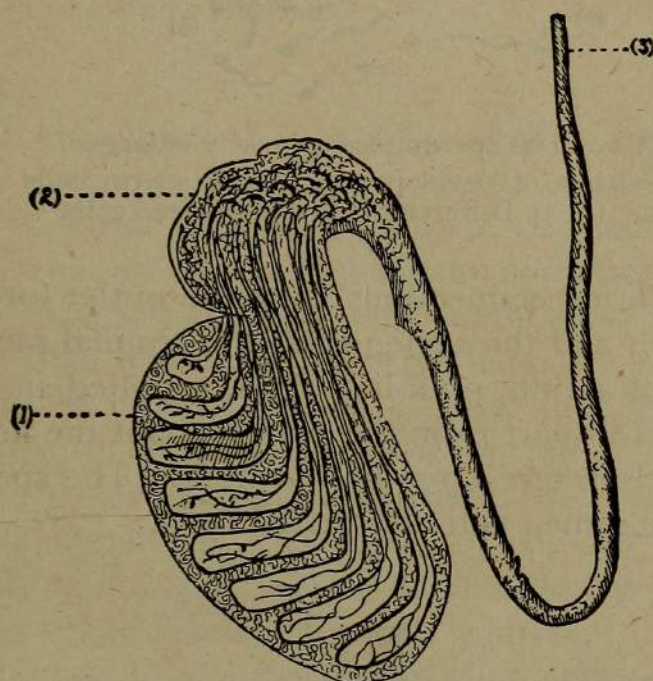


Fig. 2b.—A section through the testicles.

(1) Network of seminal tubes within the testicle. (2) Union of seminal tubes. (3) Duct leading to seminal sacs.

a minute tube extending from the inner portion of the testicle, through the spermatic cord, to the seminal sacs, which form minute reservoirs just below and behind the bladder. The seminal sacs are connected by tubes with the urethra. (See Figs. 2a and 2b.)

The spermatozoa grow in the delicate structure of which the interior of the testicle is formed, and, when they mature, they become detached and make their way through the winding tube which conveys them to the seminal sacs. Here they

collect in great numbers, ready to be thrown out through the urethra in time of sexual intercourse. (See Fig. 2c.)

The member extends from the body just above the scrotum. It is an inch or more in diameter and five or more inches in length. Through the member extends a tube called the urethra,



Fig. 2c. The spermatozoa, greatly enlarged.
(1, 2, 3) Different stages of development of the sperm cells within their sacs. (4, 5) Different views of the free cells.

which, by its internal connections, forms an outlet for the urine from the bladder and the semen from the seminal sacs.

The semen is a thin, milk-like fluid, supplied in part from the testicles and in part from the glands about the neck of the bladder and elsewhere upon the member. The spermatozoa mingle with the semen and are carried by it.

CHAPTER VI.

Puberty.

"If you neglect the education of your daughters, you are preparing shame for your own family, and unhappiness for the houses into which they may enter."—*Chinese Doctrine.*



THE child at time of its birth is extremely delicate and immature in all of its parts. The bones are not hard, the teeth are yet beneath the gums, the muscles are pale and soft, the skull is only partially formed, and the brain and spinal cord are little more than a mass of sensitive jelly. Many years must pass during which the parts are to grow in size and strength before the child becomes an adult or fully formed person. This necessary development pertains to the sexual organs as well as to the brain or other parts. Girls develop somewhat more rapidly than boys, so that the girl becomes a woman at an earlier age than the boy becomes a man.

The progress from infancy, through girlhood to womanhood, is a gradual one, yet a very decided change occurs about the twelfth year of the girl's life. This is the change which decides her puberty or indicates such a development of her sexual organs as to make her capable of bearing children. It is at this time that the mammary glands of the girl become enlarged and the ovaries begin to develop the ova regularly each month. The bursting of the ripened ovum in an ovary every twenty-eight days is called the "monthly period" of the woman, and she is said to menstruate. At the time of menstruation, there is more or less griping pain in the region of the ovaries, and a flow of mucus and blood from the lining membrane of the uterus. This flow is a real hemorrhage, and,

though it occurs from natural causes and should produce no alarm, it is not a trifling matter. During the time of this menstrual discharge, the female should take extra care of herself; she should not work hard, nor exercise excessively; she should not become greatly excited in any manner; she should avoid getting wet or taking cold; if possible to do so, she should take only moderate exercise and otherwise remain quiet and wait until the flow ceases. Usually it continues from two to five days. From the time the ovum is ruptured in the ovary, which occurrence brings on menstruation, until five or six days after the monthly period closes, the ovum is likely to be present in the uterus or Fallopian tubes, and, for this reason, conception occurs most frequently at or near the time of the menstrual flow of the female. This monthly act of the ovaries in producing ova ceases temporarily during pregnancy, and stops wholly as the woman reaches the age of forty-five or fifty years.

The boy passes gradually and somewhat more slowly from boyhood to manhood, and has at no time such a decided change as that just described as occurring to the girl. But, at the age of fourteen, or later, his countenance begins to lose its boyish cast, his beard commences its growth, his shoulders broaden, his chest increases in capacity, his voice becomes more masculine, and his sexual organs become more active. At this time the testicles begin to form spermatozoa, and he might now be the father of a child. This is his season of puberty.

These changes which occur in the sexual functions at puberty are very marked, also, in their influence upon the mind of the person; in fact, the individual is passing through a season of change and uncertainty, in which the foundations of the whole organism are being reconstructed. Both the boy and the girl are unusually sensitive at this time: the boy is more easily embarrassed, he is restless and unsatisfied; the girl is more sentimental. Both ought to receive the kindest of treatment and the exercise of the greatest of patience from parents and teachers. Both find themselves possessed of new and strange

powers. Both are disposed to erratic behavior; they are liable to go astray in conduct and to commit fatal mistakes.

Any excitement of the sexual organs before puberty cannot be other than extremely harmful, and any excitement of them during this season of change is equally unwise.

Although puberty is passed at the early age of twelve and fourteen, neither the girl nor the boy gains full growth and maturity of parts until twenty or more years of age. Before the young woman has fully completed her own development, she ought not to become the mother of a child. The bearing of offspring is not childish sport, but is the most serious and responsible function of the strong and mature woman. To bear a vigorous child without injury to herself, and to care for it properly afterward, will tax all of her powers, of both mind and body, to the fullest extent, even under the most favorable conditions. Undoubtedly, therefore, the young man and woman will be prudent if they delay any possibility of becoming parents until the complete development of twenty or more years shall have prepared them for this great and sacred responsibility.


FART I.

CHAPTER VII.

Sexual Passion.

“Seeing either sex alone
Is half itself, and in true marriage lies
Nor equal, nor unequal: each fulfills
Defect in each, and always thought in thought,
Purpose in purpose, will in will, they grow,
The single pure and perfect animal,
The two-cell'd heart beating, with one full stroke, Life.”

—*Tennyson.*

INCE the continuance of the race is dependent upon the production of offspring, both sexes are impelled to such acts of intercourse as will cause this result. As a fact, this tendency exists between the sexes, both as an instinctive impulse and as an ardent desire which forms one of the strongest of animal appetites. So strong is this passion for sexual intercourse that it will, under some circumstances, overpower all other desires, and, temporarily, become the dominant motive of the person. Unless this tendency to indulgence is guided by intelligence and controlled by a firm moral nature, there is danger that this consuming appetite will lead the person into evil practices upon his own person, cause him to seek unwarranted means of gratification, or draw him into lewd associations and into licentious habits.

Every natural appetite is doubtless for a good purpose, if it is rightly understood and properly used, but the lustful gratification of it is surely depraving. Thus, hunger for food is innocent and right in its purposes, yet gluttony in eating is hurtful and shameful. By yielding to the indulgence of any

appetite, the habit of gratifying it is easily and firmly riveted upon the individual—a habit “whose chains are too light to be felt until they are too strong to be broken.”

No other appetite binds its victims down more despotically by their yielding to its impulses, than does the sexual passion bind down to depravity, the man or woman who gives it unbridled sway. Only by moderation, restraint, or reasonable control and avoidance of its temptations, may it be kept from producing disastrous dissipation.

Each sex finds in the other that which it demands and craves. Each man sees in the woman of his choice that which his strong sexual powers make him want; each woman finds in the embraces of a man who suits her what her deep sexual nature compels her to desire. Nature has made each for the other. Neither, alone, is perfect. If they are mutually agreeable, they are drawn toward each other with impulses that form the strongest of attractions, bonds for which they will surrender all other ties of affection. This craving which they have for each other, and the relief which each can give the other in sexual intercourse, is as natural and as universal as the hunger for food. Herein is the great danger that is connected with this passion of their inmost nature; for, though it is a demand of their nature impelling them with great force, it is not an appetite whose requirements are to be gratified simply for the pleasure of the indulgence, but it is a powerful impulse of their being, which is to be controlled and used under the wisest judgment that can be brought to bear upon it. Health, strength, vigor, beauty, refinement, all lie in the direction of its control and rightful use, while pain, weakness, illness and grossness follow in the way of its immoderate and unlicensed sway.

FART I.

CHAPTER VIII.

Conception and Gestation.



THE union of the *ovum* of the female and the spermatozoa of the male produces what is known as conception. This union is the beginning of a new life.

The ovum thus impregnated is arrested and retained in the cavity of the uterus. Here it is to remain and develop until the offspring therefrom is ready to be born. The outer surface of the embryo becomes intimately attached to the delicate lining of the uterus so that the blood of the mother circulates through the young being. Thus it is nourished and protected by the portions of her body which have been specially designed for the performance of this wonderful and beautiful work of the mother. She is truly an artist, creating and perfecting a living being—a human soul.

Whether conception occurs unintentionally from careless intercourse, whether it is the result of lustful indulgence, or comes as a blessing in answer to the intention and desire of its parents for offspring, the consequences are the same—a new life is begun at the time of conception. Though this new being is, as yet, a part of its mother's very life, and is dependent absolutely on her blood for its nourishment and upon her protection for its continued existence; though it is only an embryo, wholly unconscious of its own life and destiny, nature regards it as a new being started upon its career. To destroy it is to kill the life of an individual. Its life is sacred in its mother's care. Its parents, male and female, cannot escape the responsibility of their act in bringing it into exist-

ence. Upon them rests the duty of parents to protect, nourish and perfect this offspring of themselves—it is flesh of their flesh, and soul of their soul.

The *embryo* grows and forms every part of itself after the pattern furnished by its parents. This model it cannot alter. Its growth is governed by the same vital law which controls the development of all other living beings, which law decides that every cell of every living thing must form itself like its parent cell, modified only by its peculiar surroundings and the use that it is to serve. The cells of which living matter is composed have the tendency to shape themselves, to select the proper material from the circulatory fluid by which they are nourished, and to build themselves into the various structures that are needed in the organic arrangement of the vital body which they compose. A person does not give his thought to the formation of his own body: he could not form his parts if he would. A more unerring intelligence, an ever vigilant eye and a hand of infinite skill are at work with the cells that build the heart, the brain, the bones, the muscles, the eye and all the other organs. This formation and renewal of parts goes on at all times and in almost all parts of the living animal body. As old and useless portions waste away, new cells take their places and reform the needed structure. This active formation of the new out of the old, this turning of dead substance into vital forms, this process of self-growing, self-shaping, self-renewing, is what distinguishes living substance from dead matter. This is as near to life itself as human knowledge may approach. What the real essence of life is, why and how the cells make and shape themselves, man does not know, nor is it probable that it will ever be within the province of his limited mind to know. Certain it is, however, that this capacity and tendency for self-forming exists in the primitive cell from which the embryo is made. Through days and months the cellular substance grows and shapes itself into the required organs of the new being; although so simple at first, it becomes more and more complex, and the various parts adjust themselves to one another according to the

different positions, structures and uses, until the whole is completed.

During this interesting period, the mother is said to be pregnant, and the changes which the embryo undergoes are known as *gestation*. From the time conception occurs, the forces of the mother's *organism* are in part turned toward the development of her offspring. She is now two beings. She has her own vital powers to sustain and the new life to develop. Menstruation temporarily ceases. The mammary glands (breasts) prepare for producing milk. The lining membrane of the uterus becomes especially active, and, by its increase in extent, becomes so wrinkled that it soon completely encloses the tiny ovum within its folds. By this means the embryo is no longer exposed in the open cavity of the uterus, but is lodged in a sac formed around it by the lining of the uterus. As the ovum develops it requires nourishment; this it receives from the circulation of the blood in the mother's uterus. The outer membrane of the embryo becomes intimately joined with that which surrounds it, so that the mother's arterial blood brings it oxygen and building material, and her venous blood conveys away the waste products caused by its growth. From the cell (Fig. 1) of which the embryo at first consists, many other cells are formed.

This mass of increasing cells divides into collections of slightly different kinds of cells which form two membranes; one of these gives rise to a skin and forms the other parts of the body from which are developed the spinal column and brain, the skeleton and the extremities; the other forms an inner, mucous membrane from which the digestive organs and lungs are formed. Between these two membranes, a circulation is established, and the heart, arteries and veins are constructed. By the third month of gestation, the placenta is formed, by which more direct connection between the embryo and the mother's blood is established and a complete circulation is permitted through the organs of the young child. By the fifth month the beating of the foetal heart can be heard through the walls of the mother's abdomen, and the

motions of the young being be felt as it struggles within her body. Thus the shaping and growing continue through every phase of development, until what was a single cell at first has become the perfect child, with all its parts complete and ready for birth. The full period of gestation in woman requires two hundred and eighty days.

PART I.

CHAPTER IX.

The Mother During Pregnancy.



THE development of the fœtus requires that the uterus shall become enlarged accordingly. This occurs by the increase in extent of all its parts, especially in the enlargement of the body of the uterus, by which portion the young child is surrounded. The muscular fibers appear to increase in length and width, and also in number; the circulatory vessels enlarge; the nerves and other parts accommodate themselves to the gradual expansion of the structure. As the uterus and its contents become greater in size, the entire abdominal region of the mother becomes extended.

This season is one of deep import to the mother, for in it she is fulfilling one of the supreme functions of woman and is sustaining one of the greatest of human trials. Two lives are dependent upon the proper completion of gestation and the successful birth of the offspring. She deserves from herself and from those about her the exercise of the greatest good judgment in taking care of herself. She should eat moderately of wholesome food, neither overtaxing her digestive organs by eating too much, nor permitting herself to lose strength from need of nourishment. Her best diet will consist of the grains, vegetables and fruits; especially should she eat liberally and regularly of the ripe fruits¹ in season,

¹Some of the most healthy and beautiful children the author has known were born with but slight pain to the mother. In these cases the mothers ate almost exclusively of fruits and vegetables after the first two or three months of pregnancy. It is held to be true that while all the parts of the child will be formed as perfectly when the mother confines herself to a diet of fruits and vegetables as when she eats more abundantly of grains and

such as please her taste and agree with her digestion. A regular fruit diet will do more than anything else can do to prevent and relieve constipation. If she will eat properly she need not resort to the use of medicine. The pregnant woman is not necessarily a sick person because of her condition. She may be just as well and active during this period as at any other time of her life. If she takes proper exercise she will have sufficient appetite, and she need have no concern about not being able to eat enough; she will more often cause herself to be distressed from eating too much than from eating too little.

The pregnant mother should dress with proper regard to her condition. While she should clothe herself comfortably as respects temperature, she should relieve herself of heavy clothing as much as possible, and especially alter such garments as in the least degree bind her body closely. Loose, light clothing about the abdominal regions is absolutely needful for both her own relief and to permit the enlargement and changes of position that must occur in these parts. Not only should the clothing be loose, but all its weight should be suspended from the shoulders. To attempt to hide or hinder the natural increase in the abdomen by means of the corset or closely fitting dresses, is to invite other troubles of much more serious character. Any tightening of the region of the waist must press the increasing organs down into the lower part of the abdomen, thereby causing much more deformity and prominence of this portion, and also making

meats, the bones of the growing child do not become so hard and firm and hence birth is made much more easy for the mother. The author knew of one case in which a strong child weighing eight pounds was born of a very small mother with no pain during labor. There was the best of reason to believe that this very desirable result was due largely to the persistent fruit diet of the mother during the last six months of her pregnancy. Such a course is worthy of attention and trial, especially by women who are delicate or who are under average size. Wheat is more rich in bone-hardening substance than the most of the other bread-making grains are; hence while it is the best of foods under other circumstances, it is not the best for the mother who seeks an easy birth for her child.

additional pressure upon all the organs within the abdomen and pelvis. Such a course cannot fail to deform the body more and to cause weakness and pain in the back.

The mother in her child-bearing should take proper exercise daily. It is only by reasonable and regular exercise that she can maintain the vigor of all her parts. She may walk, ride, work. She should be much in the open air and sunlight. She should avoid idleness, cheerlessness, distress and despondency as she would shun contagion, for they cannot but contribute toward making her condition worse. There is no better exercise than that of regular ordinary work and that of walking in the open air. Agreeable occupation, constant employment, busy cheerfulness, are the surest means of avoiding both mental and physical depression. She should not exercise excessively nor violently; she should avoid any sudden or heavy strain; she should avoid any great excitement; she should receive no sudden shock; she should be shielded from fright, anger or abuse, or from anything else that endangers her life. Anyone who would do her the least violence, by word or deed, while she is in such a condition, is too brutal to be worthy to wear even the image of a human being.

PART I.

CHAPTER X.

Antenatal Influences and Heredity.

* * * "Happy he
With such a mother! Faith in womankind
Beats with his blood, and trust in all things high
Comes easy to him; and tho' he trip and fall,
He shall not blind his soul with clay."

—Tennyson.



HEALTHY and beautiful children do not come into life as matters of accident, nor in any way as a miraculous work of the Creator, but they do come as the necessary result of favorable conditions of parentage. The mother may be certain that during the months of her pregnancy she can do much toward producing these desirable results in her child. So closely is the life of the offspring connected with her own, so sensitive is its growing organism, both physically and mentally, to her influences and conditions, that she exerts decided and lasting effects upon its appearance, its disposition and the foundation of its character. She is developing a new body, and in great measure she is bringing into being a new soul. The health and beauty of her life will, in some degree, take hold of her unborn child; her industry and energy will tend to affect it in like manner; her cheerfulness will, in part, create its pleasant and agreeable disposition; her virtue, in all ways, will strengthen its innate tendencies toward rectitude. On the other hand, her evil thoughts, her weaknesses, her ill-temper, her petulancy, her selfishness, her despondency, her immoral ways of every kind will cast their fatal shadows upon the life of the child she is bearing. In extreme cases it may be that

the tendency to murder will be inborn in the offspring, as a result of a mother's hatred toward its life while it is yet a part of her own. Let her understand that the child, in some degree, images her influence upon it for good or for evil during the period of gestation.¹

There are tendencies, however, which are so strongly fixed by the transmission of deeply seated diseases from parents to their children, that these tendencies cannot be materially prevented by any course of influence that the mother may adopt to the contrary. In cases in which either or both of the parents have pulmonary consumption, or have a constitutional tendency to such disease, the disposition to the same peculiar weakness descends to the child with a degree of certainty which makes it almost impossible for even the best of conditions of healthfulness to prevent a fatal development of the malady in the child. In like manner the tendency to insanity perpetuates itself through generations of offspring. In the same way cancer, scrofula, syphilis and other loathsome diseases in parents bear their bitter fruits in the innocent children bred from such a source. Intemperate habits in the parent tend to beget the same unbridled appetite in the child; thus the acquired appetite of the father may become the inborn and much more fatal tendency in the child. Idiocy of offspring frequently appears as the heavy curse

¹ "Birth marks" or "mother marks" are blemishes which discolor or deform the child, caused by some peculiar excitement of the mother during pregnancy. The most common form of such mark is the red spot of skin on the face or other part of the body. Much worse cases occur, however, in which the child is deformed in shape, imperfect in its vocal apparatus or otherwise seriously marred. It may be that the injury to the child takes the form of physical disease, mania, mental weakness, or idiocy. These unfortunate results are frequently traceable to the effect of some special nervous influence of the mother upon the child during her pregnancy. Such may be the effects of sudden fright, shock, impression from hideous scenes, fear of brutal treatment, worry over domestic affairs, anxiety for someone in danger, morbid thought, anger, jealousy, any of which may affect the mother's imagination so forcibly as to injure the sensitive organism of the child she is bearing, tending to cause physical blemish and deformity, or mental weakness and idiocy.

placed upon the children born of a drunken parent. The father may indulge in the use of tobacco or other narcotic poisons with seemingly but slight injury to himself, but the poisonous effect is so decided in its weakening influence upon his nervous system that his child, whether boy or girl, will probably prove to be a nervous wreck, in some cases fit only for the hospital or asylum. Poison tends to kill not only the user thereof, but the seed from such a source. There can be no "moderate" use of any poison which does not incur the penalty of this law of heredity. So, too, licentiousness, in any of its forms, in the parent, must implant the same depraving tendencies in the child. There is no escape from the operations of the immutable laws of life, and heredity is one of these which is alike faithful in its results, whether its fruits be good or evil.

If, then, the mother would bear healthy and beautiful children, how absolutely necessary it must be that the germs she is developing shall come from a healthy and virtuous source. However excellent her own life, she cannot wholly change the evil tendencies which may be implanted in her offspring from a corrupt or diseased father. If she would have her offspring blessed with the choicest endowments of life, she must require of their father the health, chastity and excellence that she desires to see belong to her child. Virtue will beget virtue, health will generate health, no more surely than evil will breed viciousness, crime perpetuate itself in the child and disease corrupt the life of the young being whose misfortune it is to be born of diseased parents.

PART I.

CHAPTER XI.

Childbirth.



WHEN the process of gestation is completed, the uterus contracts forcibly upon its contents and presses the child out by way of the vagina. This is called labor. It is usually attended with much pain, and is a severe trial to the mother's strength and powers of endurance. The length of time required for labor depends upon various circumstances. Easy labor may be completed in thirty minutes, while in unfavorable cases it may require many hours. During this great strain the mother should be attended by a competent physician, for her suffering and the risk of life to herself and to her offspring are too great to be entrusted to unskilled hands. After the birth of the child, the uterus closes tightly upon itself and stops the hemorrhage from its interior surface. It now gradually returns to its condition as before pregnancy occurred.

The child, having been separated from its mother, begins to breathe, and its blood takes its proper course of circulation through the heart and lungs.

As already stated, to bear a healthy and vigorous child, and to care for it properly afterward, taxes all the powers of the mature woman. Even under favorable conditions of health, size and strength, it is a great trial. If the mother is in good health; if she acts prudently during her pregnancy and meets no accident, she can pass through the trial and recover from it with no loss to her powers. It is much too great a strain, however, for a delicate woman to bear at any time, and it is too serious a burden to be frequently repeated even by the most vigorous. Carelessness and ill-judgment should

have no part in deciding when this trial shall come upon the mother. Many a fair woman, many a delicate, devoted mother, surrenders her life by too frequent childbirth. The father and friends may wonder why she grows ill, becomes weak and dies, leaving the saddest of sad things—motherless children. The father would better exercise some intelligence and judgment in his intercourse with her, and restrain his sexual passion in a reasonable manner, than to sacrifice the health and life of the mother of his children.

After the birth of a child, many months are required for the mother to regain the condition she maintained before pregnancy. Nature protects her for a season from the recurrence of conception, by suppressing her menstruation. Surely she should wholly recover her own strength before engaging in a new trial of her vital energies. The same good judgment of parents should regulate the coming of their children into the family that controls and adjusts any of the more ordinary affairs of the home and of business. If, however, ignorance and carelessness are to determine in matters of such great importance, then parents who intrust their vital interests to such doubtful keeping must expect to abide by the results of their indifference; there is no special providence by which the consequences of their ill-judgment will be altered; the favors of fortune appear rather to follow from the exercise of care, and to bless those who act wisely.

PART I.

CHAPTER XII.

Conjugal Love.

"For woman is not undevelop't man,
But diverse: could we make her as the man,
Sweet love were slain: his dearest bond is this,
Not like to like, but like in difference.
Yet in the long years liker must they grow;
The man be more of woman, she of man;
He gain in sweetness and in moral height,
Nor lose the wrestling thews that throw the world;
She mental breadth, nor fail in childward care;
Nor lose the childlike in the larger mind.
Until at last she set herself to man
Like perfect music unto noble words;
And so these twain upon the skirts of Time
Sit side by side, full-summ'd in all their powers,
Dispensing harvest, sowing the To-be,
Self-reverent each and reverencing each,
Distinct in individualities,
But like each other e'en as those who love.
Then comes the statelier Eden back to men:
Then reign the world's great bridals, chaste and calm:
Then springs the crowning race of human kind.
May these things be!"

—Tennyson.



SO CLOSELY are the mind and body related, the one serving the other, each dependent upon the other, that it is impossible to regard intelligently the healthful condition of either without considering the connections and influences of the other. Undoubtedly, mental vigor depends very greatly, in fact almost wholly, upon the healthy and vigorous condition of the body. Physical weakness tends to establish corresponding mental frailty. On the other hand, proper intellectual activity and a healthy condition and exercise of the feelings affect

bodily functions favorably, while dissipation of mental energy, excitement of passion, mania of every description, disappointment and despondency, tend to destroy not only the inherent forces of the mind, but to engender corresponding physical weakness.

One of the emotions which affect the vital organism most profoundly and forcibly is what is known as conjugal love. This love is inseparable from sexual function. Nature has planted this intense feeling in the human being, in order that the race shall be continued, and with the proper fulfillment of its design she has coupled some of the most precious interests of individual welfare and happiness. In its ideal purpose, conjugal love would bind the man and woman into a unity of usefulness, in which each devotedly serves the other, and together they produce offspring whom they foster with parental affection and sacrifice. In this form, conjugal love is unselfish; it is beautiful and pure. This union of the male and female into one household, by reason of their love for each other and for their children, is the basis on which the home is founded, on which the interests of the family rest, and of all things human it is one of the most sacred. So strong is this bond of conjugal love between persons who are mutually attractive, that they will break all other ties of affection for this deeper and stronger passion. It is not strange, therefore, when this energy of one's being is fortunate in what it meets and binds to itself, that such a happy union must tend to maintain the health and to elevate the life of the person, and that its sustaining power will illumine with some pleasure even the darkest pathways of life. Nor is it unnatural that to cross this passion, to disappoint its hopes, to blast its attachments, will tend to strain the very foundations of such an unfortunate life. There is no fiction in a "broken heart." So deeply seated may be the sorrow from disappointed love, that, in some cases, the affliction breaks the vital cord or unseats the reason.

Conjugal love properly leads toward civil marriage. In the pledge of personal devotion to each other, and of sacrifice for each other, which this bond of love establishes between man

and woman, is found the genuine link on which marriage rests. Unquestionably marriage is an act of extremely serious importance. It is a union for life, a union which carries with it the most intimate personal intercourse that is possible between two persons; it is a partnership in a home; it is the united parentage of children; it is a unity of career, and, to a great extent, the determination of a common destiny. It is a contract into which it is easy to step when opportunity offers, but from which it is most difficult to be released, however much the desire for separation. It is a bond within which it is extremely difficult to correct any of the mistakes made by haste in selecting a partner. It would certainly be wrong to base marriage wholly on sexual grounds, regardless of the fitness of the contracting parties for each other in other respects. The enduring happiness of the individuals and the permanent welfare of their union will rest almost wholly upon their congeniality of character. Hence it is that the disposition, the tastes, the aims, worth of character, soundness of health, correctness of habits, should all be thoroughly known of each by the other before marriage occurs, and the union be consummated in the full light of such knowledge. In this connection let it be understood that the young woman has as great need to know and as much reason to demand that the man whom she is about to marry shall have the same personal tests of health, chastity and morality applied to himself, that he requires of her. With such fair and full understanding between the contracting parties before they enter marriage, there will be less of disappointment afterward.

No civil contract, no human ordinance can in any way set aside or modify the operations of the laws that govern health or life; nor can it shield the violator of their decrees from the consequences of such infraction. Any excess or wrong, whether within wedlock or outside of it, must produce the same hurtful results. While marriage is a beautiful and wholesome institution of human enlightenment, it is not a recognized factor in the animal world to which mankind belongs. Simply because a woman and man are thus formally united is no

license for their abuse of any vital function which the convenience of their close relationship renders easy. Excessive intercourse, and the unwilling and unwished-for yielding of the person of the woman to the sexual desires of the man, are just as destructive within marriage as illicit prostitution can be without the cloak of marital sanction. Rather than yield herself to painful intercourse or to the unbridled passion of her husband, she would better sacrifice her pledge, which such abuse from him has forfeited, and escape from what may prove to be her own destruction. From a sanitary point of view, a woman's life and health are vastly more sacred than her plighted service can be to a gross, selfish or brutal husband. Nothing can more surely blight the life of a delicate and refined woman than to submit excessively to unpleasant or painful sexual intercourse; nothing else can more deeply affect the nervous system; nothing else can more certainly arouse her repulsion and depress her vital forces. Even if the husband and wife are most affectionate, and their constant intercourse is mutually agreeable, any excess therein must tend to produce its evil consequences. Weakness, languor and pain must certainly follow excessive sexual excitement. The more delicate the health and strength of the person, the more sensitive the nervous organism, the more rapidly and surely must the individual yield to the depression and exhaustion from such excess. The failing health of the person from this cause may scarcely be noticed, but the pale and hollow cheek, the dull and staring eye, the indisposition to exertion, the wandering and vacant thought, the pain in the back and many other symptoms, all tell the fatal story. The husband, with his stronger physique, the bracing influence of his outdoor exercise, wonders that the woman he loves has lost the vivacity and vigor she possessed before marriage. Let him consider the sacrifice of nervous sensibility she makes as the partner in his intimate intercourse, and he may find the secret of her failing strength and life.

While the conveniences of marriage permit of excess and abuse as just indicated, it is true, in general, that marriage is a

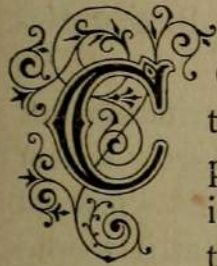
wholesome condition. Married men, as a class, live longer than the unmarried, and they are more free from some kinds of destructive diseases. Married women, notwithstanding the incidents of pregnancy and childbirth, are more healthy than the unmarried. This seeming favor toward the wedded is due, not alone to the quietude and regularity which marriage gives to the sexual organization, but to the salutary effects that come from the greater incentives to effort which are aroused in those who become heads of families. Having something to work for and live for begets an energy which wards off weakness and illness. Added to these two favorable conditions of marriage are the many safeguards which a home, however humble it may be, affords for the protection of its inmates.

If an individual is in fair health, free from constitutional disease, and has no physical deformity that might prevent the privileges and duties of a married life, it is better, from both sanitary and moral reasons, that such a person shall be married. If those who are thus united are well mated, if they have reasonable regard for the laws of their physical being, if they exercise some measure of coolness and temperance in their passion and are faithful in their love of each other, there is good reason to hope that the issue of their marriage will be favorable; they may expect to find some happiness in their intimate association.

CHAPTER XIII.

Illicit Intercourse.

"Virtue is the health, the good habit, the beauty, of the soul; vice is its disease, its bad habit, its deformity." —*Plato.*



CONSIDERED upon strictly physiological grounds, there is no difference between the sexual union of persons who are married to each other and a similar connection between persons who do not sustain this relationship. But the social and moral interests of enlightened people decide that, while marriage is wholesome, illicit intercourse of the sexes is one of the grossest of evils.

However wrong promiscuous intercourse may be, and for whatever reason it may be evil, such sexual union is equally so to both of the parties engaged in it. The man who seeks the indulgence, who seeks for the gratification of his passions, is as guilty of wrong and is as much degraded by the act as is she who yields to his inducements and shares the corruption with him; in truth, there are reasons for considering him the more culpable, since he is usually the stronger of the two; he is the one who appears as the seducer, while her weakness and her necessity may to some extent excuse her.

Offspring may occur from illicit intercourse as it does from the married relation. If conception does occur from illicit union, the undesired result rests the more heavily upon the woman, for upon her comes the burden of pregnancy and the immediate care of the child after birth. The fact that offspring is not desired in illicit intercourse tends in such cases to lead to one of the most serious of evils—that of abortion, in

which case the pregnant woman destroys by violence the life of the young being while it is yet a part of her own. Should the offspring of such intercourse be bōrn, its innocent life is blasted by its disreputable birth; it is a child disowned by the man who brought it into being, and is a child having the best of reasons to be ashamed of its unworthy father. The paternity of offspring under such circumstances cannot excuse the man from the obligation which he owes to his own flesh and blood, nor justify his leaving the burden of its care to the unfortunate mother. The man who would attempt to rid himself of such responsibility to his child and its welfare adds the grossest of cowardice and selfishness to a course already disreputable and unmanly.

A woman's choicest treasure is her virtue; in sacrificing her chastity she destroys the jewel of her crown; her purity is her strength and her protection. So forcibly does this view of woman's worth prevail in the enlightened world that it would be better for her to suffer unto death and render up her life in virtue than from any inducement whatever to enter upon a life of illicit intercourse. The sense of degradation which an unvirtuous life brings will, to a sensitive person, destroy all happiness, and tend even to destroy health and life as well.

Promiscuous sexual intercourse is attended with the constant danger of contracting malignant diseases. Syphilis, which is one of the most contagious, as it is one of the most loathsome of disorders, is spread by such intercourse, and, for this reason, it is a common disease among persons of unclean sexual habits. A man or a woman who steps aside for a single act of illicit indulgence with one of promiscuous habit is liable to contract this contagion. Other diseases, some of which are of such acute nature that they produce destructive inflammation of the sexual organs, are of frequent occurrence with persons of promiscuous sexual association. Anyone who gives way to his appetite for such union yields himself to a passion that will tend to take complete possession of his forces, bearing him into abusive indulgence, out of which he will get very little pleasure, but from which he will certainly receive

depression, pain and weakness. Even under the best of treatment of one's self, the sexual organs and the passion which arises from their action will give more pain than comfort to the individual, and, seemingly, there is no other set of organs to which abusive treatment is more destructive. Irregularity of action, loss of control, weakness, pain and impotency are the undesirable and embarrassing consequences which follow abuse or excess.

PART I.

CHAPTER XIV.

Self-Abuse.

“Our acts become our habits; our habits form our character; our character determines our destiny.”

HOWEVER injurious excessive intercourse of a natural kind may be, there is another form of sexual abuse which is much more destructive in its character. Children, especially boys, early find that the external sexual organs are sensitive to touch, and they learn by accident or by evil example that these parts may be excited by artificial means, in much the same manner as that produced by natural intercourse. If once begun, this practice of excitement soon becomes a powerful habit, which tends directly to arrest and demoralize the development of both the body and the mind. These habits are commonly known as “self-abuse,” “the solitary sin,” or “masturbation.” By whatever name the practice is known, or by what means it is accomplished, the physician and the intelligent parent know that the habit of such abuse is one among the most destructive vices to which any young person can become addicted.

The unnatural act begets an unhealthy and excited condition of the organs, so that the acts of abuse are liable to become more and more frequent and violent until serious conditions are produced. The effects of such a habit show themselves on the organism of the person in the pale skin, hollow cheek, sunken and staring eyes, gaping mouth, stooping body, nervousness, palpitation of the heart, weakness of the back, and pain in the sexual organs. The person becomes dull in mind, shuns the society of others, and seeks indulgence in

secret. Such practices tend to arrest natural and manly development, and, by their injury to the sexual organization, they tend to unfit the adult for married life. In its worst forms, self-abuse is one of the chief causes of weak-mindedness and insanity. A large percentage of the hopelessly insane have been brought to their deplorable condition by self-abuse—a habit which they have indulged until they have lost all power of control and all sense of propriety or decency.

What can be done to prevent or cure such an evil? This is one of the most difficult questions that can be asked, because of the peculiar nature of the evil and the force with which the habit binds its victims. Even if parents know of the existence of such a habit with a child, they will scarcely venture to try to arrest the practice. Harshness on their part, and the embarrassment of the child, tend to drive the young person into greater seclusion. The physician cannot reach the case, for medicine cannot arrest the practice. Apparently nothing but the person's own will can do anything to avoid the shamefulness and destruction caused by the habit. If the individual can be definitely informed and forcibly impressed concerning the evil consequences of his habit, that it must surely result in pain and weakness, that it destroys all hope of a vigorous manhood, he may, by the exercise of his manly nature, cease to commit these acts of violence to his own person, or, at least, may lessen their frequency. The sympathy and help of his parents can aid him in this. It is true, however, that, do whatever he will at restraint, moments of sexual excitement and desire will come which quite overpower his will. Coupled with this liability to form the habit of abuse is the natural tendency of the sexual organs to involuntary seminal emission, in which case, without excitement, other than that which occurs through the impressions made in dreams—through sexual scenes—the sexual organs act almost as they do in cases of actual intercourse. The more vigorous the individual, the more rich and stimulating the food, the more exciting his associations, the more active are his sexual organs and the more disposed are they to involuntary discharge. This is not

a matter for concern or alarm, yet, in some measure, it leads to the practice of abuse. However difficult it is to prevent or to remedy the practice of self-abuse, it is certainly wise in parents to be on their guard and to protect their children as far as possible from the formation of such a depraving habit. Such practices are frequently learned from the bad example and corrupt suggestion of evil associates.

The young person who is diligently and regularly engaged at some suitable work, or is interested in the pursuit of a course of study with his classes, or who spends his energies freely in vigorous sport with good companions, is much less disposed to sexual impropriety than is the lad who, from his idleness, is a prey to his own imaginations and suggestions, and who lacks wholesome means of direction for his physical energies.

A simple diet, with less of flesh and more of cooling fruits, tends less to produce sexual excitement than do stimulating drinks and rich viands. The constant association of a young person with virtuous companions, free social intercourse with parents and friends at home, the reading of good books, the presence of ladies and gentlemen, the healthful activity of pleasant games and sports, all direct the mind from base physical suggestions and tend to develop a healthy tone of mind and a strong sense of refinement, which will do more than anything else can do to quicken the formation of virtuous character.

On the other hand, evil associations, lewd companions, books of doubtful character, scenes of revelry and license, details of crime, are among the surest forces that can debauch the young mind, by establishing a tendency toward low and sensual thought and taste.

All the means that parents can employ, whether derived from wise parental influence in its general form or from intelligent physiological study—the regulation of diet, the influence of good amusement, providing suitable employment—all are needed in promoting the sexual direction of their children.

CHAPTER XV.

Know Thyself.

"The more a man becomes addicted to sensual pleasure, the more completely is he a slave. People may call him happy, but he pays his liberty for his delights, and sells himself for what he buys."

—*Seneca.*

IT IS easy to preach, but not always so easy to practice, however good advice may be. It would seem, however, that there can be no safer doctrine and course of conduct than that which is based on the study of self and the conscious effort of right self-direction. By reflection and observation, one may learn what his tendencies and habits are, and by proper effort he may do much toward establishing self-control rather than give reign to impulses. He can endeavor to divert himself from what is evidently wrong and injurious, and turn himself toward what is better and nobler. No other person can do this for him. Others may help or hinder, but it is only as he seizes hold of his own tendencies, and exerts himself consciously toward what is manly, that he can become better than he now is. Such effort tends to elevate; in the conscious effort to do better lie the surest and richest source of pure enjoyment, and the most helpful and ennobling of moral forces. On the other hand, a downward course will ever derange, depress, dissatisfy and destroy. Aim upward and press onward; seek the society of the good; emulate the example of the persons who are admired and loved because of their excellent qualities of character. Speak more gently to associates; look upon the hopeful and cheerful side of life; turn away from anger, fault-finding and envy. Life presents infinite possibilities of personal attainment, free to every zealous soul.

KNOW THYSELF.

Cultivate bodily health by persistent exercise in the open air, by moderation in eating and drinking, by cleanliness, by proper amount of sleep and recreation. Give the lungs full breath, and cherish fresh air and sunshine as the richest of vital gifts to man. Dress with regard to judgment rather than in obedience to fashion.

Regard the physical body as the delicate and beautiful instrument through which the soul acts, in which it dwells and upon whose vigor and healthfulness the spiritual part is dependent for its own vigor and health, upon which it depends for growth, for happiness and for power.


Know, too, that the most sensitive and responsive of all physical parts are the sexual organs. Keep these within proper control; use them as nature intends and good judgment dictates. One can no more afford to abuse the sexual function than he can afford to destroy the brain. Aim to live temperately, chastely, virtuously. Shun dissipation; cleave to a noble purpose.

PART I.

CHAPTER XVI.

The Ideal Man.

“Do noble things, not dream them, all day long;
And so make life, death, and that vast forever,
One grand, sweet song.” —*Charles Kingsley.*

 AS THE plant turns unconsciously from darkness toward the light, so human ideality leads ever from that which is base toward that which is noble, from evil toward goodness, from the hideous toward the beautiful, from weakness toward power, and out of the happy combination of strength and beauty forms an idol of worship.

In the ideal man these two factors rival each other for ascendancy—his handsome personal appearance, his embodiment of force.

In form and size, the model type of Caucasian is tall rather than short; slender rather than broad; erect in body; lithe and quick of movement rather than gross; strong, not weak; muscular, not fatty. His shoulders are square and well thrown back; his chest is full; his abdomen is not prominent; his limbs are straight and tapering; his walk is firm; his carriage is manly and graceful.

In habits, such a man is clean in his person, temperate in eating and drinking, polite in his intercourse with others; he controls his temper, attends diligently to his own business, and is neither selfish nor “cheeky.” His language is chaste and his conversation is free from vulgarity. He dresses well; he is interested in the important questions of the day; he is attentive to the opposite sex, and is regardful of their rights and privileges.

This ideal man marries, for he is a gallant and faithful lover; he has not destroyed his sexual vigor by evil practices, nor wasted it in sexual dissipation; he would not speak ill of any woman, much less would he descend to the unmanly plane of the seducer or debauchee.

He becomes the father of children, owns a home as the anchor of his affections; he accords to the mistress of his heart the equality of headship in his family. He fosters and educates his family; he is not unmindful of the poor, and aids in benevolent and sanitary measures.

Such a man fights no duels; he carries no concealed weapons; he seeks no quarrels; he keeps away from saloons; he is much at home; he pays his debts.

As a result, life, to him, is worth living: he has something worthy for which to live. He has developed his own powers, endowed his mind with imperishable riches and escaped the pains of ill health and the wreck of dissipation. He is idolized by his family, admired and honored by all who know him well, surrounded by steadfast friends, and deserves the reputation he has established of being a noble and upright man.

CHAPTER XVII.

The Ideal Woman.

“May I reach
 That purest heaven; be to other souls
 The cup of strength in some great agony;
 Enkindle generous ardor; feed pure love;
 Beget the smiles that have no cruelty;
 Be the sweet presence of a good diffused,
 And in diffusion ever more intense.
 So shall I join the choir invisible,
 Whose music is the gladness of the world.”

—*George Eliot.*



WOMAN differs from man because she is a woman, yet, all in all, she is his equal and his worthy helpmate. She is less coarse, less strong, but has more of beauty, and is more refined. While man may cope with physical forces, buffet the storm, fight battles, break the mountain, bridge the chasm, build the walls of a palace, she, as an artist molds her opportunities to her purposes, creates fortune even out of accident or misfortune; by her command of unseen and subtle energies, she builds, beautifies and purifies the interior of the palace; she conserves the inestimable treasure of virtue.

In stature, she is slightly less than her companion. She is neither large and angular nor diminutive and rotund. She is not powerful, yet she is strong. Her movements are agile and graceful. Her features are fairly regular. Her face is more oval than his. Her skin is soft; her hair is rich and glossy; her health gives glow to her cheek, fullness to her form, elas-

ticity to her step and ease to the erect and commanding carriage of her person. Her chest is full, her waist undwarfed by artifice, and her voice is pure and rich.

Her dress is tidy, not showy; she displays but little jewelry, for her gems are of the mind and heart. She wins admiration by the engaging modesty and pleasantry of her manner, while she charms her friends by the brightness of her conversation and the evenness of her disposition.

She is not an idle person, for she is moved by a spirit of diligence and usefulness; she is not selfish, for she is mindful of the wants of others. She is social without being a gossip; she is interested in the acquisition of knowledge, yet she is not a recluse; she is well informed, but modest in its display; she is refined without being prudish.

If needful to do so, she can rely upon her own talent of hand or mind for making a living, and can manage successfully the affairs of ordinary professional or commercial pursuit.

This ideal woman marries, for she loves deeply and faithfully. This fountain of her being is unpolluted by fickleness, design or treachery. Her love flows from her heart, not like the unruly torrent that would sweep and bend all before it, or dash itself against the rocks, to be itself whirled into eddies or splashed into spray, but like the deep, swift current which takes its way through the valley, moving the weaker impediments from its pathway, circling gracefully about such as are immovable, and pursues its unbroken course to the sea.

Such a love binds itself to its idol and its idol to itself; it fuses the two beings into an ideal unity. Such a love determines its own homage; it is its own protection—a love that lasts and is not easily broken.

This woman becomes a mother, for she is strong enough to bear the trial, and her inmost nature yearns to spend its treasures of love and service upon her own offspring. To do less would be unwomanly; to fail in this she would fall short of one great end and purpose of her life.

As wife and mother, she is queen of the home, the molder of human happiness, the chief instrument in the Creator's

hands for binding up broken places and for developing human perfection.

Blessed is her work. In doing it well she insures her own perfection; her children shall arise and bless her; her husband would lay down his life for her. Her opportunities are infinite, her duties are imperative, her crown is sure and fadeth not away.

PART I.

CHAPTER XVIII.

Painless Childbirth.

IT IS proper that every possible means should be employed to prevent human suffering. To this end, the mother needs to be well informed in all that can determine the safe and easy labor she must undergo in bringing her child into the world. Fortunate is she who passes through this climax in her maternity speedily and with no great strain upon her nervous system.

To give birth to a child is a good and blessed act, not an evil one; under favorable conditions it is an issue to be desired, not shunned. Unfortunate is the woman who does not at some time in her life realize this crowning fruitfulness of her existence; deeply to be pitied is she if prevented from so doing by debility, disease or deformity. Painful as childbirth may be, helpless as an infant is, troublesome as is the growing child, expensive as are the years of maintenance at the parent's hands, deep as the anxiety of the mother often is for a wayward son or daughter, ungrateful as children sometimes are for the long years of parental care they have received, it still remains true that a childless home is dreary and lonesome, that the heart which hears no echo of love from its own child is inexpressibly sad, and that a life without posterity is barren. Surely a duty so momentous should be a healthy one; certainly such an important behest of nature should be reasonably free from danger to the life of the mother, and free, too, from unnecessary suffering in its performance. In truth, there is nothing in human life more nearly holy than motherhood, and no other achievement can outweigh that of giving life to a human being.

It seems that the exercise of this function, within reasonable limits, is essential to woman's best health, to her longest life, to her greatest happiness and to the fullest development of her noblest traits. From vital statistics it is ascertained that married women are healthier than the unmarried; that of women between twenty and forty-five years of age, more single than married die; that of women who are suicides during this fruitful period of life, two-thirds to three-fourths are single; that of women who become insane within this limit of years, three-fourths to four-fifths are unmarried, and that in the path of strict celibacy lie a host of peculiar mental and physical ills that are appalling in number and fatality.

It is a notable fact that among the most of savage and uncivilized peoples neither pregnancy nor childbirth itself interrupts the usual movements of the mother, excepting for a few hours, at most, at the time of the birth. The pregnant savage mother holds her place on foot in the shifting scenes of the roving tribe, stopping by the wayside to accomplish the trial of maternity, and, with the newly born papoose as her load, regains her membership among her people; or, it may be, she maintains her seat upon her pony, until the hour of birth is fully come, and, after a short time for its accomplishment, returns to the jolting motion of her palfrey and proceeds upon her way. Such ease and quickness of birth, though common among the unenlightened races, seem almost incredible to those who are accustomed to the pain and distress attendant upon such acts among the higher races. What is so easy because of the simple, healthful, natural life of the savage mother, has become a serious trial to the more feebly constituted woman of luxurious and artificial life, bringing to the latter, as is often the case, days and weeks of suffering, hours of intense agony in its final act, followed by a period of exhaustion and endangered life.

It is an equally notable fact that among enlightened peoples thousands of cases are known to physicians in which children are born so speedily, when the hour comes, that there is not time to send for the doctor; other cases in which the

act occurs so readily that it is accomplished before his arrival; still others in which the operation comes upon the mother almost without warning in her daily rounds of work or travel, so that the railway station or steam-car becomes her temporary hospital, and her fellow travelers are witnesses of the arrival of the new guest. Still others there are in which the child is born suddenly in bed, and, in some rare cases, it has occurred during the unconsciousness of the mother's sleep, from which she was aroused to find a "new one" under the covers. Often and often are the children of enlightened women born without pain or prolonged distress. All of such cases as the foregoing are due to the favorable mode of the mother's life, to her robust organization, to her good health, or to some special course of training or preparation which she has undergone.

Herein is suggested the most general means of preventing painful and distressing maternity, that is, by such agencies as are found in the entire previous life of the woman, dating back to and including the development of her womanhood through the formative periods of childhood and girlhood. From her very first years of life she is preparing for maternity, and all that can contribute toward making her strong, healthy, vigorous, well-developed, sensible and well-informed will assist in determining for her a naturally easy birth of her children. To secure this necessary development of the young woman is the province of her sensible mother, whose watchful care and wise guardianship must decide the daughter's course of physical life.

This favorable development, however, is not a condition that can be acquired within a short time; it is rather the result of slow but sure growth through years of right living. The promotion of such culture requires that the person shall live much in the open air and take such an amount of regular exercise as will develop muscular strength and nervous endurance. This can be done only by continued and persistent activity, in which the person does enough, but not too much, and causes such exercise to become as much a relish to her as

vigorous sport is to a stout boy. Almost every kind of ordinary business and recreation will assist in this good work of building a strong body. As has been said before, the clothing should be loose and light, yet protective against cold and wet. Coupled indispensably with this health-giving out-door life is the absolute need of full and regular hours of sleep in open, airy rooms; so, too, the need of enough plain, wholesome food, without the hurtful use of rich pastry, strong spices and heating and exciting drinks, such as tea and coffee.

Perhaps most of all does the building of a vigorous organization require the development of the proper form of the body and the full growth of all its vital parts, the most important of which are contained in the chest and abdomen. If these portions, which have more to do with maternity than have any other parts, are hindered in their natural growth, are deformed, displaced or dwarfed, the evil consequences, in the same degree, are hurtful and fatal. The tight dress-waist and unyielding corset are instruments of pain and death to the child-bearing powers of the woman who distorts her body by their use. The natural and robust waist is not slender; fashion and false taste may require it to be pinched and dwarfed, but the unerring wisdom of nature has made the chest full and the waist and abdomen soft and yielding, because it is in these regions that the great vital organs are lodged, and freedom to grow and to perform their important functions is an absolute necessity to the fullest vigor of life. If the dress is kept even moderately tight about the waist these vital portions cannot and will not grow as they should. It is also true that the cramping of the chest into less than the natural limits crowds the contents of the abdomen down, causing unnatural prominence of this portion and making such pressure upon the sexual organs within the pelvis as to displace and deform those parts which are specially engaged in gestation. If the girl would grow to be a strong woman she must stand erect, keep her shoulders well thrown back, permit her chest and waist to become full and strong, and pursue such an active life as shall establish a vigorous endurance. A weak, frail girl-life, if con-

tinued, cannot fail to lead to similar weakness of woman-life and distressing frailty in motherhood.

Much can be done, by regular physical training, in the preparation of the mother for her trial, even after marriage, and as pregnancy approaches or as it progresses. The athlete, when he is to make a trial of his strength, undergoes a preparatory course of training by which he brings himself up to his highest powers. So, also, may a woman, by a proper course of regular open-air exercise, bring herself up in tone of nerve and muscle and greatly improve her powers of endurance. If she has entered upon her term of pregnancy, more should be done than ever to preserve her good health by continuing the usual round of engaging occupation and of interesting recreation. This is desirable for both the mother and the child and affects favorably her mental as well as her physical condition, preserving and improving her ability to pass successfully through the childbirth hours. On the other hand, excessive effeminacy tends to produce weakness, indolence wastes energy, yielding to helplessness begets greater helplessness, habitual reclining cultivates lassitude, life in the close atmosphere and overheated air within doors is enervating, morbid fear of pain invites pain: all such weakness, if permitted to establish itself, paves the way for inefficiency and distress when the final hours come. Exercise should be continued, with proper precaution, to the last. During the eighth and ninth months she should walk less, ride more, lie down some each day, yet maintain to the end a gentle, active life of busy cheerfulness, avoiding fatigue, sudden jolt, hurtful strain and distressing positions. By such means she may come to the last hour with a fund of strength and power of endurance that are the best possible preparation for speedy and easy childbirth.

As a special course of preparation for easy and painless birth, the mother may do much by giving extreme care to the matter of her diet during pregnancy. The child is formed from her blood, and this, in turn, from her food. Thus it is that through the food she eats she may to some extent determine

the growth of her offspring. It has been well determined that a rigid adherence to a fruit-diet, after the first two or three months of pregnancy, will aid very greatly in rendering the birth easy. One of the benefits from such a course of diet is its total relief of the tendency to constipation on the part of the mother. Another is, that, while fruits furnish abundant nourishment for the growing child, they do not abound in bone-making substances; hence the bony parts of the child remain soft and yielding. The great difficulty in childbirth is the passage of the large, hard bones of the child through the narrow passages of the pelvis. By avoiding such food as tends to harden the bones, they will remain sufficiently soft to yield to the pressure made upon them and in this way pass readily. Very many cases have occurred illustrating this favorable effect of a fruit-diet. If the mother seeks an easy birth in this way she should deny herself wheat, oats and corn in any of their forms, because they contain bone-hardening elements. She should not use milk or hard (lime) water. She may eat liberally of all kinds of fruit, all kinds of vegetables, of rice, sage, tapioca, and the flesh of young animals. Persistent and faithful adherence to such a course of diet as is here indicated will undoubtedly result happily to the mother when the supreme moments of trial come.

There remains to be considered one sovereign means of painless childbirth, one so specific and direct that there is no doubt as to its result. This one method is the use of chloroform, as an anæsthetic for allaying the pain at the time of the birth. In the hands of the competent and skillful physician there is no danger attending its use, and the effects are such that it turns pain into pleasure, or, if used in sufficient quantity, it renders the mother wholly unconscious of the ordeal through which she is passing. While this agent is harmless in the hands and under the direction of the careful physician, it is dangerous in the extreme if employed and administered by others. The physician must be the judge as to when and to what degree to use the anæsthetic. If the mother is robust and the birth is likely to be speedy, and is attended with but

slight distress, there would be no occasion for its use; but in those cases in which the reverse is true, its use is demanded. By its influence, not only are the pains relieved, but the voluntary muscles are relaxed and the rigidity of the parts removed, so that birth is greatly facilitated. Careful physicians wait until labor has set in thoroughly with the mother, then use the chloroform only to the extent of affecting the voluntary muscles and the sensory nerves, and thus not to interfere with the action of the involuntary muscles by which the child is born. Under such management, the labor may go on naturally, though the mother be wholly unconscious of the act.

There are other anæsthetics which can be used at this critical period, but none which seem so safe, and at the same time so effectual, as chloroform. Thousands of doctors now use this anæsthetic generally and constantly in their practice without evil or fatal results. In painful childbirth, as in every other case of extreme suffering, it is a beautiful and blessed thing. It is the duty of the physician to relieve pain. He is too brutal to be employed to take charge of a delicate and sensitive woman in her trial of maternity if he can relieve her suffering but will not; he is altogether too ignorant for such important professional duty if he does not know how to do it. In this enlightened age there is no need of hours of agony in childbirth; it is too late to let the ignorance and prejudices of the past prevent the skillful avoidance of such suffering. Of course precautions are necessary, and haste and recklessness have no place at the bedside of childbirth. These precautions are known to the competent doctor and are safe in his management. Fortunate is the woman who has at her bedside an educated, capable and sympathetic physician, to whose care she can entrust her own life and that of her offspring.

CHAPTER XIX.

A Theory as to the Sex of Offspring.



TO KNOW what decides the sex of offspring is of peculiar interest. The subject presents much that is of scientific importance, since it is so closely connected with the origin of life and the influence of environment, while parents desire to learn what regulates the sex of their children, and to ascertain if these determining conditions are such as lie within parental control.

Many theories have been advanced in times past which have proposed to explain the intricacies of sex-origin. None, however, have fully solved the problem, while the most of these theories have been so wholly wanting in a reliable basis of careful observation as not to entitle them to any serious consideration. More recent investigations have proved less unsatisfactory, and, by reason of trustworthy and comprehensive research, have approached much more closely to definite answers to the interesting queries which arise concerning the genesis of sex.

Undoubtedly there are certain natural causes, operating in obedience to immutable vital laws, which decide the sex of offspring. In the human being, as in all of the higher classes of animals, this decision is reached at such an early period in the development of the embryo that observations for ascertaining the causes and conditions which make the young being become male or female are especially difficult. In some of the lower orders of animal life, the development of the sex is delayed until a much later date in the life of the embryo, and, in certain of these cases, the decision as to the maleness or femaleness is not established until the animal has lived for a

considerable time as a separate individual. For these reasons, observations for ascertaining the causes for the difference in sex are much more simple and satisfactory in the lower beings of the vital scale than among the higher classes of animals, in which, as has been said, the conditions are intricate and the operations are obscured by their early occurrence in embryonic life.

The higher animals do not appear to be in any way exceptional in the operations of the laws which govern their existence, and in accordance with which they have their development. All animate creation, including every phase of such being, lives, grows and reproduces its kind in obedience to the same general vital laws. So true is this that there is every reason to suppose that the causes and conditions which operate in the lower orders of animals in producing differences in the sex of offspring act in the same general manner in producing like differences of sex in the offspring of higher animals, including the human being. By observations made upon the inferior animals, it is possible to discover certain tendencies in sex-determination. These tendencies may be traced with similar results into the superior orders, and serve to indicate the relations of cause and effect to be watched for and recognized in sex decision, even in the human family. It is from such study and experimentation, such careful observation and inference, that the most trustworthy explanations have been produced of the origin and determination of sex.

It is proper, however, to state that, while much is now definitely known in this regard, the whole has not been ascertained. What has been fairly ascertained to be true does not place the matter of the control of the sex of offspring within the easy command of parents; it does establish the fact, nevertheless, that the regulation of sex is within their partial control, at least.

As ought to be supposed, the production of the two conditions, male and female—on which difference in individuals the continuance of life depends—is, in great measure, self-regulating, based upon such economic laws of supply and demand

in nature as are in accord with the utility of sex and the welfare of the race. Evidently, nature must maintain a reasonable balance between the sexes. If from any cause the tendency were to produce males in excess, other causes must counteract such a tendency by the production of females, and, in like manner, any excess of females must be offset by corresponding tendencies to produce males. Such appears to be the case. It would be disastrous if the individuals of either sex were largely to outnumber those of the opposite sex, and it would be absolutely fatal for either sex to cease to be produced. It will be found, therefore, that the regulation of sex is a matter of such concern that its decision is not left to the whim, caprice or carelessness of the parent, but is founded so deep in the conditions and interests of life that it is quite beyond human agency to alter, even in individual cases. It is possible, however, to recognize the general laws which tend to regulate sex, and possible, also, by conformity to their operations, to realize a desired result through their natural agency.

Each individual among higher animals, whether male or female, begins as an impregnated ovum in the mother's body. Any such ovum contains elements of constitution from both of its parents. In the earliest existence of this impregnated ovum, there is a season of sexual indifference, or indecision, in which the embryo is both male and female, having the characteristic rudiments of each sex, only indifferently manifested. In this stage, the embryo is susceptible of being influenced by external conditions to develop more strongly in the one or the other direction and thus become distinctly and permanently male or female. It is evident that this is the season in the development of the individual in which influencing conditions and causes must operate in deciding its sex, although it is possible in some of the lower animals to alter the tendency of sex in the embryo from one sex to the other, even after it has been quite definitely determined.

It is well established, in fact, that differences in sex do not come from a difference in the ova themselves; that is, there is

not one kind of ova from the female which become female, while other ova become male, for it is possible to alter the tendency toward the one sex or the other after the ovum has been fertilized and the embryo has begun its career of development. This possible change in sex tendency in the embryo also proves that sex is not decided by a difference in the spermatozoa; that is, some of the sperm-cells from the father are not male, while others are female, in their constitution.

It is incorrect to suppose, as has been held by some theorists, that one testicle gives rise to male sperms and the other to female sperm-cells, for both male and female offspring have been produced from the same male parent after one testicle or the other has been removed. The same is true in cases in which either ovary has been removed from the mother; that is, male and female offspring are produced from mothers in whom either ovary has been removed. In like manner, the sex of offspring is shown not to be materially affected by the comparative vigor of the parents; thus a stronger father than mother does not necessarily produce one sex to the exclusion of the other. These negative decisions are important because they simplify the solution of the problem of sex-determination, by excluding, more or less fully, various causes which have been supposed to operate quite forcibly in deciding the sex of offspring.

Some of the more positive agencies that enter into the determination of sex are found (1) in the influence of nutrition upon the embryo during its indifferent stages of sexual development, and (2) in the constitution and general condition of the mother before and during the early stages of pregnancy. These two factors appear to enter more fully than any others into the decision of the sex of offspring, and deserve the greatest consideration in this treatise. The influence of food in supplying the embryo with nourishment for its development, is perhaps, the most potent of these determining causes.

The effects of nutrition are shown in suggestive manner in some of the lower orders of animal life, in which the conditions and results are readily observed. The classes of animals

most satisfactory for experiment in this connection are such as pass through different phases of individual life before reaching the highest and most fully developed stage. The insects afford an illustration of these differing stages of individual development: (1) the egg is perfected and deposited by the fly; (2) this egg hatches into a grub or worm-like animal; (3) this grub, when fully grown, enters the chrysalis form and undergoes such complete re-organization that it comes forth as (4) the perfect fly. Here are four complete and distinct stages, during which periods the sexual function and development are more or less delayed until the preparation of the insect for its fourth stage, and the tendencies toward one sex or the other may be repeatedly changed from one to the other during the earlier stages of the individual, by the influence of more or less favorable vital conditions. Frogs present another series of changes, which make them a favorite means of experimentation; thus the frog perfects and deposits (1) the spawn; this spawn hatches into (2) the tadpole, which, after a season of development and life as a tadpole, gradually becomes transformed into the highest phase of the individual's life, (3) the frog. Here are three forms of life in the same animal, quite distinct from one another, each being preparatory to the next in the scale. Complete sexual function is necessary only in the highest or frog stage, and during the tadpole stage sexual development is more or less indifferent, the tendency during the life and growth of the tadpole to become distinctly and permanently either male or female being dependent in great measure on surrounding circumstances, especially so upon the influence of food, whether it be abundant and nutritious or the reverse.

Experiments upon frogs and insects tend to establish the truth of the doctrine that abundant nourishment during the stage of sexual indifference inclines to produce femaleness, while want of proper nutrition during these formative or preparatory stages inclines to produce maleness in the individual. Some of the most significant experiments for testing the influence of food in deciding sex are those made upon tadpoles.

A notable case is described by Professor Geddes,¹ from the experiments of E. Yung, in which he says, "From the experience and carefulness of the observer, these striking results are entitled to great weight."

It appears that, in this remarkable experiment, of three hundred tadpoles, when left to themselves, the ratio of females to males was as 57 to 43. These were divided into three lots of 100 each and fed upon different kinds of nutritious diet to ascertain the change in sex-tendency due to such food. It should be remembered in this connection that the tadpole represents the stage of sexual indifference in the life of the young frog, and that external conditions may alter sex-tendencies during such period of sexual instability. The first set, in which the original ratio of femaleness to maleness was 54 to 46, were fed abundantly on beef, from which cause the ratio altered so that it became 78 females to 22 males. The second portion, in which the ratio of sex in the beginning was 61 females to 39 males, were fed upon fish, by whose more nutritive effects the ratio was raised to 81 females to 19 males. The third section, in which the ratio of sex stood 56 females to 44 males, were fed upon a still more nutritious diet, that of frogs, whereby the proportion of females was elevated to the astonishing ratio of 92 females to 8 males. Each feature of this experiment is suggestive in indicating that a rich diet, abundant nutrition, favorable conditions for life, during the season of sexual indifference in the embryo, tend to develop femaleness. In the above experiment, no less than two out of the three of all the tadpoles which were at first male in their tendencies became female.

Another of the most interesting and suggestive examples of the effect of diet in deciding the sex of an embryo is presented in the case of bees. In keeping with other insects, the bee develops through different stages of individual life. The eggs are formed and deposited by the mother-bee; these hatch into larvæ, which, by proper growth, development and trans-

¹ *The Evolution of Sex*, by Professor Patrick Geddes and J. Arthur Thomson; Messrs. Scribner & Welford, New York.

formation, becomes bees. Three kinds of bees, the queen, the workers and the drones, are produced from the larvæ; they exist together as the related members of the colony, and perform the various duties of the swarm within the hive. The queen is the perfect female, the only one of all the number capable of being the mother of a generation of offspring. She is the largest and most fully developed, and, by reason of her larger size, her finer appearance, and her superiority in other respects, is fitly recognized as the queen. The workers are the small, active bees, through whose diligence and sagacity the honey is collected, the comb is fashioned, the young are fed and the colony is protected from dangerous intruders. These workers are imperfect females, incapable of producing eggs. The drones are the male bees; they originate from unfertilized eggs of the queen, and perform no other function in the life of the colony than that of fertilizing the ova of the queen. They live a comparatively short and inactive life, and, having performed their special sexual function, they are stung to death by the workers and thrown out of the hive.

The facts of greatest interest in regard to this curiously organized colony, or family, are such as concern the differences between the queen, whose motherhood is complete, and the imperfect female workers. The queen bee is produced from a fertilized egg which is deposited in a cell sufficiently large to admit of the superior growth of the larva which hatches from it; this larva is fed with "royal diet." This "royal diet" consists of the most nutritious and stimulating bee-food, gathered and preserved for this special purpose of serving as the nourishment for the baby queen. By reason of these more favorable conditions of room and food, the larva becomes perfected in its development so that it finally becomes the queen in size, appearance and function. The workers are produced in like manner from fertilized eggs, but the larvæ from these eggs are restricted to smaller cells for their growth, and limited to the ordinary bee-food. The result is they are dwarfed in size, and, though female insects, they are incapable

of performing the crowning function of the female—they produce no eggs.

Now, it so happens at times that some of the larvæ, which would otherwise become workers, receive by accident crumbs of "royal diet," and such is the effect of this richer food upon the larvæ which receive it that they grow to an extra size, and may even become fertile workers. Certain it is, too, that the nurse-bees often select larvæ which would otherwise become the dwarfed female workers, and feed these larvæ fully upon the "royal diet." By such means, these well-fed larvæ become young queens. Thus it is that "royal diet" determines that a larva, fed upon such food, shall become a queen, fully endowed with motherhood, while the larva nourished by the ordinary bee-food produces a sterile worker.

In this case it appears that fully developed femaleness is due wholly to the effect of an abundance of suitable food and other favoring conditions during the season of sexual indifference which exists in the larva, and that the fate of the female embryo, whether it shall become a queen or a worker, is determined within the first few days of its larval life, by the effects of the kind and degree of nourishment it receives.

This is in exact accord with the results of the experiment already described in regard to the effect of food in determining the sex of frogs, and tends quite forcibly and conclusively to establish the principle that favorable conditions of food and opportunities for growth tend to produce the high degree of development in the embryo which results in a female offspring. It is fair, too, to infer that femaleness, with its wonderful capacity for maternity, is a higher phase of development, due to and determined by superior conditions of embryonic life.

What is here given in regard to bees is true in the same sense with other kinds of insects. Thus caterpillars which are poorly fed before entering the phase of the chrysalis come forth as male butterflies, while such as are abundantly fed, and which enter the chrysalis in a high state of development, become female butterflies.

In the higher animals, the mammals, in which class the human being is included, the embryo is retained within the mother's body until it has developed into a being like herself and is ready to be born alive and be nourished by her milk. The changes in its growth, corresponding to the different stages through which the insect and frog pass, are performed in the hidden conditions of her body; hence, it is not possible to observe so definitely the effects of favorable or unfavorable vital conditions in determining the sex of offspring from the mammal. Following the indications derived from experiments with the lower animals in which it is convenient to watch the effects of certain external causes, it is possible to observe with a fair degree of certainty the influence of food, temperature, shelter, comfort and quietude, in deciding the sex of the young of the upper divisions of the vital scale. Results of interesting character are reported from experiments made upon sheep and other mammals.

A collection of three hundred ewes was divided into two lots, of one hundred and fifty each. The first division were extremely well-fed, and were attended by young rams; as a result, the sex of the lambs produced was in the ratio of 60 females to 40 males. The second division were sparingly fed and were associated with old rams, in which case the ratio of sex of offspring was 40 females to 60 males. It was also a noticeable fact that the heavier ewes, such as showed fuller development and the happier effects of favorable conditions of life, produced chiefly female offspring.

Other experiments of similar kind made upon domestic animals tend also to establish the conclusion that with the superior animals, as well as with the inferior orders, favorable conditions of life for the mother, as regards food, shelter, temperature, quietude and contentment, tend to produce femaleness in her offspring, and that reverse conditions tend to produce maleness.

In order to produce offspring, a mother must be properly developed in sexual function. Undoubtedly, female parents make a more serious productive sacrifice in bearing young than

is required of male parents. To be capable of such sacrifice as is demanded of the mother, and thereby be fully female, requires a higher degree of vital development of the embryo and offspring that is to become a female. In order to establish its sex as a female, correspondingly superior conditions for development are necessary during the formative period in which its sex is decided. In this connection, the female appears as the superior organism, complete in its own endowment for individual life and capable of reproducing its kind, needing at most only the fertilizing element from the male, and, in many of the lower orders of life, not even requiring a fertilizing germ, but fully competent of itself to produce its young. "Royal diet" for the larva of the bee determines the complete motherhood of the queen bee. The best external conditions for the embryo frogs decide the greatest ratio of femaleness in adult frogs. The most favorable conditions of ewes during the season of conception and early pregnancy beget the largest number of female lambs. In general, it is reasonable to infer that the higher sexual organization which constitutes the female is to be attained in the greatest number of cases by embryos which have superior vital conditions during the formative sexual period.

Among human beings, some facts of general observation become significant in the light of the foregoing inferences. After epidemics, after wars, after seasons of privation and distress, the tendency is toward a majority of male births. On the other hand, abundant crops, low prices, peace, contentment and prosperity tend to increase the number of females born. Mothers in prosperous families usually have more girls; mothers in families of distress have more boys. Large, well-fed, fully developed, healthy women, who are of contented and passive disposition, generally become mothers of families abounding in girls; mothers who are small or spare of flesh, who are poorly fed, restless, unhappy, overworked, exhausted by frequent child-bearing, or who are reduced by other causes which waste their vital energies, usually give birth to a greater number of boys.

As a general proposition, the foregoing facts and inferences tend to establish the truth of the doctrine with women, that the more favorable the vital conditions of the mother during the period in which the sex of her offspring is being determined, the greater the ratio of females she will bear; the less favorable her vital conditions at such time, the greater will be her tendency to bear males.

That many apparent exceptions occur does not disprove the general tendency here maintained. Moreover, it is impossible to know in all cases what were the conditions of the mother's organism at the time in which her child was in its delicate balance between predominate femaleness or maleness; else many cases which seemingly disprove the proposition would be found to be forcible illustrations of its truth. Still further, it is probable that other causes besides those here mentioned act with greater or less effect in determining the sex of offspring.

The doctrine herewith deduced that the female offspring is the more highly organized, though differing from notions current in the minds of some persons who are imbued with the idea that the male is the perfect type, is in accord with the plan of reproduction of vital bodies throughout the entire world of living beings. In the plant kingdom, that for which all other parts of the plant exist, that to which all other portions are subservient, is the pistil, or female organ of reproduction, a part which it is the crowning function of the plant to perfect, a part which is the most complex, most highly organized and most precious. In the lower orders of animals, the female organism usually shows its superiority in its greater size and fuller development, as well as in its capacity for producing young beings. The ability to reproduce perfect beings as offspring is of itself the strongest evidence of the superiority of the female. Among insects, birds and mammals, the female is usually of larger size, and, though often less attractive in appearance and less demonstrative in habit, she is more passive in disposition, more complacent and happy in temper. While greater stature and greater muscular development

often accompany the more pugnacious and restless spirit of the male, such differences do not necessarily argue that the male is the more highly organized or more nearly perfect. These differences, when they exist, are in great measure due to the fact that the animal is male, and, having less organic sacrifice to make in other respects, has more muscular development, which is increased by his more restless and unsatisfied constitution.

As has been said, the capability of producing offspring is a sufficient evidence of perfect organization in the mother, and shows, too, that she possesses a requisite surplus of vital energy and organic power to endow her child with life, both of body and soul. That woman possesses higher nervous sensibility is evidenced in her finer delicacy and refinement, in her acuteness to mental impression, and in her keener and surer moral sense. Man is less complex. He makes less sexual sacrifice. He is not compelled to hold in reserve a surplus energy sufficient to equip a new life with being. He has more to spend in his own muscle, brain and brawn. He may, therefore, excel in strength, in stature and in intellectual attainment; but such features of excellence are not necessarily an evidence that his organism is more complex, more refined, more perfect than woman's. Greater muscular and intellectual power accord with the restless life of the male, and fit him for dominion over brute force, but such endowments pale in significance when contrasted with the exquisite sensibility of woman, whereby she is fitted for maternity, gifted with a creative art and power capable of making men and women. Woman's motherhood, whereby the race is continued and its higher destiny is evolved, caps and completes the exalted rank maintained by the female element throughout the entire scale of vital being.

PART II.

HUMAN CREATION

A MOTHER'S LOVE.

“This sublime vision comes to the pure and simple soul in a clean and chaste body.”—EMERSON.

BY

JOSEPH H. GREER, M. D.

CHAPTER I.

The Vital Principle of Life.

THE perpetuity of any species is dependent upon the power of each individual of the class to transmit life. This power is received through sex, which is to be seen everywhere in the domain of nature among creatures which live, move and have being, and in vegetation which blossoms and brings forth each after its kind. Types may vary according to the environment in which they have been placed, but the scientist can trace each to the source from which it sprang.

Biology, the broad science which comprehends the phenomena manifested by *living* matter, elaborates on the continuance of life by transmission to offspring. In the lowest form of life the only mode of generation now known is the division of the body into two or more parts, each of which grows to the size and assumes the form of its parent and repeats the process of multiplication. This method of multiplication by *fission* is properly called generation because the parts which are separated are severally competent to give rise to individual organisms of the same nature as that from which they arose.

In the higher forms, life is reproduced by a union of parents of different sexes. This is *gamo-genesis*; the other is *agamo-genesis*.

Sex is not substance. It is a power pervading the realm of living things, and is known through its manifestations. While

all organisms are provided with the means of reproduction, the *means* are not the thing itself.

In the human family children are born male and female often of the same parents. Why is not clearly defined. Some observers state that good conditions, tending even toward voluptuousness, produce females; and vice versa: a theory in confirmation of Mother Goose's jingle:

"Little boys are made of rags, tags, and old pudding bags;
Little girls are made of sugar and spice, and everything nice."

By whatever combination of prenatal circumstances they are sexed, babes are usually born with either the masculine or feminine principle clearly defined.

In "True Manhood" are found these words:

"The soul is the man. If possessed of the masculine attribute he appropriates to this end the substances he eats and the air he breathes. He transforms them by this principle into a male body. A soul having the feminine principle transforms these substances into a female body. The ovaries of the female as well as the testes of the male are organizers, but they produce unlike results from the same material.

"The physical manifestations of sex in face, form and voice are the outward signs of an inward power."

All creative ability has its origin in the sex nature. New and useful conceptions of the brain are applauded, although the generality of our race and clime do not know the source.

The Sexual Instinct.

Mr. Grant Allen, who in his lifetime was a student and thinker, said: "Everything high and ennobling in our nature springs directly out of the sexual instinct. Its alliance is wholly with whatever is purest and most beautiful within us. To it we owe our brightest colors, graceful form and melodious

sound, rhythmical motion. To it we owe the evolution of music, of poetry, of romance, of *belles lettres*; the evolution of sculpture, of decorative art, of dramatic entertainment. To it we owe the entire existence of our æsthetic sense, which is, in the last resort, a secondary sexual attribute. From it springs the love of beauty; around it all beautiful arts still circle as their center. Its subtle aroma pervades all literature. And to it, too, we owe the paternal and maternal and marital relations; the growth of the affections; the love of little pattering feet and baby laughter; the home with all the associations that cluster around it; in one word, the heart and all that is best in it.

“If we look around among the inferior animals, we shall see that germs of everything which is best in humanity took their rise with them in the sexual instinct. The song of the nightingale, or of Shelley’s skylark, is a song that has been acquired by the bird himself to charm the ears of his attentive partner. The chirp of the cricket, the cheerful note of the grasshopper, the twittering of the sparrow, the pleasant caw of the rookery—all these, as Darwin showed, are direct products of sexual selection. Every pleasant sound that greets our ears from hedge or copse in a summer walk has the self-same origin. If we were to take away from the country the music conferred upon it by the sense of sex we should have taken away every vocal charm it possesses save the murmuring of brooks and the whispering of breezes through the leaves. No thrush, no blackbird, no linnet would be left us; no rattle of the night-jar over the twilight fields; no chirp of insect, no chatter of tree-frog, no cry of cuckoo from the leafy covert. The whippoorwill and the bobolink would be as mute as the serpent. Every beautiful voice in wild nature from the mocking-bird to the cicada is, in essence, a love-call; and without such love-calls the music of the fields would be mute, the forest would be silent.”

Throughout the domain of nature the instinct of sex is paramount. In the lower kingdom of life the instinct, pure and undefiled, is followed. In the human family the instinct is subject to the modifications of civilization; which, alas, is not always for the best. And lives are colored by the thoughts of sex, which may be any of the varying shades between good and bad. Asceticism on one hand strives to suppress all thoughts and feelings regarding the relation of the sexes as impure. Those who are so narrow as to conform to the letter while lacking the spirit of true religion may be cited as the most baneful of combatants of pure thought on the subject. Suspecting evil with a large E, they become the self-constituted guardians of public and private morals. Kipling remarks it in one of his "Tales." He says: "You have noticed that many religious people are deeply suspicious. They seem—for purely religious purposes, of course—to know more about iniquity than the Unregenerate. Perhaps they were specially bad before they were converted! At any rate, in the imputation of things evil and in putting the worst construction on things innocent, a certain type of good people may be trusted to surpass all others." Their perverted understanding, or lack of understanding, distorts and discolors much with which they come in contact. Seeking for the unlovely, the good, the true, the beautiful is lost to view.

On the other hand is the unchaste, immoral sensualist, who believes that life means gratification of the senses, the most exquisite of which is in the sexual relation. He drains the wine of life to the dregs, and when at last sated can see nothing of the true use of bodily senses. The extremes exist because they do not know the truth.

The Training of Youth.

As to the training of youth, Prof. David Starr Jordan says: "The ultimate end of science as well as its initial impulse is the regulation of human conduct. To make right action possible and prevalent is the function of science. The world as it is is its province. In proportion as we conform to the conditions of the world as it is, do we find the world beautiful, glorious, divine. The truth of the 'world as it is' must be the ultimate inspiration of art, poetry and religion. The world as many have agreed to say it is, is quite another matter. The less our children hear of this the less they will have to unlearn in their future development.

"By the study of realities wisdom is built up. In the relations of objects he can touch and move, the child comes to find the limitation of his powers, the laws which govern phenomena, and to which his actions must be in obedience. So long as he deals with realities these laws stand in their proper relation.

"It is clear that the knowledge is of most worth which can be most directly wrought into the fabric of our lives. That discipline is most valuable which will best serve us in quietly unfolding our own individualities."

Applying Prof. Jordan's words to understanding what is really true of the sex nature, the same law holds in force; the relation of that department of human nature to other departments must be known and the law obeyed if one would find life glorious, divine, beautiful.

Manifestation of the sex principle in the human family is not noticeable until the beginning of puberty, the average age for which is about fourteen years. In the boy, the bony framework enlarges, the shoulders broaden, the chest expands, and the voice deepens. He bears within his being the creative

impulse, for the first time. If properly instructed, creative force will be turned into the channel of energy and vigor; if not, the probabilities are that the instinct will revert to the type as seen in many of the lower animals.

The changes of puberty are as pronounced in the healthy girl as in the healthy boy. Bodily enlargement is most noticeable at the hips; the framework increases in size to permit of enlargement of the ovaries and uterus. In sympathy with these the mammary glands, or breasts, enlarge. The mental changes are as remarkable; life assumes more pleasing proportions as the period of adolescence is ushered in.

Safety in Knowledge Only.

Knowing that the voice of passion will speak to every normal child, none are worthy of the name of parent who will not by every known method instruct their children. "If sharp tools were of necessity," says a modern thinker, "to be put into the hands of a child, we should realize that instruction in the wise use of them would be needed; and, if by ignorance the child were injured, we should blame ourselves more than we should him. The powers that come with the development of maturity, unless understood, are more dangerous than the sharpest razor, but the tacit teaching of society is that parents and teachers must keep silent and leave the child to learn by his own experience, and also to suffer the results of his own ignorance."

In its unperturbed aspect, the prompting of passion is the prompting to create; it is a great impelling force needing guidance. Of the many ways of expressing this power that of the physical union of the sexes is to be used the least; because of the intensity of feeling, great inroads are thus made upon the vitality of the body, consuming what might be used in making the most of life's possibilities. The haphazard generation of

offspring is what the world least stands in need of, and procreation is always attended by waste in parental energy.

It is part of the great plan of nature that the sexes shall be attractive to each other. "Either sex alone is half itself," says Tennyson. And "love is the fulfillment of the law," says an older volume. Companionship between the sexes is necessary to preserve an equilibrium. Those who are isolated are those who know least how to control the attraction toward the opposite sex. Hence comradeship should be cultivated; comradeship as human beings, however, not as representatives of opposite sexes.

When the time for marriage shall arrive, again there is need of the counsel of wise and loving friends, and good books. The *realities* of what the relation may mean should be made as clear as possible. The interested parties should learn the important lesson that control of the animal propensity and diverting the impelling force into other creative channels are more necessary after marriage than before, for the good of all concerned. The removal of all barriers to full and free intimacy would not mean license to unlimited sexual gratification if youth was properly instructed. "Life is harmony and health," writes a correspondent to one of the progressive journals. "There is harmonious expression for every natural impulse of life. Life is creative. To be filled with life is to be filled with creative desire. Every thought and every feeling is vitalized within this creative life. Life has endless variety; it creates in myriad ways. This variety is in man because life is in him. The world is filled with his creations, and still his creations are multiplying. Every human being feels an impulse to create in a way peculiar to himself, and ever longs until his desire is fulfilled.

"Now, when a human being develops from childhood into

youth, and feels the influx of a larger life in heart, in mind, in body, is he—or she—told, this is life impelling you to use it in creating beautiful and useful works for the help and happiness of your brothers and sisters? Life is love—and love desires to give itself and to create freely.

“No, he is told this new sensation is the animal passion which develops in all animals. It is the desire of the animal for sexual union with its own species; and its use is the perpetuation of the species; you will never find satisfaction and relief except in the fulfillment of this desire.

“Then begins the concentration of thought upon the sensation of life, and locating it in one part of the body. From henceforth every new influx of life is determined here, instead of being distributed through the whole body, as it would naturally be if the thought was not trained to prevent it. This causes congestion in place of free circulation, and inflammation in place of delightful sensation; and there is more or less uncontrollable desire for expression in one direction, instead of grand desires in many directions. While passion is being cultivated, the youth is also taught that this desire of the physical cannot be gratified except he secures a permit that is made legal, and marry one of the opposite sex.”

Recapitulating the average life, “as men have agreed to say it is,” it can be readily seen that the scant teaching the young receive regarding the development of life tends to make of marriage a state of unlimited debauchery, where self-control is thrown away. Why wonder at the few comparatively happy unions when it is only by chance that any have learned the beneficence of creative life, or the powers of sex. Outside of marriage sexual indulgence is regarded as degrading. Through what chemistry does wrong become right by legal enactment? Laws are supposed to bind people together for

sake of offspring, because offspring are believed to be the necessary consequence of physical intimacy. Heaven pity the pair whose only tie is the legal one, and pity the offspring of such unions!

Comradery, mutual interest, equality and reciprocal affection are the true binding forces, which no law can sever, nor generate if they do not exist. These are enhanced by conjugal intimacy of the nature that does not exhaust. "Conservation of power is both possible and effective for the unmarried; and through love, training and self-control, marriage may be consummated in such manner that not only is the same conservatism and appropriation attained, but, by the union of the spiritual forces of two souls, it is greatly augmented."—*Karezza*.

Completeness is never attained by man alone, or by woman alone. The eternal feminine complements the eternal masculine. Mutual love and tenderness leading up to a final complete blending of physical and spiritual natures generates a binding attractiveness that will not be set aside lightly.

A dramatic critic, in reply to the moralist (described by Kipling) who criticised the stage, remarks: "They (the aggressive moralists) will say, 'How do you account for the fact that a play in which there is exhibited pronounced sexuality or scenes of excessive passion or abnormal characters such as courtesans, strong-willed self-helpers, or even perverted beings, attract large audiences? How do you explain the fact that if a play contains what are described as *naughty* episodes, or *suggestive* scenes, it is pretty sure to be successful?'

"Now to these two pertinent questions I am not going to give the reply of the ordinary aggressive moralist, that human nature is evil and naturally turns to evil. This answer is neither real, true, nor philosophic. The real answer is parallel to the answer we must give to the question, Why do all men

and women secretly enjoy naughty stories, especially those dealing with indelicate subjects? Because these things are fundamentally of the first importance to the affirmation of life and its continuance."

It is not true, however, that ALL men and women enjoy "naughty" stories. The ascetic who truly believes the passion of the body to be vile shrinks from vileness. On the other hand, all who have learned to reverence the creative department or life are hurt and offended by common jesting or salacious stories.

Of the darkness and mysticism that surrounds the subject of love Mrs. Jameson asks: "Must love be ever discussed in blank verse as if it were a thing to be played in tragedies or sung in song, a subject for pretty poems or wicked novels, having nothing to do with the prosaic current of our every-day existence, our normal welfare and eternal salvation? Must love ever be treated with profaneness as a mere illusion, or with shame as a mere weakness, or with levity as a mere accident? whereas it is a great necessity lying at the foundation of morality and happiness. Death must come—and love must come; but the state in which they find us, whether astonished, blinded, frightened and ignorant, or like reasonable creatures guarded, prepared and fit to manage our own feelings, this, we suppose, depends upon ourselves. For want of such self-management and self-knowledge look at the evils that ensue: hasty, improvident, unsuitable marriages; repining, diseased or vicious celibacy; irretrievable infamy; cureless insanity. With childhood and youth thus frightened, oh, see to it, parents, that your own hands hold the helm of destiny rather than suffer such interests to be wafted by the gusts of casual influence, or driven upon the lee-shore of ruin by the monsoon of artfully excited passions."

Only the truth will make them whole.

Sex and Life.

Sex is the vital principle of life, and must be preserved as its balance-wheel. Any unnatural mode of thought or practice which silences the voice of desire emasculates character; from thence onward life is upon the down-grade. No one has been truly great who has been weak in sexuality. Geniuses are only conceived by a complete blending of the entire natures of parents. That geniuses are rare accents the fact that the majority are born of the merely physical unions.

Emanuel Swedenborg said: "The spiritual fruits of the union of the sexes are love and wisdom."

The celibate life may be full of much that is good, true and beautiful, but perfection is approximated most nearly when the two principles of sex are harmoniously mated. No adult alone in life but will, in the silence, know a longing for the counterpart who must be somewhere in the world. But abundant and useful employment for hands and brain will prevent any blighting influence from devastating the good there is. Unmarried persons should make it a point to mix freely in the society of equals. The magnetic atmosphere of a company of men and women has a tonic influence on those who live alone. If no effort is made to draw one away from self in a greater or less degree, vital force will wane. Man needs the society of woman; woman needs the friendship of man. If it can not be that they can forsake all other ties, cleave to one another, and rear a brood of love-begotten children, less intimate association will relatively benefit.

The isolated ascetic can never enter into the portals of spiritual grace and strength, such as is the outgrowth of association between the sexes. In true marriage the only natural way is opened for growth in every direction. Loveless lives are non-progressive lives.

PART II.

CHAPTER II.

The Dominant Power of Life.

THE power to think and reason and to express the higher intellectual planes through the forces of same in language seems to be one of the strongest distinguishing features between humankind and their kindred, the lower animals. The power to ascend to thought is exclusively human.

In the scope of human intelligence advancement is made by the ability to choose. Life is represented by contrasts; or by positive and negative forces. The positive gives, the negative takes away. The most common of these contrasts are light and darkness, heat and cold, good and evil, all of which have their uses in the economy of life. The power of choosing from the positives, or the negatives, is in thought. If the power to think is but weakly used individuals are straws on the current of life, wafted hither and thither by the force of thought of others upon the same plane with themselves. Nature abhors a vacuum, and if one will not think his own thoughts, the mind will be filled, or preyed upon, by thoughts of others to a large extent. Thought modifies the cast of feature, the manner of gesture, and the entire character. If you are determined and decided the bearing and address will make it known; vice versa. Dickens recognized the outward expression of the interior life and makes use of it in describing "Miss Wade" in the story of Little Dorrit: "Although not an open face, there was no pretense

about it. 'I am self-contained and self-reliant. Your opinion is nothing to me. I have no interest in you, care nothing for you, and see and hear you with indifference'—this it plainly said. It said so in the proud eyes, in the lifted nostril, in the handsome but compressed and even cruel mouth. Cover either two of those channels of expression, and the third would have said so still. Mask them all, and the mere turn of the head would have shown an unsubduable nature."

The Power of Thought.

The veneer of polish which conventionality decrees can rarely hide real characteristics. The silent but powerful influence of private thoughts makes a record upon the form, feature, and gesture. That thought is constructive is everywhere to be seen, and it follows in the direction of ideals. If there is no clear-cut ideal, character is vacillating. Life grows from within; hence the true power to live comes from ideals approved by the conscience, and enforced by the will.

Regarding thought Mr. C. C. Post says: "There are currents of thought as there are currents of electricity, of magnetism in the earth, of water on the surface of the earth, of air above the earth. I know it because the same law runs through all things, and there is never a cause without its accompanying effect; never a spring without a rivulet of flowing water."

Whatever one thinks allies him with the strata of thought of others on the same line or current of thought. It attracts a similar element from others, in proportion to the strength put forth.

The study of evolution shows that animals evolved the parts of body needed to place them in harmony with their surroundings. While people may not be able through the force of their thoughts or desire to grow wings, they can, in the realm of

mind, become that upon which the heart is fixed. Evolutionary development has progressed beyond the physical realm. "Fra Elbertus" says: "All things come through desire, and every sincere prayer is answered.

"Many people know this, but they do not know it thoroughly enough so that it shapes their lives."

To be convinced of a desire and be backed by resolution, its attainment will come, no matter how many obstacles must first be surmounted. The central idea is to fix the mind upon an aspiration, and then not waver in working to that end. That does not say that the end will bring peace and happiness, for it may not be in harmony with the abstract law of universal goodness, without which no one wins contentment. An object may be persistently desired which, when obtained, will only bring disappointment. But the law is the *Law*. We get negatives by desiring them.

When life's forces or energies are put forth in a wrong direction, even though it be done in ignorance, the seeds of punishment are implanted therewith. Or if the wrong is done knowingly the individual is adding fuel to his own discomfiture. "Fra Elbertus" tells us that "Sin is its own punishment. God never punishes men for their sins: a self-lubricating, automatic Law looks after that." There is no escape from the penalty except a change of causes. As physical pain is felt from a misuse of bodily powers, so mental suffering must be as the result of misappropriation of mental powers. Experience in any degree of transgression ought to give wisdom to avoid the cause, on the same principle that "a burned child fears the fire."

"Man wittingly or unwittingly violates law—physical, mental or spiritual—and the inner tribunal and sequential penalty judge him. The law in itself may be kindly and the penalty educational, but to his untrained vision they both seem adverse

and even evil. But only through some experimental infraction of the moral order can undeveloped man divine its mandates. Only the freedom of choice, and some degree of discipline, at least slight, for missing the mark, make developed moral character and spiritual fiber possible. As man progresses in inner unfoldment and attains higher evolutionary planes, his divergence from the moral highway will be more slight. At length he will feel its leadings and outgrow the necessity of the hard primitive cuffs and blows which are provisionally required to startle him and push him out of the deep ruts of animality. * * * Growth is only possible through wise choosing and exercise."—Prof. Henry Wood.

Love the Needful Element.

The needful element to growth is the spirit of love. And it may be cultivated by striving to overlook, to not recognize, anything that excites antagonism. The foundation principle was expressed by the Christ when He said, "But I say unto you resist not evil." And Prof. Wood says: "The scientific value of non-resistance is that it destroys all the realism that evil possesses. In proportion as one turns his back upon it and leaves it behind it dissolves into its native nothingness."

As the absence of heat may cause one to freeze, and the absence of light may confuse and cause one to lose his way, so the absence of good may work to the disadvantage, and even injury, of one not fortified by strength from within. Good includes everything that works for the uplifting of humankind. Evil includes whatever lowers. As soon as the intelligence comprehends the fact that evil has no power save as a place is given it in thought, and non-recognition is practiced, one is upon the true highway of mutual and spiritual progress. To aid this end Mrs. Talbot has the following to offer: "You

must know that thoughts are creative, that words are spoken thoughts and stand for the things spoken. You can hold to a certain thought until you bring about the condition of that thought. You not only affect yourself by thoughts, but others also. Bravery and confidence beget bravery and confidence; love and tenderness beget love and tenderness. But what is of most importance for you to know is that reiterating a certain word brings about the condition of mind that word or thought represents. This is a law capable of proof by all."

In rhyme Ella Wheeler Wilcox expresses the same thought:

"Words are great forces in the realm of life;
Be careful of their use. Who talks of hate,
Of poverty, of sickness, but sets rife
These very elements to mar his fate.

"When love, health, happiness and plenty hear
Their names repeated over day by day,
They wing their way like answering fairies near,
Then nestle down within our homes to stay.

"Who talks of evil conjures into shape
That formless thing, and gives it life and scope.
This is the law. Then let no word escape
That does not breathe of everlasting hope."

An experiment as to the action and reaction of thought-force is as follows:

When in the company of persons who do not antagonize what you have to say, enter into a description of something you dislike or hate. Let it be of a person who you think has done you wrong; or if you are a partisan in politics or religion, denounce the follies, fallacies and iniquities of the opposition.

Let loose the vials of wrath, and be sure that you *feel* what you are saying; keep up the tirade as long as you can. Then drop the matter and go about your ordinary occupation. Dismiss the subject entirely and forget what you have been saying.

In from two to six hours the rebound will be felt. Thoughts go first to the object toward which directed, and do their work if the person be not defended by a power of non-recognition of unwholesome influence. You may have forgotten the subject of wrath or denouncement (though if trying it as an experiment you will not be apt to). When the reaction comes a terrible fit of despondency is felt; there will seem to be no light or ray of hope whichever way you look. You may even feel that life is not worth living and incline to suicide. Everything will assume the worst possible hue.

It is only that the conditions created by an antagonistic state of mind have returned as "chickens come home to roost."

After proving that despondency or "the blues" comes through holding thoughts of evil, and concentrating energy upon them, the opposite experiment may be tried.

Think of some useful, pleasant subject, or person, and say everything good that can be thought of it. Laud it to the skies, and for as many minutes as possible hold the thought to the subject. Then forget the subject and assume the ordinary duties of life. In a few hours exuberance will come, and joy that will uplift the heart and stimulate the belief that all is good.

All the time people are performing one or both of these experiments. The confirmed pessimist has practiced denouncing, the optimist praising.

One of the present-day philosophers says, "A man doesn't really begin to live until he begins to love with that real love which eliminates every element of evil." Which is to say,

when one allows the light of love to shine into the soul without placing barriers in the way he has at last found his place in the true relation to the universe. In thinking thoughts of goodness, of health, of peace and prosperity he becomes allied with those elements in both the material and spiritual realm. For, as Helen Wilmans says, "The entire universe is one mind of which all objects, including man, are varied expressions." And as like attracts like in one realm so it does in another."

"To strive to forget enemies, or to throw out to them only friendly thought, is as much an act of self-protection as it is to put up your hands to ward off a physical blow. The persistent thought of friendliness turns aside ill-will and renders it harmless," says Mulford.

"There," said a boy to whom his mother read the above paragraph, "is a better reason for being good and doing good than to tell a fellow the devil will get him if he don't do right."

The instinct of self-preservation, "the first law of nature," is appealed to. By constant practice an attitude of friendliness becomes a habit. By that it is not meant that one should endure, then pity, then embrace what is not good, or that one should wink at the evil-doings of society. We can be friendly to a sinner, but not to the sin; and can see that sin is a wrong expression of life's energies. If possessed of sufficient wisdom and skill, we may be able to persuade a sinner to forsake the error of his way, by enabling him to see the sooner he changes front the less will be the pain and punishment as his share of discipline. Very few can philosophically accept pain and punishment as the "beneficent friction that turns men back from what would otherwise be self-destruction."

It is most important that natural law be learned, because knowledge of its rewards and punishments would save from many mistakes. It would change the point of view in the

majority of instances, and teach the advantage of coming into harmony at an early day.

The Folly of Fear.

"The truth shall make you free," says the good book. The constant seeking for what is true enables one to approximate freedom. But there is one thrall which prevents progress so long as individuals allow themselves to remain under it, and that is fear. Fear is the greatest foe of all, and it travels like an epidemic if conscious thought is not closed against it.

A bright newspaper woman, in an article contributed to her journal about cowardice, said: "There is nothing on earth to be afraid of—nothing worth being afraid of—if you face it.

"A coward is always afraid. Day or night, asleep or awake, eating or drinking, afraid, afraid, afraid. Of what? Of his own weak, groveling spirit. Of his own shrinking soul.

"If a man can not depend upon the friend within his own soul to help him in time of need, he is indeed friendless."

And Brother Elbert Hubbard says: "Fear is the rock on which we split, and hate is the shoal on which many a barque is stranded. When we are fearful the judgment is as unreliable as the compass of a ship whose hold is full of iron ore. When we hate we have unshipped the rudder. And if we stop to meditate on what gossips say, we have allowed a hawser to befoul the screw."

How can one lift one's self out of the strata of fear? By refusing to receive the thought—by resisting and not recognizing it. Fill the mind with thoughts of universal goodness. "Out in the silent night, under the stars, say to yourself, again and yet again, 'I am a part of all my eyes behold.' And the feeling will surely come to you that you are no mere interloper between earth and sky, but that you are a necessary particle of the Whole."—Fra Elbertus.

And as a necessary particle of the Whole, rely upon yourself to such an extent that what others may think or say will not cause a wavering from any noble desire to do or be. Put away fear that the power of thought may work in freedom, and then by experience and observation learn to distinguish what is good from what is not good. "He who will not see the truth can not actualize it in his life and surroundings," Mrs. Wilmans says. And that finds a parallel thought in the words of Samuel Taylor Coleridge: "He who begins by loving Christianity better than truth will proceed by loving his own sect or church better than Christianity, and in loving himself better than all." No limit must be placed upon possibilities. We may not always have the same point of view: indeed, if there has been mental and spiritual progression, we will not. As the scope widens, more and more of the circle of Truth can be comprehended.

The Ideals of Character.

The natural law of human progress is that we shall grow in the direction of our ideals; the higher the ideals the higher the character developed. If resolution is fixed to do the best that we know toward any given end, do not care if your manner of living is not entirely acceptable to the crowd among which you move. Undeveloped character may be compared to unripe fruit. Both are at last recognized for their true worth when unfolded and grown to maturity.

Mr. J. A. Edgerton is the author of the beautiful poem entitled, "Resolution," from which the following stanzas are taken:

"I will cling unto the highest; I will struggle toward the right;
I will keep my spirit windows ever open to the light;

I will keep my mind anointed with the magic balm of youth ;
I will keep my footsteps pointed toward the shining hills of
Truth.

“I will leave the creeds and dogmas to the pedant and the
priest ;

I will seek to do my duty in this present life, at least.

What am I? If I should live, or if I die, when I am gone,

There is nothing lost, or can be, for the Universe moves on.

“In my spirit is a promise of a sweet Eternity,

Of a progress onward, upward, through the eons yet to be ;

I will trust it, well content ; and strive to fill my present place

As a unit of the Infinite, a factor of the race.”

The purpose of every one in whom spiritual consciousness has been quickened should be in accord with the first stanza quoted. To keep this spirit window ever open to the light one must conceive of infinite light as being immediately without, ready to enter when barriers are taken away ; for thought fixes things in their relation to individual life. “By our desires we relate ourselves to the thing desired,” Mr. Post tells us. By constantly and persistently desiring, attainment is finally reached. But the Universe is Good ; Good is the positive force, and as thoughts and actions are in harmony therewith is firm ground gained. Browning says, “There never was one lost good.”

Mistiness, ignorance that this is the true pathway to higher things, may cause the Children of Earth to waver in their allegiance to Good ; but once on higher ground, where the mists dissolve, desire is singly for the way that leads to happiness.

A further step in that progress knows no resting-place. Once having attained that which was desired, the soul seeks yet other

means for perfecting growth. It has been said that a satisfied person is not a progressive one. What was an ideal, and infinitely desirable at one point of development, will be used and discarded, and another and better take its place. This is the natural upward path to the rounding out of character. Conscious determination to conquer obstacles and acquire ideals brings strength for accomplishing. Resist not evil—ignore it, and work with a will toward that which is good with the might which is in thought, the dominant power of life.

PART II.

CHAPTER III.

The Temple of the Soul.

THE body, the dwelling-place of the Ego, is the seat of ever-changing activity. Its beauty, strength, and all the graces, or lack of them, depend upon development in accordance with natural law, or in transgression of natural law. First it becomes needful to know the way of life; after that it is only necessary to "obey and live."

There is, within every natural mind, an instinctive dislike for whatever is repulsive or shows signs of decay. The same inherent reason that causes one to object to rags and tatters in the way of clothing causes one to dislike imperfections of the body. It is the tendency of human nature to seek the relatively perfect.

Beauty Acquired by Self-Culture.

With a little care each day most of the imperfections of the body can be improved or overcome. Beauty and strength of body are acquired by attention to physical needs, just as beauty and strength are added to the intellect—by taking thought. Added to that is the more powerful power of the mind to preserve and rejuvenate the body.

Says a well-known writer: "You, and generations before you, age after age, have been told it was an inevitable necessity—that it was the law and in the order of nature for all times and for all ages—that, after a certain period of life, your body must wither and become unattractive, and that even your minds must fail with increasing years. You have been told

that your mind had no power to repair and recuperate your body. * * *

“It is no more in the inevitable order of nature that human bodies should decay as they have decayed in the past than that man should travel by stage-coach as he did years ago; or that messages should be sent only by letter as before the use of the telegraph, or that your portrait could be made only by the painter’s brush as before the discovery that the sun could print an image of yourself on a sensitive surface prepared for the purpose. * * *

“If you make a plan in thought, in unseen element, for yourself as helpless and decrepit, such plan will draw to you unseen thought-element that will make you weak, helpless and decrepit. * * *

“If in your mind you are ever building an ideal of yourself as strong, healthy and vigorous, you are building to yourself of invisible element that which is ever drawing to you more health, strength and vigor. * * *

“Persistency in thinking health, in imagining or idealizing yourself as healthy, vigorous and symmetrical, is the cornerstone of health and beauty. Of that which you think most, that you will be and that will you have most of.”

This thought is not essentially new when it is remembered that Shakespeare was continually bringing the idea forth in varieties of dress. “There is nothing either good or bad but *thinking* makes it so,” he tells us. But humanity has had to be developed to understand thoughts uttered by master-minds that grasped the truth.

The Inner and the Outer Life.

“Outer life must correspond to inner life, else law and sequence would be at fault, and the chain which binds cause and

effect be severed." So let us place ourselves in harmony with the natural tendencies to beautify, and thereby align ourselves with the beneficence of all Natural Law. There are many means for adding to external beauty, but only that is real and lasting which is made by an inner life which acknowledges and demonstrates that "All is Good"—that what are known as evils are no more a part of Natural Law than barnacles are a part of the ship to which they become attached. That one can and should live above fear and strife for the best development of form, feature and *character*.

The author of "The Woman Beautiful" says: "There's nothing that will make a stolid, bovine face like a brain that isn't made to get up and hustle. * * * Study is mental development, and mental development usually means a bright, pleasing expression."

Where are the girls or adult women who care only for a doll's beautiful, expressionless countenance? They are not to be numbered among those whose minds are not infantile. Yet they who possess the secret of lasting beauty are too few.

Madame Yale, the beauty specialist, says of the facial expression: "Our feelings are portrayed very accurately on the surface of the face and are telegraphed silently to all who behold it. Consequently there is no way of disguising the real cause of a bad expression."

There may be lotions for the complexion, tonics and brushings for the hair, care for the hands, etc., but unless the inner woman be under cultivation also, the veneer will not avail for long.

If one should be under a hereditary cloud of ill-nature so that it is not natural to look for the bright side, it can be dispersed by cultivating cheerfulness and amiability until the habit becomes established. To this end it will be of great as-

sistance to practice Mrs. Talbot's *Joy Lesson*; which is to go to your room and lock the door, sit down by your reading-table, or dressing-table, and repeat the word *Joy* aloud. It will assist mental concentration on the thoughts of *Joy*, *Peace* and *Love* to tap with a pencil on the table as the word, or words, are repeated. Exclude all other thoughts; and, after the mind becomes fixed strongly enough to attract the thought-element of gladness, ill-nature, or "the blues," will be banished as darkness fades before an influx of light.

A writer to *Freedom* says: "While the principle of Life and Love exists we must claim its living reality in act, and in feature, and its expression is Gladness.

"Glad of what? Of everything. If you sweep crossings put your soul into your work while you sweep. Make clean your corner of the earth. The joy of any kind of work is in doing it as well as can be done. Try it and see how the act of concentrating your attention upon what you are doing will deliver you from feeling that it is wearing or beneath you or anything that you don't want it to be.

"Remember it is not the kind of work you are doing that will elevate or lower you in the evolution of the race. It is the attention that you give it that is helping to organize your mental faculties and lift you into a clearer consciousness."

Unhappiness, moroseness, sourness of disposition result from an unnatural bias of the mind. When a point of view makes one unhappy it is a wrong point. There may be checks, disappointments and even defeat, but if viewed from the right point they contain the germs of recompense. It is not that the problems of life have no true explanation when the sky of one's life is overcast, but that the exact place from which the skein can be raveled has not been reached. This is the way the master-mind of Emerson stated it: "Cause and effect, means

and ends, seeds and fruit can not be severed; for the effect already blooms in the cause, the end pre-exists in the means, the fruit in the seed. The changes which break up at short intervals the prosperity of men are advertisements of a nature whose law is growth."

The Power of Habit.

Man is but a bundle of acquired habits, says an ancient proverb. This is only true so long as life is allowed to flow in the channel of the least resistance. When it is discovered that any habit contains the germs of mistake which will bring a harvest of mental and physical suffering, the human being who would continue the habit is not a well-developed specimen of the species.

Youth is the habit-forming period, and, of course, may be saved disciplinary suffering if proper habits are instilled into the growing intelligence. At the same time the idea of the power of a positive mental attitude should be made known. Wrong habits may be crowded out by the substitution of proper habits in a positive mind. Submission to wrong habit acknowledges a weakness of mind. Youth needs that guidance from wisdom and experience which will enable it to control the life-forces which flow through each particular organism. This assistance is best given by turning toward the developing young the potent power of thought, in which is positive recognition of inherent good. It adds just so much to the native strength of the youth, and so helps him to rise "by things that are under his feet." Holland's verse says:

"We rise by things that are under our feet;
By what we have mastered of good and gain;
By the pride deposed and the passion slain,
And the *vanquished ills* that we hourly meet."

The parent of all mischief is idleness. There is no point in the career of life where one can afford to be idle. Activity is the natural means for growth. If, in youth, the right means for the expression of vital force are not provided and directed, it must follow that the wrong means will be used, for life is expression.

Each person, young or old, lives up to his or her ideas of happiness, according to the energy of the directing power, the will. It may be these ideals are contrary to the Law of happiness; if so, they will fail to realize happiness. The spirit of altruism should prompt every one to recognize the spark of divinity in his fellow-creature, and endeavor to help it to mature. Refuse to look at the wrong expressions of life, called sin, and direct toward the needy thoughts of good. Man, or woman, is not an isolated creature; the family is not an isolated creation; they are parts of the social organism, and rise toward happiness the more swiftly by endeavoring to elevate all.

Julian Hawthorne thus summarizes an article on the oneness of humanity:

“Philosophy discovers that mankind is one, and civilization confirms the revelation.

“First comes the self-consciousness of the individual, then of the family; afterward successively of the nation and the race. Humanity, begotten an unself-conscious unit, was splintered into fractions by self-consciousness; and history shows us how it voluntarily recombines till it becomes a unit once more, every atom conscious of the whole, and the whole feeling through its component parts.”

“No man liveth to himself alone.”

Each one of us must hold himself a part of all we see, and by learning the higher laws overcome the lower. No time should be spent in repining: see mistakes and rise above them.

As our prophet of the morning said to a daughter, "Finish every day and be done with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. Tomorrow will be a new day: begin it well and serenely and with too high a spirit to be cumbered with your old nonsense. This day is all that is good and fair. It is too dear with its hopes and invitations to waste a moment on the yesterdays."

So much for beautifying by means of self-culture.

Beauty of Body and Beauty of Soul.

If beautifying the character reacts on the exterior, it is also true that care for the body has a beneficial reaction upon the intellect. The body is the house in which we live: it may be either the temple or the prison of the soul. Each person must look to the sanitation and beautifying of his soul dwelling-place, or, like the material abodes, it may become foul, unhealthy and unfit as an abiding-place. The body is also the medium through which the Ego receives education. If care is not given to keep the delicate machine harmoniously working, advantages otherwise obtainable through health are closed.

The Needs of the Body.

A healthy mind in a healthy body was the Grecian ideal, which, so long as that ideal adhered, caused Greece to lead the world. But Greece had not fully discovered the Law. She worked from the outside, whereas the Law means first the healthy mind. "In proportion as mind becomes pure and wholesome, habitations and environment are transformed as a resultant correspondence." The transformations result from **mental culture.**

Let us consider the needs of the body under the heads of:

Breathing,	Dress,	Rest,
Diet,	Work,	Special Exercises.
Bathing,	Recreation,	

BREATH is the first need of independent life. The babe's first cry which gladdens the mother's heart is his earliest physical need for the air which shall be one of the chief sustainers of the life upon which he has entered. Throughout his earthly apprenticeship health, strength and the power of endurance depend mainly upon the breathing capacity.

BREATHING.

The physiologist Cutter describes the lungs as being "two in number, and occupy completely and accurately the pleural chambers of the thorax. Each lung is free in all directions, except at the *root*, which chiefly consists of the bronchi, arteries and veins connecting the lung with the trachea and heart. The lungs are spongy, porous organs, the tissues of which are very elastic.

"Each lung is of a conical shape, the apexes of which are blunt and project into the neck from an inch to an inch and a half above the first rib. The base is broad and concave, and rests on the diaphragm. Each lung is divided by a deep fissure into upper and lower lobes. The upper lobe on the right side is imperfectly divided into two lobes, making three in the right and two in the left lung. The lobes are made of many closely packed lobules. Each lobule is composed of the terminal branch of an air-tube, possessing a cluster of air-cells. In the fine interstitial areolar tissue of the lobule ramify the pulmonary vessels, the nutrient vessels, the lymphatics and the nerves."

Respiration introduces oxygen, a food, into the lungs, and

by the diffusion of gases leaves some of it with the old air in the lobules and carries away carbonic acid gas—waste and poisonous product. The diffusion, or mixing, of gases is of the greatest importance in the economy of nature; accumulation of poisonous gases is thus prevented, and the interchange of gases made possible, in organisms provided with lungs.

Oxygen is the most abundant and the most important of all the elements. Through the process of *osmosis*, or the diffusion through a membrane, the blood attracts oxygen and gives up carbonic acid gas. Almost all of the chemical changes in the body are between the oxygen of the air and the carbon and hydrogen of the food. When deprived of pure air the body is injured as much as when deprived of pure food—though in a different manner.

There are two principal ways in which the body is deprived of needed oxygen: by lack of ventilation in the dwelling, and by tight clothing, which prevents elasticity of the trunk and chest. Both are very common violations of the law which makes breathing necessary to life.

The Need of Fresh Air.

The body needs, in pounds, three times as much air as it does food and drink combined; yet so accustomed are people to eat and drink, and to breathe scantily, that the body is filled with disease and impurity. Morbid lungs mean morbid conditions in every function of the body.

Ventilation is the process of keeping a standard of purity in occupied rooms, notwithstanding constant vitiation from respiration and combustion through lighting and heating agencies. The changes by ventilation are partly through the diffusion of gases and partly by actual currents of air. Rooms must be provided with an inlet for pure air and an outlet for vitiated air.

The sleeping-room, in especial, should receive the necessary ventilation. Except in cases of heavy wind, excessive damp, or storm, the sleeping-room windows should never be closed.

One-third of life is usually passed in sleep for the recuperation of powers for use and development in the other two-thirds. During sleep the body becomes unconscious of surrounding dangers, among the worst of which is vitiated air. There are no sleeping-rooms large enough to accommodate enough pure air to suffice one person's needs through the night. The intermixture of the pure air in the room with the exhalations from the lungs makes the stored-up air less and less pure with each breath.

In the temperate zone the forces of nature are efficient in changing the air in summer. Damages to the body are common in winter for lack of attention to this very necessary provision. Windows and doors are provided with "weatherstrips" to "keep out the cold;" doors are closed as quickly as possible; windows *never* opened. In such houses the dispenser of drugs and medicines finds steady patronage, and the patients are always complaining that they can find "nothing that will help" them. There isn't anything to take the place of common sense, which teaches that unless there is abundance of pure air, pure water, pure food and plenty of sunshine normal health can not be maintained. The pioneer forefathers had abundance of pure air and sunshine, which largely made up for what was lacking in other ways. Had they not overtaxed themselves with muscular exertion and their wives with excessive child-bearing as well as labor, their descendants would not be the puny things they are.

The best recognized method for the ventilation of houses—sleeping-rooms particularly—is by means of the open fire. The upward current provided thereby draws away the vitiated air.

It is necessary, however, that the supply of pure air come from without, the best place being from the lower part of an opened window. The Encyclopedia Britannica makes the following note on this subject :

“The absence of proper inlets for air in a house where several fires are burning involves a danger that is much more serious than other effects of bad ventilation. When the air which is required to take the place of that discharged by the chimneys can only struggle in through small openings, the pressure within the house falls considerably below that of the outer air, the water-traps under basins and closets are liable to be forced, and foul air is drawn in from every leak in soil-pipe or drain. The writer has found a house drawing what seemed to be its main supply of ‘fresh’ air from the public sewer, through a defective joint between the soil-pipe and the (untrapped) house-drain.

“To preserve the lowest standard of purity tolerated by sanitarians, ventilation must go on at the rate per person of 1,000 cubic feet per hour, and 3,000 cubic feet per hour are required to preserve the higher standard on which some authorities insist. Parkes advises a supply of 2,000 cubic feet per hour for persons in health, and 3,000 or 4,000 cubic feet per hour for sick persons.”

Ventilation should be accomplished without creating too great a fall of temperature. Living-rooms should not be kept too warm, so that the lungs experience too great a change when in the open air, as every person should be for a part of each day. American homes are commonly super-heated.

There should be no damper, if a stove is used, in sleeping- or sitting-rooms, so that the products of combustion may pass freely out at the chimney. Vessels containing water should be placed near the fire on a heating-stove to preserve a good de-

gree of moisture in the room. Cook-stoves should be provided with a hood built so as to project over the stove, for the purpose of conveying away vapors that arise from cooking. Especially in winter are the vapors confined if an outlet is not provided, so that the occupant of the culinary department is subjected to a steaming not intended for herself. Attacks of chill are thus very easily incurred.

The Deadly Corset.

In addition to poor ventilation a large percentage of the female half of civilization have the trunk of the body ligatured so tightly that a full, deep breath is an impossibility.

The corset is an inheritance from the past for which we are not grateful. Its aim is directed toward securing slenderness and shapeliness of the human figure, but which falls short, in every direction, of attaining any beneficial result. The custom of wearing this garment has created a model that few women have strength of mind enough not to follow, although it is immeasurably better to follow good principles than bad fashions. To be able to have a healthy body in which full breathing is practicable there must be no restriction to muscular action from neck to toe. There must be perfect freedom to have perfect development.

In the human body the bony frame-work of the ribs furnishes protection to the upper chest, or corset suicides would be more numerous. As it is, the floating ribs are cramped and distorted, displacing the internal organs. In the economy of the body each organ has its own place as well as its own function; there are no cavities or vacant spaces. Altogether they furnish the machinery by which life is expressed. Nor can one be displaced, or its use set at naught, without overtaxing and injuring other organs of the system. That the lower part of the body was not provided with a bony frame-work must mean that the

organs contained therein should have unrestricted action. All the needed support to the abdominal viscera is furnished by the small ligamentous band which suspends each organ, and by the abdominal wall, which is composed of three layers of muscles.

Suppose an arm or a leg should, from puberty, be subjected to constant pressure during the day. Would not that member in time become comparatively useless? Yet the digestive, respiratory and part of the circulatory systems are compressed and hindered until good health is impossible.

Commiseration for sins against the moral law is very scant. Every person who transgresses is considered worthy to receive the punishment which follows in the wake. Transgressions against the physical are as inevitable and as just. Old Dr. Johnson hit the truth when he said, "Every sick man is a rascal," though the rascality may consist only in self-injury. Women are "the weaker sex" because they have made themselves so, the violations of physical law reflecting in the mental and spiritual realm. Miss Willard said this: "Niggardly waists and niggardly brains go together. The emancipation of one will keep place with the other; a ligature at the smallest diameter of the womanly figure means an impoverished blood supply in the brain, and may explain why women scream when they see a mouse." In her life-time Miss Willard was one of the true students of cause and effect.

Dr. Ellis says: "The practice of tight lacing has done more within the last century toward the physical deterioration of civilized man than have war, pestilence and famine combined."

Dr. Foote says: "Tight lacing is a practice more destructive to health and longevity than tobacco-chewing, liquor-drinking or pork-eating."

The German physiologist Sömering enumerates ninety-two diseases resulting from corset-wearing.

Madame Yale gives the following list of the corset's crimes against beauty :

"1. Stiff, inflexible waists, with a coarsely exaggerated contour in place of slight and subtle curves.

"2. Sickly, sallow complexion.

"3. Pale, thin, compressed lips.

"4. Red noses.

"5. Lack of buoyancy, general feebleness, lassitude, apathy and stupidity.

"6. Distorted features.

"7. Soured tempers.

"8. Wrinkles.

"9. Lusterless eyes.

"10. Ugly shoulders.

"11. Ugly bust.

"12. Clumsiness. (Corsets render any woman more or less inelegant and ungraceful in her movements. Her imprisoned waist, with its flabby unused muscles, has no chance of performing beautiful undulating movements.)

"For the corset as a bust support there are now any number of better substitutes. But women should distrust any kind of a 'support' which antagonizes the foundation principle of physical development, viz., the perfect muscular possession of the body."

Dr. Richardson says: "If tomorrow women were placed in all respects on an equality with men they would remain subject to superior mental and physical force so long as they crippled their physical, vital and mental constitution by this one practice of cultivating, under an atrocious view of what is beautiful, a

form of body which reduces physical power and thereby deadens mental capacity."

Dr. Kitchen says: "The whole civilized world is in bondage to a pernicious habit of dress—practiced by women and countenanced by men—that threatens the abrogation of the diaphragm. Were it not for the nightly recesses which the diaphragm receives from the constricting pressure of the tight waist, it would soon atrophy, and life to the corset-wearer would be a very brief span."

Again the same author says: "The corset on a child is slow murder of the child, and if she be of a phthisical or consumptive tendency it is not so very slow murder either. * * Every woman who has grown up in a corset, no matter how loosely worn, is deformed."

Quotations and argument against this vain and foolish garment might be indefinitely prolonged. The devotee of fashion, rather than be a follower of natural law, will continue violations unless pain and suffering call a halt. Perhaps when ordered by her physician to lay aside the corset she may begin to imbibe ideas relating to habit and health. Growth is from within. "The first indication that a woman's mind and soul are expanding is when she lays aside her corset." While she adheres to it she is impaired as a human being, emasculate as a representative of her sex. In her the creature without power to love is found; in her are found wanting the elements necessary to make an equal factor in the human race with man. The woman who begins the day by putting on a corset with her morning gown for fear of being called untidy, and for the same reason continues wearing it through the day, is she who is ungenerous, illiberal, fault-finding. If her views of life were large and true she could not be so unkind to her own body as to hinder its most vital processes.

Women's environment and heritage from the past have largely made them dependent upon men. Consequently when the understanding of man is great enough to make him a practical enemy of the corset it will be put aside. As Ella Wheeler Wilcox says :

"All we have done, wise or otherwise,
Traced to the root, was done for love of you."

Girls at home, longing for a moment's personal comfort, lay aside the corset, and are met with reproach or ridicule from brother or father for being "slouchy." Wives often receive the same remarks. Both the use and reception of those ideas are based upon ignorance. A woman sure of the righteousness of her cause can expound to the male relative the virtues of not wearing the corset. But she should not, and need not, be slouchy. A man conversant with natural law can do much to enable a beloved one to see the right. Or at the extreme, he can improve by the recommendation of a writer to *Physical Culture*, who says: "The writer does not expect to reform women. He wants to reform men—desires them to see clearly the necessity of marrying women—not sexless nonentities; by this means the reform of women will the sooner be accomplished."

Gerald Massey said: "No woman has any right to marry anything less than a man.

"No woman has any right to marry any man who will sow the seeds of disease in her darlings; no, not for all the money in the world."

What is sauce for the goose is sauce for the gander. No man in whom is the true spirit of manliness will marry a corset-wearer. He has the right to demand a reform before marriage; and he must assist all in his power to aid to mental growth so that the garment which does so much to undermine health will never be assumed again.

The habit of corset-wearing may be likened to the drink habit in men. Equal damage is done to the soul and body of the slave, and an equal heritage of mental and physical weakness is bequeathed to posterity.

The proportionate figure should have a waist measurement equal to two-fifths the height; the weight should be as follows:

4 feet 10 inches	100 pounds
5 feet 0 inches	110 pounds
5 feet 1 inch	115 pounds
5 feet 2 inches	120 pounds
5 feet 3 inches	125 pounds
5 feet 4 inches	130 pounds
5 feet 5 inches	135 pounds
5 feet 6 inches	140 pounds
5 feet 7 inches	146 pounds
5 feet 8 inches	153 pounds
5 feet 9 inches	161 pounds
5 feet 10 inches	170 pounds
5 feet 11 inches	180 pounds
6 feet 0 inches	191 pounds

Clothing that in any way hampers the body must be laid aside for other garments that allow freedom. Deep breathing can and should be consciously cultivated; for the integrity of health largely depends on aeration of the blood. Mrs. Le Favre says: "When it is understood that there are upward of a hundred million air-cells in the lungs and that each and every cell is intended for use, we get a notion of the tremendous importance of Lung Culture." "Remember that it is not more fat nor harder muscle that is to save the world from consumption, but larger and more mobile chest walls and the ability to keep the entire lungs actively engaged."

In all movement the chest should lead; the abdomen be well drawn in; the vital organs raised.

If mankind were stationary improvement would be impossible. For the fact that we are not we should be duly grateful. The female figure and female health can be improved, after years of disobedience to natural law, by facing about and following the right path. As onward she may press toward physical and spiritual perfection any woman will win strength according to her needs.

DIET.

IN DIET no specific regulations can be given that will apply in all cases. Each individual must decide for himself as to that which best nourishes. Dr. Charles H. Shepard says: "It is what we eat and drink that makes or mars our condition. If we partake only of the pure we shall be clean and pure throughout. If, on the contrary, we attempt to build up with gross material it will result in uncleanness, disease and death."

A Japanese proverb says that it is not what we eat but what we digest that builds up the body. Food may contain many elements of nourishment, but if not acceptable to one's individual powers of digestion and assimilation, to him it is the same as if no nutrition was contained therein.

Humankind is largely governed by the sense of taste. In one part of the globe the food used may be revolting to inhabitants of another. Dr. Foote says: "John Chinaman feasts on cats, dogs, wharf rats, sea slugs, sharks, bats, and caterpillar soup. Australians and many other people eat snakes, kangaroo-rats, mice, maggots, etc. The Japanese prefer green peaches, apricots and plums to ripe ones, as an offset, I suppose, to our eating green cucumbers. One who visits Africa may have a plate of tender young monkey; while the people

of the Arctics treat their visitors to a diet of putrid seal's flesh, putrid whale's tail, reindeer's chyle, and partially hatched eggs."

It would be hard to find anything of either the animal or vegetable worlds without *some* nourishing properties as food. If the sense of taste were not largely perverted it could be trusted to select food for the system; but in early life, before any of the powers are ready to discriminate, all manner and conditions of food are given until digestion is deranged and taste is made abnormal. Often, it is true, depraved taste is inherited, but more often it is cultivated. Few mothers realize the need for feeding infants regularly. Every expression of pain or discomfort is met with proffers of food, until the sense of taste becomes *the* ruling propensity during childhood, and often through life. Pleasing the sense of taste is the open door to pleasing other bodily senses; and as the body lives by that upon which it feeds, whole trains of evils are engendered by abnormal taste.

Dear Froebel, lover of children and of humanity, said: "Always let the food be simply for nourishment, never more, never less. Never should the food be taken for its own sake, but for the sake of promoting bodily and mental activity. Still less should the peculiarities of food, its taste as a delicacy, ever become an object in themselves, but only a means to make it good, pure, wholesome nourishment; else in both cases the food destroys health. Let the food of the little child be as simple as the circumstances in which the child lives can afford, and let it be given in proportion to his bodily and mental activity."

Simplicity and Moderation.

A general rule for application to dietetics is simplicity. The craving for hot spices, fermented drinks, fetid cheese, all highly

seasoned epicurean delights, is acquired artificially. Whenever possible the young should be taught that simplicity in eating means mental and bodily strength. "Frugality has cured diseases that defied all other remedies," Dr. Felix Oswald tells us. "For thousands of reformed gluttons it has made life worth living after the shadows of misery already threatened to darken the gloom of approaching night. Luigi Cornaro, a Venetian nobleman of the sixteenth century, had impaired his health by gastronomic excesses till his physicians despaired of his life. As a last resort he resolved to try a complete change of diet. His father, his uncles and two of his brothers had all died before the attainment of their fiftieth year; but Luigi determined to try conclusions with the demon of unnaturalism, and at once reduced his daily allowance of meat to one-tenth of the usual quantity, and his wine to a stint barely sufficient to flavor a cup of Venetian cistern water. After a month of his new regimen he regained his appetite. After ten weeks he found himself able to take long walks without fatigue and could sleep without being awakened by nightmare horrors. At the end of a year all the symptoms of chronic indigestion had left him and he resolved to make the plan of his cure the rule of his life. That life was prolonged to a century—forty years of racking disease followed by sixty years of unbroken health, undimmed clearness of mind, unclouded content. Habitual abstinence from unnatural food and drink saves the trials of constant self-control and the alternative pangs of repentance."

The Secret of Long Life.

In the eighty-sixth year of his life Luigi Cornaro wrote a treatise on "The Way of Attaining a Long and Healthful Life," in which he said: "I was born very choleric and hasty;

I flew into a passion for the least trifle; I huffed all mankind, and was so intolerable that a great many persons of repute avoided my company. I apprehended the injury which I did myself; I knew that anger is a real frenzy; that it disturbs our judgment; that it transports us beyond ourselves, and that the difference between a passionate and a mad man is only this, that the latter has lost his reason forever and the former is only deprived of it by fits. A sober life cured me of this frenzy; by its assistance I became so moderate and so much a master of my passion that nobody could perceive that it was born with me.

“A man may likewise with reason and a regular life correct a bad constitution, and, notwithstanding the tenderness thereof, may live a long time in good health. I should never have seen forty years had I followed all my inclinations, and yet I am in the eighty-sixth year of my age. If the long and dangerous distempers which I had in my youth had not consumed a great deal of the radial moisture the loss of which is irreparable, I might have promised myself to have lived a complete century. But without flattering myself I find it to be a great matter to have arrived to forty-six years more than I ever expected, and that in my old age my constitution is still so good that not only my teeth, my voice, my memory and my heart are in as good a condition as ever they were in the briskest days of my youth, but likewise my judgment has lost nothing of its clearness and force.

“I am of the opinion that this proceeds from the abridgment I make of my food.”

Abuses of the digestive powers have contributed more than other causes to human degeneration. When those lose tone or vigor the body must depend on the breathing powers more heavily. But oxygen must needs have material upon which

to operate, and it is only through the digestive system the supply can come.

Those guilty of the sin of overeating fill the blood with more material than can properly be aerated, and thus create disease. Then the digestive apparatus weakens.

Dr. Salisbury's System.

Dr. Salisbury some years ago originated a very valuable system of treating disease by giving the system just as little food as would preserve vitality. Mrs. Stuart, an English lady, elaborated the system, and has been very successful in curing disease of long standing. The treatment consists of the stomach bath first. An hour and a half before meals as much hot water is taken as can be relished, but which should not be *less* than a pint. This washes away any impurity and gives the walls of the stomach the tonic action of water. For the meal nothing is to be taken but minced lean beef, as being the easiest of digestion. One is not limited as to quantity, or as to ways of preparing it, except that salt and pepper and a little butter are to be the only seasoning. Before breakfast, dinner, supper and retiring the hot water is to be used.

For any disease resulting from bad digestive powers, such as dyspepsia, chronic diarrhea, constipation, leanness, obesity, etc., the system is admirable. One will feel weak for a few days, as the drunkard whose cups are withheld, but persistence for forty-eight hours makes cure sure and almost easy.

Proper Combinations of Food.

As to the combinations of foods for the rule of life, there should be but few varieties at one meal. The chemical activities necessary for digesting a great variety are so widely different the system is apt to be overtaxed. Simplicity should rule.

Foods should be solid. The agents in digestion are fluid, and when fluids are taken with the meals, these are diluted, and consequently delay in digestion results. During the delay fermentation sets in and renders much that might be assimilated unfit for use. Cooked food and raw food generally do not combine well.

“Health Culture” says: “Fresh fruits all combine well with one another. As a rule fruits, fresh or cooked, combine well with bread or cooked cereals and with nuts or nut foods. Fruits do not as a rule combine well with cooked vegetables, nor with milk, cream, cheese, eggs or meat.”

As to the use of a mixed diet of animal and vegetable foods, every one has a choice. Vegetarian people argue a beautiful, clean doctrine, but one is never ready for an experiment until fully convinced of its virtues. A few rules for guidance may be summed up as follows:

Do not overeat.

Do not take liquids at meals.

Do not partake of a variety.

Masticate thoroughly.

Never take food unless hungry.

Be cheerful during meal-time. Cheerfulness aids digestion.

Under the old-time severe church rule all recreation was suppressed over Sunday, the day the toilers had for rest. Consequently dietetic excesses became prevalent. Sunday became a day of good dinners and unlimited drinking. New England and much of the rest of the United States spend weary hours Saturday to provide gustatory delights for the Sabbath. It is the rest-day diversion and mother of many ills.

THE BATH.

BATHING is very necessary for the preservation of health. The processes of nutrition and waste, to be kept normal, need that waste be regularly removed. Generally used, the term bath refers to treatment given the skin and hair. The skin is one of four means the body has for eliminating impurity; the others are the lungs, kidneys, and lower bowel. For the purpose of elimination and also for regulating bodily temperature, the skin is provided with two and a quarter millions of little glands. The external openings are called the *pores* of the skin. These glands are situated in the connective tissue beneath the skin, in the shape of a coil; on the outside of the coil is a network of capillaries from which perspiration is derived. It is estimated that there are not far from three thousand of these glands to the square inch, and that they eliminate from one to five pounds of fluid in twenty-four hours. The fluid evaporates or is absorbed by the clothing; the solid impurity remains at the surface. The bath removes this impurity. If the bath is neglected the impurity becomes rancid, and more or less of it is re-absorbed into the body to create disease. Besides the impurity left through perspiration there are also the scales of dead scarf-skin and the oily matter which is secreted to preserve the texture of the skin. None can with impunity neglect the removal of all of this waste.

For a person in health there should be a daily sponge bath, supplemented twice a week by a full warm bath with plenty of soap. This will keep the glands of the skin in activity. The bath should never be taken where the temperature is lower than 65 degrees Fahrenheit. Chill must be avoided. Be brisk and keep the blood vigorously circulating; use plenty of friction when drying the body. There should be a glow on the surface when done, to show there has been a good reaction.

Various Kinds of Baths.

In delicate health, or disease, there are a variety of baths which are invaluable to restore health.

The vapor bath is excellent for colds, catarrh, pleurisy, fever, and affections of the bowels, kidneys or skin. The perspiratory glands are excited to unusual activity and bear out, at least in part, the morbid matter. There are many cabinets on the market for hot-air and vapor baths, but a home-made apparatus answers quite well. This consists of an alcohol lamp over which is placed a small vessel containing water. When the water boils place a cane-seat chair over the lamp, and seat the patient therein, clad only "in her complexion"; wrap blankets about the chair and patient very closely. A footbath may be used in connection herewith; let the patient place her feet in a bath hot as can be borne, and enclose with the blankets. After some moments of free perspiration a dry cover should be substituted and the patient lie in bed wrapped about closely. When cooled enough, she may have a dry rub and resume her garments.

The hot-air bath is taken much as the vapor bath. Use the alcohol lamp without the vessel of water; let the patient drink freely of hot water. Cold may be used, but is not best. After several minutes of free perspiration the body should be thoroughly shampooed with soap and water and dried. This is excellent for gout, rheumatism, skin diseases, colds, etc.

Where there is fever or inflammation in any one part, the circulation may be equalized by a hot foot-bath; as in headaches, bronchitis, or inward fever.

The sitz bath is arranged for bathing the hips and abdomen. It may be tepid or hot, as the case requires. During pregnancy the tepid sitz bath is invaluable, used daily for the last few weeks; during labor the pains are made easier and more

natural by the hot sitz bath. It is good in case of bladder, rectal or kidney disorders.

Sulphur, salt, or other mineral baths are to be had by adding any such to the water used.

Do not bathe within two hours after eating.

Do not bathe when exhausted.

Avoid chill after bathing.

Use mild soap, so as not to irritate the skin.

Never bathe in a cold room unless very vigorous in health.

CHAPTER IV.

The Temple of the Soul—Continued.



WATER for use internally is as much needed as water for external use. Every adult, or at least every family, should have a fountain syringe, which should be used two or three times a week with regularity. The lower bowel is not merely the receptacle for the refuse of food matter; it also is provided with absorbents, which convey away whatever is possible from the colon, leaving hard, impacted masses to be passed away. Patients with stomach trouble have been nourished by food injected into the colon.

The Internal Bath.

It has generally been considered sufficient if there is one passage daily from the bowels. This is true only so far as that one bath weekly is sufficient for the external body. But suppose any chronic disease has taken hold; it is then the bath external and internal becomes a wonderful restorative agent.

The benefits of cleansing the stomach and lower bowel by means of hot water are manifold. The stomach bath washes away any mucus or undigested food and prepares the way for a fresh food supply. It should be used an hour to an hour and a half before meals, to give the gastric glands time for accumulation of their juice. The impurity thus washed away is carried into the colon and discharged.

Flushing the colon consists of the use of a quantity of hot water by means of the syringe. Dr. Forrest says: "The ben-

efits of the flushings are not due to the cleansing of the canal alone. Indeed we doubt whether this is its principal benefit. The introduction of hot water has a direct and powerful effect on the nerves of the stomach, liver and kidneys, and all the organs, stimulating them to vigorous and healthy action. The evidence of this is, the increased appetite which follows the flushing; the increased flow of bile from the liver; the decided increase in the amount of urine eliminated by the kidneys; and the general increase in strength."

To use the flushing sufficiently it is best to use a little water first to unload the rectum; after that use three, four, five or more quarts of hot water until the colon is quite distended, so that the effete matter has no chance to be packed away in the loculi.

It is well to take this internal bath on the evenings when the full warm bath is taken, and retire immediately. This avoids any exposure to chill one might otherwise risk.

It is quite as "natural" to cleanse the alimentary canal as it is to wash the external surface of the body. Many things Nature left for man to discover, not the least of which were the uses of water.

HYGIENIC DRESS.

THE CARE of the body in the matter of clothing varies with race and clime. Each race has its foibles respecting dress which only culture can overcome. In the more enlightened races there has been evolution in dress. There is change constantly under the name of Fashion, but by easy stages a system is being evolved that clothes without injuring the body. Elasticity, warmth and lightness are the objects to be sought. Appropriateness is also a huge item. From neck to toe there should be freedom, although the inventive genius of ages has

labored to circumvent it. It is only when woman awakens to her individual needs that she declares against bands, steels, bones and stays. Healthful dress is compatible with artistic dress. Mrs. Talbot says: "That which leaves the body untrammelled is beautiful, provided the covering is for use, not for adornment only."

Underclothing.

The choice of underclothing is of prime importance. It has been made of numerous layers with bands, ruffles, tucks and starch galore. Madame La Favre says: "There is not one single, solitary instance in which starch improves wearing apparel for man, woman or child." In former generations it was deemed necessary for women to wear innumerable petticoats to disguise the fact that they had legs. These were crisply starched, and, with the weight over the abdomen and hips, were eminently sufficient to make the delicate creature who was at one time the fashion.

The union undergarment has largely replaced the drawers and chemise of long ago. For summer the garment is of knee length with no sleeves; for winter it reaches from wrist to ankle. Finely woven cotton or linen is the preferred material. Silk is not durable; wool is too warm and also irritates the flesh of many. Prof. Warman says: "Woolen underwear is warm and is most universally worn. This is a common verdict, and, I grant you, it is true. It is warm. It is too warm for underwear. It overheats, then chills the body. All underclothing should permit free transpiration from the skin; otherwise, colds and other bad consequences follow.

"Wool as an outer garment? That is quite another question. The very fact that wool is a slow absorbent renders it the very best material for overgarments, especially in humid climates and in seasons where protection against atmospheric

moisture is required. The outer clothing should be a poor absorbent, the underclothing a good absorbent of moisture; therefore the very condemnation of the one is the strongest commendation of the other."

When the thermometer hovers about the freezing point the extremities should be well protected. For the feet there should be closely-woven, fleece-lined hose, and strong shoes. For outdoor wear, the nether limbs should be encased in warm equestrian tights; the feet in overshoes. There need be but one petticoat. If it is made after the Jenness-Miller model—that is, divided—except in very cold weather the equestrian tights may be left off. The Syrian skirt—the divided skirt gathered and fastened about the knee—is a good winter garment. These divided petticoats are made on a rather wide yoke, to avoid a too great fullness at the hips. Undergarments are purely useful and not decorative in their service. Many cling to the idea of daintiness rather than usefulness; to them it is of little worth to appeal for a discarding of beflounced petticoats, corset-covers, chemises, drawers, etc., etc.

Sensible and Artistic Gowns.

The gowns may be decorative as well as useful. The street and visiting gowns may follow conventional design if you will, but oh! my sisters, belong to yourselves at your homes. Wear the artistic Josephine, or Empire gown, for leisure, and a washable fabric for your work, short of waist and short of skirt. Give your waist room for action and your chest room for expansion.

If you are a business woman, have the gown of tailor's cloth, with the skirt built upon the gown form; the front of the waist may be decorated in imitation of the shirt waist; the jacket of the Eton or Blazer style. Do not crowd your

lungs, stomach, liver and all internal organs by girding yourself with corsets, tight waists and bands.

One of the most alert and attractive business women the writer ever knew wore such a gown, with the skirt well lined and stiffened, and no petticoat. Her entire wearing apparel for the time was shoes and stockings, union undergarment and dress. The cold weather suggested the equestrian tights, outside wraps and overshoes. Contrast this garb with that of the conventional female!

The author of "The Evolution of Woman" says the sex dresses with deference to men. So while striving to awaken women to the dangers of constriction the call must extend to men. The following extract is from that volume:

Male Prejudice to Overcome.

"For the reason that the female of the human species has so long been under subjection to the male, the styles of female dress and adornment which have been adopted and which are still in vogue are largely the result of masculine taste. Woman's business in life has been to marry, or, at least, it has been necessary for her, in order to gain her support, to win the favor of the opposite sex. She must, therefore, by her charms captivate the male.

"The girl at the ball with the wasp waist and the greatest number of furbelows is never a wall-flower and her numbers never go unfilled. The fashionably dressed young woman in the horse-car is never permitted to stand, and in shops attended by men she never lacks attention. The gaudy dress, the pinched feet, and the pink complexion, although false, of the actress, young or old, never fail to attract a host of male admirers.

"As for thousands of years women have been dependent on

men not only for food and clothing, but for the luxuries of life as well, it is not singular that in the struggle for life to which they have been subjected they should have adopted the style of dress which would be likely to secure to them the greatest amount of success. When we remember that the present ideas of becomingness or propriety in woman's apparel are the result of ages of sensuality and servitude, it is not remarkable that they are difficult to uproot, especially so as many of the most pernicious and health-destroying styles involve questions of decorum as understood by a sensualized age.

“Not long ago I chanced to overhear a conversation between two American girls in Berlin, one of whom had been a resident of that city for several years, and was therefore acquainted with the prevailing idea of female decorum as expressed by female apparel. These girls were speaking of dress, and the later arrival on German soil, the younger of the two, remarked: ‘As for me, I never wear corsets.’ Whereupon the elder, shocked at such a confession, replied, ‘Then you certainly never can dance in Germany, for the German officers who would detect your state of undress would think you immodest, and would certainly take advantage of the situation to annoy you.’ This is an illustration of the manner in which male prejudice thwarts any attempt of women to adopt a style of dress better suited to their health, convenience and taste. The same obstacles have been encountered by those women who have been sufficiently courageous to attempt to free their ankles from the cumbersome skirts so detrimental to health and so destructive to the free use of the legs.”

But, dear ladies, *have* convictions on the harmfulness of ordinary dress and then live up to them, at the very least in your own homes. Your home is your castle wherein you must ever strive to be your very best self. You may not like to

offend the prejudices of people among whom you live, but first duty is to self—to make self strong, generous and true. By that means prejudice can be outlived, overcome, vanquished. The Chinese Minister, Wu Ting Fang, said that women who wear corsets cannot bear noble sons, and that décolleté dress is indecent. Minister Wu, despite the inborn traditions of his race, has reached a wise conclusion regarding Caucasian dress for women. After all, the proper conventions, styles and mannerisms are matters of geography. One can never afford to be enslaved thereby.

WORK.

AS TO WORK, Fra Elbertus says: "Blessed is that man who has found his work," which in this case includes woman. All human effort should have a clearly-defined purpose, and be cultivated toward definite ends. Nothing can be more unhappy than that man or woman should be laboring in any field of work for which he or she is not adapted.

That work is best which serves some useful end. No one advances who is not armed with skill for some effort whereby society is benefited. On this subject Charlotte Perkins Stetson says: "Work is not an individual process, but a collective one. It involves division of labor and exchange of products. It is something you do for others while others do something for you. It is practical, profitable altruism.

"It is most distinctively human because human interests are most interdependent. We cannot be human at all without common effort for common good.

"It is apparent to any one that the mere existence of society depends on work, that the nature of a given society depends on the nature of its work, that the further progress of society depends on the progress of its work; and also that the indi-

vidual finds his best happiness in his best work—his worst punishment in uncongenial forced labor, or that last horror, forced idleness.

“No expression of energy of sufficiently high grade to be called ‘work’ is done to gratify one’s self. In the very nature as work it is done for some one else.

“The individual may be led to do it by self-interest, drawn into the social service through his sub-social desires; but the work is for others.

“We are urged to seek food through the irritation of an empty stomach, called appetite, but the processes of nutrition are not for the gratification of the appetite, but for the nourishment of the body.

“If work were done for individual ends why should we not impose on one another? It is because of our false notion that it is a personal matter done for personal gratification that we see everywhere the private interest working against the common interest; and the world is clogged and injured by bad work, and it is because of this same false notion—that work is something you do for yourself and would not do if you did not have to—that we so foolishly misjudge the work and the worker.”

The Right Direction of Energy.

Activity for mental, spiritual and bodily powers is a necessity. If energy is not expressed in a right direction it will be in a wrong direction. When expressed right the individual develops; when expressed wrong he deteriorates. This is the law.

“Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do when it ought to be done, whether you like it or not,” says Prof. Huxley. “It is the first lesson which ought to be learned, and

however early a man's training begins, it is probably the last lesson he learns thoroughly." This is true because the dignity of work has not been understood. We will not wish to put off what should be done when we once know that order is put out of plumb by our so doing.

Service, some kind of useful service, performed to the best of one's ability and skill, is the world's need. They who labor not with brain and hand have no real claims to respect.

RECREATION.

RECREATION is the activity one seeks as a change from the business of his life, and is as necessary as that business. The brain-worker needs physical recreation, the muscle-worker needs mental recreation; both need social recreation. It is a false system of economy that calls for all of the working moments to be expended in labor. One degenerates into a machine, whose labor only brings fuel to the sustenance of life. Work should be more than that one may win food for the stomach and shelter for the body. One should have pleasure in his work and pleasure in his recreation—pleasure of the kind that warms and thrills the soul. There is a kind of pleasure partaken of during leisure hours that destroys. This is not true recreation. The alcohol habit, the tobacco habit, the confection habit, the habit of sexual intemperance, all react with blightsome vengeance on those who so seek diversion from their labors. Bodily senses are all for useful purposes, but to please the sense regardless of the object of the sense brings unhappiness for soul or body, or both, sooner or later.

The best recreation is that which best fits one for a successful discharge of his duties. But a week or two of summer vacation will not make up for the violations of health during the rest of the year. When we have learned to "obey and

live" there will be some recreation and rest interlarded with work throughout the year in addition to the summer vacation.

Recreation means all things to all men—and women. Some go to resorts by mountain or sea, where the strenuous life is not lost for a moment; some go hunting and fishing; some merely camp out near to nature's heart and rest. The last appeals most strongly to the unconventional type.

In taking "to the woods" for a summer's outing it should be borne in mind that disease is often contracted by drinking from unused wells or stagnant pools. The appetite, too, is stimulated by free life and outdoor exercise, and there will be tendencies toward intemperance in diet, which should be nipped in the bud.

Dr. Oswald says: "We should teach our children that a healthy mind can dwell only in a healthy body, and that he who pretends to find no time to take care of his health is a workman who thinks it a waste of time to care for his tools."

REST.

REST-TIME is the time when the conscious forces of the body are suspended for the purpose of recuperation. Activity must be followed by rest; this is one of the physiological rhythms by which life is preserved. Usually the hours of rest are taken at night in bed, the average need being for eight hours of sleep. During the day there can be moments of rest. Relax the body and mind several times during the day's work, and you will be repaid by increased strength. There should be rest before meals if there has been fatigue; twenty minutes should be given before and after dinner. The processes of digestion cannot work if there is fatigue.

Sleeping-Rooms and Beds.

Preparations for the night rest should be well planned. The sleeping-room should have thorough ventilation through the day and openings for free passage of air during the night. Everybody should sleep alone, from the new-born infant to one in old age. This is a most important item generally overlooked in household arrangement. To be sure, a large house will be needed if each member has his own sleeping-room, but more people can afford it than arrange for it. When more than one person must be assigned to a room each should have his own bed, even though the persons be father, mother and infant.

It would be difficult to find two persons exactly equal in bodily powers. When sleeping together, between the same pair of sheets, the stronger will absorb vitality from the weaker. One person will arise refreshed for the day's work, the other more or less enervated.

When two persons occupying the same bed are husband and wife, in addition to the depletion of one's vitality, there is the temptation to amorous excess, which is avoided by separate beds. Of this Dr. Ruddock says: "Married persons should adopt more generally the rule of sleeping in separate rooms, or at least in separate beds, as is almost the universal custom in Germany and Holland. The rule being adopted, several very important advantages would result in regard to health and comfort.

"Opportunity makes importunity. * * *

"And it is well known that if two persons, one sickly and the other healthy, occupy the same bed, one will become diseased without the other being benefited."

The sleep of all persons should be calm, without pain, uneasiness, fantastic dreams or visions. It should be neither interrupted nor too long undisturbed. The only movement

that does not mean irregularity is occasional turning from side to side. The more noiseless the breathing, the more healthy. The skin should be warm and moist to the touch, but excess means variation from health.

The better position to assume on retiring to rest is to lie upon the right side. If there is food in the stomach it passes out the more readily. The pillow should be just enough to allow the head to have horizontal position when lying on the side.

The mattress may be of straw, husks, hair or wool; feathers are no longer used.

The covering should combine warmth with lightness. If comfortables are used they should be of light weight and easily laundered. Blankets should have a thorough outdoor airing at least once or twice a week, particularly if used without sheets, as is sometimes the case. Absolute cleanliness in regard to beds and bedding is the most essential requirement.

Beds must be thoroughly aired each morning after use. To make up a bed soon after it is vacated is to hold in its folds the poisonous emanations from the body. Frequent repetitions of this sin will breed disease.

The Importance of Rest.

In disease, rest is half the cure; indeed, some forms of disease are amenable to the rest cure alone. Almost any form of indigestion, a disease of the digestive tract, will yield if that system is allowed proper rest. One may, with advantage, fast from one meal up to three, four or seven days. This time allows the system to rid itself of whatever is clogging it, at the same time giving an overworked digestion rest.

A current periodical says: "People used to think when a man was sick he needed something unwholesome to eat. The

thrifty housewife stored away quantities of preserves, brandied cherries and jellies so as to have them in readiness if some member of the household should be ill. An old friend of mine came home late one night and found that his wife had retired. Discovering no pie in the pantry, he went to the door of his wife's room and called out: 'Mary, where is the pie?' Mary replied: 'I am very sorry, John, but there is no pie in the house.' Returning to the pantry he made a search for cake. Finding no cake, he again sought the chamber door and asked: 'Mary, where is the cake?' Mary very reluctantly confessed that the supply of cake was also exhausted. The old gentleman, in stern voice, then asked: 'Why, Mary, what *would* you do if some one should be sick in the night?'"

Although the pessimist may say the world is growing worse, it will be hard to find many communities now where the crime of gluttony is not recognized or more or less worked against. Illness is not nearly so generally treated with pie and cake as some generations ago, thanks to the onward march of progress.

SPECIAL EXERCISES.

SPECIAL EXERCISES are used for the development of weakly parts. In this way even hereditary tendencies can be overcome. Helen Gardner says: "The conditions under which we develop or restrict our inherited tendencies will determine in large part whether heredity shall be our slave-driver or our companion in the race for life, liberty and the pursuit of happiness."

Any one with sufficient intelligence for parentage will know what mental or physical weakness of one or both parents is apt to manifest itself in the child, and assist the unfolding intelligence to overcome it. For instance, there is a family tendency to pulmonary disorders. The child is given every benefit of

sunshine, open air and exercise for deep breathing, while the body is fortified with nourishing food. A tendency to nervousness is overcome by attention to physical well-being. According to Prof. Caldwell, inherited tendencies may be divided into three classes:

“(1) Good, that are strong and well, if left free to take care of themselves. Good that are weak and need encouragement and choicest culture.

“(2) Excessive faculties that need training to right uses and applying to good causes, lest they be turned into evil channels, and become curses instead of blessings.

“(3) Bad tendencies that need to be curbed and turned in opposite directions, making them blessings.”

One who has missed the proper cultivation in childhood can, by effort of the reason and will, aid himself in encouraging faults of mind or body. For instance, where there is natural taste for some of the habits that destroy—the alcohol habit or the tobacco habit—the person must keep at the most extreme distance from temptation. Resolutely turn from them and fill the mind with thoughts of what will ennoble and uplift. We become like that upon which the mind is fixed.

A teacher of the principles elaborated by Francois Del Sarte says: “Aside from a proper diet there is nothing that will bring self-control so readily as breathing exercises.” Following are the two most highly recommended:

Del Sarte Breathing Exercises.

(1) Standing; draw abdomen well out of sight, and expand the chest; throw head back and face up, simultaneously raise bent arms to level of shoulders and place finger-tips upon the chest at a point between the breasts on the sternum; look up and inhale while sweeping the arms and hands up, back, and

down to sides; exhale while sweeping hands to chest again by the same heart-shaped circle. Repeat six times, drawing the air in from above.

(2) Standing; expand chest and draw abdomen out of sight; throw head back and face up, the arms at the sides; now up, around the same heart-shaped track previously used, but in this you inhale as if sweeping the air from all sides and above into the lungs; exhale as you sweep the arms up, out, and down.

Health being absolutely dependent upon the breathing powers, there is no phase of life in which chest cultivation may be neglected. Well-developed shoulders and chest always indicate the finer, stronger individual powers.

A breathing exercise for use first thing in the morning is the following :

Before dressing stand erect, heels together, hands on hips, chest up; inhale slowly through the nostrils until the lungs are full, then expel all the air, forcing it out as much as possible. Then take five ordinary breaths, and repeat the forced respiration. Repeat five times each morning. There will be a dizziness at first, because the system has not been used to so much oxygen, and it has an intoxicating effect; but this passes away with practice. This forced respiration causes distension of the air cells, which become stronger by the exercise.

When walking in the open air it is beneficial to try this lung gymnastic: Inhale slowly, then walk five or ten steps and exhale slowly. Any person who is a member of a family with tendency to diseases of the air passage will be able to hold at bay by lung development the scourge of asthma, bronchitis and consumption.

BEAUTY CULTURE.

SPECIAL CULTIVATION toward personal beauty may be included in the care of the complexion, hair, teeth, hands, feet, etc.

Real beauty, like every other good thing, is worthless unless it is useful. But a woman with a little thought can keep herself in a good state of preservation and perform her useful part, too.

If nature has bestowed upon you good, regular features, be thankful and take care of yourself; if not, remember the features are but a slight percentage of personal attractiveness. A good carriage, a fresh complexion and a kindly spirit are of first importance.

A good complexion is obtainable through health; pure food, pure water, pure air must be appreciated and used for all their value. To keep the skin in good condition the body must be kept cleansed of impurities from its millions of perspiratory pores. The internal bath used twice or three times a week will be of great aid in keeping the system rid of impurity.

Mrs. Humphrey says: "Too many clothes serve to clog up the skin and make the myriad of nerves that keep it alive grow sensitive, so that a little dab of fresh air on an unprotected spot will make you shiver all over. Stimulating these little nerves that lie upon the surface of the body tends to stimulate the healthy action of the skin, the circulation of the blood, and, finally, the operations of all the organs. So it is desirable to disrobe completely in a room filled with fresh air, and to take a good rub-down. This is particularly gratifying after a long day of visiting, or shopping, or other work. If you feel nervous or irritable, try this simple method of getting the kinks out of yourself; it will make you doubt if you

really were nervous or in bad humor after all, so pleasing will be the change."

A Remedy for Sleeplessness.

For sleeplessness nothing is a better aid to overcome it than the air-bath. One should completely disrobe, and, while walking about, rub or roll the flesh.

For the morning sponge-bath a sedative water composed of a cup of sea-salt, a half-ounce of camphor, a half-ounce of ammonia, is recommended; these are put into a quart bottle, filling the bottle with hot water; it is ready for use after twenty-four hours. Put a teaspoonful of the mixture in the basin for use at one time. You will be surprised at the amount of dirt it will remove, and it brings a most beneficent reaction. The ammonia cleanses the pores, the camphor and sea-salt impart a tonic effect; the result will be a firm, smooth skin.

In bathing the face, be careful not to be rough in application of soap and towel. From exposure to the air and dust the face and hands need extra care. Use warm, soft water; lather the face and hands with a good soap, and then massage every portion of the face and neck until the flesh tingles; after which rinse, and dry by patting the skin with a soft towel. Apply a cold cream or skin-food. The following formula is recommended by Madame Qui Vive:

Madame Qui Vive's Skin Food.

Spermaceti	one-half ounce
White wax	one-half ounce
Sweet almond oil	two ounces
Lanoline	one ounce
Cocoanut oil	one ounce
Tincture benzoin	three drops
Orange flower water	one ounce

The object of a skin food is to prevent wrinkles. These little lines on the face mar its smoothness and beauty, and Mme. Qui Vive adds, "are unnecessary evils—anyway until one gets to be a hundred or so."

They appear because the sub-cutaneous fat has been absorbed, and the skin falls into folds. When the skin food is applied the fattening qualities are absorbed and nourish and build up the underlying tissues.

Mme. Pote says not even worry will make a woman grow wrinkled and old so rapidly as sleeping with the head upon high pillows. The tendency of the muscles through the day is to droop; this should be counteracted by sleeping with the head low. The facial massage should consist mainly of upward pressure.

Facial Eruptions.

Facial eruptions are largely due to internal impurity, but are sometimes caused by disease or by an irritating soap, or too frequent use of powder. Where the face is washed and groomed more than the rest of the body the impurities are called to where escape is most freely offered. When it is made unsightly by blotches attention must be given to the diet, to the internal bath, and other hygienic measures. All pastries and confections must be given up unless you love yourself more than your friends, who wish to see you beautiful. Feast on fruits instead of candies; eat apples, oranges, peaches, pears, etc. Pimples or blotches must never be irritated; keep the skin clean, the skin food applied, and let the cure come from internal cleansing and purifying through fresh air, pure food, and the copious internal bath.

Blackheads require much the same treatment. They are due to inactivity of the sebaceous glands and logically disappear when activity is created.

Sunburn, Freckles, Etc.

Tan, sunburn and freckles come from external causes—the action of the wind and sun.

Do not bathe the face with soap and water before going out without fortifying it with some preparation such as the following:

Take of—

Distilled witch hazel.....	three ounces
Prepared cucumber juice.....	three ounces
Rosewater	one and one-half ounces
Essence white rose.....	one and one-half ounces
Tincture of benzoin.....	one-half ounce

After using a little of the above a powder may be dusted lightly over the face.

The discolorations are from activity of the pigment cells under the skin and disappear when the face and hands are for a time protected from wind and weather.

Sunburn should receive treatment with a cold cream rubbed well into the skin. It is a burn and should be treated as such.

Care of the Hands.

The care of the hands is not so serious an item, except to housewives who are also the maids-of-all-work. There is so much of washing and polishing and dabbling in water they must really use care to prevent the hands being unlovely. The secret of keeping the hands nice is to keep them free from sudden changes of temperature. Dry them thoroughly after having them in water and rub them with corn-meal or corn-starch.

For chapped hands or lips take of the following:

Oil of almonds.....	four ounces
White beeswax.....	two drachms
Spermaceti	two drachms
Rosewater	four ounces
Orange water.....	one ounce

Melt the first three ingredients in a saucepan, and while cooling beat in the last two.

After bathing the hands, the skin should be pushed back from the nails to prevent *hang nails*. Nails should be trimmed the same shape as the finger. Use no sharp instrument about the nails except the scissors for trimming. Rub callous spots with pumice stone.

Redness of the hands is due to restriction of the circulation. Either the sleeves, corset or waist is too tight. Lemon juice will whiten the hands; apply cold cream immediately after using it.

Protect the hands from cold; it is destructive to their beauty.

Care of the Hair.

Nice, clean, glossy hair is an attractive adjunct to beauty. Naturally oily hair should be washed twice a month and thoroughly rinsed; hair not so oily, about once in a month. Equally as often the hair should be trimmed. When the nourishment within each hair does not extend the full length it splits. The trimming of the ends is to remove these dead portions, which will promote growth. When the hair begins falling, the scalp may be invigorated by using massage. It quickens circulation and brings health and strength to the roots. The following recipe is good for dandruff and falling hair:

Resorcin..... forty-eight grains
 Glycerine..... one-fourth ounce
 Alcohol...enough to finish filling a two-ounce bottle
 Apply to the scalp each night, rubbing it well in.

When bodily health is not good it is to be seen in the hair as well as the complexion and eyes. Any of the symptoms should suggest attention to health.

Brushing the hair at night removes accumulations of dust. Dandruff is a natural formation and will accumulate if cleanliness is not observed sufficiently.

A coarse comb is used to disentangle the hair, the brush to remove flakiness and dust; fine-tooth combs are outgrown; they belong to the past exclusively.

Superfluous hair is removable surely by electrolysis; the root of the hair is destroyed and future growth made impossible. Another method sometimes effectual is the use of peroxide of hydrogen alternately with diluted ammonia; the peroxide bleaches and the ammonia deadens the growth. This takes time and patience. If the skin becomes irritated, use cream.

Every woman should adopt a style of dressing the hair becoming to herself and cling fondly to it. Each passing whim of fashion cannot improve the appearance of everybody.

The Care of the Teeth.

THE CARE OF THE TEETH cannot begin too early; throughout life they are accessory adjuncts to health as well as beauty. When the first infant teeth have come in they should be washed every morning with cool, clean water and a soft cloth. Should a dark-colored formation appear next the gum it may be removed by rubbing prepared chalk over the discol-

oration. If it cannot be reached by the soft cloth use a toothpick bitten into pulp at one end as a kind of brush. If the milk-teeth are not cared for the permanent teeth are apt to come in irregularly and be a lasting deformity. By the time a child is three years old he can be taught to use a brush himself, moving it up and down rather than from side to side, to remove particles from between the teeth.

Teeth are apt to become diseased from insufficient or improper nourishment as well as a lack of cleanliness. But this tells in all parts of the body.

Cleansing of the teeth should be after each meal, and upon retiring all particles should be removed by drawing between the teeth a piece of waxed dental floss; or if too close together, the fine Japanese toothpick, or a quill, may be used. Use a mild tooth powder whose ingredients you know, rinsing the mouth as well as the brush, thereafter. Tepid water should be used, as excessive cold or heat destroys the enamel.

The saliva undergoes a putrefactive change, which, when allowed to dry in the mouth, forms tartar, and is very injurious to teeth and gums. Upon making the morning toilet the mouth may be rinsed with water in which there is a drop of listerine or carbolic acid; it prevents tenderness of the gums. Occasionally a little juice from a lemon may be squeezed over the brush and rubbed over the teeth, to remove the yellowish deposit; it must be used quickly and the mouth rinsed, as it may damage the enamel. It must be borne in mind that the enamel, nature's protection for the teeth, when once destroyed is never formed anew. Hard substances that break or scratch it should never come in contact with the teeth. Never use metal toothpicks, bite threads, or crack nuts with the teeth.

Visit a dentist twice a year to have the teeth examined. Wherever there is a decayed spot it must be filled, and all

calcareous accumulations removed. Use the tooth-brush often, and the breath will be kept pure and sweet.

The Care of the Eyes.

BEAUTY OF THE EYES is dependent upon a reasonable degree of care, but chiefly upon the cultivation of an amiable, intelligent spirit, for the eyes are "the windows of the soul."

To face the light when reading or writing, to sew or embroider in a flickering artificial light, to read lying abed, are a few of the things to be avoided if sight is to be preserved. Whenever the eyeballs ache, work of whatever nature should be suspended and the eyelids closed for a few moments' rest. Another thing, do not cry. There have been many dramatic things written about women who are sad-eyed, but the fashion has passed. Weeping inflames and injures the eyes, and, at present, is apt to mean you are lacking in courage to properly face your environment.

When the eyes sting and burn, bathe in tepid water and rest them for a time. Weak tea is a good tonic. The eyes will partake of any impairment of the health; hence, for sake of strong sight, do not pervert the rules of health. Dr. Foote says that John Quincy Adams preserved the perfectness of his sight until he died, at the age of eighty-one, by pursuing, from an early age, the habit of frequently bathing the eyes and making manipulations toward the bridge of the nose.

Where there are visual disturbances they may be corrected by properly fitted glasses.

The Care of the Feet.

THE CARE OF THE FEET lies mainly in keeping them properly shod, cleansed, and the nails trimmed. The perspiratory pores are largest on the soles of the feet and palms of the

hands; hence, more impurity is deposited there. When the semi-weekly or weekly warm bath is taken the feet must be well rubbed with a cloth or bath-brush that the collection of scarf-skin may be easily removed. The nails should be trimmed closely.

Shoes must be well-fitting, but roomy enough to allow muscular freedom. A large, ill-fitting shoe is as apt to create corns, bunions, etc., as one too tight. The low heel is the only one to be considered; high heels throw the body out of its proper poise. If there are corns, a little sulphuric acid upon the end of a toothpick touched upon them will soon cause them to disappear.

Ingrowing nails are torture and are caused by pressure usually upon the great toe. Bathe the afflicted member frequently to reduce inflammation, and with a pen-knife or cuticle knife cut a V in the center of the nail. As the nail will tend to grow together at the niche cut out, the ingrowing portion will be lifted from the flesh in which it is imbedded. Be good to your feet and they will be good to you, by never paining.

Health, Beauty and Grace.

EASE AND GRACE for body as well as mind are attained through the training, polishing and disciplining of all the faculties. Prentice Mulford says: "The habitually self-possessed woman will be graceful in every movement for the reason that her spirit has complete possession and command of its tool, the body."

Francois Del Sarte taught that physical development, poise and gesture are but the external expressions of an internal condition, and that on teaching the expression the feeling would follow. Which is true when the real principles are understood. But much culture is superficial; is veneering to a coarse in-

terior life, and is not what is desirable for any stage of growth.

In middle life and even in old age suppleness of the body may be preserved by attention to certain needs of the body. One writer says: "Exercise all your life. When you stop exercising and become indolent, you begin to die. Nature has willed it so." To preserve equilibrium it is necessary to take exercise enough every day to cause free perspiration and fatigue. If the daily employment is of a physical nature there should yet be enough other muscular exertion to secure an all-around development of the body.

For adults physical activity must not be violent nor too prolonged, although the muscles may be firmer than in youth. If one guards against the "sin of over-eating," daily exercise prevents undue accumulations of fat, which encourages degeneration of the tissues. The editor of *Physical Culture* says: "Avoid making the idiotic mistake that fat means health. If you are fat begin to reduce at once. You are carrying a burden that can always be discarded by vigorous, intelligent efforts, and the brightness and joys of life will vastly increase when this plain duty has been performed."

To prevent the stiffness and inflexibility of old age the following, by J. R. Blake, should be seriously considered:

"Hardening of the bones determines why some people are small and others large. Apart from disease which destroys life, the wear and tear of the body in old age is absolutely unnecessary. We have seen that ossification is necessary to youth, in order that the bones may be formed and made strong. The action of the blood which deposits bony matter is kept up through life. Why do we not reverse the process? Old age, the wear and tear of life, the breaking down of the functions of the body, are all caused by this osseous process, which itself is caused by calcareous deposits. What do these

deposits cause? The hardening of the skin; thereupon it wrinkles and gets old; the hair is killed and the blood does not circulate freely. The brain turns to bony tissue in its intricate parts; it loses flexibility, becomes hard, so that deep thinking is impossible. The heart gets clogged; its circulative action is impeded, and the body suffers by reason of poor blood. The arteries, muscles, sinews and tendons become stiffened by the osseous tendency, and old age is attended by multitudinous ills. *All of the above symptoms of old age and disease can be prevented by the use of distilled water.* At the age of twenty-one and ever after one should habitually dissolve the osseous deposits of the body. The daily use of distilled water is, after middle life, one of the most important means of preventing these deposits and the consequent derangement of health."

Health is beauty and happiness. It is attainable by conformity to the laws of being. We are forever under the sovereignty of natural law, and only by complying with its conditions are we enabled to realize what is best in our earthly apprenticeship. It is not a tyrant, but a powerful co-operator, when properly understood.

CHAPTER V.

The Unfolding of Womanhood.

IN LONGFELLOW'S poem entitled *Maidenhood* there is a pretty piece of imagery in the first of the following lines:

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

* * * *

O, thou child of many prayers,
Life hath quicksands, Life hath snares.
Care and age come unawares.”

The sure and certain transition from a care-free stage of life to one of serious import fills a matured person with keen apprehension, if he or she thinks at all. Childhood, maidenhood, wifeness, motherhood, and through all of these the factor of being a representative of humankind, mean enough for the vital consideration of every one. Very few children can be left to “jus’ grow” as Topsy did. Their pathway must be illuminated by love and wisdom, that they may conform to, and not transgress against, the laws of being.

The Curse of Prudishness.

Standing in the pathway of those who seek truth for themselves and the world is what is known as the Curse of Prudishness. Coming in the guise of virtue, like a wolf in sheep’s

clothing, it is apt to be mistaken on first sight. One content with superficialities will never see below the surface, and hence never know he is lowering himself by the low ideas regarding bodily impurity. In an essay on "Prudery" Lady Cook says: "We have seen young matrons blush with shame when strangers have gazed upon their naked babes. The beautiful sight of these little, rosy, fragile incarnations of innocence, pure and spotless as from the Maker's hands, could crimson their own mother with blushes! What folly is this! What irreverence to Him who made us and saw all His work that 'it was very good.' It was not thus that Mary presented the infant Jesus to those who came to do Him honor; and doubtless for many a year He ran and played with other children, as they do even now in the East, without a vestige of covering. The prurient mock-modesty which is horrified by the sight of a naked child or a nude statue or picture is a reproach to our weak-mindedness and to our defective moral training. If we were not so 'nice' as we are, our ideas would not be so nasty. We want more common sense, more philosophy on sexual matters before the mind of our children can be trained to purity, and vice be lessened thereby. For it is not *what* we see, but *how* we see. If impurity exists in the soul it will be inflamed by the most innocent cause; but if pure it will regard all things of evil with indifference, and all of good with approbation. It follows, then, that prudery is a particular form of impurity."

Prudery and Ignorance.

Prudery is the result of a misconception of what is pure. The outgrowth of training under it proves it to be a foolish fallacy. But often it is ingrained as a matter of conscience, and "none is so hopelessly wrong as he who is conscientiously wrong." Mothers try to excuse themselves when sons or daughters go

wrong by saying, "It has not been my fault. I trained them the best that I knew." This is scant comfort. It is the common custom of humanity to seek, even to the ends of earth, for a cause outside of themselves for any failure. It is with the hope of aiding *young* parents to see the way clearer that this volume is issued. And there are many others working along this line, one of whom remarks: "Young parents, you have not forgotten the five or ten years of disquiet, misery or mortification that was your lot, caused chiefly by the remarks of equally ignorant comrades, or suggested by the many sights and incidents which crowded your lives—mysteries which hypnotized you until you were powerless to concentrate your thoughts upon your studies. The only relief to be found was in constructing air-castles and hatching ideas, living in and with them until marriage brought sad awakening that was almost disheartening.

"How we would like our children to avoid all this, not having their lesson hours obtruded upon by goblins or fairies. It is within your power, young father, young mother—will you but make the endeavor. Give nature an open chance. Remove those barriers to mind and body. Let them know the truth. They will surely find out these things. It is better they be taught the truth by the parents whom they trust and confide in than that they pick it up elsewhere, clothed in mystery and sensationalism."

Parents as Teachers of the Truth.

Those parents who begin at the beginning with their infants will have no difficulty in imparting to them the meaning of the unfolding powers of creative life. It is just the next step in growth which should continue in the confidences between them. At every turn from the first dawn of the powers of observation

a child is met with the marvelous changes called birth and death. Naturally he wants to know. Sometimes his parents are without reverence for creative life, so they are not in position to teach truth. So, as Mrs. Stetson says, we have "this amazing paradox of mothers ashamed of motherhood, unable to explain it, and—measure this well—lying to their children about the primal truths of life—mothers lying to their own children about motherhood!"

The young girl entering the threshold of womanhood might often, in the words of Schiller, say:

"I wander through the wood alone,
No trodden path before me lies."

The goodly knowledge of life's laws is the only safe guide. Unfolding within her being is the voice of creative life, whose function she must know to save herself from mistakes that bring pain and often humiliation in their train. Parents shield their children from harm in many ways, but the way of most value is the one of teaching the child to care for himself; to develop within himself the powers for good, so that the darkness of evil has no place in his mind. Then whatever he may hear of impurity will not attract him as something mysterious and sensational.

Up to the age of puberty the voice of creative life is comparatively dormant; that is, the child's body has not sufficiently developed for its manifestations. When it is first heard, the individual, boy or girl, is startled, and seeks for explanation of its meaning. How often do they dare to go to parents? Alas the day! confidences have ceased, if ever they were begun, caused by the ruthlessness which degrades the sex nature. There are few other subjects beyond the pale of discussion; but the young early crave information regarding

these every-day displays of creative life, and are met with evasiveness or repression—so the gateway to confidential relations becomes more and more closed.

Sex a Quality of Soul.

To gain a clear knowledge of this underlying power of all activity, it must be fixed in mind that sex is a quality of soul; is a principle, not substance; is of the entire being, not merely of the reproductive system, though those are organs for its especial expression on the plane of generation. The male and female are the two equal principles through the co-operation of which advancement is made; both are equally necessary in the Great Plan.

When the influx of life drawn by the creative principle of sex begins, there is such a superabundance of life the young person does not know how to make use of the excess. He or she is most apt to hear from some source that the voice of passion is his for personal gratification alone, rather than the prompting to think and to do. Instead, it is Nature's spur to activity, and must be listened to in that sense for most of the days of life. There may and should come a time when maturity is reached that the power of sex will be used to generate on the physical plane; but these are rare times. No father and mother will think they can fully nourish and care for more than three or four children.

Says a writer: "There are two manifestations of this life; the building up or conserving of the body for mental and physical achievements, and, secondly, for the propagation of Man. In either direction life and energy are consumed. Nature points out the order of the development of these two lines of activity. Clearly, the development and the upbuilding and maturing of the body and the corresponding mental growth

within the body are the first in the point of time. Only after the body is fully developed and a life worthy of transmission is evolved, only after this is there a valid reason for perpetuation. The reverse of this order is bound to be more or less disastrous."

The gratification of any appetite of the body, whether natural or acquired, is not so much for the delight it brings as to cause a cessation of the craving. The acquired tobacco or alcohol habits are gratified that the craving shall temporarily cease. The perverted voice of passion is silenced by the same means. And the pervert sells himself for the pleasure he thus buys.

The Training of Childhood.

On the subject of keeping the child-mind pure, an author says: "Feeding such food as gravies, pies, tea and coffee to a five or ten-year-old angel from heaven would produce in it a tendency to self-abuse, avoiding all mention of a child of the earth, born with an inherited tendency."

The training of childhood has much to do with developing precocity in the sex nature. Regard must be given with reference to this, because the best development of the child demands it. Plain but nourishing food, abundant exercise and fresh air, with wise parental guidance, insure a normal unfolding of the powers of being. A girl, having the same human needs as a boy, must be given an equal opportunity. Restrictions on account of sex are as unwise as they are harmful. Mrs. Stetson says that "the most normal girl is the 'tom-boy'—whose numbers increase among us in these wiser days,—a healthy young creature, who is human through and through, not feminine till it is time to be. The most normal boy has calmness and gentleness, as well as vigor and courage. He is a human creature, as well as a male creature, and not aggress-

ively masculine till it is time to be. Childhood is not the period for marked manifestation of sex. That we encourage and admire shows our over-sexed condition."

A very foolish practice is that of suggesting lovers and sweethearts to infants, and teasing those who have just entered the adolescent period. Both practices pervert the normal child, stimulating sexual precocity in the young, and stultifying or befuddling the unfolding faculties of the older.

Parents Their Children's Comrades.

The true training will align the young mind with the forces of health, and bestow thereon the assurance of truth. Information as to the origin of life or the laws of life need not be beyond the demand or the capacity to understand. The parent must ever be the child's comrade and friend from the period of mud-pies and make-believe environment, on through life. If a question is propounded at a time when the parent is otherwise engaged, make an appointment for its consideration later on. From early infancy great care must be exercised that physical sensations do not become attractive. It is but the instrument of the personality that occupies it, and which must ever be under the domination of the ego.

Never begin in babyhood to shame one part of the body. Each function and each organ has its proper uses, all equally important. This knowledge should be communicated to the child. Also that there is a time, a place and a condition for all things, and what is out of harmony at one time will not be so in its own proper place. The beauty of modesty has a proper foundation, and crying shame against any portion or function of the body is not one of its planks. The toilet, the bath, the evacuations, belong to privacy after one has reached maturity, or even puberty. But it does not follow that these

most necessary attentions are disgraceful. They are really serious parts of preparations for activity.

In the second stanza quoted at the beginning of this chapter the line,

“Life hath quicksands, Life hath snares,”

is pregnant with meaning to mother-hearts. So many of the quicksands and snares have their foundation in the ignorance of the meaning of womanhood.

“I am more and more convinced that right knowledge is not only a safeguard of purity, but is really the creator of true modesty. To give a young person a reverent knowledge of self is to insure that delicacy of thought which preserves the bloom of modesty.”—*Almost a Woman*.

The pathway of unfolding womanhood is beset with snares and pitfalls for unwary feet. Vaguely conscious of the law that masculine and feminine elements are complementary and necessary to each other, young girls are often easily led away by the unscrupulous of the other sex. Sometimes they are frightened into keeping virtue's pathway by being shown the goblins about them, but this means, like the one of using hell to scare people into heaven, is very questionable. It can never give a young woman the self-poise and assurance that enlightenment can. Caresses and love-words are acceptable to most woman-natures, but in the sense which leads to mating they are unsuitable for one in the early teens.

It should be pointed out to the daughter that comradeship and friendliness with boy friends is all right, but that thoughts or talks of marriage are out of place for many years.

Evil of Sensational Literature.

The thrilling and unreal type of love-story should be kept out of sight. And the only way to prevent an eager unfolding

mind from laying hold of whatever comes in reach is to forestall the sensational literature with good reading. That class of story or biography which will aid in forming a wholesome ideal should be placed at hand and discussed so that the anxious young one will wish for self-investigation.

A taste for what is good in literature is as easily cultivated as a pernicious appetite, and is one of the most powerful aids in developing good thoughts and a good vocabulary.

Another of the chiefest principles to teach by example and precept is the duty of cheerfulness. Ella Wheeler's poem, "Laugh and the world laughs with you," rests upon the basic principle that cheerfulness is one of the beneficent laws of being. Health to one's self and joy to one's friends come from cheerfulness, which goes hand-in-hand with kindness.

Of one of the minor characters in "Adam Bede" George Eliot said: "His was one of those large-hearted, sweet-blooded natures that never know a narrow or a grudging thought; of a sufficiently subtle moral fiber to have an unwearying tenderness for obscure and monotone suffering." Those natures which carry an atmosphere of kindly cheerfulness are the graces of the world, the multiplication of which is sorely needed.

In instilling these beauties into the warp and woof of character, one must begin away back in infancy and teach the recognition of things joyous, and the non-recognition of the unpleasant things. The reverse is usually the rule. The common cry is, "How can I *not* recognize and bemoan that which goes wrong?" By simply not doing so, my sister woman. We become like that upon which our hearts are most fixed. And it is ungenerous to a child to allow the unpleasant features of the pathway of life to stand out most prominently. Emerson, the wise prophet, said: "There is no beautifier of com-

plexion, or form, or behavior, like the wish to scatter joy and not pain around us." If we learn to search for the joyous in life for ourselves it will, in greater or less degree, be communicated to those with whom we come in contact. Whatever mood we set forth will unerringly return; if joy is scattered, joy comes back; if ill-natured pessimism goes from us, it rebounds in despondency. Earth's lovable children are those who possess cheerfulness either through heredity or cultivation.

"Gather, then, each flower that grows,
When the young heart overflows."

Nothing is misery unless our weakness makes it so.

Character Formed by Training.

Equilibrium of character is generated by training the feminine faculties toward the work that shall be hers.

As in the past, so largely in the present, a boy is taught to consider what he shall do—the girl whom she shall marry. And marriage is just as likely the lot of the boy as of the girl. This is training the girl to make capital of her sex, and is one of the bars to social evolution. Marriage should not be the business of a girl's life—no more than that of her brother's. This relation has its own beautiful place, but it is a condition and not a business.

A young woman who makes of herself the best possible being, physically, morally, mentally, socially, is fitting herself for a possible wifhood and motherhood. This is true of her brother. Both will study specifically what parenthood means before the condition is theirs to live. Motherhood and wifhood have their embryonic germs in every normal girl. And the best parents develop from the young of both sexes who love the real beauties of life, which include babies.

Specialized taste for some branch of industry will begin manifesting itself when the influx of the larger life is distinctly felt. Aspirations begin flitting through the brain. Chance dream follows chance dream, until a final preference is made after due consideration of the matter. Then all the thoughts and acts are shaped with reference thereto, and, as Fra Elbertus says, "without violence or direction the goal is reached." The ideal begins to be lived. All effort which has the inspiration of hope and love uplifts the character. Just in the proportion that work is made interesting and pleasant will there be progress.

The Equality of the Sexes.

An age-long theory or superstition held women to be the inferiors of men; but in proof that there is growth and progress many women are breaking away from the restraints that have held them, and are demonstrating their ability to stand alone as far as intellectual development and the power of self-sustainment goes.

It is the law, however, that men and women cannot be wholly independent of each other. "Male and female created He them." From the good which is the outgrowth of their true relations is generated soil for the growth of each along their independent lines of work. A reverent consideration of this law is one of earth's sore needs. Young people, young girls, should be so imbued with high feeling for this department of being that they would not speak carelessly of it, nor drag it through the mire of thoughtless jest. These be matters for the sanctuary of the holy of holies.

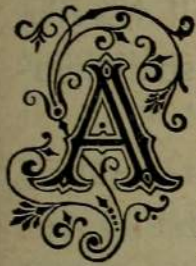
Most of the relationships between the social throng of men and women are as honest friends and comrades. The past generations were wont to regard every man as the possible enemy of every woman's virtue, and that the weaker sex

must be constantly on the defensive. In the old-world countries this is yet largely true. But in the glad time when all the youth are enlightened as to the real functions of manhood and womanhood, adaptability and attraction will be the only basis for union, and this will be true marriage. The human relation can be then more beautifully upheld without the idea of sex-difference constantly obtruding itself.

There is nothing to fear in truth, and the unfolding of womanhood is best shielded and guarded when there is conscious knowledge of the glorious possibilities inherent in the quality of sex, which in every human being holds the balance of power.

CHAPTER VI.

The Fulfillment of the Law.



AFTER the unfolding of the flower of womanhood, the next progressive step in femininity is the discovery of the other one whose being shall be complementary to her own. She who is most truly woman will naturally be much attracted by masculine society, but if her mind has been so carefully trained that the self-poise and dignity of womanhood is understood, she will not lend herself to promiscuous affairs of the heart. Until mind and body are fully matured only the spirit of comradeship should prevail between the young. Under hot-house unfoldment the powers of sex are not hardy, and are most liable to misappropriation, because reason and judgment have not proportionately developed. But love is the fulfillment of the law. It is the second round in the ladder of progress, and must permeate every avenue of life for man and woman as the warm glow of the sun thrills the world of matter, or growth is retarded.

Emerson on Love.

Emerson says: "Love is omnipresent in nature as motive and reward. Love is our highest word and the synonym of God.

" * * * It is a fire that, kindling its first embers in the narrow nook of a private bosom, caught from a wandering spark out of another private heart, grows and enlarges until it

warms and beams upon multitudes of men and women, upon the universal heart of all, and so lights up the whole world and all nature with its generous flame. It matters not whether we attempt to describe the passion at twenty, at thirty, or at eighty years. He who paints it at the first period will lose some of its later; he who paints it at the last, some of the earlier traits. Only it is to be hoped that by patience and the muses' aid we may attain to that inward view of the law which shall describe a truth ever young, ever beautiful, so central that it shall commend itself to the eye, at whatever angle beholden."

In the same essay Emerson asserts that this is preparation "for a love which knows not sex, nor person, nor partiality, but which seeketh virtue and wisdom everywhere, to the end of increasing virtue and wisdom."

It seems a simple thing to love and be loved; but it is so only in seeming. In reality it is one of the serious questions how properly to align one's self with this universal law. It is a subject open to sincere study. One of the present-day writers says:

"Ideal marriage, barring that of a blind man and deaf mute, is rare. It is the ante-nuptial condition that is charming. That the post-nuptial state should be occasionally different is but natural. It is easier to be a lover than it is to be a husband—or even a wife—for the same reason that it is easier to be witty now and then than all the time.

"Yet, like the ideal marriage, the lover who knows his business is rare. That business consists in never seeing or hearing anything which was not intended for him. He is not only near-sighted and hard of hearing—he is wise. He is aware that affections are like slippers—they will wear out. When they do he takes off his hat and wishes the lady God-speed—an attribute parenthetically which is the surest way to

detain her. In circumstances such as these the man who does not know his business loses his head, and loses it not because he has lost his lady's heart, but because her heart happened to be different from what he thought it. He had his ideal of her and feels that he has been swindled. No one likes that. And yet the swindle may be entirely his own.

"A woman, too, has ideals. It is not sacrifices she wants, but sympathy, the companionship of one whose likes are hers, whose dislikes she can share, and, as now and again occurs, she discovers that the man whom she took to be the possessor of these attributes is merely an individual who has the power to exasperate her at every angle of life. It is then that she packs up her heart and he fails to take off his hat.

"A condition of affairs such as that, without being epidemic, is common enough. To remedy it there is a choice between the Chinese system and higher education."

Need of the Higher Education.

It is the higher education—that which quickens mind and spirit—that is needed; a knowledge of some of the underlying principles of the attractiveness between men and women. The completeness each growing soul longs for is attained by a man and a woman. Each should contribute toward oneness, by careful cultivation of the flower of love, and by reaching out for unfoldment toward those things that are good and true and beautiful.

The Yale professor who called forth many vials of wrath upon himself by saying not ten per cent of married people realized their ante-nuptial ideals, was not far from the right. Few young people who marry have clear-cut ideals. They, in a hazy, uncertain way, expect marriage with a beloved one to yield joy complete; when, according to the law of progress,

the mere fact of marriage cannot render one completely happy. By assuming this relation they are placed in position for proper advancement, providing it is in accordance with natural selection. Then, as a beautiful plant is watched and cared for, so must be the attraction which drew together man and wife. It cannot be left to care for itself in the present world of storm, stress and adversity, or it will surely die.

The old-time idea that marriage removed the taint of sensuality is worn out. As Lady Cook said, "If one were driven into a corner for an argument against the existing marriage system, it would only be necessary to refer to the records of the divorce courts during one short year." But even the divorce courts are signs that "the world do move." Whereas marriage formerly meant a union for life "for better or for worse," it is now beginning to mean, if not for *better*, not at all. Higher social conditions mean higher ideals; and, though the social fabric is now in the throes of change from a lower to a higher standard, all evidence points to the bettering of lines in and upon which we live and move.

Teaching the Laws of Life.

Preparation for a thorough understanding of life's laws must begin as soon as a child manifests any desire to know of the origin of life. Then the growth of knowledge on this most beneficent department of nature will be uniform with growth in other directions. Abnormality in the sexual appetite is thereby forestalled. The first lesson continues until the approach of puberty; then the second lesson as to the physical and psychical changes which will take place is in order. The home should be the place—

"Where children are taught to be laws unto themselves and to depend on themselves."

The third lesson for the young may deal with the question of mating. If the first instructions have been what they should be and have led the young mind above and outside of itself, this pregnant step in advancement will not be so difficult to approach as it seems. Parents are very much aided by having a wise selection of books at hand. When this question has suggested itself in perspective, the youthful mind seizes upon all manner of means for enlightenment. To the shame of humankind be it said that all knowledge on this subject of mating in past generations had to be received from concealed or unholy sources. As Dr. Wilcox says, "A good book on the physiology and ethics of the sex life ought not to be out of place on the center table or the mantel." When we are able to live the regenerate life, all possible light will not be out of place in the family circle. In fact it will go along with other instruction which tends to keep the windows of the soul open heavenward.

A young woman who has not lived a life isolated from the other sex is more in command of her powers in men's presence than she who has been kept away from them. It is a very frequent occurrence that girls released from a convent education heedlessly marry the first importunate suitor. She yields to the inscrutable attraction of the sexes without analysis of her feelings, or what the estate of marriage may mean. "Friendship fills the background of all true love," says the author of "Ethical Marriage," "and those lovers who are unacquainted with friendship's austere sincerity are in the thrall of animal passion. Marriage is a permanent companionship for purposeful work and healthful play, and it is idle to enter into it unless the parties to it are moved by the strong force of tested and faithful friendship."

Acquaintance with aims and desires aids each of a pair of

lovers to know whether they can co-operate. They *must* know whether they can comprehend each other's ideals and efforts to their attainment.

A Brilliant Frenchman's View.

Max O'Rell said: "A woman should marry young, very young even, so that her husband shall enjoy all the different phases of her beauty from the beauty of her girlhood to that of second youth, or matronly beauty, which, to my mind, is best of all. It is perhaps at forty that a woman is most strikingly handsome; invariably so when she has taken care of herself and has been loved and petted by husband and children alike. It is then that she knows how to make the best of herself, that she best understands how to exercise her gifts and charms in the most effective manner."

To men he said: "Never marry a woman richer than you, or one older than you. Be always gently superior to your wife in fortune, in size and age, so that in every possible way she may appeal to you for help or protection, either through your purse, your strength or your experience in life. Marry her at an age that will always enable you to play with her all the different characteristic parts of a husband, a chum, a lover, an adviser, a protector and just a tiny suspicion of a father."

A German Opinion.

This is a Frenchman's point of view. Another from a German point of view is truer from the idea of equality: "Marriage is more than the means of setting up housekeeping and founding a family; the upward striving toward perfection is more than a dark longing for an object that may agreeably occupy the emotions and the imagination. It is the longing equivalent to a noble life, toward the perfection of our being

through the union with a being in harmony with ourselves; toward the complete satisfaction of our personality by becoming one with another personality, by a blending of souls that perfects both as the blending of two metals results in a third that is superior to and more enduring than either alone. It is finally the need that every nobler individual feels for the realization of the ideal, a realization we look for in vain in every direction and which life can offer us nowhere but in true love. Whithersoever a man's fancy, his discoveries, or aspirations, may lead him, nothing in the whole domain of nature can take the place of the relationship that true love unfolds to two thinking and harmonious beings. Such love is true life."

A great many of the considerations for a correct marriage should, while the heart is fancy-free, be kept well to the fore. It almost goes without saying that mental tastes should be similar. Very much marital misery is occasioned through lack of balance here. The science of phrenology often aids young people to find companions of suitable mental caliber.

Mental Adaptation, or Harmony.

The following on mental harmony is from Dr. Foote:

"Mental adaptation, in marriage, consists in at least an approximate correspondence in the tastes, sentiments and propensities of husband and wife. * * * The possession of high moral and religious sentiments by one and a total destitution of them in the other is frequently the cause of matrimonial discords and separations. How can a pious wife enjoy the society of a husband who forbids her devotional exercises? How can a devotional husband have a wife who neither sympathizes with nor participates in his religious sentiments, while

by precept and example she trains up his children regardless of his cherished principles?

“The organ of inhabitiveness when largely developed gives attachment to home and love of country. A wife possessing a full development of this organ can never live happily with a husband whose inhabitiveness is small. He will ever be on the move, like the rolling stone, and his wife must sacrifice her love of home and a permanent location by following in his wake, or else let him go, and content herself in loneliness.

“ * * * The organ of philoprogenitiveness makes its possessor very fond of children. If the wife has this faculty small and the husband large, the latter is decidedly inclined to find fault with her management of the children, and bickerings arise from this cause. * * * As the principal training and care of a child devolves upon the mother, large philoprogenitiveness is more essential to her.

“Adhesiveness is an organ that begets powerful attachments. It is the chief prompter of a platonic love. It leads the person to seek the society of those who have similar proclivities, and seals congenial acquaintance with enduring friendship. If the husband lacks this quality of mind the wife ever laments his want of fraternal affection—feels that he married her more for the gratification of his animal desires than for her society. If the wife is destitute of this organ she is generally cold and repulsive, except when aroused by amative excitement.

“Many husbands and wives possess an equal development of the organ of amativeness, and still have not the necessary physical adaptation to make each other happy. Two persons may possess an equal development of the organ of adhesiveness and yet fail to become friends for want of congeniality in other respects. * * *

“The intellectual powers should be about equal, however diverse in character; no wife can respect a husband who is inferior, and without respect there is no real love. Nor can any intelligent husband enjoy the society of a wife who is ignorant and perhaps uncouth. * * *

“Passional love, which warms up only at intervals, can not long render the pair blind to mental disparity. And then, too, where passion has been the governing attraction, and age cools down the impulses of early manhood and womanhood, nothing is left to render their matrimonial relations even tolerable. * * * There must also exist that mental and moral congeniality which produces powerful friendship—friendship which would be deep and lasting were sexual considerations unthought of.”

The Law of Physical Adaptation.

In physical characteristics by which temperaments are made manifest the law of opposites rules. The dark should mate with the fair, the plump with the slender, the tall with the short. The thoroughly feminine admires the thoroughly masculine. To observe these things is to be placed in harmony with natural law, which, Henry Wood says, “is a loving force, persistent, reliable, always in its place and pressing to do its work.” Furthermore he says: “It is this invariableness which enables us to use it and make it serviceable. While, therefore, it is true we are always under its sovereignty, it is no less a fact that when we comply with its conditions it becomes our most valuable and indispensable co-worker. Its powerful aid, like that of steam or electricity, is always in waiting, only we must not dictate its methods of operation.”

Having aligned ourselves with natural law, it will then do its perfect work. Those whose aspirations lead them upward

through the fields of progress soon attain to the point where the fact of sex is seldom asserted. We may know the law—male and female created He them—know the associations are necessary, therefore good, adjust ourselves to the conditions and think no more about them. It is only on the basis of cleanness that honor between men and women may be realized.

Purity of Thought a Requisite.

Young persons in pursuit of the fulfillment of the law must come into the wholesomeness of purity of thought. When this has been gained, the opposite sexes can discuss questions relating to the estate of marriage without self-consciousness or false modesty.

Mrs. Whitney says: "In olden times and under the olden civilizations which continue unchanged in oriental countries up to the present time, there was not a thought that men and women could associate on intimate terms in honorable relations as friends and companions and helpers. The idea is, perhaps, the prevalent one throughout the world. But there is a higher, truer, purer idea in the minds of the best people, and the intercourse of men and women in business and professions and reforms is demonstrating it to be a fact that they can associate on the human plane and help each other and work together with no thought of their difference in sex.

" * * * In the old dispensation, to man every woman was a possible victim, and to woman every man was an enemy, and she could maintain her virtue only by constant vigilance and a war of defense. In contrast with this see the pure chivalry of the best men of our time, which is met by the most complete confidence of the best women."

To the pure in mind all things are pure. It has never been wise to ignore creative law, and in the present day it is not

forgivable. The holiest relation of the sexes must be placed beyond the question of commercial or social advantage, and comply with natural selection and the deepest needs of humanity. Marriage must come to be arranged with reference to inner needs. While its failures cause it to be a debatable question, yet so long as sympathy, companionship, affection and co-operation are deep soul-longings the experiment of mating will be apt to go on.

Let the propensities of human nature be guided by the better self, and they will give strength for the attainment of all that is worth striving for.

Love must be acknowledged as a fact, and as a controlling factor in proper living. The more fully it is expressed the richer becomes individual life, and the benediction is shed on all who come within the circle of its radiance.

“That love for one from which there doth not spring
Wide love for all is but a worthless thing.”—*Lowell*.

PART II.

CHAPTER VII.

The Fruits of Fulfillment.

THE great sun in the soul-heavens is love; love the fulfillment of the law, the quickener of the powers of being. The fruits of fulfillment are as varied as in the objective world, where growth depends on the amount of sunlight received. But in this connection the fruits of fulfilling the law will be considered in the specific sense of the mating of one man and one woman. The higher conception of the term marriage is beyond and wholly outside of any legal enactment. People may place themselves in harmony with external conditions by going through the forms necessary for public recognition of a purely personal and private relation, but the mere "I-pronounce-you-man-and-wife" is not marriage. Perfect marriage can only be based upon attraction and natural adaptability.

The fruits of love in marriage may be said to be growth and development of the united pair, and offspring. If there is not a true union there should be no children. Homes of inharmony produce the cross-grained and contentious of the world—which results are retarding progress.

Happiness in the marriage relation is often marred by trifles, whose inroads are so slow they are not noticed until almost too late to mend. Jestings leads sometimes to quarreling, thence to misunderstandings and lack of confidence. There

must be a broad basis of friendly confidence, so that misunderstandings, slights, irritability of temperament, can be discussed with a view to future prevention.

A Wise Woman's Experience.

Fowler quotes a lady as saying: "When I married only one point of similarity and sympathy existed between myself and husband. I soon found that discussing our differences only aggravated them, and adopted this inflexible rule: never to argue points of dissimilarity, but simply to establish harmony on the one point on which we agreed. This soon created concord on another keynote, cherishing which soon brought us into union upon a third, and so on till now every discordant note has become concordant, and we live most happily." Wise woman that.

Many who are able to win a heart's best love seem unable to retain it after the first few weeks of wedded life. And this is largely due to a lowering of the standard of behavior. The outside legal tie is made to serve in place of the commanding of mutual respect through the manifestations of true manliness and womanliness.

If the affairs of marriage have not been discussed during the days of courtship, two people can hardly realize what the ideals of each other may be. No pair is fit for marriage who cannot frankly and fully discuss the relation of the sexes, and the duties each bears to the other. Kindness, courtesy, unselfishness must needs be practiced by both more unfailingly after the I-pronounce-you than before.

A popular fallacy is that marriage removes a pair from the close friendships of friends. Not infrequently one hears that a husband or wife is jealous of friends. Jealousy is a green-eyed monster that makes the food it feeds upon. No well-

balanced person but has the power to lift himself to a plane so high that jealousy can not obtrude. The duties of matrimony must not close the door to the larger life of friendship, or the avenues for growth are closed. Of this Professor Wilcox says: "It is the orthodox doctrine of marriage under the present regime of romance that lovers and married people should find in each other the sufficient satisfaction of every legitimate want. It is supposed that once a life alliance is made the legitimate function of friendship is fulfilled, and that straightway correspondences must be closed and that personal relationships must be broken off in order that love and duty may be concentrated in the home. Friendships may, perhaps, be outgrown by the divergence in interests and ideals, but the mere fact of betrothal or marriage furnishes the most absurd of reasons for cutting any vital cord of sympathy or co-operation that may exist between any two persons in the world. Who believes that marriage thrives on isolation? that a woman will be a better wife and mother if she enters into the soul-life of only one man? that a man will be a better husband and father if he cherish the sympathy of only one woman? True, the home calls for specialization of effort and care, but every specialization brings with it more and more dependence on outside relationships. The household life will be self-consuming if it is not fed by wider associations. Every friendship of husband and wife will add riches to the home store.

"Friendships are the spiritual doors and windows of the home through which the universal light and air find entrance."

Progress is one of the laws that must be recognized to make wedded life all it should be. To close all the avenues of good that outside atmosphere can bring, encourages narrow-

ness and selfishness, two negative qualities we must strive against.

The Unfoldment of Family Life.

Were each to understand the words, "You must grow to new heights if I love you tomorrow," neither would dare, for dear love's sake, to settle down to the mental and moral lassitude so common in marriage. Family life, to be profitable to the members of which it is made up, must unfold in mental, moral and material strength. Its power is hampered if development is only on one or two lines.

The tendency of the times is toward small families of children. Fewer children and better is a good motto; especially should they be *few* if parents do not know the laws of life well enough to insure *better* ones.

Mutual attachment of parents is more firmly cemented by children in the home. A natural need of the individual is gratified in true family relations, which enables the souls of its members to expand and grow like leaves in the sunshine. "The woman is to the man only the complement of his being, in and with whom he begins to live his complete life," said Heingen. Vice versa. Again this philosopher tells us: "The family is inconceivable without real marriage, marriage is inconceivable without love, and love can no longer be distinguished from prostitution when the bond of union is vitiated by compulsion. If propagation is to have an ethical significance and ethical consequence it must not proceed on the plane of bestial association, and just as little in false or forced relationships. Every child that springs from a union which would have ceased had not external considerations or binding fetters held it together, transmits the curse of the misfortune and of the immorality to the next generation."

The requisite for having well-born babies is, according to Dr. Elliott:

First. That the parents be well-mated.

Second. That they are in a condition of health.

Third. That their own tendencies to evil have been overcome to the best of their ability.

Fourth. That they should take advantage of the molding powers of prenatal influences.

Grant Allen said: "It is good for every man among us that he and every other man should be as strong, as well-knit, as supple, as wholesome, as effective, as free from vice or defect as possible. We see clearly that it is his first duty to make his own muscles, his own organs, his own bodily functions, as perfect as he can make them, and to transmit them in like perfection unspoiled to his descendants. We see clearly that it is good for every woman among us that she and every other woman should be as physically developed and as finely equipped for her place as mother as it is possible to make herself. * * * We see that to prepare ourselves for the duties of paternity and maternity by making ourselves as vigorous and healthful as we can be is a duty we all owe to our children unborn and to one another."

To be our best selves, then, is to be properly prepared for parenthood. Wise and loving generation only can lift the status of civilization.

The Complementary Life of Marriage.

The complementary life which well-mated pairs are enabled to live is another of the fruits of fulfilling the law of love.

"For woman is not undeveloped man,
But diverse: could we make her as the man,
Sweet love were slain: his dearest bond is this,
Not like to like, but like in difference."

One supplies deficiencies of the other. Harmonious mental and moral growth rests upon the integrity of conjugal love-life; which thought brings us to the consideration of means for preserving the male and female attraction each must at some time have held for the other in order to assume the marriage relation.

Two views held on this subject,—which differ only in the degree of expression of creative life,—are well worth intelligent thought.

The first is that complete blending of the sexual natures is only proper and necessary where propagation is desired. Dr. Cowan and Professor Fowler are notable among the older writers on the subject. One of Fowler's illustrations is the following:

“A and B have an equal amount of sexuality. A consumes his in coition, which leaves his voice, manners, posture, spirit, intellect, etc., bereft of it. B continently retains his, only to have it worked off in imparting sex to his voice, walk, actions, etc.; nobleness and courage to his feelings, with gallantry to women and admiration and love to the sex, and that treatment that wins their regard. You can't consume your sexual cake in both forms. Choose whether you will do so in the animal or in those nobler aspects of masculinity.”

The creative life consumed in frequent intercourse is injurious, robbing a wedded pair of the essential principle for preserving the gentleness and courtesy due one another. Love expressed in kindness, in kisses and caresses, yields the necessary element the sexes have for each other. Love expressed only in the sexual embrace to the full propagative act yields less than the vitality it consumes, besides making a chance conception probable.

Continnence the Law of Love.

Fowler asserts that no semen is deposited in the seminal vesicles if the mind is held above the animal plane. "Continnence," he says, "except in wedlock, and then only to propagate, is therefore the natural law of love."

Dr. Cowan advocated procreation every three years; Fowler every two years; others only so often as children are desired, be it five or ten years.

Other humanitarians advocate the possibility and the desirability of the conjugal embrace, provided it is not allowed to go beyond the bounds of a love embrace and be made propagative. In this sacrament of blending there must be no haste, no animality—just a quiet exaltation of the entire being of that twain who are one flesh. The nervous spasm called the orgasm is avoided; therefore all danger of chance conception is forestalled. This alone is immeasurably desirable to every wife, and should be equally as much to husbands.

Preventives to Conception.

The use of prevalent preventives to conception is also done away with through this method of expression. Few preventives are absolutely sure; and, truly, the use of *any* such blurs the spirituality of conjugal love. The full, free blending of the male and female life,—spiritual, emotional and physical,—without fear of results, is productive of such beneficent powers for activity no married lovers will ever return to the animal plane who once taste of its blessings.

One of the later-day writers says: "Given abundant time and mutual reciprocity, the interchange becomes satisfactory and complete without emission or crisis by either party. In the course of an hour the physical tension subsides, the spiritual exaltation increases, and not uncommonly visions of a

transcendent life are seen, and consciousness of new powers are experienced."

Another says: "When married people once learn how to enjoy the sexual association according to this method, they will not wish to do otherwise, except by design, for the purpose of securing offspring. Many barren women have become capable of bearing children through the strength obtained by practice of this method of union."

An eminent physician has given it as his opinion that the widespread habits of using tobacco, alcohol and other stimulants have rise in the waste of vital force in incontinence in marriage and out. These habits act and re-act on each other so that it is rare to find a person defiling the temple of the soul by one means alone. Any one of these habits robs an individual of power to think and will to do that which is in harmony with good old mother Nature, and therefore right.

The truly mated wise enough to preserve the sweetness and warmth of honeymoon days will be comrades and lovers.

The Old, Sweet Story, Always New.

The old, old story is always fresher and sweeter with each telling if kind and courteous acts testify to the truth of the words. Time never has lessened the need of the human soul for affection, nor dimmed the necessity of blending of the sexes. Those matured people who are deprived or deprive themselves of this indispensable element may be recognized by the hardness of feature and dearth of kindly deeds. Men sometimes allow the pursuit of wealth to absorb them to the exclusion of the wine of life, which is love. They forget to be lovers to their wives and fathers to their babies. It has been said that there are more restless women between the ages of thirty-five and fifty than of younger years. There are, of

course, causes for this condition. The widowed, the mismatched, the unloved—alas the day!—are in the majority. Many of them—perhaps most of them—are unfitted by nature or training to do life's battles. Many who think women should have a purpose in life besides her female relationship to society, are met with opposition in the family or among friends, so that desire to do is frustrated, unless there is the strength to override obstacles. One disappointed little woman said this: "I do not exactly know what is meant by a 'career,' but I think it must be that thing which lies nearest your heart; that most sacred of all endowments of the Divine Creator. But because your wisdom is so much inferior to His you know it is one which should not have been given you, and which you must crush out, as He certainly made a mistake in giving it to you, and it is not meant for your well-being. It is that thing which, when you think of its perfect fulfillment, causes a lump to come into your breast and rise up and up till it stops your breath and fairly chokes you, and you gasp and say, 'Oh, if it could only be!'"

Another who had the talent to write beautiful, helpful stories—who has written for the best periodicals—is allowing her powers to lie unused because her husband insists on her being just his wife—and the superintendent of his household. Such cases as this illustrate what Spencer says about unselfishness being harmful beyond a certain degree. Talents are to be used, and used in their natural bent. They must not be given up because some one else, without rhyme or reason, insists upon it. Women can and should follow their life-work as well as their brother, man. The woman with an occupation suitable to her desires and liking will not be among the restless and unsettled. Even if her love-life has not fulfilled its best promises, the channel can be turned into universal love for

all creatures, and joy and hope gleaned therefrom. There is no excuse for that selfishness which, because one has met obstacles, or has been bereaved, causes one to retire into one's self and grieve. The only panacea for any grief is activity, which takes consciousness outside of one's self. Those who hold for long at trials or obstacles miss the proper moral exercise for strengthening character. All heights are accessible to her or him who will work for success.

Fra Elbertus says: "The man who thinks out what he wants to do, and then works, and works hard, will win; and no others do, or ever have, or can—God will not have it so."

PART II.

CHAPTER VIII.

Home and Home-Making.



WHILE society can not be considered as fragmentary, with divided interests, yet there are individual needs to be satisfied for individual weal. In response to these needs, home was established. Every human being has need of a habitation where there is repose for mind and body; where private attention may be given to individual tastes and necessities; where habits may be trained that will help to form character, until the human mind can know itself, and so be beyond the power of habit.

Home life does not necessarily mean married life. Man, in common with all higher animals, has "the homestead instinct," which is associated with the natural desire for domestic privacy. Following instinctive want of a place of safety, of a place in which to rear a brood of offspring, home became an institution.

The majority of homes are made up of father, mother, and children; and where the binding tie is love, and there is harmony and progress, it is the ideal place of refuge. But the detached members of families have the home instinct the same as their more fortunate brethren and sisters, and the sense of being unsettled often leads to ill-considered marriages. For this reason it is always well for two, or three, or more, con-

genial people to set up for themselves their household gods, until the right opportunity comes for marriage. Boarding-houses and hotels have been made to serve for these parts of families, and sometimes for families, but it is very seldom a sense of hominess pervades their atmosphere.

The more progressive of "bachelor girls" have begun to establish households and live as befit creatures of civilization. The bachelor *man*, somewhat in advance of his sisters, has been doing the same. Conservative society sometimes arouses itself sufficiently to object to these unmarried households, on the ground that they interfere with the founding of family homes. This is only true as far as the inferior, or the not true, marriage is concerned. Attraction between the sexes is a fact in nature. It is a law that no private arrangement of humankind can set aside; and if bachelor households shall do away with marriages of convenience, the more of them the better.

At the present stage of development, home life largely suffers because of unskilled management. The kind of skill needful to adjust affairs successfully has not been considered necessary to train for, and, as Mrs. Stetson says, "there are several professions involved in our clumsy method of housekeeping. A good cook is not necessarily a good manager, nor a good manager an accurate and thorough cleaner, nor a good cleaner a wise purchaser. Under the free development of these branches a woman would choose her profession, train for it and become a most valuable functionary in her own branch, all the while living in her own home; that is, she would live in it as a man lives in his home, spending certain hours of the day at work and others at home."

The onward march of progress has led woman outside of the four walls of home and the work of the church. Fifty

years ago, very few avenues were open for the expression of woman's activities outside of the household. To be self-sustaining had a sound of something improper. "Has she no *man* to keep her?" But the growing spirit of freedom causes the able-bodied, wholesome-minded woman not to want to be "kept." She desires to be strong and secure in her own strength as a human, and not to be "taken care of" as an adjunct of the masculine sex.

The Changes of a Century.

The following by Mrs. Sangster expresses the changes the past century brought about for woman:

"IN NOTHING is the march of progress more evident than in the present attitude of woman toward life, as compared with the point of view of her predecessor. The change is as marked as that from the candles of the opening nineteenth to the electric lights of the opening twentieth century. A hundred years ago woman was a timid being, to be sheltered and protected, to be worshiped and complimented, and she lived up to the ideal men then held as peculiarly feminine. She had great reserves of bravery and patriotism under her delicate exterior—for in every age womanhood remains the same in essentials—but she by no means met man on equal terms in any field. The dawn of the old century found women with few business opportunities and somewhat restricted educational privileges. Here and there was a learned woman, and many women were clever, resourceful and intelligent, but the curriculum designed for the sex was less strenuous and less expansive than that of today. Few girls went further than the common school, topped off with a foam of graceful accomplishments.

"Marriage was the feminine goal. She who did not marry was regarded with compassion as a failure, and her parents were openly pitied. After marriage, the average woman re-

tired into the seclusion of her home, and it is not too much to say that at fifty she was frankly old. The young ruled in the drawing-room, and the atmosphere was crude in consequence. Mothers are as needful to society as daughters in their bloom, and this the new century acknowledges with pride.

“The woman doctor, the woman lawyer, the woman journalist and the trained nurse were unknown when the nineteenth century began. The twentieth would be bewildered without them. In the old days, woman’s activities were limited to home management and church work. Housekeeping bristled with various labors. Soap and candles were of domestic manufacture, crushed sugar was broken off the loaf by the bit, there were no sewing-machines, nor wringers, nor stationary tubs, nor could pickles and preserves be purchased. Ready-made clothing could not be bought. Nevertheless, this busy housewife was a voluminous letter-writer, crossing and re-crossing her gossipy sheets to save postage; she was often a deft amateur surgeon, and had remedies on hand for the family ills. She was a good neighbor and a stanch friend, and her manners were formal and elegant. Somehow she had more time than we have for little courtesies.

“In the new century woman’s sphere has grown larger. Her charities are broader, though less intimate and individual. Their objects are greatly multiplied. Among her most beneficent fads must be classed her zeal for town and city adornment, for clean streets, and for reformed ash-barrels. She looks after the waifs and strays of civilization, peers into almshouse and prison cell, and fights cruelty to dumb animals. An inborn and inherited hatred of dirt and disorder leads her to combat both wherever she finds them, and her finger is often in the municipal pie to its manifest advantage.

"The most conspicuous fad of the new century woman is devotion to athletics. Our girls of today are magnificently vital, splendid specimens of health, beauty and endurance; they are taller than their mothers, and carry themselves with an air of distinction in keeping with their superb stature and elastic strength. Outdoor exercise confers on them color, grace and vigor; they play the games of the hour with skill and audacity, and their wholesome life in the open has given them a charm far in excess of semi-individualism and interesting fragility. The fad of the new century woman is to be ready for anything, broadly educated, spiritually enlightened, and physically equal to every demand."

"Woman's Sphere."

The forces of inertia, the conservatives, still prate about "woman's sphere," and, had they despotic power, would force all of womankind to domestic service until the inevitable rebellion would come.

"If a modern man, with all his intellect and energy and resource, were forced to spend all his days hunting with a bow and arrow, fishing with a bone-pointed spear, waiting hungrily on his traps and snares in hope of prey, he could not bring to his children or to his wife the uplifting influences of the true manhood of our time," says Mrs. Stetson. "Even if he started with a college education, even if he had large books to read (when he had time to read them) and improving conversation, still the economic efforts of his life, the steady daily pressure of what he had to do for his living, would check the growth of higher powers. If all men had to be hunters from day to day, the world would be savage still. While all women have to be house servants from day to day, we are still a servile world."

"A home life with a dependent mother, a servant wife, is not an ennobling influence. We feel this at times. The man, spreading and growing with the world's great growth, comes home and settles into the tiny talk and fret, or the alluring animal comfort of the place, with a distinct sense of coming down. It is pleasant, it is gratifying to every sense, it is kept warm and soft and pretty to suit the needs of the smaller and feebler creature who is forced to stay in it. It is even considered a virtue for the man to stay in it and to prize it, to value his slippers and his newspaper, his hearth fire and his supper table, his spring bed and his clean clothes, above any other interests.

"The harm does not lie in loving home and in staying there, as one can, but in the kind of home and the kind of womanhood that it fosters; in the grade of industrial development on which it rests."

If advancement has gone on while working against the tendency to remain stationary, how much more swiftly will it advance after this resistance has been overcome?

Man and woman cannot, in harmony with nature's laws, occupy separate, distinctive spheres of activity. Together an energy is generated not possible where working alone. It is the force of sex diffusing itself through exertions; the force which most often is allowed only to be generated in the drawing-room and ball-room and which does not there find the best avenues for use.

Haying Time in Scotland.

The author of "Little Journeys to the Homes of English Authors" illustrates this law in the following:

"The Scotch are great economists—the greatest in the world. Adam Smith, the father of the science of economics, was a

Scotchman, and Draper, author of 'A History of Civilization,' flatly declares that Adam Smith's 'Wealth of Nations' has influenced the people of earth for good more than any book ever written—save none. The Scotch are great conservators of energy.

"The practice of pairing men and women in the hay-field gets the work done. One man and woman going down the grass-grown path afield might linger and dally by the way. They would never make hay, but a company of a dozen or more men and women would not only reach the field but would do a lot of work. In Scotland the hay-harvest is short—when the grass is in bloom, just right to make the best hay, it must be cut. And so the men and women, the boys and girls sally forth. It is a jolly picnic time, looked forward to with fond anticipation, and gazed back upon with sweet, sad memories, or otherwise, as the case may be.

"But they all make hay while the sun shines and count it joy. Liberties are allowed during haying time that otherwise would be declared scandalous; during haying time the Kirk waives her censor's right, and priest and people mingle joyously.

"Wives are not jealous during hay-harvest, and husbands never fault-finding, because they each get even by allowing a mutual license.

"In Scotland during haying time every married man works alongside of some other man's wife. To the psychologist it is somewhat curious how the desire for propriety is overridden by a stronger desire—the desire for the shilling. The Scotch farmer says 'anything to get the hay in'—and by loosening a bit the strict bands of social custom the hay is harvested.

"In the hay-harvest the law of natural selection holds; and trysts continue year after year. Old lovers meet, touch hands

in a friendly scuffle for a fork, drink from the same jug, recline at noon and eat lunch in the shade of a friendly stack and talk to heart's content as they Maud Muller on a summer's day.

"Of course this joyousness of the haying time is not wholly monopolized by the Scotch. Haven't you seen the jolly haying parties in Southern Germany, France, Switzerland and the Tyrol? How the bright costumes of the men and jaunty attire of the women gleam in the glad sunshine! But the practice of pairing is carried to a degree of perfection in Scotland that I have not noticed elsewhere. Surely it is a great economic scheme!

"It is like that invention of a Connecticut man which utilizes the ebb and flow of the ocean tides to turn a grist-mill. And it seems queer that no one has ever attempted to utilize the waste of dynamic force involved in the maintenance of the company sofa.

"In Ayrshire I have started out with a haying party of twenty—ten men and ten women—at six o'clock in the morning, and worked until six at night. I never worked so hard or did so much. All day long there was a fire of jolly jokes and gibes, interspersed with song, while beneath all ran a gentle hum of confidential interchange of thought. The man who owned the field was there to direct our efforts and to urge us on by merry raillery, threat and joyous rivalry. The point in this—we did the work.

"Take heed, ye Captains of Industry, and note this truth, that when men and women work together, under right influences, much good is accomplished and the work is pleasurable."

Energy as expressible through the human family does not belong to one sex or the other. Wherever an individual approaches the perfection of his kind, through him or her flow

the forces that lift civilization. Fra Elbertus tells us, "We have been mired in the superstition that sex is unclean, and therefore honesty and expression in love matters have been tabooed. But the day will yet dawn when we will see that it takes two to generate thought; that there is the male man and the female man, and only where these two walk together hand in hand is there a perfect sanity and a perfect physical, moral and spiritual health."

In work, of course, there will be specialization as tastes and talents differ, but it must not be that domestic service is woman's alone, and all other work man's alone. Woman will direct her powers toward that branch whereby she may be of the best service, train for it, and thus fill her niche as a human factor.

A writer in the *North American Review* at the beginning of the new century estimates that women occupy seventeen per cent of all the occupations. In the face of the difficulties to be overcome before being able to get outside of her "sphere" this is a very good percentage. This magazine writer takes it as an indication of "the moral degeneracy of women," which shows that there are yet obstacles being thrown out to bar the way of freedom in industrial activity.

It is no more best that all women should give all their time to serving the family than that all men should hunt and fish to clothe and feed it. The very inter-relationship of society in its varying needs of the present makes diversification necessary. To do something for others while others do something for you is the best point to reach in the social relation. "Blessed is the man (or woman) who has found his work."

Moreover, as an advanced thinker says, "All work is for the worker. What becomes of the product of your work and how the world receives it matters little. But how you do it is

everything. We are what we are, on account of the thoughts we have thought and the things we have done. As a muscle grows strong only through use, so does every attribute of the mind and every quality of the soul take on new strength through exercise. And on the other hand, as a muscle not used atrophies and dies, so will the faculties of the spirit die through disuse.

“Thus we see why it is very necessary that we should exercise our highest and best. We are making character—building soul-fiber; and no rotten threads must be woven into this web of life.

“Work is for the worker. Can you afford to do slipshod, evasive, hypocritical work? Can you afford to shirk, or make-believe, or practice pretense in any act of life? No, no; for all the time you are molding yourself into a deformity and drifting away from the Divine. What the world does and says about you is really no matter, but what you think and what you do are questions as vital as fate.”

Home to Unfold the Larger Life.

That place is not home which is merely a domestic laboratory—a place where are done those things relating wholly to the physical. How it shall be changed to unfold the larger life is a question exercising the mental faculties of all who wish to assist in the world's social development; and the riddle is being solved. When the newer, better structure is reared the old will be deserted, for the better becomes the necessity as soon as it is generally recognized.

The specialization of industries connected with the household has begun, as the public laundry, bakery, tailoring and dressmaking establishments and eating-houses attest. The conservative Pharisees, however, are wont to give themselves

congratulations and consider others not up to the mark who patronize anything outside of home industry for home consumption. To eat away from home bespeaks wifely "shiftlessness"—likewise the consuming of bakery goods and prepared conserves and pickles, and such. What we are used to so easily becomes what we like and must have, until some one calls attention to the advantages of different procedure.

The mental attitude into which we have been trained clings tenaciously, so that it is hard to distinguish between those things the result of such training and those which are made known to us by coming into the light. We are in darkness until we begin to think, question and investigate; and then the dawning of the light is dazzling until the iris of the mind's eye adjusts itself. But "when the judgment's weak the prejudice is strong." And with the question of simplifying the machinery of home-life the judgment is held back, because age-long tradition has photographed upon the public mind certain ideals of home hard to efface. "We have always done thus and so; therefore, it must always be," has been the logic of those who have not made the effort of thinking for themselves, or daring to differ from the established order.

To quote again from the healthy reason of our modern woman philosopher: "The economically dependent woman, spending the accumulating energies of the race in her small cage, has thrown out a tangled mass of expression as a large plant throws out roots in a small pot. She has crowded her limited habitat with unlimited things—things useful and un-useful, ornamental and unornamental; and the labor of her life is to wait upon these things and keep them clean.

"The free woman having room for full individual expression in her economic activities and in her social relation will not be forced so to pour out her soul in tidies and photograph

holders. The home will be her place of rest and not of uneasy activity; and she will learn to love simplicity at last. This will mean better sanitary conditions in the home, more beauty and less work."

William Morris' Definition of Art.

William Morris said: "We need fewer things and want them better. All your belongings should 'mean something to you.' To this end all shams must be tabooed. Make-believes have a deteriorating effect on the morals of a family. The thought of make-believe expressed in any article of furnishing is a bad object-lesson. The loud, inharmonious effects must also give way to the quiet and simple. Elaborateness of furnishings, decoration, clothing, manners, is relegated to the splendors of barbarism, where attention must be called to externals because the lack of development of the inner life makes it impossible to be manifest. In all the realms of art the subtle is undermining the blatant and aggressive. Art, by the way, 'is only the best way of doing things'; and that in life is best which is made to serve."

Simplicity in house furnishings leaves the mind more time for devising means of improvement along other lines, not the least of which is healthfulness in dress and in the selection and preparation of foodstuffs that will nourish instead of pleasing the palate.

Education has for its supposed aims culture of the individual; but there is a brand of education that is veneer, that trains the mind to like a thing well-said better than a true one, to prefer a trained manner to a sincere one, to think gracefulness of manner, aspect or dress to be more than the value of substance and heart. Whereas truth, courage, loyalty and the power of concentration must be the foundation of all that is worth while. All else is to be superstructure.

After considering home to be a place for rest, for simplification of labor, and a place of equality for all its members, last and best it is where our best selves must be warmed and nurtured into active life. It is a place where each matured person at least becomes positive against all annoying influences, and where the little ones, if such there be, are taught the duties of kindness, cheerfulness and consideration of others by example and precept. Anything which is a lesson to a child to think of and care for others, and not to place itself as the center of family interest—the principal receiver instead of one of the givers—helps to counteract the tendency to selfishness which is apt to be fostered by unremitting parental care. Activity in all the kindly offices to different members of the family and to playmates is the surest way to lead the young to the habit of doing right and thinking for others. A far better grade of happiness is thus secured the child. Consciousness should always be beyond self. Self-gratification brings the poorest of returns; it is evanescent; it brings not the blessings which doing for others will insure. The most satisfying thing in life is love and sympathy, and this is never gained as an end, but must come spontaneously, because our characteristics and habits are such as to make them ours.

“Happiness for All, from All.”

Ordinarily all states of mind are contagious. If in a home ill-temper, fault-finding and the like are allowed to be cultivated through expression, one disagreeable member of the family will make the atmosphere unpleasant for all. Sensitive childhood feels it and returns it in kind. Instead the home motto should be “happiness for all, from all,” and the cultivation of the better mental attitudes made a duty among adults and children. Wherever there are natural tendencies to sad-

ness or ill-nature they should be crowded out by the persistent expressions of gladness.

“When love, health, happiness and plenty hear
 Their names repeated over day by day,
 They wing their way like answering fairies near,
 Then nestle down within our homes to stay.”

“All that our hearts approve of wit, poetry, sentiment and sense we should endeavor to live in our daily home lives,” and thus become like what the best of us approves. We should make the words used in our homes kind, conciliatory and soothing, and thus insure restfulness, happiness and peace to those who dwell therein.

It is said that the world reflects back to us what is in ourselves. Henry Wood says it this way: “That which men have in themselves they see everywhere objectively reflected. One who is disposed to cheat sees cheating in the atmosphere around him, until he mistakenly concludes that it is a part of the Established Order. But it is entirely in men, and Law knows it not.”

Goodness attracts, happiness attracts, friendliness attracts. Would any have friends? Then be a friend. Would you approximate happiness in the home? Open the doors to the influences of human weal; express thoughts of helpfulness. The poet Edgerton has set forth the following thoughts:

“Tell Him So.”

“If you have a word of cheer
 That may light the pathway drear
 Of a brother pilgrim here,
 Let him know.
 Show him you appreciate

HOME AND HOME-MAKING.

What he does, and do not wait
 Till the heavy hand of fate
 Lays him low.

If your heart contains a thought
 That would brighter make his lot,
 Then, I beg you, hide it not;
 Tell him so.

“Life is hard enough at best,
 But the love that is expressed
 Makes it seem a pathway blest
 To our feet;
 And the troubles that we share
 Seem the easier to bear.
 Smile upon your neighbor’s care
 As you greet.

Rough and stony are our ways,
 Dark and dreary are our days,
 But another’s love and praise
 Makes them sweet.

“Wait not till your friend is dead
 Ere your compliments are said,
 For the spirit that has fled,
 If it know,
 Does not need to speed it on
 Our poor praise; where it has gone
 Love’s eternal, golden dawn
 Is aglow.
 But unto our brother here
 That poor praise is very dear.
 If you’ve any word of cheer,
 Tell him so.”

Homes are splendid factors in social advancement through the power to radiate good to all who may be brought in contact with their influences of geniality. Through outside friendship the beneficence of one good home may be spread to many hearts.

It is an ideal of such homes we should ever strive to actualize; homes in which there is a living, throbbing desire to attain to all in the soul realm that is best, whatever be our material environment. No ideal was ever so high we are not made better by striving toward it; *provided*, it is in harmony with the thought of the unity of human kind.

PART II.

CHAPTER IX.

Mature Life.

THE desire for long life, health and plenty has existed from time immemorial; with each succeeding generation it is re-asserted, and the dawn of the twentieth century finds the quest of youth as earnest as ever. Only the truth of an idea endows it with living power. And if this desire were not for the weal of mankind it would long ago have been left behind.

The magical fountain of youth has been found to exist within ourselves. To the successful searchers it does not mean that the change called death shall never come, though the possibility of overcoming death itself is recognized by some. The fountain of youth is fed from the perpetual spring of love; the more that is given, the fresher and purer and more plentiful remains the fountain's supply. "All the currents of nature are love energies," says Burry. "From the basis of love alone must man attempt his interpretation of life.

"The man who not only feels the love elements surging through him, but who has commenced to harness these forces, recognizing them as the creative principles of nature, has become a great magnetic center."

The perfect love which "casteth out fear" is the rock that must be the foundation for actual growth: to cease growing is to cease living. Mankind has permitted and encouraged it-

self in anticipating the infirmities of old age, and by degrees dropping into mental and physical inactivity.

“Man has always considered life synonymous with sorrow and suffering. He has always had an instinctive longing for happiness and an indefinite belief that it was possible to attain his desire, but the unhappiness of thwarted hopes and blasted ambitions has followed in the wake of his *ignorant efforts*. In youth and middle age he looks forward to the consummation of his wishes with an eagerness and zest that he afterwards remembers with a cynical smile. He has grown pessimistic and lost interest in former pursuits, and has settled to a grudging endurance of the remaining years he considers allotted to him.”

When the desire for health, plenty and long life is not realized among externals, some of the race set themselves to arguing that unalloyed happiness does not exist, and thereby align themselves with the negative forces of destruction. And so unhappiness, disease and death (so-called) become realities.

In order that the waters from the fountain of youth may not be clogged and made stagnant, humankind must be free. Or, as has been repeatedly stated, live your own life regardless of what may be other people's creeds or beliefs. A writer in the *Nautilus* says: “Realize that what other people do or think, or do not do or think, has nothing to do with what you are or will be. Furthermore, the acts and words and thoughts of others are none of your business. They have a right to treat you in any way you *let* them treat you, and think of you anything they choose. You attract exactly what you get, and you *need* it all to wake up to *yourself*.”

“Let them alone to think out their own salvation, and set yourself to make something of your own life and thought-force. You have been frittering away your thought energy

upon these people. That is why you have that tired feeling and cannot concentrate."

If things go wrong the fault will never be found outside one's self, although human pride will have it so. All obstacles that are to be overcome are for the purposes of development. Where there is nothing to be overcome, strength is not made manifest. It is only when we come to regard each experience as a needful lesson that the real meaning of life will be understood. We are the creatures of circumstances only so long as we bow before them: when we have a realizing sense of our own power, then may we dominate circumstances.

Youth in Old Age.

For the preservation of the spirit of youthfulness it is necessary to be one with the present. Even if one believes he has a new grasp on truth and wishes to give of what he has to society, he cannot isolate himself and go to the mountain top beyond and above his fellow-creatures. In the generations gone only those people retained youthfulness against advancing years who were the comrades of their children. Others who were merely trainers grew old in mind as well as body and died, and people said their time had come, while those who are young, though beyond the fourscore, are illy spared.

Youth is the training-time of mind and body. Mr. Gladstone said: "To train the mind should be the first object, and to stock it the next." School life is only preparatory to the serious work of maturer years. There is no age limit wherein the aggressive mind will cease to appropriate that which it can assimilate for growth.

As the reason and judgment mature, fewer mistakes will be made and less ground retraced. We learn to do by doing. While youth is attracted by what pleases the senses, the mature recognize only that beauty which is useful—that in life which is genuine.

It has been said that as a rule people do not change much after they are forty; that experience thereafter is only a deepening of ruts and not added power for progress. When this is true freedom to think has not been reached; people are going by the rule of precedent and are not exploring the realm of truth for themselves.

There are numerous examples to prove that the best life work has been done after fifty years. The resources of mature life are so many more than those of childhood no one who is free will ever regret the vanished days.

The following examples of work after fifty are from an article in the *Coming Age*:

Socrates was an old man when he began the study of music, and he gave to the world his wisest sayings when he was sixty-eight.

Plato, who said an old man could not learn any more than he could run, was prosecuting his philosophic studies as a pupil until he was forty years of age, and did not begin to teach philosophy until he was about fifty, and he retained the vigor of all his faculties to the ripe age of eighty-two, and handed down to posterity all of his grandest sayings after the age of fifty.

Aristotle continued a pupil until he was thirty-seven, and he was fifty-three before he established his school of philosophy at Athens. It was probably after this that he wrote his works which governed the logical thought of the world for so many ages.

Bacon was sixty before he arrived at the full maturity of his genius. It was then he gave to the world his "Novum Organum," which has reconstructed science and has given an entirely new method of scientific investigation.

Hobbes was sixty-two when he published his treatise on

"Human Nature," and sixty-three before he completed his "Leviathan."

Copernicus was nearly fifty before the theory of planetary motions which now prevails suggested itself to his mind. Nor did he succeed in establishing its truth to his own satisfaction until he was seventy, when he gave it to the world.

Coke did not make his first attempt as an author on law until he was fifty years old. His great works were produced between that age and the time of his death at eighty.

Mr. Benjamin, Q. C., who went from America to wrest the chief prizes from English lawyers, was almost sixty when he was called to the English bar, and within five years he was making three times a judge's income.

John G. Abbott wrote "History of the American Civil War" at sixty-one, and "Romance of Spanish History" at sixty-five.

Agassiz was fifty-nine years of age when he made an exploration in Brazil with his wife and scientific assistants; and the steamer Colorado was made ever memorable by the course of lectures which this most popular of scientific lecturers gave on board.

Jean le Rond d'Alembert ranks as one of the greatest benefactors to science of the last century. He was fifty when he wrote the preliminary discourse to the celebrated "Encyclopedia" which he had assisted Diderot to compile, and which drew from Condorcet the compliment that in a century only two or three men appeared capable of such writing. He was fifty-five when he was elected secretary to the French Academy and wrote the biography of seventy of its members.

Stephen Alexander, American astronomer, was fifty-four when he made his expedition to Labrador to make observations on solar eclipses, and sixty-three when he went west for the same purpose.

Voltaire, French poet, historian and philosopher, and the most celebrated writer of the last century, did his greatest work after fifty, and at eighty-four produced his tragedy "Irene" in Paris, where he was everywhere attended by crowds, occupied a director's seat at the Academy, and was crowned at the theater.

John J. Audubon, distinguished American ornithologist, was fifty years of age when his first famous volume of "The Birds of America" in folio, one hundred colored plates, drawings and colorings, made by himself, appeared in London. He was fifty-nine when the fourth volume completed the splendid work, which contains in all one thousand and sixty-five figures. He wrote "Quadrupeds of America" when near seventy years of age.

Pierre Augustin, Baron de Beaumarchais, politician, artist, dramatist and merchant, was forty-six when he wrote "Le Barbier de Seville," and fifty-two when he wrote his famous "Le Mariage de Figaro."

Jean Pierre de Beranger, one of the greatest lyric poets that France has produced, was between fifty and sixty when he completed his fourth series of songs. Speaking of these masterpieces of poetic skill, Goethe says: "His songs have shed tears of joy into millions of hearts."

Baron John Jacob Berzelius, one of the greatest chemists of modern times, at sixty-nine filled the chair of chemistry at Stockholm (Sweden) University. From fifty to sixty-nine, by his patient labors and ingenious investigations, he did more to lay the foundations of organic chemistry than any other chemist.

Bismarck was fifty-one when he carried out his long-cherished project of making Prussia the real head of Germany. He was sixty-seven when he accepted the challenge so rashly

offered by Napoleon III. and engaged the whole of Germany in successful war against France.

Karl Wilhelm Boettinger, Professor of Literature and History in the University of Erlangen, wrote the "History of Germany and the Germans" at fifty-five, and the "Universal History" at fifty-nine. He wrote all of his most important historical works after fifty-five.

Matthew Boulton, celebrated English engineer and member of the principal learned societies of Europe, whose long life was constantly and almost uninterruptedly devoted to the advancement of the useful arts and the promotion of the commercial interests of his country, did his best and most useful work from sixty-five to eighty-one.

Sir John Bowring, distinguished English diplomatist and author, did much of his famous work after sixty-seven years of age.

Lord Brougham, eminent English advocate, jurist, philosopher and statesman, gave to the world his best work from fifty to eighty-nine.

John Henry Kirk Brown, American sculptor, was fifty-seven when he began his equestrian statue of General Scott, which is considered his best work, and his "Resurrection" when sixty-three.

Joseph Rodes Buchanan wrote "Anthropology" at sixty-eight; "The New Education" at sixty-nine; "Science of Destiny" at eighty-three; working with undimmed intellect till his death.

Phillips Brooks was fifty-two when he delivered his two great lectures on "Tolerance," in New York, and continued his great work in the intellectual world to the end of his life at fifty-eight.

William Cullen Bryant wrote many of his most beautiful

poems after fifty, and translated the "Iliad" and the "Odyssey" at seventy-six.

George Loring Brown was sixty-two when he painted "Niagara by Moonlight," and sixty-six when he painted the "Doge's Palace at Sunrise."

Sir Astley Cooper, F. R. S., celebrated English surgeon and anatomist, wrote "Anatomy and Diseases of the Breast" when sixty-one, and his work on "Dislocations and Fractures" at sixty-four.

Disraeli was appointed Chancellor of the Exchequer when fifty-four years of age. When sixty-one he became financial minister under the Earl of Derby for the third time. He became minister of the crown when sixty-three; and wrote "Lothair" when sixty-five.

Emerson published "English Traits" when fifty-three, and the "Conduct of Life" when fifty-nine.

Faraday, the distinguished English natural philosopher and chemist, when fifty-five years of age received the Royal and Rumford medals for his discovery of diamagnetism and the influence of magnetism upon light. When fifty-six he discovered the magnetic character of oxygen, and also the magnetic relations of flame and gases.

Froude wrote the "History of England from the Fall of Wolsey" when fifty-two years of age.

Gladstone translated Farini's "Stato Romano" when fifty; at sixty wrote "The Gods and Men of the Heroic Age," and continued active in mind and body until his death at eighty-two.

Glück, the German musical composer, presented his masterpieces after fifty years of age, and his greatest performances were executed after he was sixty.

Goethe, the greatest modern poet of Germany, wrote the first part of "Faust" when fifty-six years of age, the second part appearing when he was eighty-two. "Wilhelm Meister" appeared when he was sixty-nine.

Samuel Hahnemann, founder of homeopathy, published "Medicine of Experience" when fifty, and the "Organon of Rational Medicine" when fifty-five.

Handel's "Messiah" was not completed until his fifty-seventh year; at his death, at the age of seventy-four, he was in full possession of his musical powers.

Oliver Wendell Holmes did much of his best work after passing the half century mark.

Victor Hugo wrote "Les Miserables" when sixty years of age.

Humboldt, at sixty, explored the eastern province of Russia, the results of which trip were published by him at the age of seventy-four, entitled "Central Asia,—Research on its Mountain Chains and Climatology." He published "Kosmos" and other works between the ages of seventy-six and eighty-two.

Michael Angelo was fifty-eight when he began to paint the "Last Judgment," which occupied eight years. After the age of seventy he mastered the science of architecture.

Milton completed "Paradise Lost" when fifty-seven, and "Paradise Regained" at sixty-three.

Sir Isaac Newton, philosopher, mathematician and astronomer, was sixty-two when his treatise on optics was published.

Sir Joshua Reynolds was sixty-one when he painted the beautiful allegorical portrait of "Mrs. Siddons as the Tragic Muse."

Benjamin West was fifty-four when he succeeded Sir Joshua Reynolds as President of the Royal Academy, and was in his sixty-fifth year when he painted his celebrated picture of "Christ Healing the Sick."

Titian painted his "St. Peter, Martyr," when he was fifty-one, and worked on almost to the close of his remarkable life at ninety-nine.

Jules Verne was writing romances when past seventy.

Noah Webster performed the herculean task of his life between the ages of sixty and seventy, rearing a monument to his own ability, industry and learning.

Camille Flammarion, the eminent French astronomer, has done much of his most valuable work since his fiftieth birthday.

Examples might be multiplied over and over again to prove that maturity may bring life's best expression. The present being made up of what has gone before, any of the earlier years cannot be given over to habits that destroy without the record being left. Unless the quality of a life is good, the greater or less length does not signify so much in the social fabric. Whatever of good is in the character of people, themselves receive the first benefit. Each has his own life to live; but in order to be a vitalizing element the power within one's self for the expression of the universal life must be recognized. William Penn said: "He that does good for good's sake, seeks neither praise nor reward, is sure of both at last."

The Fountain of Youth.

And as to the fountain of youth, which also is the source of strength and power to do, one writer says: "The fountain, which began flowing when God said, 'Let there be light,' is still flowing—has ever been flowing and will always flow. Indeed, the signs are not lacking that it is flowing more freely than ever before. The increase of flow results from the fact that more of us are willing to drink. In vital matters supply is always infinite; but apportionments are always in ratio with

demand. Our banker never forces money on us; we have to check against our deposits."

So, in order to receive of our share from the infinite supply of all the phases of good we must persistently make demand. In the words of Prentice Mulford: "Mind is magnetic because it attracts to itself whatever thought it fixes itself upon, or whatever it opens itself to. Allow yourself to fear, and you fear more and more. Cease to resist the tendency to fear, make no effort to forget fear, and you open the door and invite fear in; you then demand fear. Set your mind on the thought of courage, see yourself in mind or imagination as courageous, and you will become courageous. You demand courage.

"Ask and Ye Shall Receive."

"There is no limit in unseen nature to the supply of these spiritual frailties. In the words 'Ask and ye shall receive,' the Christ implied that any mind could through demanding draw to itself all that it needed of any quality. Demand wisely and we draw to us the best.

"Every second of wise demand brings an increase of power. Such increase is never lost to us. This is an effort for lasting gain that we can use at any time. What all of us want is more power to work results and build up our fortunes—power to make things about us more comfortable to ourselves and our friends. We cannot feed others if we have no power to keep starvation from ourselves. Power to do this is a different thing from the power to hold in memory other people's opinions. * * *

"Your plan, purpose or design, whether relating to a business or an invention, is the real construction of unseen thought-element. Such thought-structure is also a magnet. It commences to draw aiding forces to it as soon as made. Persist

in holding to your plan or purpose, and these forces come nearer, become stronger and stronger, and will bring more and more favorable results.

“Abandon your purpose, and you stop further approach of these forces, and destroy also such amount of unseen attracting power as you may have built up. Success in any business depends on the application of this law.”

This being a law-governed universe, everything successful is in accordance with law: everything non-successful when the law is not conformed to. Each must develop his own powers of understanding, and when he does so will give some individual interpretation of life. “Law is diversity in unity, and man in expressing it is the same.”

A writer in *Unity* gives the following words of helpfulness for gaining what is our own for the claiming: “Our recognition of the vitality of all things about us gives vitality to all our environment as well as to the physical condition of the individual. It gives poise to the individual, a feeling of strength and confidence in his ability to think and to do; his fears leave him one by one, for they cannot stand in the face of this great vitality. All good is for him. He has only to reach out and take what he wants. He must trust his real desire for perfection and harmony within and without, must make for it, passing by all contradictions to this truth that would beset his path and at times seem to obstruct it wholly.

“Don’t listen to any negative voice. Truth is not in negations. Truth is in the positives that make for and proclaim health, opulence, all good and nothing else. In a strong positive attitude there is no room for negations; only as the strong attitude is abandoned do the negatives edge their way in.”

A lesson that cannot be learned too early nor too late is that of making one’s own life the very best possible according to the

knowledge possessed. When each is strong within there will be no need of outside protective measures against temptations. Virtue does not exist because of no chance to manifest in vice.

Always Look Forward.

There is also this: no beautiful minute should ever be spent in regret. If mistakes have been made, they may be utilized as stepping-stones to better experiences. Always look forward to the splendid possibilities of the future, working patiently with the material at hand, until better appears. Because one has reached the age of forty or fifty or more, is no excuse for ceasing to be active in all ways. It is not for nothing we are here; nothing is causeless or purposeless. Would you approach happiness, follow Nature's example of activity; thereby working with her beneficent laws. "When one generation comes into possession of the material good that the former generation has gained and makes that fool remark, 'I don't have to work,' it straightway is stepping on the chute that gives it a slide to Avernus." Success in any line is to the active, who concentrate their thought-force to a given end. Success is a desirable end through desire to serve, and when one fails to attain to it the fault can only be measured and understood through the knowledge of personal responsibility.

Brother Hubbard, of *The Philistine*, tells us—and he is one of the prophets of Truth: "Man never plots another's undoing except upon the stage. Because you do not like a man is no reason he is your enemy—this is a busy world and no one really has time to sit right down and hate you. The only enemies we have are those we conjure forth from our inner consciousness."

PART III.

NEW TOCOLOGY

THE PHYSIOLOGY AND HYGIENE OF THE
SEXUAL ORGANIZATION.

*“ Man and woman created He them. Male and female created
He them.”*

PART III.

CHAPTER I.

Menstruation.



OMNES vivum ex ova. (Every living thing comes from an egg or germ.)

Every organism throughout nature is endowed with means for perpetuating its kind. The human family depends upon a union of male and female of its kind for perpetuation, and each sex is furnished a delicate sexual system for the purpose.

When the system attains the growth for the unfolding of sex powers it is known as the dawn of puberty. In girls the approach is marked by enlargement of the bust and hips and the appearance of a sanguineous discharge known as *menstruation*, the *menses*, the *catamenial flow*, and various other appellations. This indicates that the process of *ovulation*, or the formation of ova or female germs, and the discharge of the same, has begun in the ovaries.

An eminent authority says that ovulation continues during the life of the ovary, although menstruation only attends the period of reproductive power.

At the approach of the menses it may often be noticed that girls will manifest many mental peculiarities. The physiologic base of menstruation rests in the nervous system; hence the establishment of the function, in probably the majority of

cases, affects the nerves and is reflected in the mind. The appetite may be irregular, or there may be a craving for indigestibles; languor is felt, the back aches, there are pains in the legs; chilliness, headache and many other morbid conditions are to be seen, while the temper may be very irritable or perverse.

With the establishment of a periodical flow unpleasant symptoms vanish, and the young woman enters buoyantly upon the current of adolescent life. The quickening influence of the power of sex manifests itself in increased activities, mental and physical, and in refining the whole nature. This latter is only true when the young woman has been shielded from grossness regarding sex life, or has been made acquainted with its true uses. As yet the latter is the exception rather than the rule; mothers largely rely on keeping their darlings in ignorance. But the spirit of progress is abroad, and all who desire to keep abreast of the times inform themselves more or less as to child-culture, which includes instruction on the physiological well-being of the child.

Before the menstrual flow appears a wise mother will tell her daughter that it is to be expected. Oftentimes it is learned from classmates or from ignorant older persons, and from that girls come to believe it is something to be concealed. Not knowing its nature and use, chill is often caused by dabbings in water, and repression of the flow results, which paves the way to a future of invalidism; or, coming upon her unawares, fright may affect the budding woman in the same way, doing her injury.

The age of puberty varies according to climate, race, temperament or general condition of health.

In the hot zones menstruation occurs from the tenth to the fourteenth year; in temperate zones from the thirteenth to the

sixteenth; in colder zones from the fifteenth to the twentieth year. The Italian, Hebrew, Creole or Negro girl menstruates earlier than the English, German or Swedish girl; the full-blooded girl earlier than her anæmic cousin.

In normal health menstruation occurs once in twenty-eight days throughout the years of fecundity. There are some variations to this rule; some women in sound health have menstruated once in twenty-one days; others once in twenty-four days. One physician says, "Each woman is a law unto herself" in this respect.

The source of the menstrual discharge is in the uterus and Fallopian tubes, the best authorities testify, and its purpose is to prepare the lining membrane of the uterus for the reception and gestation of impregnated ovum. While the function of menstruation depends on the integrity of ovulation, ovulation does not depend upon menstruation. In man thousands of spermatozoa are created and re-absorbed into the system to add to his strength of brain and body, or thrown out of his system through evil habits.

The economy of the female generative system is much the same, recent scientific studies assert. "Thousands of ova mature, rupture and become absorbed by the peritoneum during the intermenstrual phase," one author says. Perverted sexual habits or tastes, like poison in the blood, counteract the beneficent effects of the natural law which causes the absorption of life-germs for the upbuilding of vitality.

Menstruation influences ovulation from the fact that during the flow the ovaries are highly congested, and thus hasten the ripening of the germ-cells near the surface. In absence of the ovary, or in defective development, the uterus is almost always defective and the flow defective or absent. Removal

of the ovaries is sooner or later followed by a cessation of the menses; two years is about the limit of continuance.

A medical journal publishes the following from the pen of a progressive practicing physician: "The ovary is the central and essential sexual organ of females and should never be sacrificed if avoidable. The uterus and oviducts are appendages of the ovary. When extirpating ovaries sufficient parenchyma (the soft tissue of the glands) should be retained to sustain the menstrual process.

"The ovary is a closed gland, like the spleen, and *its secretion is necessary for the animal economy.*"

Wives and mothers have been so reduced in mind as to gladly undergo the surgery which removes the ovaries, for the reason that it would prevent pregnancy and undesired offspring. They do not understand good old Mother Nature. Rather they misunderstand in thinking too frequent child-bearing is one of her decrees. When seed is planted it will endeavor to grow, no matter if the soil be exhausted. The parent life will be the stronger if seed-sowing is avoided, Mother Nature says. Only uncontrolled abnormal sexual appetite will generate undesired offspring.

From general consideration of the menstrual flow it may be concluded that menstruation is a nervous phenomenon; that it is a reflex act originating in the mechanism of the nervous system. But there must be a normal genital apparatus, a normal nerve apparatus and a normal blood supply. The sympathetic nervous system distributed to the blood vessels, the glandular system and the viscera have control of this function.

Menstruation should be devoid of suffering. That it is not in so many instances indicates a wandering from the laws of health in some direction. None of the phases of disordered

menstruation can be overcome without a return to wholesome methods of living.

Vicarious menstruation means that the bloody secretion may occur on other mucous membranes than the uterine, as the nasal or intestinal. It occurs mainly with defective development of the uterus, or in its absence; or it may occur in cases of menstruation suppressed at its natural source.

Painful menstruation, called *dysmenorrhea*, may be due to errors in diet, or dress, to exposure, to lack of proper exercise, to constipation, or to a contracted or congested state of the Fallopian tubes or mouth of the uterus. The afflicted parts once a month telegraph to the brain that some wrong condition exists. Menstruation is not the wrong condition, however. It is natural and should no more be attended with pain than a passage from the bladder or bowel. Almost any condition can be easily overcome but that of non-development. Sometimes the female organs remain infantile, in which cases the functions of nature cannot be performed. Disability is often inherited.

Degeneracy.

The race of womankind to-day is not as hardy as its grandmothers or great-grandmothers. Why? Perhaps artificialities of civilization have much to do with those who have not learned that natural laws of being are to be preferred. More than twenty-five years ago Gail Hamilton, a woman many years ahead of her generation in thought, wrote:

“If the women of to-day are puny, fragile, degenerate, are they not the grandchildren of their grandmothers, bearing such constitutions as their grandmothers could transmit? It was the duty of those venerable ladies not only to be strong themselves, but to see to it that their children were strong. A sturdy race should leave a sturdy race. It was far more

their duty to give to their children vigorous minds, stalwart bodies, healthy nerves, firm principles, than it was to spin and weave and make butter and cheese all day. We should have got along just as well with less linen laid up in lavender, and if our grandmothers could only have waited we would have woven them more cloth in a day than their hand-looms would turn out in a lifetime. But there is no royal road to a healthy manhood and womanhood. Nothing less costly than human life goes into the construction of human life. We should have more reason to be grateful to our ancestors if they had given up their superfluous industries, called off their energy from its perishable objects, and let more of their soul and strength flow leisurely in to build up the soul and strength of the generations that were to come after them. Nobody is to blame for being born weak. If this generation of women is feeble compared with its hardy and laborious grandmothers it is simply because the grandmothers put so much of their vitality, their physical nerve and moral fiber into their churning and spinning that they had but an insufficient quantity left wherewithal to endow their children. And so they wrought us evil.

“One would not willingly quarrel with his grandmothers. All agree in awarding them praise for heroic qualities. They fought a good fight—perhaps the best they could under the circumstances with their light. We would gladly overlook all in their lives that was defective and fasten our eyes only on that which was noble. But when their fault is distinctly pointed out as their virtue, when their necessity is exalted into our ensample, when their narrowness is held up to our ambition, we must say it was fault and need and narrowness, grandmother or no grandmother. Indeed, those excellent gentlewomen, no doubt, long before this have seen the error of their

ways, and if they could find voice would be the first to avow that they did set too great store by chests of sheets and bureaus of blankets, and pillow-cases of stockings, and stacks of provisions; and that if it were given them to live life over again they would endeavor rather to lay up treasure in the bodies and brains and hearts of their children, where moth and mildew do not corrupt, which time does not dissipate nor destroy, and whereof we stand in sorer need than of purple or scarlet or fine-twined linen."

Opportunities are better for mental development now than in pioneer times. The light is spreading by means of books and from mouth to mouth. But improvement is constant, and there should be ambition to keep abreast with the best at all times, and especially in regard to the care of the body, which may be either the temple or the prison of the soul.

Remedies for Dysmenorrhea.

Returning to the subject of dysmenorrhea, the cause should be sought. Remove all unhealthy clothing from neck to shoes. This change will work wonders. If there is constipation, use a copious enema of hot water to the lower bowel two or three times a week. If properly used the bowels do not depend on the enema for normal action, many physicians to the contrary notwithstanding. First flush the bowel to remove whatever effete matter is packing the rectum; that is passed off after retaining as long as possible; then the bowel is flushed again to its capacity. This removes the waste higher in the bowel. Passing that off, a third flushing may be taken; this time about four quarts can be contained and held for some time in a recumbent position. The water can be distinctly noticed to pass along the entire length of the colon. No one using this treatment as a prophylactic need ever have a fear of that

bugaboo, *appendicitis*. Appendicitis occurs when the colon is packed and crowds the poisonous matter into the *appendix vermiformis*. I forgot to state that after using the above treatment there is a normal action of the bowels the next day.

In reference to diet, if the idea of nourishing the body gives way to pandering to the palate the appetite will degenerate, so that pastries, confections and stimulants are apt to be used in excess of nourishing foods. Beans, peas, oats, salmon, eggs, beef, all contain plenty of nitrates, or muscle-forming food; the same foods, and codfish in addition, contain an abundance of phosphates, or food for nerve and brain; butter, rice, cabbage, corn, beans, provide the carbonates or fat-forming foods—white bread may be added as a fat-former.

Mrs. Rorer, an authority on sanitary and other cooking, says that eggs and sugar and butter are all good as articles of food, but when used together, as they are to make pastries, puddings and cakes, are indigestible and unfit for food. It should be remembered that it is what is digested that gives strength, and not what is placed in the stomach. All else clogs and deteriorates the digestive apparatus. Eat slowly.

A lack of equalization of mental and physical exercise will derange the system, and painful menstruation be one of the results. Try to preserve an equilibrium.

Previous to and during menstruation, drink water abundantly. Water is the most plentiful constituent of the human body. The blood cannot run in good health without it. One authority asserts that where there is painful menstruation one may be doubly assured that there is not enough water taken into the system. Unless certain of its purity, water should be boiled or filtered before taking large quantities for hygienic purposes.

Suppression of the Menses.

Amenorrhœa is retention or suppression of the menses. This state is apt to exist in tuberculosis, excessive obesity, and usually during gestation and lactation. A flow would be abnormal in pregnancy, and during the nursing period it would detract from the richness of the milk.

Where the nervous system is burdened by superfluous flesh, the menstrual rhythm cannot be smooth. It depends for its integrity upon normal nervous activity. The best remedy for obesity is said to be to keep cool day and night; exercise plentifully; do not take too much liquid; for food, beef, mutton, poultry, game, some kinds of fish, green vegetables (but no potatoes), fruits, cheese, and occasionally tea without milk or sugar. Eat sparingly and at regular intervals.

Where there is a tendency to tuberculosis, or consumption, deep breathing should be encouraged, and a very nutritious diet used. This is a malady only curable by attention to the laws of health.

Suppression of the menses sometimes takes place suddenly by exposure, or mental emotions. In which case use the hot sitz bath, and drink freely of hot water; use the hot enema for the lower bowel and vagina, and go to bed. Relief will usually follow such treatment if the case is not too aggravated.

If the flow cannot be induced by one or two repetitions of the treatment, discontinue until the next regular period arrives. In the meantime every precaution should be used to establish normal health. Bathe daily, eat rationally and regularly, exercise outdoors, use the hot water flushing of the colon twice a week, and keep the mind pleasantly occupied. At the approach of the period repeat the hot water treatment.

Unless there is continuous disturbance do not be uneasy about suppression.

Excessive Menstruation.

Menorrhagia is too profuse a flow, a flow that weakens or exhausts. Its cause arises in anything that produces too great a determination of the blood to the generative system, or in debility arising from any cause. Shocks, violent exercise, injuries, difficult labor, too frequent intercourse are among immediate causes. The excessive flow may occur in the usual time of menstrual discharge, or there may be a slighter discharge occurring as often as two or three times in a month.

The normal discharge lasts from two to six days, amounting to from four to eight ounces. What might be an excessive flow in one woman would be but normal in another; temperament largely determines the quantity.

Some of the symptoms of this derangement are shortness of breath, great lassitude, faintness, dizziness, headache, leucorrhœa between periods, irritable nerves. The general health soon yields to the waste, and one becomes an invalid or sacrifices her life.

In treatment for cure, the cause must be ascertained and removed. This is the first thing to be persistently considered in chronic diseases. Palliative measures are, of course, taken for immediate relief. For menorrhagia, the temperament must be taken into consideration. The woman of feeble constitution must be given every opportunity to gain strength. Congenial surroundings, with all sanitary precautions, come among the first. Pure air, pure water, pure food of the most nourishing character; gentle exercise, clothing comfortable, with special attention to the extremities: these are curative agencies necessary to recovery of health. The massage is also valuable in that it equalizes circulation, and stimulates both muscular and nervous system. Perhaps the simplest manner to administer is by means of the massage roller, which consists of a

series of wheels each turning separately. Each wheel is about an inch and a half in diameter, on a flexible axle and set in a polished handle. The rollers are made in various sizes. These are also useful for the plethoric woman in reducing her size and weight.

For excessive flowing in the full-blooded woman over-nourishment and overstimulation should be avoided. In both temperaments the bowels should be kept freely open.

Irregularities in menstruating are usually due to ovarian disorders. As before remarked, integrity of the menses depends on ovulation. Ovarian disease, of course, interferes with the process of ovulation.

It sometimes occurs at the dawn of puberty that the girl has all the symptoms of the menses except the discharge. This will be found to be due to an imperforate hymen, which is of rare occurrence. The following case, related by Dr. Crowe in the *Medical Brief*, illustrates the case:

“Miss N——, aged sixteen, had been under treatment for a year. Her doctor left the city to be gone for some time, and I was called to see her. On my arrival I found her suffering with intense pain in the hypogastric region (lower part of the abdomen). She was almost exhausted. She stated that she had been having such attacks every three to five weeks in three years, but that the pain got harder and lasted longer every month. She had all the symptoms of inflammation but the sanguineous flow. Her general health was considerably impaired, appetite poor, nausea, bowels constipated, constant headache, face covered with eruptions. She said she had never menstruated. I at once suspected imperforate hymen.
* * * Upon examination I found the abdomen somewhat enlarged; the uterus was about the size of a cocoanut, hard and firm; the hymeneal membrane had protruded between the

labia; the perineum was bulged out and looked as if the head of a child at full turn was about to be expelled. The lower extremities were considerably dropsical. I punctured the hymeneal membrane, permitting a stream of blood the size of a knitting needle to flow. I placed clean napkins to the vulva, and ordered them changed every three hours until I returned next day. I saw her twenty-four hours later. Found her quiet, with no pain. During the night they had failed to attend to the napkins, and her bed and clothing were saturated with blood. The uterus was reduced in size. I had the external genitals cleansed and then made a complete incision of the hymeneal membrane, letting out the contents of the vagina. I gave her a vaginal douche, put a strip of iodoform gauze between the cut edges of the membrane to prevent re-adhesion. I then placed a pad of gauze to the vulva, held in place by a T bandage, and placed her in a clean bed.

"When I saw her next day she wanted to get up. I gave her another vaginal douche and directed her to keep small pieces of the gauze between the labia to prevent adhesion. Next day she got up, and since that time has been attending to household duties. Her face has become smooth, no eruption to be seen; she has since been menstruating without pain every twenty-eight days."

Cleanliness must be observed in regard to the external genitals. A vaginal douche of tepid water is excellent in connection with the daily bath. During the discharge the napkins should be changed at least every morning upon dressing and at night upon retiring. Absorption of the disorganizing blood is not wholesome, of course, and that is what occurs if napkins are worn too long because they are not much stained.

Relative to cleanliness of the private parts, Dr. Foote says: "Some physiological lecturers and writers have said that the

procreative organs have glands which secrete and exude matters having a peculiar odor. This is not true. It is true that they are liberally supplied with sebaceous glands to moisten and lubricate the parts. But these are as pure as the synovial fluids which oil the joints. If there are peculiar odors it is because the parts have been neglected. The secretions may accumulate and undergo a change—become rancid like unsalted butter—but this is to be charged to uncleanliness rather than to sweet old Mother Nature. In many persons one thorough ablution of the parts per day will prevent odor; in others two may be necessary. But whether two, three or a dozen be required, every man and woman, every boy and girl, owe it to their self-respect and to those with whom they associate to see that every part of the body is as clean as the face.”

CHAPTER II.

The Marriage Relation.

AN erratic genius once said, "Any fool can get married, but it takes a man of sense to resist the temptation until he can afford such luxuries." Under the prevailing conditions of past and present this expression is certainly full of truth. A woman in the partnership of marriage is a consumer, a non-producer, the husband working for the home and family. So the illusion that a man of family can live as economically as a bachelor is but an illusion. The home-maker may have had other and more congenial employment, which she dropped to assume the unsalaried position of housewife. It will require a measureless love to aid almost any pair to adjust themselves successfully to the new conditions of a new home.

Preparation before assuming the marriage relation will enable any two people of average intelligence to forestall error. Error as to the meaning of marriage is responsible for the largest percentage of failures in this relationship. This error more than likely has its root in early training as to the functions of sex. But any whose spiritual consciousness has been released from the binding force of inertia are eager and anxious to behold the face of Truth in all things; they obey the injunction, "Seek, and ye shall find; knock, and it shall be opened unto you."

No person not having experienced marriage can understand the possibilities of that estate, even though they read all the best that has been written on the subject. It might be likened to reading of the glories of sea or mountain. One may be uplifted by the reading, but can never have a realizing sense of the greatness and grandeur until within their environs. At first glimpse the mountain or sea may or may not present a lovely appearance; but a close association will develop a deep peace and restfulness of spirit by which one may realize the harmony which pervades the universe. In the true marriage the sense is the same. Marriage is a law of nature, obedience to which should bring happiness. The laws of life must be understood before obedience can be rendered, however. Therefore, seek to know the truth according to most recent developments.

Treating the subject in its highest sense, one writer says: "Not only do the parties who enter into partnership have a very poor conception, and no experience at all of the conditions they agree to fulfill, but a great deal of useful knowledge which they ought to have is withheld from them under the mistaken idea that all which treats of sex is impure and tends to degrade humanity. It is difficult to understand how a young girl kept in ignorance and taught to repress as degrading all sexual desires can be induced to enter the marriage relation. It is not difficult to see that if she does enter it under such conditions her prospect of happiness is greatly diminished, and why so many regret the step they have rashly taken.

Where Ignorance is Not Bliss.

"A proper regard for the married happiness of youths of both sexes ought to lead to their being taught:

"1. That sex force is a natural force as pure and as deserving of gratification as any force within us. If society has placed it under restraint it is not because its expression is degrading to the human character, but *because its uncontrolled results are inimical to the advance of civilization.* (Inside of marriage as well as outside.)

"2. That all expressions of love are due to the presence of sex force. These expressions may be such as may be accounted most chaste, or they may be coarse and aggressive, but the source is the same, and they are all attempts to equilibrate the sex force within us.

"3. That marriage is the legal method for this equilibration sanctioned by society, which looks upon it as a sexual contract, entered upon for the gratification of sexual desires.

"These are fundamental truths which must be recognized and acted upon by all persons entering the marriage relation, if they would have a reasonable prospect of living happily in their new conditions.

"Aside from the sexual relation marriage is a union of the economical and social resources of the parties concerned, and requires for its success many other qualifications, yet these conditions are seldom responsible for its failures."

I do not like the use of the word "gratification" in the foregoing; it suggests the realm of the senses exclusively. But from the work quoted the writer fully convinces one that he is trying to aid to a clean conception of the forces of sex, and does not purvey to the sensualist.

"Choice for Choice, Passion for Passion."

A woman who loves, according to a German philosopher, will "not meet the passion of man passively, without intelligence and without will; but, in the consciousness of her equal

sovereignty and dignity, she ought to demand and exchange choice for choice, passion for passion, devotion for devotion, adoration for adoration." Such men and such women command admiration. To them go life's choicest blessings.

A certain class of husbands are regardful (?) of their wives, having much concern as to enforcing motherhood upon them. That is, they will endeavor to find out every available means to prevent conception or destroy the fœtus. In most instances the wives accept these conditions as the least of two evils. However, they are sometimes awakened to self-consciousness by waning health. When one of such prays to be excused from being a passive participant in her own destruction, she is met with the taunt, "You no longer love me." Love may not have gone at that time, but it cannot be forced to remain by sneers and taunts; go it surely will.

Wives of these coarse men are many times of the temperament which craves affection; but they shrink from caressing because the spouse demands intercourse as the inevitable result.

"Amativeness," says Dr. Foote, "may be employed in developing and gratifying naturally the social and affectionate instincts; in imparting to woman the strong magnetism developed by man; in modifying the masculine elements of man with the spiritual aura of woman; in making both sexes healthier and happier. It is an escaped tiger from a menagerie when it takes on the spirit of selfishness and seeks the gratification of its impulse without regard to the rights and happiness of others."

It is at this point women should spur their individuality into action and claim possession of their own bodies. Surely the body should belong first and foremost to the ego which lives therein. In the language of Mrs. Stanton, "Did it

ever enter into the mind of man that woman too had an inalienable right to life, liberty and the pursuit of her individual happiness?"

Helen Gardner, a woman who has done heroic work for her sisters, says: "Self-abnegation—subserviency to man—whether he be father or husband, is the most dangerous that can be taught or forced upon her whose character shall mold the next generation. She has no right to transmit a nature and a character that is subservient, subject, inefficient, undeveloped; in short, a slavish character, which is blindly obedient, or blindly rebellious, and is, therefore, set, as in a time-lock, to prey or be preyed upon by a society in the future."

There are many shades of belief as to the marriage relation, varying from that which obeys every impulse for intercourse to that which only holds the relation for procreation. For the latter there is much to be said in its favor, when husband and wife are in harmony on the subject. They do not exhaust their vital powers; they do not thrust life upon helpless innocents without fully considering the possibilities of good to grow out of the life by them begun. Their babies are "desired, designed and loved into existence." Dr. Cowan, in "The Science of a New Life," advocates intercourse for procreation only, but he seems not to have understood that sexual powers are as clean as we choose to make them; to him all who do not agree as to his idea must necessarily be wrong.

Dianism—The Love-Union.

There is a practice acceptable to many which is called Dianism. Married pairs who agree to live according to the precepts of Dianism preserve the lover love of courtship indefinitely, provided they do not live in different mental at-

mospheres. These equilibrate the male and female elements by all the pretty and pleasing attentions that lovers use during courtship, and in the marital couch embrace each other in the state of nudity. The interchange of magnetic elements tranquilizes and strengthens each of the participants.

Says an advocate of Dianism, "As men develop marriage is looked upon as something more than a procreation association." Which saying is true, whether all progressive people are believers in Dianism or not.

Another practice for equalizing sex force in the marriage relation is much the same as Dianism, except that husband and wife unite as for intercourse, but agree to what is termed a love-union. The exchange is magnetic; in neither is the union allowed to culminate in the nervous spasm called the orgasm. The union of complementary male and female elements is perfect where there is mental as well as magnetic harmony. Procreation is entirely controlled by either of the above methods. The male impregnating fluid is retained to develop man's own organism. Numberless advocates of man's physical need to discharge the product of his generative system say it is contrary to nature when this product is retained; or that it is disastrous to health. This idea is combatted by the best thinkers of both sexes. Those seriously seeking for Truth are not going to turn from her when found because she may not look as they wish she would. Acton says: "It is a generally received idea that semen, after having been secreted, can be reabsorbed into circulation, giving buoyancy to the feelings and the manly vigor which characterizes the male. * * * In fact who is ignorant that the semen reabsorbed into the animal economy augments in astonishing degree the corporeal and mental forces?"

"Steam is water transmitted into power and motion through heat and machinery," says a recent periodical. "Vitality is food transmitted into life through the marvelous mechanism of the human body. How it shall manifest itself depends upon the will of the individual." The balance wheel of human power, lying as it does in the sex-nature, may be set at naught very easily by lack of self-control. "By their fruits ye shall know them." That which assists individual unfoldment to bless society is good; *vice versa*.

Man's Ungoverned Passion.

Outside of marriage a man is punished who forces his sexual attentions upon a woman. In what way is wrong made into right by the legal form uttered by clergyman or judge? Wrong *cannot* be made into right. "Love worketh no ill to his neighbor."

Says Dr. Perrin: "If Newton, Kant, Fontanelle and Beethoven could live their many honored years with no indulgence of passion, surely other men might abstain without injury. The ungoverned passion of man is prolific of evil; and, like producing like, the father who has never learned self-control may give his son not only form and feature, but the germ of the same fierce, clamorous desire, which in its full development will prove a heritage of woe to that son and others. That which polite language veils under the designation of social evil, and which desolates so many happy homes and brings its quick black harvest of misery, remorse, disease and death, chiefly lives because man does not know aright, does not duly reverence and honor woman and keep in subjection that which may become one of the monster passions of his heart."

Happy Marriage Affords the Only Security.

There is no physical craving for sensual gratification in the mind that has inherited no taint, any more than there is a natural craving for alcoholics. Men and women, both young and old, will seek the society of opposites, in accordance with nature's law, just as plants turn to the sun. But they will only love in physical union when soul meets soul, and mind and body harmonize. Marriage is the only estate that finds perfect security for the best development of the two who so unite. The blending of sex-force generates health and strength, physically, mentally, spiritually. Blessed be happy marriage. Therein the true man and woman meet on an equal footing and realize the highest form of comradeship and friendship.

True happiness depends upon the highest use of faculties and privileges. When used in cheap pleasures they deteriorate; satiety comes in the place of satisfaction.

Mrs. Burnz tells the story of a young married couple who loved each other, but who were ignorant of means to control generation. In five years there were four babies who had come to them. Then the husband decided that the load of care for them both was becoming too heavy, and made up his mind to restrain his sexual appetite. He was successful, and remained a devoted friend and lover of his wife and a kindly, considerate parent to their babies. This is possible and best to some, while to others the sexual love-union embraces the beauty and pleasures of marriage. The love-union is as distinct from the full procreative act as the kiss or caress. "If it is noble and beautiful for the betrothed lover to respect the law of marriage in the midst of the glories of courtship, it may be even more noble and beautiful for the wedded lover

to respect the unwritten laws of health and propagation in the midst of the ecstasies of sexual union."

Exchange of magnetic elements rebuilds waning vitality; while the full procreation act, which ends with ejaculation of the seminal fluid, and a nervous spasm on the part of both participants, offers no compensation to either, except gratification of the animal impulse. It is only right when children are desired.

"Opportunity Makes Importunity."

Married people should not occupy the same sleeping-room, or if the same room, not the same bed. No two people should sleep together. But the custom has prevailed so largely in conjugal life, to many people marriage means the legal privilege of sleeping together. For the control of the procreative impulse nothing better aids than separate rooms or separate beds. "Opportunity makes importunity," says Dr. William Hall. "If married persons slept in different rooms the indulgence would only be thought of when there existed a natural healthy appetite."

If there is any one thing I would recommend especially to young people about to marry it would be not to plan their home without single beds for their own use. This is an immense step in advance of the past and will be a great aid in controlling the marriage relation, to their mutual uplifting and profit. Double beds are a relic of a primitive age, and should be relegated to the past with other things which the present has outgrown. And no matter who else may sleep together, husband and wife should not.

CHAPTER III.

Conception and Pre-Natal Culture.

THE truism, "To be well born is the right of every child," includes many volumes of pregnant truth. And the very beginning of it is that conception must occur purposely, designedly, the outgrowth of the love of parents.

No woman should allow herself to be made a mother unless she chooses maternity; no true man will gratify his animal appetite for procreation at another's expense. As before mentioned, the function of amateness is separate from the procreative function. The proper use of the sexual organs for love's expression raises the marital embrace to a spiritual plane where it ceases to be degrading.

"Evolution means progress," says C. Staniland Wake, "and progress implies improvement, without which there could be no evolution; but improvement of the human race will not be further possible unless the marriage relation is regarded from a higher standpoint than that of sexual indulgence."

Among many books written to solve the question of unchecked procreation, two by George N. Miller stand out boldly: "The Strike of a Sex" and "Zugassent's Discovery." In the former the strike is presumed on account of enforced motherhood. It is ended by "Zugassent's Discovery," which re-

lieves womankind of the tortures of unwelcome maternity. Mrs. Stanton many years ago said: "So long as children are conceived in weariness and disgust you must not look for high-toned men and women capable of accomplishing any great and good achievement." She was a seer—one who perceived the germ of true progress.

"Zugassent's Discovery."

The love-union, called by Miller "Zugascent's Discovery," stops short of seminal ejaculation by the husband and short of the orgasm by the wife. Arguing for marital self-culture, "Zugassent" says:

"Man's superiority to the brutes is read in his continual advance in the conquest of nature. The brutes stand still; men reflect, energize and conquer. The seeds of the final supremacy over nature lie in the full subjection of man's own body to his intelligent will. There are already an abundance of familiar facts showing the influence of education and direct discipline in developing the powers of the body. We see men every day who, by attention and painstaking investigation and practice in some mechanical art, have gained power over their muscles for certain purposes, which to the mere natural man would be impossible or miraculous. In music the great violinists and pianists are examples."

Among the more refined of humankind, sexual communion is voluntary; among the uncultured the physical union is regarded as a necessity. Contrast the usefulness of the two classes. In the kingdom of lower animals all courting has for its aim and end procreation; they obey the same instinct as when time began. But the undeveloped human does not stop with procreation. The act is repeated in season and out of season, pregnancy or not. It is marvelous, not that

so many sickly or idiotic babes are born, but that so many are born as bright as they are.

It is not an easy work to overcome the prejudice of ages in regard to the marriage relation. Only those of progressive tendencies will give heed to new ideas. Even with them it often requires much time and many volumes to convince.

The Mind's Power Over the Body.

Objectors to marital self-control argue that it is against nature. They are in error. Self-control works *with* nature to perfect the machinery of the human mind and body. What may seem at first impossible is, in reality, only impossible to those lacking in character. Any of the departments of the body are under control of the mind, in a greater or less degree. As breathing, for instance. This goes on unconsciously, enough to sustain life. But conscious breathing, deep and full, increases health, increases the power to resist disease. Culture aids in improving nature in every bodily function. Nowhere else is improvement more needed than that of the sex function. When used especially for physical union, sex tends to the animal origin, but when raised above the plane of feeling or emotion the whole nature partakes of the uplifting. "He is most powerful who has himself in power."

Following are a few extracts from testimonials printed by G. N. Miller:

A Four Years' Honeymoon.

"For two years after becoming engaged I delayed marriage because I did not think my income sufficient to support wife and children. Happily for me, a friend wrote me about 'Zugassent's Discovery.' The ideas contained therein were so different from all my preconceived ideas of what consti-

tuted marital happiness, I was inclined to reject them as impractical and absurd. But the more I thought of the matter the more clearly I saw that if there was a possibility of these new ideas being true, they were exactly adapted to a man in my circumstances. * * * The wholly new thought that retaining the vital force within himself would naturally make a man stronger, cleaner and better also seemed to me not irrational. * * * I have had a continuous honeymoon for four years besides having the daily benefit of my wife's invaluable help in our business. * * * In the light of my own experience I regard the idea that the seminal fluid is a secretion to be got rid of as being the most pernicious and fatal one that can possibly be taught to young people."

— "Since my husband became acquainted with 'Zugassent's Discovery' he has endeared himself to me a hundred-fold. * * * His very step sends a thrill through me, for I know my beloved will grasp me and clasp me and kiss me as only the most enthusiastic lover can. * * * But it is not alone as a cherishing lover that my husband has become my crown of happiness. He has grown perceptibly nobler in character, in purpose, in strength, in all the qualities that make a man Godlike, so that besides a lover I have a strong friend and wise counselor."

—"It avoids the opposite evils of asceticism and self-indulgence, and does more than any other single thing to make marriage a perpetual courtship. I am a husband of fifteen years' standing, and therefore speak of matters that are not strange to me."

—"My age is seventy, and, thanks to 'Zugassent's Discovery,' my health is good, and I am as vigorous as ever I was. My only regret is that I was not informed of it earlier

in life. It is not only a splendid sanitary measure, but is the promoter of the greatest harmony in domestic life I know.
 * * * While in this practice a new life is not developed, both parties experience a renewal of life force which is in the highest degree wholesome."

Reproduction an Incident, Not the End, of Life.

The bringing into existence of children is not woman's business in life, no more than it is man's. Together they call a being into life. But to woman has fallen the chief burden of the care of offspring. Many teachers and preachers of the "obsolete and decrepit past" have over and over again said that motherhood was the sole object of woman's existence, until many yet believe it. It is like hypnotic suggestion; so many have received the idea without question or analysis, being perfectly passive subjects.

The trenchant pen of a modern thinker quite recently gave expression to this thought: "There is nothing in the achievements of human motherhood to prove that it is for the advantage of the race to have women give *all* their time to it. Giving all their time to it does not improve it either in quantity or quality."

Motherhood does complete woman's development, but when she is made to reproduce, like the cow or female bison, only the animal department of her nature is given opportunity. It is something to be a complete woman, but it is more to be a fully rounded-out human with mind and soul and body perfected equally. Reproduction, for best results for all concerned, should be an incident and not the aim and end of life.

The Desirability of Offspring.

Having said so much as to controlling procreation, the desirability of offspring is well worth consideration.

In men and women of natural development parental love is an instinct. To many married people children come only as consequences of the sexual relation, are merely to be dealt with at the least possible inconvenience to themselves. But these are not the parents through whom the race improves. Material for proper parentage is rarely found in social extremes. Poverty too often closes the avenues of insight, or callouses the germs of good that they cannot grow; while in the majority of extremely rich, the pursuit of entertainment, dress, frivolities draw them away from the better things.

"Fra Elbertus" says: "The rich are not the leisure class; and they need education no less than the poor. 'Lord, enlighten thou the rich,' should be the prayer of every one who works for progress. 'Give clearness to their mental perceptions; awaken in them the receptive spirit; soften their callous hearts and arouse their powers of reason.' Danger lies in their folly, not in their wisdom; their weakness is to be feared, not their strength." To the which we add "Amen."

The wealthy have the power to aid their opposites, the poverty-oppressed. Who will approach conservatism from within and arouse its latent energies for good?

But wherever true enlightenment exists, poverty and wealth are equally powerless against parental love. There may be special reasons why there should be no reproduction; health may not be such as to justify it; the family resources may be too limited, etc. However, instead of lavishing their entire affections upon a cat or lap-dog, they can give of their best to the unloved children of the world, who are many.

"Love somebody. Help somebody. Lift up somebody. Bless somebody. This is the divine law.

The Blessing of Unselfishness.

“Live not unto yourself alone. Forget your selfish schemes. Get out of the narrow shell of your egotism. Brighten the lives of those around you. Make the cup of life sweeter for some other of God’s children.” Thus admonishes one of our modern prophets. Many childless people shrivel up within themselves, though, indeed, many parents ask only for Heaven’s blessings on “me and my wife, my son John and his wife. Us four, and no more.”

For the generation of another being male and female elements are necessary. Woman and man are equally human, equally responsible in the begetting of another life.

“It is a far more awful thing to *give* than to *take* life,” Helen Gardner says. “In the one case you invade personal liberty and put a stop to an existence more or less valuable and happy. In the other case in giving life you invade the liberty of infinite oblivion and thrust into an inhospitable world another human entity to struggle, to sink, to swim, to suffer or to enjoy; whether one or the other no mortal knows, but surely knows it must contend not only with its environment, but with heredity—with itself.” These things the selfish will reproduce oftener than they who would only endow their progeny with what is best. But, as another writer asserts, “One good man like George Washington, Peter Cooper or Dean Stanley is worth to the world many *hundred* ordinary people.”

What is Required to Have Well-Born Offspring.

The requisites for having a well-born child are so simple no persons who really desire to be parents of such offspring need to fail in the attempt. The child must be “desired, designed and loved into existence,” as the first requisite. If any

special endowment for usefulness is desired the minds of both parents should, before conception, be filled with thoughts concerning the same. Any specialized art or industry may be chosen. Whatever is best concerning that branch should be read and talked about for some time previous to the act which calls the beloved one into life. Those who do not practice the full propagative act at all times do not need to be cautioned to refrain from it for at least two weeks prior to conception.

Menstruation is a special preparation of the lining membrane of the uterus for reception of impregnated ovum. Hence to be most in accord with natural conditions, impregnation should occur soon after the menstrual flow. In normal woman creative life speaks loudest soon after the menses.

The child's character is influenced very largely by the moment of conception, and to become endowed with the best qualities of each parent, morning, when mind and body have been refreshed by rest, should be chosen as the time for launching a new life.

After this the most susceptible time in human development exists for nine months. They should be loving, beautiful, joyful, harmonious months.

The Process of Sexual Generation.

Prof. Haeckel, the scientist, tells us that "The process of fertilization in sexual generation depends essentially on the fact that two dissimilar cells meet and blend. * * * It consists merely in the fact that the male sperm-cell coalesces with the female egg-cell. Owing to its sinuous movements the very mobile sperm-cell finds its way to the female egg-cell, penetrates the membrane of the latter by a perforating motion and coalesces with its cell material."

The female germ is larger than the male germ, but fewer are produced. The *ovum* is calculated to vary from one-one-hundred-twentieth (1-120) of an inch in diameter to one one-hundred-fortieth (1-140) of an inch; while the *spermatozoon* is about one six-hundredth (1-600) of an inch in *length*. The ovum is composed of the life-germ, and material to support life for a few days after impregnation. It has two membranes, the *ammion* and the *chorion*. The spermatozoon, under the microscope, is shown to have a head, and a thread-like appendage, or tail. These cells are produced in enormous numbers. Every ejaculation of semen contains some millions of them. Observation has shown the spermatozoa to differ in power of movement and perfection of development. In proportion to their size the journey through the mouth of the uterus to find the ovum is a long one, and only the most vigorous are capable of making it. The spermatozoa do not have power of movement until other secretions are added, as when ejaculated: within the testicle the seed is jelly-like, and seems to consist of bundles of fibers; when the fibers are separated as they are in passing to the seminal vesicles, the shape of the spermatozoon may be seen. In the procreative act in complete union the mouth of the womb meets the head of the penis and the semen is thrown directly into the uterus. But even where the wife is a passive participant, and the seed is left in the vagina, the spermatozoa may live for hours or even days, and find their way within the uterus. They are assisted by the ciliated epithelium lining the cervix, or neck of the womb, the microscopic cilia which vibrate toward the interior aiding their progress.

As soon as conception takes place a new life is begun. From

that time parents should strive to make the best possible conditions for the child.

For nine months the mother carries the new being within her own body. During this time, it is both her duty and that of the child's father to do all in their power that the child may be a wholesome, well-developed specimen of its species.

No married couple will desire, design and love a babe into existence without the first requisite—good physical health. They can transmit only what they possess. Mr. Grant Allen said: "To prepare ourselves for the duties of paternity and maternity by making ourselves as vigorous and healthful as we can be is a duty we owe to children unborn and to one another."

The Period of Pregnancy.

THROUGHOUT the period of pregnancy the prospective mother should exercise daily with the view to strengthening the back and limbs, but neither at gymnastics nor manual labor should she exhaust herself, or the child would be lacking in vitality. Where a woman does her own housework, during the last few months it is always well to hire a maid-of-all-work to share the labor and responsibilities while the mother-to-be rests and attends to her own and her babe's needs. To those to whom this appears impossible it may be added that it is economy in the right place. When strength is exhausted in pregnancy more will be expended in doctor's bills for mother and child than the cost of an assistant five times over. To live properly is to obey nature's laws, one of which is, do not exercise to exhaustion. This is imperative in pregnancy. On the other hand, a life of inactivity is worse; the muscles get flabby and all the functions of the body are poorly performed, from which both mother and babe suffer.

Helpful Physical Exercise.

A simple, restful, helpful exercise is that of lying flat upon the back, and preferably upon the floor. Inhale through the nostrils until no more air can be contained, and then slowly exhale until the lungs are deflated. Repeat several times, or as often as possible without causing dizziness. Rest passively for some moments and then try to assume a sitting posture without touching the hands: the back is very much strengthened by such exercise. The muscles of back and abdomen are those most needed in parturition, and which when quite strong do not cause pain and exhaustion, so commonly the fate of women.

An excellent breathing exercise for pregnant women, in particular those who customarily wear corsets and tight clothing, is this: Stand upright with heels touching and toes turned out; place hands on hips, fingers resting on the diaphragm, thumbs on soft part of the back. Inhale slowly through the nostrils, deeply, until the hands feel the waist expansion. Repeat about five times at first, increasing the number of times at each exercise. Conventional dress prevents this part of the body from developing in size and strength.

Before beginning any exercise the erect position should be assumed: Raise the chest, draw in the abdomen, extend the joints to their full limits, hold the crown of the head high and the chin in.

The Value of Rest.

REST is the natural sequence of exercise. The body has best opportunity for preservation when rest and exercise equal each other. Exercise in pregnancy enough to become agreeably weary, and then rest. Rest often means a change

of occupation. If, after exercise and a bath, the senses do not call for sleep, follow some line of study, especially that line with which you would wish the babe endowed. This should be persistently followed throughout the duration of pregnancy, though never to the extent of causing brain-weariness. Idleness will result in a dull, inactive child. *Ennui* should be regarded as a danger-signal. Idleness must not have place in the being of one seeking for the heights. Industry is a lord of nature. One can not go forward and *not* be active. "The work which is performed with pleasure and activity of the emotions is retained as a permanent acquisition in the development of character."

There are some whose duties fill all their waking hours, and to those especially should come an hour of repose—absolute rest. "The habit of repose brings capacity for presence of mind; it brings the mind into condition to act promptly in emergencies. To increase and store up power is the ambition of all, but how to accomplish this is a knowledge belonging to few." "Mental stress may be greatly relieved by assuming an easy position and thinking only of rest."

"The very thought of repose brings a feeling of repose. Believe you can get rest of mind through rest of body, and you can do so. Believe you can have easy mental attitudes through easy physical attitudes, and you are in possession of a valuable receipt for health and strength."—Dr. Mary R. Melendy.

When she goes to her room to rest, the housewife should loosen every garment that in any way compresses or restricts her muscles. She should lie flat upon her couch, or bed, and, with the idea of rest uppermost, breathe deeply, calmly. It may aid her to repeat the word "rest." Relax, give up all other thought but that of rest, calmness, peace, and she will

be restored to herself and be of far more service to her family than had she kept on and on with the duty which may become a grind.

The Need of Fresh Air.

FRESH AIR is of the utmost importance. It is relatively more than food and drink to the economy of the body. And every mother-to-be should spend as many waking hours as possible out of doors, filling her lungs with the good air of heaven. One authority says: "Four or five hours of out-door breathing, daily, is the very least compatible with health for adults." There is vitality and strength to be gained from out-door exercise that cannot be gained in an equal proportion by any of the very best indoor arrangements. Contact with Mother Earth conveys away any superfluous bodily electricity that might otherwise make one "nervous."

Dress During Pregnancy.

THE DRESS of a pregnant woman should be light and comfortable. There must be absolutely no compression through the vital regions; none, in fact, anywhere on the body. It has been plentifully demonstrated that woman's dress may be *both* artistic and hygienic; that it may even follow lines of conventional suggestion and yet be healthful. But the pregnant woman has all the reasons for assuming flowing robes; she dare not, in justice to herself and babe, try to bind herself into the skin-tight bodice of the fashion-plate dress.

The union undergarment, the comfortable bust supporter, to which may be attached hose supporters and a skirt, are the only undergarments needed. The outside garment may be a pretty Empire dress, or a tea jacket with a skirt attached to the bust-supporter. The dress for street wear can be made with an Eton or Blazer jacket, and skirt built upon the gown

form. The form may be made adjustable as to darts, and trimmed in front of waist to correspond to a shirt-waist front; the fastening is in the back and concealed by the jacket. Any kind of desirable neckwear may be worn. There are several bust supporters on the market any of which may be secured for the cost of an ordinary corset. And the comfort and satisfaction from wearing them is many hundred per cent over the barbarous corset and conventional dress.

Neither deep breathing nor helpful exercise can be practiced unless the dress is such as not to restrict. Neither can the functions of the body be well performed unless dress is in harmony therewith. A writer on dress in the *Gentlewoman* says: "We are restless and feverish because we do not give our energies to the most important things, which a greater simplicity in material directions would allow us to do. Therefore to occupy our improperly neglected energies we continually make variety in unimportant matters.

"However, what if we become convinced that simplicity was, after all, the greatest beauty? As it is, have you never noticed that beautiful people, or people of impressive personality, as a rule wear no odds and ends—friperies and multitudinous trimmings, danglings and janglings? The first, from some instinct that they need no enhancements; the second, because their attention is given to more momentous things that put at once all petty ones out of accord with their feelings, also their notice."

The idea of the article is to consider and separate the essentials from the non-essentials. Immaculate simplicity as to home or person appeals most for the respect of those whose respect is worth while.

Diet During Pregnancy.

DIET is very important in pregnancy. Its purity and wholesomeness are items of consequence at all times, but at this time such food as is heating to the blood, or rich in bone-forming material, should be avoided. For the former, eat of fruits plentifully. If this suggestion is observed, with others of hygienic value herein noted, there will be no danger of that scourge, child-bed fever. Select such fruits as are agreeable to the palate and eat freely of the same at the beginning of each meal.

The nausea, which is the horror of so many women, known as *morning sickness*, is often overcome by the fruit diet. A chief source of nausea is intercourse during pregnancy. If nausea persists, and intercourse is a habit, it should certainly be discontinued, though it may be said that morning sickness is one of the least of ills resulting from the marital practice of copulation during pregnancy.

Women inclined to obesity should particularly avoid eating too much. The old saying that a pregnant woman eats for two is done threadbare. It is true that another occupies her body with her; but when it is remembered that the average babe only weighs about seven pounds and has nine months in which to grow to that size, it will be seen that double eating is not necessary, even in the case of the thin woman. One does not want a large, fat baby so much as a healthy, well-formed one. Overeating will bring on digestive derangement in the majority of cases, and any disease must be guarded against. Eat only enough to satisfy hunger; do not force the appetite if not hungry, and *do* restrain any tendency to overeating, which easily may be made a habit. Large babies are hard to be delivered of. It is often necessary to separate the parts of the child's body and bring it lifeless into the world,

to save its mother, which cases are due to the "eating for two" theory. Where the mother is stout, labor is usually difficult, and many times the tedious labor destroys the baby's life. These things are too serious to be the result of carelessness during pregnancy; the appetites should be restrained from unnatural development for sake of the babe's character-building as well as his physical good. Pre-natal influence shapes the future individual. All that education and environment can do after birth is to make the individual a good, bad or indifferent specimen of the *kind* decided by heredity and pre-natal influences.

There sometimes exist peculiar cravings for stimulants or condiments or certain articles of food, which may in a limited degree be gratified, else the mind dwelling often on the subject may imprint the craving on the child. Any woman who knows the first principles of hygiene knows that coffee, tea and alcoholics are not food; they are but stimulants to spur bodily or mental powers to greater exertion; when reaction comes exhaustion is much greater than otherwise. The habit of using stimulants for years undermines even a strong constitution, and when the weakness is felt it is attributed to advancing years instead of to bad habits.

Do not give too much consideration to what is to go into the stomach. It is good for neither mother nor babe. Fill the mind with wholesome, uplifting thoughts for others, and the child will reward you a thousandfold in his regard for others than self.

Bathing During Pregnancy.

BATHING is to be religiously observed at this time. In forming a body for the new being more secretions are thrown out of the system and need to be removed. The bath is a tonic, too, especially valuable.

There should be a sponge bath upon arising in the morning, having care that the temperature of the room is warm enough. Cold water is best; if the room is warm a good reaction comes on at once, in normal health, and the tonic effect is in the reaction.

During the last months there should be, in addition to the sponge, a sitz-bath daily. This consists in bathing the hips and abdomen only, sitting in any vessel of suitable size. The water at first may be tepid, and the temperature gradually lowered to about 60 degrees F. Any feverishness of that part of the body is allayed thereby. After remaining in the bath for five to fifteen minutes, dry the body and rub briskly with the hand for some minutes.

It is always well to arrange for this bath at a time when it is convenient to follow it with a sleep. Bathing naturally puts one on better terms with her conscience, and in the prospective mother creates a love of cleanliness in the child.

In connection with the sitz-bath it is recommended that oil of some kind be well rubbed into the abdomen. A correspondent of the *Journal of Medicine* says: "Use either sweet oil, cocoanut oil, vaseline, or the old-fashioned goose oil. This diminishes much of the feeling of tightness caused by the pressure, and prevents the formation of those *striæ* found upon the abdomen of most multipara, caused by atrophic condition of the skin layers and obliteration of the lymph spaces. By this treatment the skin is made so elastic, and the circulation through it so improved, these atrophic changes do not take place."

The same physician recommends that the *perineum*, the space between the anus and vaginal opening, partake of the treatment. "I also urge that the perineum be thoroughly oiled and stretched each day. Our patients derive a double

benefit from this care; the long delay of the head at the outlet is avoided and many times we are able to deliver a primipara of a large child, as was illustrated a few weeks ago by Mrs. A——. When she had called she said her mother and all her relatives had had a 'hard time.' I gave careful directions about the oil, and she was very thorough in its use. When she came to be confined I found a large child and a face presentation, and although labor was slow, there was not a nick in the perineum."

Lacerations of the perineum usually occur with the first-born, and pave the way for uterine displacements.

Hardly less important than the external bath is the internal bath, which consists of washing away the refuse from the colon, or large intestine. In a state of nature mankind does not bathe for health. Sometimes both sexes swim for love of movement and the glow it gives, while knowing nothing of advantages to health. Of course they know nothing of internal cleanliness.

The Internal Bath.

Civilized man has prepared plentifully, oftentimes elaborately, for bathing the external surface, but is inclined to consider as *unnatural* the suggestion of regular internal cleansing. Taking an injection has been some years in common use to wash away refuse from the rectum, which is but the last end of the colon. For this just a little water is used. It does not overcome the tendency to constipation, and the full internal bath does.

We are not living near enough to the state of nature that the sewer system of the body can be ignored. Just as the waste pipes of the water system of a city should be flushed, cleansed and disinfected, those of the human system should be

treated. These cleanings can be administered by the bulb syringe, or better, by the fountain syringe. And there is a specially constructed syringe called the "Cascade," intended especially for cleansing the colon.

In pregnancy the bowels should never be allowed to become clogged. In addition to being a general bad condition, the colon packed with refuse matter may, by pressure on the uterus, cause other morbid symptoms.

Character in Embryo.

The social, intellectual and spiritual character of a human being may be molded in embryo by pre-natal influence. Dr. Holbrook says: "It is essential, therefore, if children are to be well-born, that parents should be careful that at the moment of procreation they are fitted for the performance of so serious an act." Passing the moment of conception, other molding influences begin, but if a child is already begotten by, say, a passive, submissive mother and a drunken, sensual father, a bad beginning is already made, which no good influences can wholly eradicate.

Any one who has seen shy, self-distrustful children may well conclude that the mother was one of those foolish ones who "went and hid herself" while in the family way. This conventional shyness is an injustice to the babe as well as to the mother. She should then as always mingle in the society of congenial friends for the cheering effect on both herself and the child. Alone too much, she will be prone to become morbid and think of self, and give to her babe a lonely, selfish disposition.

The business of housewifery isolates one more or less from the world of general activity. Treading too exclusively in one

way causes a groove or rut to form, which may, after a time, get too deep to see over. Isolation has a tendency to cause unhealthy mental and spiritual conditions; to make one's view of life narrow to the four walls of home.

Good books and periodicals largely overcome this tendency, but to maintain truly human feeling it is necessary to rub elbows with others of our species.

Pregnancy is a natural and beautiful condition. Of itself it is no reason for retiring from active participation in social life. Sensible folk do not regard it as a cause for shrinking and shyness.

Love your babe and its father. But this is superfluous advice to those who have "desired, designed and loved" a babe into being. The babe is love's precious fruitage. As Mrs. Lowell says:

"In her was mirrored forth
The love we could not say,
As on the little dew-drops round
Shines back the heart of day."

Pre-Natal Influences.

AMONG the social faculties none is stronger than the attraction between the sexes. To be sure that a child will consider this attraction from a clean, true standpoint, all thoughts and imaginings must be pure. And husband and wife, as they value uprightness of character in their future child, must avoid sexual excitement; the father because he loves both mother and baby; the mother because a precious charge is in her keeping.

Following are quotations from different authors on the subject:

"Every time a husband excites in his wife the sexual pas-

sion, he robs his child of some portion of its vitality and her of some of the strength she needs."—Dr. Nicholls.

"Caresses must be controlled; they must not be permitted to arouse strong personal feelings; their (the parents') thoughts should rather be upon their child than upon each other. Above all, the generative act should be avoided. To this end husband and wife should occupy separate rooms, or at least separate beds."—Dr. S. B. Elliott.

"Copulation after conception is more unnatural, more brutalizing, both to parents and child, than all other habits and causes combined."—Dr. M. R. Melendy.

All bursts of passion, anger, rebellion, jealousy and the like must be controlled, as being doubly bad in effect. The babe in the womb is affected, and the mother by the rebound. "A thought for good or evil reaches its destination upon wings, and, having performed its mission to others, returns to us by the same swift course."—*Coming Age*.

"To strive to forget enemies, or to throw out to them only friendly thought, is as much an act of self-protection as to ward off a physical blow. The persistent thought of friendliness turns aside ill will and renders it harmless. The injunction of Christ to do good to your enemies is founded on natural law. It is that the thought or element of good will carries the greater power, and will always turn aside and prevent injury from the thought of ill will.

"Demand forgetfulness when it is only possible for you to think of a person or thing with the pain that comes of grief, anger or any disturbing cause. Demand is a state of mind which sets in motion forces to bring you the result desired. Demand is the scientific basis of prayer."—Prentice Mulford.

CHEERFULNESS, happiness, must be the predominating ele-

ment. To be happy and make others happy is the highest duty and privilege of life. Our loved Louis Stevenson wrote:

“If I have faltered more or less
 In my great task of happiness;
 If I have moved among my race,
 And shown no glorious morning face;
 If beams from happy human eyes
 Have moved me not; if morning skies,
 Books, and my food, and summer rain
 Knocked on my sullen heart in vain,
 Lord, thy most pointed pleasure take
 And stab my spirit broad awake.”

The “task of happiness” belongs to all human beings, but to the mother prospective in especial. And this, like all good things, must find its germ within and grow and grow until outside influences can not depress or extinguish.

A NATURAL trend toward intellectual pursuit may be bequeathed by general reading and study of the best literature within the grasp of the mother’s mentality. Any particular phase of work having been decided upon for the child will, by maternal cultivation, be impressed upon her babe.

EQUILIBRIUM should be sought in all usefulness and industry. A character one-sided, too highly cultivated in some faculties and not at all in others, is one not easy to pilot through the world of activity. “The individual grown to fullest estate is the one most alive to associations which bring other lives into his own.”

Don’t try to make your unborn child so much of a genius in one thing that he will be withdrawn from his fellow-creatures.

The Physical Signs of Pregnancy.

THE PHYSICAL signs of pregnancy in normal health are: First, the cessation of the menses.

Enlargement of the breasts begins in about six or eight weeks after conception. There is usually a noticeable sensation of tingling and throbbing, and the enlargement is distinguishable from a fatty increase by being hard and knotty; the lobules of the glands may be felt beneath the skin, arranged regularly around the nipple.

The areolar tissue surrounding the nipple gradually darkens after conception. In the unimpregnated state this tissue is pinkish; as pregnancy progresses the shade grows darker and the circle increases in size. However, where one pregnancy quickly follows another the dark color becomes permanent and is not an indication. Pathological symptoms are always more or less present in these cases, and women quickly discover their condition by illnesses which come therewith.

Quickening, or the first conspicuous movements of the babe, is noticeable from the fourth month to the fifth. The uterus then rises out of the pelvis, and the movements of the babe pressing against the sensitive abdominal contents are sensible to the mother.

Enlargement of the abdomen begins about the second month, when the uterus elevates the intestines. At the fourth month it rises out of the pelvis in the form of a hard round tumor, and then gradually enlarges the whole abdomen. It reaches the navel at the sixth month and the region of the diaphragm at the ninth.

The Disorders of Pregnancy.

THE DISORDERS of pregnancy are numerous in proportion to the state of health and manner of living. Morning sickness is often prolonged and aggravating; it is most common in the

nervous temperament, or in those whose life has been such as to create nervousness. This can be overcome along with many other unpleasant symptoms by rational living. Eat of some fruit that best agrees with palate or stomach, drink hot water, or eat nothing until a real hunger demands. Where nausea occurs after eating, a tart apple or orange is good. Mrs. Duffy recommends the following:

“Let women suffering from morning sickness try acid fruit—apples, oranges, or even lemons, if their sourness is not unpleasant. If a single orange or apple after each meal does not suffice let them try two; let them eat ten if that number is necessary to conquer the distress. The principle is a correct one and the relief certain. Let fruit be eaten at all hours of the day—before meals and after, on going to bed at night and upon getting up in the morning. If berries are in season let them be eaten in the natural state—that is, without sugar. If the sickness still continues omit a meal now and then, and substitute fruit in its stead. By persistence in this course, not only will nausea be conquered, but an easy confinement guaranteed.”

Nervousness, sleeplessness, hysteria are due to want of fresh air and outdoor exercise, or to allowing the mind to dwell upon abnormal symptoms, to listen, as it were, for every possible unpleasant condition. Keep mind and body pleasantly occupied, and these conditions can not exist.

Constipation, diarrhea, or any of the disorders of the intestinal region, will not be of any dangerous duration when the internal bath is used.

Heartburn, acidity of the stomach, colic, waterbrash occur when improper diet is used or too much is eaten. Drinking

hot water before meals is good when the cause is not repeated. Fasting is also a good remedy.

Dizziness, headache, neuralgia are no more liable to occur in pregnancy than at any other time in normal health. The fruit diet is a preventive of that thickness of the blood which causes dizziness. Headache due to biliousness may be overcome by cleansing the digestive tract and eating lightly for some days after.

Neuralgia is most quickly relieved by bringing the blood to the surface. An internal bath, with a vapor or hot air bath, will almost surely bring relief from neuralgia.

The duration of pregnancy is about forty weeks. When the date of conception is known the reckoning is from that time; when not, the calculation may be from the time of the last monthly period. If this can not be remembered, four months and a half from the time of quickening must be made use of.

PART III.

CHAPTER IV.

Child - Birth.

THE earliest symptom that the time of parturition is near is the descent of the child into the pelvis, when it has before been near the diaphragm. A positive feeling of relief is experienced, because of the increased breathing capacity. This state may exist for several days previous to labor—though often it is of only a few hours' duration. A slight discharge of mucus tinged with blood occurs, which indicates that the uterus is getting ready for the discharge of its contents; this is called "the show" by doctors and midwives; *os uteri* is becoming unsealed.

When these indications occur the lady should lose no time in having the chamber in which she expects to be confined arranged. The most light and airy room in the house should, when possible, be made the lying-in room. Good ventilation and light are imperative in sickness. The bed should be strong and firm to preclude the possibility of being jarred by a tumbling down. The mattress may be of any of the good makes and protected by a folded comfort, over which is spread two yards of rubber cloth. Over the rubber or oilcloth may be spread whatever else is desired to make the bed comfortable. The doctor will expect to be seated so that the right hand may be used to assist the patient when necessary.

The nurse and physician should be informed at the time they are engaged as to when their services will be required, that their other engagements may not cover it.

The doctor, nurse and a lady friend are all that will be needed at the time of parturition. If the labor is not tedious even their services will not be required for long.

The child's clothing and that of the mother should be ready for the moment they are needed.

The babe's dresses may be such as the mother's taste may provide, with the precaution that the skirts be not long. The average babe at birth is about eighteen inches in length. Skirts for the new-born should not be made longer than twenty to twenty-four inches from neck to hem. The weight of long skirts is a hindrance to growth. With skirts of the length mentioned no shortening process is needed; the babe grows through them. If the yokes and waists are not too snug the only change required in the first dresses is an extension on the sleeves.

As soon as labor is known to have commenced the nurse and physician should be notified. At the same time prepare an abundance of hot water. As often as every ten or fifteen minutes drink hot water, or weak hot tea. Get the sitz-bath ready as the pains come on. If the bowels have not been moved recently cleanse the colon as thoroughly as possible. Then sit down in the bath; increase the temperature of the water as it cools. Remain in it as long as possible without fatigue.

A Soothing Bath.

This bath is wonderfully soothing. Parturient women, even in labor of long duration, have expressed themselves as delighted at the soothing effect of the sitz-bath. Usually

there is the desire to lie down and rest after sitting in the hot water. The body is made dry and the patient goes to sleep. The bath may be repeated once, sometimes two or three times, with the same good results. With the sitz-bath and drinking warm infusions the system is relaxed and labor is comparatively easy.

One lady gives her experience as follows: "I was awakened from a sound sleep by a premonitory labor pain. Arousing my husband, I had him call the nurse, who was in the house in anticipation of the event. A sitz-bath was made ready as soon as possible. After sitting therein for some time I became aware that I must leave for the bed. I had scarcely been assisted to dry my body and get to the bed, when a lusty boy baby was ushered into the world. All of conscious labor was over in an hour and a half with very little pain to me. I must add, however, that I had through the whole nine months lived as thoroughly a hygienic life as I possibly could."

Taking the sitz-bath and partaking of warm drinks requires more effort on the part of a woman in labor than lying in bed being anesthetized by chloroform or ether, but she will have a quicker recovery and without any of the drawbacks with which narcotics leave one. The hot water relaxes the muscles; the anesthetic merely deadens the sensibilities. In one case labor is really made easier; in the other it is not.

The Three Stages of Labor.

Labor has been divided into three stages. In the first the uterus alone contracts, and the mouth dilates. In the second stage the abdominal muscles assist the uterus in expelling the child. In the third stage the placenta and membranes are expelled.

Dr. Nicholls says:

“Child-birth is a natural process, and however painful or complicated or dangerous it may be made by disease, still nature must do her work. Our efforts to assist nature, to expedite her operations, or to take her own work out of her hands, generally end in mischief. The only cases in which we are justified in interfering is where her powers are exhausted, or some malformation or malpresentation renders all her efforts unavailing. These are rare accidents and always the result of disease; how rare even amid the vices of civilization is shown by the following statistics:

“Of twelve thousand six hundred and five (12,605) deliveries at the Maternity Hospital in Paris, only one hundred and seventy-eight (178) required assistance, and instruments were used only in thirty-seven (37) cases. Yet we have fashionable doctors who give ergot and use the forceps in a large proportion of the cases to which they are called. The consequences are prostration, hemorrhage, prolapsus and long-continued uterine and general disease.”

A remark very common among semi-invalid women is: “I have never been real strong since my first baby was born.”

Continuing, Dr. Nicholls says: “One who is to be a bride and who hopes to be a mother should observe all the conditions of health; and if suffering from any disease, or in the practice of any diseasing habit, she must lose no time in seeking reformation and cure. Let her be calm, happy, temperate. Let her guard against amative excess; especially in the honeymoon does love run into absorption and exhaustion. Permanent happiness is sacrificed to a few days of delirious and not very satisfactory enjoyment. The tone of the uterine system is relaxed by this excess; the germ is weakened; the spermatic fluid is exhausted of its vital qualities, and the result

is a sickly, nervous pregnancy, a protracted and painful parturition and a sickly, short-lived infant.

Child-Birth Not Necessarily Painful.

“No natural process is painful. We might as well suppose that it would be painful to swallow with a healthy pharynx, or to digest with a healthy stomach, as to expel the child with a healthy uterus. All the pain and difficulty and danger of child-birth is the result of disease.”

Everything needed for the care of mother and babe should be at hand when delivery is over. The clean garments for both, plenty of soft cloths, sweet oil, soap, towels, arnica, safety pins, etc. There should also be a large square of soft flannel to wrap the child in as soon as born.

Avoid having as nurse or friend at this time one who is not cheerful and pleasant. The morbid, unhappy person depresses even those who have not such important business at hand. Some women enjoy pleasant conversation during labor, others prefer quiet. The wishes of the one so vitally concerned should be observed.

The New-Born Babe.

When the babe is born it must be laid at once where the uterine discharges will not endanger its life. After wiping the mucus from the mouth and face and seeing that respiration is established, the child is folded into the soft warm flannel prepared for the purpose and laid to one side until the pulsation in the cord has ceased, which is in from ten to thirty minutes. Then the umbilical cord is tied and severed, or the navel dressed without tying, according to the opinion of the attending physician. Opinions vary as to tying the

cord; but as to severing before pulsation has ceased, the best authorities are agreed that it should not be done.

In the quick, natural labor the appetite does not demand any food. Where it is prolonged there is sometimes a feeling of faintness that craves something to satisfy it. Heavy food should not be given. A bowl of gruel, a glass of hot milk and water, a light soup or piece of toast will be ample. Nature is at that time using her forces otherwise, and cannot give much to digestion.

If there is any tendency to flooding, the mother should lie flat upon the back, with the head lowered. As soon as pulsation has ceased in the umbilical cord, with a sharp pair of blunt-pointed scissors the doctor severs it, and either dresses the navel himself or passes the child to the nurse to be attended.

The most advanced practitioners do not allow the child to be washed with soap and water at first. Instead, sweet oil, lard, vaseline or unsalted butter is used, and the secretions wiped away with soft cloths. There should not be much attempt at dressing at first; the navel dressing, a little shirt and diaper and a night dress will suffice.

Better yet is to follow the example reported as follows: "After birth the child got no bath, no food, no dressing process, but was simply swathed in cotton batting and laid for six hours in a padded box-bed, surrounded by bottles of hot water, and covered with plenty of soft blankets to sleep and get used to his new environment. On the second day we began rubbing him daily from head to foot with vaseline. His first bath, with a flannel cloth dipped in warm milk diluted with soft water and without soap, came when he was a week old, and was followed by a thorough vaseline rub.

"Feeding began with a meal every hour of the twenty-four for the first week. Then night feeding was reduced to two

meals, and he was fed every two hours—from four or five o'clock in the morning till nine at night—until two months old.”—Dr. Holbrook, in “Homo-Culture.”

The Afterbirth.

In natural labor, from a few minutes to an hour elapses before the afterbirth and membranes are expelled. Neither the doctor nor midwife should pull at the cord. If the uterus is not ready to expel the placenta, a pull may displace the organ and some permanent injury be done the woman. A forcible pulling on the cord has been known to turn the uterus wrong side out.

After the afterbirth is expelled the conscientious physician will examine to see if it has been entirely passed away. If not, more clots may be expected.

If it takes longer than an hour for the afterbirth to be expelled, the patient should not be allowed to worry. Perhaps nature is resting before making another expulsive effort. The eminent authority, Playfair, says: “There is no place where there is so much malpractice as at the bed of labor, and in the detachment of the afterbirth.” Both husband and wife should hesitate a long time before consenting to extraneous removal of the afterbirth. It does not adhere to the womb. For absorption of nourishment and aeration of the fetal blood, it is attached to the mucous lining of the uterus; but in just the way that the babe is born when the time is ripe, so the placenta peels away from the uterus as an orange is peeled away from the rind.

Those practitioners who sever the cord too soon are the ones who have had cases of retained placenta. The premature operation interferes with the natural expulsion of the afterbirth. Obey the laws of nature and all is well.

Dr. Curtis, in "Midwifery," says: "Never fear to wait for the efforts of nature, aided only by innocent means and processes, to disengage the placenta. Many instances have occurred in which it has remained not only for hours, but for days, and then came away without danger or inconvenience to the patient."

There are so many ways by which a woman may save herself a painful, tedious delivery through care beforehand; the wonder is that any will be recklessly careless as to the rules of health when it may mean their own or their child's life.

When the placenta has been expelled the patient may, if not too exhausted, be made tidy and comfortable and left to rest. The afterbirth should be burned or buried.

The vagina should be irrigated with warm water in which there is a little carbolic acid; and when the parts have been cleaned and dried, a napkin wet in a lotion of arnica (twenty drops of arnica tincture to a glass of water) should be placed against the vulva.

When the after-pains are severe a napkin wet with the arnica lotion as warm as may be borne may be applied to the abdomen, with a warm, dry flannel to cover it and prevent the bedding and bed-gown from becoming damp. These after-pains are but the contractions of an empty uterus, which must return to the normal, unimpregnated size.

For several days after delivery there is a discharge called the *lochia*. The more natural the delivery, the lighter the discharge.

The napkins against the vulva should be changed every three or four hours during the first two days of convalescence. If the soreness continues the arnica lotion should be used each time.

The vagina should be cleaned morning and evening of every

day of confinement in bed. Every morning the lady should receive a bath and clean garments, and the sheets of her bed be changed. If they are not soiled by the discharges, a thorough sunning and airing will disinfect them sufficiently for another day's wearing. As soon as strength has amply returned, she should be helped into a bath at the bedside, having care that the room is sufficiently heated to prevent chill. The full bath soothes and cleanses better than any that can be given lying abed, and it aids recovery more. The third or fourth day is the average time for waiting for this bath.

The bowels and bladder are often in a state of semi-paralysis after labor. The attending physician will notice those functions. If there is no action within thirty-six or forty-eight hours following labor attention must be given them. A full internal bath will ordinarily cure even obstinate cases of retention. Water, filling the large intestine, is more or less absorbed and passed off through the kidneys, washing that excretory channel as well as that of the colon.

The Convalescent Mother.

The diet for a convalescent woman may be almost anything for which she has a liking, with the care not to overeat.

The babe should be placed to the maternal bosom every hour of its waking moments for the first week. The estimated capacity of the stomach of a new-born child is a thimbleful; so it can not make use of very much food until growth begins. Dr. Louis Starr says: "As the secretion of milk is never fully established until the third day after labor, it stands to reason that no food other than the colostrum (the first secretion of the mammary glands) is required before that time. Hence the practice of filling the infant's stomach with gruel, sugar and water and other sweetened mixtures is more than useless, for

it diminishes the activity of sucking, and the consequent stimulation of milk production.

Relative to the nervous sympathy between the uterus and mammary glands Dr. Keith says this: "I can not advise too strongly of the importance of having the child nurse at once. If the afterbirth has not come, nursing favors its coming. If there is flooding nursing apparently checks it. But the most important point is that the early milk is a physic and cleanses the child's bowels in a natural manner."

The bowels and bladder of the infant should act during the first twenty-four hours of separate life. The tarry material that collects in the intestinal canal during pre-natal life is called the *meconium*. The napkin of the child should be protected against this first passage, as it is not easily washed. An old piece of linen may be placed in the napkin, and, after the meconium has been passed, be burned.

The Babe's Food.

It is best not to allow any food to be given the child but its mother's milk, but if her health has suffered, and bodily functions are poorly performed, lactation may not be readily established. If, after the third day, the breasts do not give a plentiful supply of milk, the feeding may be supplemented with cow's milk. Be sure the cow is sound; diseased cattle often convey the malady through the milk. The milk should be diluted with double its quantity of water and sweetened slightly with sugar of milk. The artificial feeding may be done with a spoon. It should be discontinued whenever the mother's milk begins to flow.

Many mothers give up the effort of nursing their babes too soon. Perseverance is necessary when the child does not readily take the nipple. A little milk squeezed from the nipple into his

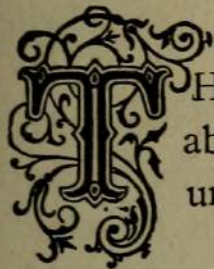
mouth will often cause him to seek its source. Dr. Starr says: "When giving the breast the infant must be held partly on its side, on the right or left arm, according to the gland about to be drawn, while the mother must bend her body forward so that the nipple may fall easily into the child's mouth, and steady the breast with the first and second finger of the disengaged hand placed above and below the nipple. In case the milk runs too freely, a condition very apt to excite vomiting, the flow is easily regulated by gentle pressure with the supporting fingers. Each of the breasts should be drawn alternately, the contents of one being usually sufficient for a meal; and a healthy child may be allowed to nurse until satisfied, when he will stop of his own accord."

Regularity in the feeding of infants is more important than when they are older. The functions of the delicate little body are easily disturbed. It is a very serious mistake to feed a babe every time it cries. When the meals have been regulated, and the diaper changed whenever necessary, if the babe cries it is due to some other cause, which should be discovered.

It is not desirable that a babe be fat, all former notions to the contrary notwithstanding. Mortality is always greatest among fat babies. If a child is plump, rosy and frolicsome he is well. Too much fat burdens the movements of babe or adult, and observation proves that all who are overstocked with fatty tissue have not the power to throw off disease.

CHAPTER V.

Hygiene of Infancy.



THE period of life known as infancy comprises about the first three years of separate existence, or until all of the milk-teeth have been cut.

The earliest infantile needs pertain, for the most part, to his physical well-being, although good discipline and good environment are of no small importance even while very young. Regularity in the care of a babe makes an early impression. The feeding, bath, and exercise, which should occur at stated hours, will be anticipated and called for, and this arrangement enables a mother to give a little time to herself and household, and not be in such constant attendance upon His Majesty the Baby.

The Baby's Bath.

THE DAILY BATH should occur either in the morning or evening. Most mothers prefer the mornings; but regularity is the most important item. A good time is between morning feedings.

Supposing the child has awakened at five o'clock a. m. demanding feed, and has been satisfied, he will naturally sleep again for two hours, during which time his mother will have been attending to morning duties of the house. When the second awakening occurs the bath and fresh garments will be ready.

Water for the bath should be pure and soft to prevent chafing the delicate skin. It is very convenient to have a low stand or stool upon which to rest the bath-pan, to enable the bather, while still sitting, to be on a level with her work. Some good soap made without potash or other irritating ingredients should be at hand, along with a soft flannel for a wash-cloth, and some soft towels.

The water should be about ninety-five degrees Fahrenheit in winter, and about ten degrees lower in summer. The bathing should take place in the part of the room least draughty, the room having been heated to a proper temperature beforehand. A crib-blanket may be used to wrap about the child while drying the body, a portion at a time being uncovered. Everything needed for dressing the youngster should be at hand; his change of clothing, powder, safety-pins and all.

In drying the baby, the flesh should be patted rather than rubbed. The natural folds of flesh where water may lodge require especial attention, or in a very short time excoriations will be seen. After drying, the whole body should be gently rubbed with the palm of the hand for about five minutes. This encourages a good reaction by quickening capillary circulation. The tonic effects of the bath are in the reaction. Weakly children thrive especially under this gentle manipulation. Do not dally with the bath.

Powdered rice is a very good form of powder to use over the body should the drying process not be perfect; but this is not essential if drying is well done.

Whenever the diaper needs changing, the thighs and groins should be washed, and dusted with the powder. Any neglect in this may cause chafing, which will make the babe fretful and unhappy.

What Baby's Crying Means.

Crying is the chief means by which the infant can make known any suffering, discomfort or displeasure. In the variations of the cry the mother may learn to diagnose the troublesome conditions.

"Incessant, unappeasable crying is usually due to earache or to hunger; it frequently, too, is caused by the pricking of a badly adjusted pin.

"If crying occur during an attack of coughing, it is an indication of some painful affection of the chest; if just before or after an evacuation of the bowels, of intestinal pain.

"When crying has a nasal tone it should suggest swelling of the lining membrane of the nose, or other obstructing condition. Thickening and indistinctness occur with throat affections.

"A loud, brazen cry is a precursor of spasmodic croup, and a faint, whispering cry of true or membranous croup. Hoarseness points to disease of the lining membrane of the larynx either catarrhal or syphilitic in nature.

"A manifest unwillingness to cry can be seen in pneumonia and pleurisy, when the disease is severe enough to interfere materially with breathing.

"Tear-secretion having been established, it is a bad omen if the secretion be arrested during the progress of an illness; but it is an equally good one if there be no suppression, or if there be a re-establishment after suppression."—Hygiene of the Nursery.

The Feeding of Infants.

THE FEEDING of babes is the most important need, if any one physical requirement can be singled out. All other organs of the body depend upon the digestive apparatus and the lungs.

To keep these systems in health means bodily health; to abuse them brings punishment to all the rest of the body. A babe's life and health is at the mercy of his care-takers; hence the importance of mothers and nurses informing themselves. Except in hereditary cases sickly and diseased children are a reproach to their parents. The means for learning much of the proper care of children are to be found on every hand, so that entire ignorance is inexcusable. But there are a great many who do not know that they are ignorant; who believe truly, when their babes are taken sick and die, that a dispensation of Providence has overtaken them. Perhaps it is just as well for the world. The fool has been the problem of the ages, and the less the species is reproduced and raised to maturity, the better.

Few women have ever any previous preparation for motherhood. As Mrs. Stetson says, "They are fitted to attract the other sex for economic uses, or, at most, for mutual gratification, but not for motherhood. They are reared in unbroken ignorance of their supposed principal duties, knowing nothing of these duties till they enter upon them.

"This is as though all men were to be soldiers, with the fate of nations in their hands, and no man told or taught a word of war or military service until he entered the battle-field.

"The education of young women has no department of maternity. It is considered indelicate to give this consecrated functionary any previous knowledge of her sacred duties. This most important and wonderful of human functions is left from age to age in the hands of absolutely untaught women. It is tacitly supposed to be fulfilled by the mysterious working of what we call 'the divine instinct of maternity.' Maternal instinct is a very respectable and useful instinct, common to most animals. It is 'divine' and 'holy' only as all the laws of nature are divine and holy."

All women who expect to be wives and mothers, in justice to themselves, must study what those relations mean and how best to acquit themselves when placed in those positions. To fully equip herself as a well-rounded human being will make her not only more valuable as a mother of the race, but as an individual character.

To return to infant feeding. When possible the mother's milk is the only food to be given. He should be given the breast every hour of the twenty-four for the first week; from that up to the sixth week, twice during the night and every two hours during the day. If put to bed at seven p. m. he will need to nurse about nine and eleven, leaving his mother from then till five a. m. undisturbed.

The natural feebleness of infantile functions makes regularity in feeding imperative. One hard and fast rule can not be made to apply in all cases. Some babes will need to be fed oftener than others; some less. The hours here given are approximately correct.

After the sixth week the interval between feedings may be increased until, by the fourth month, it reaches three hours; this interval is usually continued until weaning, which will occur at from nine to twelve months.

When the mother's milk is not sufficiently plentiful, artificial feeding may be used in connection with nursing, alternating with the breast. There is a considerable difference between cow's milk and human milk, and but few infants thrive when given pure cow's milk. There is, in ordinary cow's milk, about one-half the amount of sugar that is in breast milk; and the curd to be driven from human milk is only about one-fifth as much as can be obtained from the same quantity of cow's milk. To prevent too much curd in the stomach of the baby the milk is diluted with double its quantity of water; this re-

duces the amount of sugar and fat which is already too low. The feeding of diluted cow's milk causes the child to take a larger quantity to get nourishment enough, and the overcrowding often causes distension and feebleness, colic and other difficulties. To overcome the lack of sugar and fat the milk may be diluted as before, using one part milk and two parts water; add sweet cream equal to half the quantity of milk, and one teaspoonful of sugar of milk to four ounces of cream.

It is better to feed with a spoon. There is not then the anxiety of keeping nursing-bottles, nipples and tubes sterilized.

Weaning.

The time for weaning a babe must depend to a certain extent upon the health of the mother and the development of the babe. If the mother is strong and the babe hardy, nursing may be prolonged up to twelve months; rarely longer. To insure good health for herself and child, a mother should be reasonably free from heavy labor, avoiding both mental and physical fatigue. It is not necessary to give especial attention to her own diet beyond a wholesome supply of nourishing foods. If there is a scant secretion of milk she should drink freely of milk, or chocolate, or *bouillon*. Vice versa, if the flow is too copious she must drink sparingly of all liquids.

The easier way to wean a child is to begin about a month before he is expected to give up the breast by substituting a prepared food for one of the three-hour meals. The next day give the preparation alternately with the breast—and so on until the breast can be withheld entirely. When any reason exists for abrupt weaning it is done at once completely. This is harder for both child and mother, however.

It is a great mistake to take a child to the table and allow him to eat of whatever is placed thereupon, after weaning. His digestive powers must grow gradually to take heavy foods. While such may be given, and the child is not sickened thereby, it does not argue that it is digested and assimilated. If the digestive apparatus does not rebel at once, sooner or later overtaxing will tell. It should easily be seen by any one willing to think that food for an adult is not suitable for the stomach of an infant. Almost any place through the country districts one can see mothers carrying tiny babes to the table and giving them mashed potatoes, gravy, bread and butter, and even coffee and tea. They then are surprised and worried because bowel complaint ensues, especially during the teething period. The teething period should cause no worry. It will not, if methodical and judicious feeding has been the rule.

After weaning, or from the tenth to the fourteenth month, the child should have five meals daily; at seven a. m., half past ten a. m., two p. m., six p. m. and ten p. m. The first meal may be the milk mixture given before; the next a cupful of full cow's milk warmed; the third a soft boiled egg with stale bread-crumbs; the fourth the milk mixture; the last a cupful of warm cow's milk. The mid-day meal may be varied occasionally with broth of chicken, beef or mutton.

From the fourteenth to the eighteenth month the diet may be more substantial. For the first meal a cupful of bread and milk may be given; for the next a cracker, or bread and butter, with a cupful of milk; for the third a slice of bread, a cupful of broth, and some rice and milk pudding; the fourth bread and milk; the last a cupful of milk. This bill of fare may be varied by giving a soft boiled egg or a baked potato in place of something else.

If the child wishes to sleep over the hour for the last meal,

never awaken him to eat. Instead, give him a cup of milk when he first awakens in the morning; he should not have to go hungry until the regular breakfast hour.

The young mother in her inexperience is often sorely oppressed by giving heed to the many conflicting bits of advice that come to her as to raising her baby. The best way in which to fortify herself will be to obtain some reliable book and conscientiously carry out its injunctions. She then has one consistent guide. If her baby thrives she may know she is in the right.

The nursing mother as well as the pregnant woman should not have to experience sexual excitement. It robs either her or the babe, or both, of vitality, as well as bequeathing to the child, through the mother's milk, an abnormal sexual appetite. When young men and young women are properly prepared for marriage and parenthood they will know that that estate is higher than one of mere indulgence of the sex passion. Sex passion is abnormal when it cannot be controlled for the welfare of all to be considered.

How to Dress the Baby.

THE DRESS of a babe should always be plentifully warm. To keep a child warm from its birth doubles its chances of life. Too much dependence is usually placed on the heating of houses, most of which are superheated. A babe should be dressed for the most part in flannel, during winter. Authorities disagree as to whether or not flannel should be worn next the skin. It absorbs and retains moisture from the body.

The "Gertrude" baby garments, devised by Dr. Grosvenor of Chicago for his own baby daughter, are very simple and sensible. The first garment is in one piece from neck to hem; it slopes at the waist-line and flares at the skirt to give a proper

width. The seams in sleeves and princess are on the outside. Over this is a petticoat of all wool, without sleeves. It is cut the same way, only an inch wider and two inches longer. Any outside garment desirable may be worn. The beauty of this system is the saving in time and strength for mother and baby. Before getting the bath ready, one garment is slipped inside the other and made ready, so when baby is dried, and the diaper, socks and band are adjusted, he can be slipped into his regalia in no time. With one motion they can be drawn over the head, or up over the feet, and with face downward each garment is fastened with one or two buttons.

The band which used to be supposed to strengthen the abdominal wall, and not taken off for months, is gone. When the navel no longer needs dressing, which time varies from five to fifteen days, the close-fitting band should be removed. In its place now comes a knitted wool band that reaches from under the arms to the hips. This preserves a degree of warmth for the stomach, bowels, liver and lungs, necessary for health.

"Babyhood" gives the following directions for a crocheted baby-band: "Single zephyr in ridge stitch, that is, half stitch, in which going back and forth only the back half of the stitches in the lower row are picked up. Begin on a chain of fifty and crochet forty-eight ridges, or ninety-six rows. Join by a row of tight stitches, or by sewing. Finish off at bottom by a row of plain stitches topped by a picot-edging (five chains and a tight stitch back into the first)."

This band should be worn throughout the period of dentition; longer if there is delicacy of digestion. Little wool socks, and shoes as soon as creeping begins, should be worn the year around.

The points to be observed in clothing a baby are warmth, looseness and a uniform covering of the whole body.

One writer gives a description of what an infant's clothing formerly was. She says: "The old style of dressing a newborn baby consisted first—no matter how cold the weather—of a tiny sleeveless shirt made of the finest linen. Then came a band of muslin, double, which was wound around and around the child's body several times and pinned tight. Then came a straight piece of flannel gathered into a band of two thicknesses of muslin fully three-quarters of a yard long which was wound around the baby tight, 'to support its little back, you know.' It was then pinned every inch with a straight pin. The flannel was folded each side over baby's legs and the ends brought up and pinned to the band in front. You will wonder if it could kick. Over this horror was put a flannel skirt—this also with a long band. Over that went a cambric skirt tucked and ruffled and long enough to cover the flannel one. Last of all came the dress of the finest, thinnest lawn or cambric, more or less tucked and ruffled.

"Think of it! If every band went around but once there were eight or ten thick, stiff layers of muslin drawn tightly and pinned over the lower part of the chest, liver, stomach and all the vital organs, and over the upper chest, neck and arm but one layer of the sheerest fabric."

The end-of-the-century baby may well be thankful for having been called into existence no earlier.

The diaper, or napkin, should be abandoned as soon as the child is able to make known the demands of nature. This time varies according to the skill in training.

The style of night dress varies with the taste of the mother. It is made preferably of wool for winter and cotton or linen for summer. Some mothers use a plain little night robe; a very serviceable garment for a young baby is a long gown with a draw-string at the bottom, to prevent the little feet

from kicking free from cover. When the babe is older, drawers made with waist, sleeves and stockings are to be recommended, as furnishing a uniform covering for the body, and for freedom of movement.

No clothing for either night or day should restrict free movement. The growing baby must be able to make all voluntary and involuntary movements with perfect freedom. If the shoes are tight the circulation of blood is imperfect; anything tight about the chest or waist prevents perfect respiration and digestion. Development is retarded whenever these precautions are disregarded. Clothing worn during the day should be changed upon getting ready for bed. The band and napkin must be replaced by clean ones before the bed-gown is put on. The day clothing must be placed where it can air all night, if it is expected to be worn the next day. The same should be done with the night clothing after the babe is dressed in the morning. Not infrequently do housewives put the night clothing under the pillow when making the bed.

The Baby's Sleep.

THE HOURS FOR SLEEP are regulated with the same precision as the meals, usually, although the infant depends upon mother or nurse to be fed, and can go to sleep of his own accord. New-born babes spend all the time aside from feeding and dressing in sleep. As the senses unfold a little more, waking time occurs each day, until at the age of a year and a half he will sleep about fourteen out of the twenty-four hours, and about eleven hours at three years.

The regularity consists in getting him ready for bed at a given hour every night, and once or twice during the day, according to the age. After the fourth or fifth year few children will sleep during the day; but at night they should retire not later than eight o'clock.

Most mothers will prefer putting their own babies to bed; it is such a good time for cultivating confidences, especially after conversation becomes possible. One never more realizes the feeling of nearness, "the flesh of my flesh, and dear of my heart" consciousness. She who delegates this hour to a hireling misses one of the precious heritages of motherhood.

No child of any age should sleep with an adult, or with another child. A babe may be placed in a crib by the side of its mother's bed where she can easily attend to its needs.

If the babe is fed and put to bed at seven in the evening, at nine and at eleven it will need to be fed again. At which times the mother should see if the napkin needs changing, and in returning it to the crib its position should be changed. Damp napkins can be prevented by holding the child out at feeding time. Both child and mother should have unbroken rest from eleven p. m. until morning. The bed should consist of a mattress covered with a rubber cloth upon which is a pad the length and breadth of the mattress. Crib sheets and blankets form the covering, and a very small pillow supports the head and neck.

Feathers are objectionable because the body, sinking among them, is kept too warm, which weakens the system and makes it susceptible to cold.

Care should be observed about not covering the nose and mouth. It will be better to have a fire in the room with light bed-covering than to oppress the body with weighty covers. If the little one is restless, it is a good plan to secure the blankets in several places with stout safety pins such as are used in blanketing horses, to prevent its becoming uncovered and getting chilled. If the child comes in winter, hot water bottles are good to place about the little body to preserve its heat.

As soon as the child is taken up in the morning the bedding

should be placed separately in the direct sunlight and air and not be made up for an hour or longer. The great disadvantage of having a bed in the living-room is the inability to expose it for any length of time to the sunshine and air before making it up; especially so in cold weather. Whenever possible the bed-rooms should be separate from the living-rooms, and the windows never closed except against a storm.

The baby's crib-bed being left to air in the bed-room, for day-time use the padded box-bed is serviceable. Take a box of good dimensions, pad it well inside and cover the outside with a pretty cretonne; place baby's pillow and blanket therein, and there is as safe and comfortable a bed as can be found. If the mother must be chief domestic as well as nurse, the box-bed may be mounted on casters, and drawn to whatever part of the house requires mother's presence.

Crying Babies Unnatural.

Never dose an infant with drugs, soothing syrups and the like. Crying babies are unnatural. If baby cries there is something wrong; unless the *training* is wrong and he is crying to have his own way. In neither instance should drugging be resorted to. Discover the cause and correct it. Trying to overcome an *effect* by administering medicine brings on a worse disorder as the effect of the medicine.

Dr. William Hall says: "A very common practice is to give something to stop the baby from crying; then when diarrhea follows, to give something to stop the diarrhea; and so it does; it keeps the infant from crying, it cures diarrhea; it is infallible in summer complaints; but sooner or later, or within a few days, inflammation of the brain comes on, and the child dies; the mother does not note the connection. When the child does not die it will grow up puny in body or mind. One

mother who said she never went visiting without her bottle of soothing syrup raised her baby. But the child could never continue in school for headaches; hence was not fully equipped for adult life, through lack of education.

Exercise and Air.

EXERCISE for a little child should begin about the third or fourth day after birth, when it may be carried gently in the nurse's arms for ten minutes, two or three times daily. After the first month, if the weather is warm, it should be carried out of doors as often daily, using an extra wrap and cap to protect the child; except, of course, stormy days. It may then be carried to a distant part of the house where good ventilation is possible. The nurse should walk slowly and evenly, to prevent any sudden jars to the delicate organism. Jolting, jarring, noise, if a part of the earliest environment of a babe, surely start it on the road to viciousness. When there is no pain to attend nor want to satisfy the babe should be quiet and happy. If these are ignored and the infantile mind diverted by jolts, jarring, singing, his temper becomes soured and his disposition biased for ill.

The babe should not be held in an upright position for any length of time. Ordinarily the child will not be able to support its own head and back until the sixth to the eighth month. The muscles of the back which hold the spine in position should be thoroughly strengthened by growth and development before the babe is encouraged to sit alone. Nature's work cannot, with impunity, be hastened, no more in infancy than before or during birth. Curvature of the spine results from muscles of the back being used before there is proper strength. When weak the weight of the trunk pulls the spine forward; then the chest movements are hindered, the blood imperfectly

aerated, and the child becomes an incurable weakling, or deformed.

As soon as a child begins to know the joys of activity, he should be laid upon a mattress or sofa, guarding him so he cannot fall, and be allowed to exercise in his own way. He will kick his legs, wave his arms, crow and show all the points of a healthy animal. All these movements serve to strengthen; even the crowing and "ah-goo" of articulation strengthen the voice-box. Exercise is one of the essential conditions of growth. Healthy life demands activity. As the child grows older he should not be persuaded into any attempts at physical exertion; when there is strength of body and mind enough to control the muscular action, attempts will be made of his own accord. He must be given time to work out the solutions to his own problems if he be hardy for so doing.

After a baby is four months of age, a carriage may be used to take him out daily. Up to this time the arms are preferable, especially in cold weather, the heat from the body of mother or nurse warming the child. The weight should be changed from arm to arm occasionally during an airing. If the weather is cold when the carriage is assumed, a hot-water bottle should be placed to the feet. The body of the carriage should be made comfortable with one or more pillows, upon which the baby is laid, and covered cozily. The sunshade should always be ready to screen the eyes from any trying light. Care should be used in traveling over rough places in the street, to prevent jars.

When the child begins to creep the proper place for such exercise is perplexing to find. A baby-tender, which is a kind of low fence of given dimensions, and hinges together, is useful. If the weather is cold, and the floor more or less draughty, the space enclosed may be made comfortable by one

or two comforts so laid as to line baby's "yard." Or a large box, suitable for plenty of movement, may be padded and placed on casters for use of the creeper; if it is slatted part of the way up, say the top half of its height, the little hands will try to assist to the standing posture, and thus gain strength for walking.

After the power to walk is developed the open-air exercise may, once during the day, be taken on foot, carefully protecting the feet and legs before going out if the weather is chilly or damp.

The Child's Spiritual Development.

After all the physical wants have been properly attended, another need, just as important, at the same time must be supplied: it is an environment of love. Physical comforts are essential to bodily growth and development; love is required for spiritual development—for the true internal growth of individuality. Love is spiritual sunshine.

Little ones early reflect surrounding conditions. Living in an atmosphere of harmony, they will develop naturally and without the abrupt streaks of anger and cruelty which too frequently make themselves manifest. Home life being inharmonious, the budding character is warped in accordance therewith.

Father and mother should be playmates and comrades, rather than superior beings or rulers of whom a child stands in awe.

In learning the language of the household, simplicity must be the rule to conform with the thoughts of the infant. A profusion of words is objectionable; they confuse rather than conform to the child ideals. "Language that lies beyond the comprehension of the child finds no thought or germs of

thought with which to unite in the child's mind, and thus retards mental development by loading the mind with incongruous elements, with food that can not be digested or assimilated—placing the brain in the condition of an infant's stomach loaded with dainties and rich food; the stomach may be full, but it can not save the child from starvation. Thus, if a child—say nine months old—is thirsty, the words, 'Must its mamma div her pets a little dink?' are, perhaps, not a whit more injurious than 'Does mother's little darling want a drink?' Both make false impressions or none at all to correspond with the child's mental condition, unless it be the word 'drink' in the second form. But the words 'Baby—drink' will correspond so nearly with the simple forms of the child's thoughts and feelings, that, in connection with suitable actions on the part of the mother, they will go far towards liberating these thoughts and bringing them to clearer consciousness."—
Law of Childhood.

Molding Mind and Character.

As the body must build its structures out of the food material given it, so must the character and mind of the child be made out of the every-day influences of its life. He speaks the language, thinks the thoughts, copies the acts of those by whom he is surrounded, as soon as the mind sufficiently unfolds. If he hears nothing but kind, loving words, he will be kind. If he hears no slang at home, what is heard outside will make little impression; so with profane and impure language. The personality of the child is the total of all the tendencies, good or bad, rough or gentle, which he has inherited, and all of the images which he has received since birth, every second of his life. The child is then worth whatever he gets from mother and father, as developed or controlled by education.

Let him live in an atmosphere of strife and selfishness where might makes right, where the weak must yield to the strong, unjust though it may be, where the father of the family ruthlessly disregards the wants of mother and children, while the mother goes about as a thief in her own house, stealing what is her own to feed and clothe herself and children, and very soon the child will grow to feel that his desires can be gotten by force or strategy. He loses that straightforwardness which characterizes honesty, and through no fault of his own.

Says Mr. B. O. Flower in the *Coming Age*: "Look to the little ones. Spend every moment you can with them; teach them unselfishness, gentleness, and loyalty to truth. Educate their minds and their souls. This, O parents, is your first and greatest duty. The children demand it; they have come at your bidding, they are your guests and your offspring, and they are in the dark; you must lead them to the sun-bathed highways of goodness and knowledge.

"The future also demands it. You have no right to call forth lives which, through your neglect, indifference and careless ignorance, shall curse the civilization of tomorrow, or heap sin and sorrow on society, already groaning beneath its load of woe."

Severe measures in the training of little folks generally lack coolness and wisdom. Parents, too often, consult their own comfort and convenience rather than benefits to the child. This is especially true when the child arrives at the age of three or four years; when, as some people are wont to say, it can look out for itself. Because the little brain can not comprehend what is said to it, the child is punished often with blows. When fits of anger come to him as the result of contact with an atmosphere charged with parental unbalance, more harshness is administered to quell the disturbed equilibrium.

But terrorizing the little one does no real good. The superior force may quiet the tempest temporarily, but it will burst forth at another time. To efface wrong in a child it must first be effaced in the elders.

A keynote of happiness should be sounded for the day by father and mother, and the smaller ones will attune themselves to it. Home is the place where all should cultivate cheerfulness as a duty. It is the haven of rest and development for all its inmates, and mainly depends for its integrity upon the two who founded it—the father and mother.

PART III.

CHAPTER VI.

Development from Birth to Puberty.

INFANTS born at full time vary in length and weight from the twelve or fourteen pound baby to the tiny doll-like creature of one and a half to two pounds. The average weight is about seven pounds, and the average length about eighteen inches. Large infants have heretofore been considered the more hardy, but observation proves that the babe who is merely round and plump, and *not* fat, is healthiest. Mothers can, during gestation, regulate the size of offspring at birth, by attention to exercise and diet. A small child that is healthy will make the journey to the external world with less pain to his mother and danger to himself than a large one.

During the first week of life the child may lose a few ounces as the result of a changed environment, but this should be recovered at the end of ten days, and the weight thereafter steadily increase. The subjoined table will indicate the approximate growth from one month to one year of age:

<i>Age.</i>	<i>Length.</i>	<i>Weight.</i>
Birth	18 inches	7 pounds
1 month	20 inches	8 pounds
2 months	21 inches	9½ pounds
3 months	22 inches	11 pounds
4 months	23 inches	12½ pounds

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<i>Age.</i>	<i>Length.</i>	<i>Weight.</i>
5 months.....	23½ inches	14 pounds
6 months.....	24 inches	15 pounds
7 months.....	24½ inches	16 pounds
8 months.....	25 inches	17 pounds
9 months.....	25½ inches	18 pounds
10 months.....	26 inches	19 pounds
11 months.....	26½ inches	20 pounds
12 months.....	27 inches	21 pounds

Primarily the head and secondarily the body are large when compared with the arms and legs, but the disproportion is overcome in normal development. Length increases more rapidly during the first month than at any time thereafter.

All babies are born with blue eyes; if there is to be a change in color it is noticeable at about the third month. At birth the sense of sight is very imperfect; the child distinguishes only between light and shade. It has frequently been observed that, when a night-light has been used in the lying-in room, after it is no longer needed the baby would cry for it as being preferable to the dark. These instances occur, however, when no regularity is observed as to baby's habits.

From the sixth week to the second month the new world unfolding to the blank mind may be noticed in the discovery of his own fists. The recognition of objects by sight is evident about the sixth month.

For a variable period after birth hearing is not aroused. Taste and touch are present at birth.

The Child Mind's First Impression.

“The first impression on the mind of the child should be made by means of contact with the mother. The little aimless hand, blindly groping in its new environment, should touch the mother's flesh, and the velvety cheek should come in contact

with nothing less than the mother's breast," says Dr. Melendy. "The sense of touch inevitably communicates its delight to its four companion senses, and in a short time excites them to activity.

"In the marvelous laboratory of the mother's system has been prepared milk, sweet, sapid and nutritious, which awakens into its delight the sense of taste. By a delightful affecting of the senses is thus laid in the mind of the babe the foundation for every future idea of sympathy and beauty."

It has often been noticed that new-born infants have a dread of being left without support. This is probably due to the changed sensation after birth. While within the uterus, there is pressure on all sides, the absence of which is sensible to the infant at birth. It will cling tenaciously to anything within reach. Much restlessness and fretfulness could be overcome in newly arrived babies by firmly supporting the body on all sides with pillows and blankets.

When the new baby is first washed it will be seen that its skin is covered with down, the fineness of which varies much in different children; sometimes it can hardly be seen, while in others it gives a furry appearance to the babe.

Usually both bowels and kidneys will act during the first twenty-four hours; after that the bowels will be moved twice or three times daily and the bladder will be emptied five or six times daily.

The umbilical cord will become detached usually on the fifth day.

Mental and Physical Development.

Unfolding of intelligence and the development of physical powers keep pace, the brain guiding the activities of the body. This is, however, not true when mothers try to make their

babes precocious in walking or creeping or any of the phases of development that should come naturally. Persuaded to do things which they themselves have not mastered, the courage which goes with personal mastery is not theirs.

Eruption of the milk teeth comes at variable periods in different infants; from the third to the thirteenth month is about the range of the deviation of the appearance.

Normally the teeth are cut in groups, each effort being succeeded by a period of rest. The lower middle incisors usually appear first, to be followed in from three to nine weeks by the four upper incisors. The next group will be the other lower incisors and the first four molars, which are cut from the twelfth to the fifteenth month. The four *canines*, or cuspids, known as the "eye-teeth" and "stomach-teeth," come at from a year and a half to two years, and the last four molars between the twentieth and thirtieth month; these complete the first set, or milk-teeth.

The first indication of a beginning of the power of locomotion is when the babe will try to rest upon its feet when taken into the lap. When about seven or eight months of age, if placed upon the floor he will try to reach what is just beyond, first stretching out a hand and following with the knee. Later the erect posture comes. The babe will, by holding to a chair or anything that affords support, walk about that article. Then, when stronger, he will take one or more steps alone, gradually gaining strength and control over his muscles. At from the fourteenth to the eighteenth month he should be able to walk alone with ease and assurance. When the powers of walking are not developed at two years of age the case should be investigated, as it is hardly a natural condition. Delay may be due to general feebleness, to paralysis of the

muscles of one or both legs, while a limping with pain in the knee would suggest hip-joint disease.

In acquiring speech children learn to communicate by imitating other members of the family. Younger children learn more quickly than the first-born for having small playmates. A child of one year can generally articulate a few words of one syllable, but not more, because the small muscles of the larynx are not sufficiently under control. It appears to be easier, later, to pronounce a word of more than one syllable than to say two or more words of but one syllable, the brain not being equal to express the meaning of more than one word. At eighteen months most infants will be able to use a number of short sentences, and at two years to have a pretty fair command of language with which to communicate with the family.

It is rare to find a child that is precocious in both walking and talking. When they are forward in one direction they are backward in the other. If the sense of hearing is known to be acute, and the child is healthy, there need never be any worry as to backwardness in speech.

As soon as speech becomes possible, in any degree, the idea represented thereby becomes known. Words when learned are associated with the objects to which they apply. Between one and two years a child will distinguish small numbers, as one, two, three, four; at about the same time it has the sense of color, and can name some of the primaries. Distinguishing between noise and music varies very much. Some children very early are charmed by music, while others are "tone-deaf," as was Du Maurier's Trilby; but this apparently bears no relation to unfolding intelligence.

From the third to the sixth year development of intelligence is quite rapid. Prof. Hailmann says: "Endowed with an uncontrollable tendency for a further evolution in all direc-

tions, he stretches forth points of contact, eager to unite with any assimilable elements that may offer. As yet his power of discernment is small, with reference to the good or evil that is to result from the union. The tender membranes of the stomach absorb the corrupt liquid that breeds disease and death almost as eagerly as they do the wholesome milk of the mother; the mind receives delusive impressions, unites with the elements of vile thoughts and feelings as freely as with their opposites; the energies are exerted and grow in the direction of vice as actively as they do in the direction of virtue and wisdom; the child thrives as vigorously into hate as into love."

The senses and emotions predominate over the reason and intelligence. Training during these years must consist in guarding the child against contaminating influences, so that he will be brought in contact only with that which will aid him to grow in purity and goodness. And, as Prof. Hailmann further says, "the indiscriminate tendencies for absorption undergo a differentiation; the tendencies for wholesome elements gather new strength from day to day by uniting with their similars; the tendencies for injurious elements are weakened at an equal rate, starved to death, as it were, isolated, transformed into tendencies for good. The system is forming good habits, we say, and 'the formation of good habits' is the watchword of the true education of childhood."

The Teeth.

Second dentition begins about the sixth year, the first teeth appearing being the four double teeth just behind the posterior molars; they are the first permanent molar teeth. The milk teeth are displaced by the second teeth. As the permanent tooth grows toward the edge of the gum, it presses on the root of the milk-tooth in front and causes its absorption, the

whole root usually disappearing, and the temporary tooth loosens and drops out. The edge of the tooth that drops out is more or less ragged and sometimes gives rise to the idea that the tooth has been broken off. This, however, is not true, unless there has been actual violence.

The first milk-teeth to loosen and drop out are the two lower incisors, they usually being first to be cut; the second teeth which displace the milk-teeth follow the order of eruption of the first set. Sometimes, instead of causing the root to be absorbed the *canines* cut through the gum above or below the temporary teeth; when this is to be observed the first tooth must be removed, or "fangs," as the unsightly growths are called, will mar the facial appearance. From their position at the angles of the mouth these four teeth, more than any of the others, can make or mar the countenance. The permanent set is not completed until the appearance of the "wisdom teeth" at from sixteen years up—sometimes they never come through. Second dentition is considered done about the twelfth year, wisdom teeth not being regarded. There are twenty-eight teeth, until the appearance of the wisdoms.

Teething children during either the first or second dentition must have an even, smooth regime of daily life or they will be more or less fretful and querulous. The business of parenthood requires steady care during the progress through childhood to puberty. And if the healthy, happy child needs care, how much more must be the share of another who is an invalid—or semi-invalid.

A Nurse's Wise Suggestions.

A trained nurse says: "A sick child needs most of all to forget himself. Little need, in these days of the clinical thermometer, the 'feeling the pulse,' and understanding the facial expression, to be always quizzing an invalid as to how 'he

feels,' if 'the pain is gone,' if he 'is better now,' if 'anything hurts him,' or 'don't you feel able to sit up?' An intelligent nurse or mother can answer all these questions for herself without a word. To be put in mind of one's pain is as bad as the pain. Any one who has been sick knows there are intervals of self-unconsciousness when the thought is fixed upon some pleasant theme. * * * Every word and every act of the sick-room should be with a view to banishing self-consciousness. Do not even ask if the invalid is hungry. If it is time to eat, tempt by the sight of food. 'Spring the suggestion' on him and surprise the failing appetite, which if questioned does not always answer.

"There is danger of a sick child's being made selfish by his attendants. Teach him to think of others and to make as little trouble for willing feet and hands as possible. The child will be happier and have a better 'getting-up' morally. * * * The art of keeping a happy face before an invalid child is difficult to acquire, especially if the nurse is the mother, and a happy tone is yet more difficult.

"To rehearse a child's symptoms before the invalid is to do a very dreadful thing. In a short time the child will 'show off' his aches and pains for the benefit of strangers or members of the family. He will be taught that his sickness is interesting, and learn to exaggerate in an innocent way for the entertainment of friends. * * * Better teach the child that illness is often nature's punishment for sins or neglect of her laws, and that the culprit who is suffering should be more ashamed and sorry than proud. At the best, illness of any sort is a misfortune and should not be even discussed with complaisance. And yet illness may be a great teacher if the invalid has a wise nurse. Hearty resolves as to what good things one will do when one gets well are beneficial and hasten recovery."

Growth in Height and Weight.

The growth during childhood is seldom uniform. Children will often remain stationary for a time and then have a period of rapid growth. In the ninth or tenth year and again at the approach of puberty there are sudden shoots at growth.

The following table will give a good average for growth in height and weight from one year up to fourteen years:

<i>Age.</i>	<i>Height.</i>	<i>Weight.</i>
1 year	27 inches	21 pounds
2 years	31 inches	26 pounds
3 years	34 inches	29 pounds
4 years	36 inches	33 pounds
5 years	39 inches	36 pounds
6 years	41 inches	39 pounds
7 years	43 inches	44 pounds
8 years	46 inches	48 pounds
9 years	48 inches	52 pounds
10 years	50 inches	57 pounds
11 years	52 inches	61 pounds
12 years	53 inches	68 pounds
13 years	55 inches	77 pounds
14 years	58 inches	89 pounds

The chest measurement is regarded as another reliable evidence of development. The average infant should have a chest measurement of thirteen inches, which should at four months be increased to fifteen inches; to sixteen inches by the sixth month, to seventeen by the twelfth month. When the age of five years is reached twenty-one inches is the average chest measurement.

Children's Exercise and Play.

After the fifth or sixth year exercises that develop the breathing powers should be encouraged. Well-developed lungs aid the body to resist disease; they are one of the important eliminating channels, as well as the source of blood aeration.

Conscious breathing may be explained simply, so that a child will often of himself inflate and empty the lungs during the day

Bed-time exercise is to be commended after the child is old enough to romp and play. Regularity should be observed, though the spirit of play should prevail. Of course a very young child can not be held to rule very well—but the kittenish frolic before bed-time paves the way for sound sleep.

Mother or father should be the playmate and leading spirit; and during the play-hour they will be enabled to learn tendencies that will guide them as shapers of character. The home in which children regard their parents as antagonistic to their recreation has something radically wrong at its foundation.

Gerald Massey's Advice.

Gerald Massey, who lived in the middle of the nineteenth century and was a prophet as to the coming enlightenment, had the following to say on the rearing of children: "The life we live with them every day is the teaching that tells, and not the precepts uttered weekly that are continually belied by our own daily practices. Give the children a knowledge of natural law, especially in that domain of physical nature which has hitherto been tabooed. If we break a natural law we suffer pain in consequence, no matter whether we know the law or not. This result is not an accident, because it always happens and is obviously intended to happen. Punishments are not to be avoided by ignorance of effects; they can only be warded off by a knowledge of causes. Therefore nothing but knowledge can help them. * * * It is good to set before them the loftiest ideals—not those that are mythical and non-natural, but those that have been lived in human reality. The best ideal of all has to be portrayed by the parents in the realities of life

at home. The teaching that goes deepest will be indirect, and the truth will tell most on them when it is overheard. When you are not watching and the children *are*—that is when the lessons are learned for life.”

Building Character.

Knowledge of exact truth is the only sure way to create a loyalty to truth, and that, above and below all things, must form the true basis of character. Upon it all ideals should rest. Healthful, happy surroundings during the formative period of the ideal, with food for quickening the powers of imagination, will aid the youth to read delight in whatever sphere of life it may be his to live. As Gerald Massey says, a noble life, a splendid deed when unfolded to the child lights up his imagination and carries his thoughts and purposes into the realm of tomorrow, when he too will be an actor in the busy world of affairs.

When the development of imagination is neglected life is apt to be tame, without flavor or perfume. So while the body develops according to the care given it, the soul of a child, which really molds the after life, must be given its larger share of cultivation. Body and mind act and react on each other. But while the body may be made a perfect physique, if the poetic and emotional phases of character do not unfold, most of the influences which are uplifting will be as a sealed book, or as if they were not.

CHAPTER VII.

Disorders of Infancy and Childhood.



FOR convenience, the consideration of these disorders will be made under the heads of those occurring in *early infancy*, *during dentition*, and the *common maladies* of childhood.

In a tedious and difficult labor the shape of the head of an infant is sometimes deformed, and at times there are bruises resulting from prolonged pressure. The head will soon assume a natural shape. If the bruises are severe they may be bathed with something cooling; as *witch-hazel* and water.

The Umbilical Cord—The Navel.

The separation of the umbilical cord does not always proceed normally. It should shrink and dry away, with only a fine line of ulceration at the junction with the abdomen; and, when ready to drop off on the fifth or sixth day, it should leave a healthy skin with a slight depression in the center. The departure from the normal is when the stump of the cord softens and decays. In this there is a wide line of ulceration and a very perceptible odor of decay; the separation does not occur so quickly. When the navel cord is dressed with antiseptic absorbent cotton this condition will not occur. The cord should be powdered frequently with an antiseptic dry powder such as

boracic acid mixed with starch, which will arrest decomposition.

Occasionally, after separation of the cord, a small growth about the size of a pea will appear on the navel and discharge a thin liquid. The source of this discharge will be found to be a small ulcerating surface within the depression of the navel. This should be carefully washed and dusted with the *antiseptic* powder.

Rupture at the navel is not uncommon in infancy, owing to the thinness of the abdominal wall at that point. If, from any cause, the child cries lustily, the intestine may protrude to the size of a thimble, or larger. Care must be observed during the bath not to injure the protruding bowel. Upon dressing a padded pasteboard two inches square may be stitched into position, and placed over the rupture. Another recommendation is to take Burgundy pitch plaster, melt and spread over a cloth two or three inches square; then mold a small marble of the pitch and place in the center of the cloth; heat just enough to moisten and immediately apply with the small ball pressing over the navel. This can be left several days or until it removes easily; when another fresh one can replace it. Another good method is to replace the intestine gently, and while it is held back an assistant places over it several strips of adhesive plaster.

This form of rupture may appear at any time during the first year of life, but is most common during the early weeks of infancy. It is curable when care is persistently used; but if not, there is always more or less danger to health.

Irritation from Urine.

As the result of some irritating quality in the urine, the skin of the thighs, groins and lower abdomen sometimes be-

comes inflamed and red; or may, instead of the redness, be covered with small pimples, the heads of which are flattened or abraded. When this exists it will be found that the artificial food has been too rich, or too abundant, in which case it must be diluted more, or lessened in quantity. The diaper must be changed as soon as the bladder evacuates, if possible to be known, and at least three times daily the parts should be thoroughly bathed, dried, and dusted with the antiseptic powder. The diaper must not be used again without washing.

Crying when passing water should cause the nurse to make examination of the diaper to discover any unnatural condition of the urine. If there seems to be nothing abnormal in the urine, the external organs should be examined to discover and correct any irritation, or detect any malformation. In the male infant there sometimes exists a narrowness or unusual length of the foreskin which will cause trouble. This is corrected by a slight bit of surgery known as circumcision. In female infants a thin membrane is sometimes across the opening: a slight incision must then be made by the attending physician to remove it.

Inflammation of the Eyelids.

Inflammation of the eyelids of a new-born babe comes on about the third day. It will be noticed when the child awakens that the eyelids are slightly glued together, and the edges at the corner are redder than is natural. The light causes pain and there is a tendency to keep the eyelids closed. A collection of watery matter at the inner corner of the eyelid tends to run down the cheeks. The lids then become red and swollen and are kept closed.

When the first indication of glueyness is to be noticed, attention should be given to cleansing the eyes, for the great

point in the treatment is cleanliness. The eyes must be bathed three or four times daily with warm water, or warm milk and water. The best method for doing this is by two persons sitting facing each other. The one to administer the eye-bath receives the head in her lap while the assistant holds the body and confines the restless hands and feet. The head of the child is grasped firmly between the knees; the eyelids are separated and the eyeball washed with a very soft cloth moistened in the water. After the treatment the cloth should be burned, as this is a very contagious condition. The nurse must be very careful not to allow any of the discharge to get to her own eyes.

Nursing Sore Mouth.

Thrush, aphtha, or nursing sore mouth, is due to errors in diet, or to an inherited scrofulous condition. It is a spongy, morbid growth of yellowish-white color. Examining the mouth of an infant suffering from *thrush*, it will be observed that the tongue and interior of the cheeks and gums are dotted over by small patches like flakes of curdled milk. The true condition may be ascertained by attempting to remove one of the patches. When the disease is severe there is trouble in nursing; hence the name "nursing sore mouth." Sometimes the child refuses his food on account of the pain caused by attempts to eat.

This condition causes more or less indigestion through sympathy with the affected part. The importance attached to this disorder depends on the extent with which it interferes with digestion and the ability to take nourishment. It will not occur in children who are fed with regularity from the breast if the mother's milk is wholesome. But it is very common among babes fed artificially. Cleanliness of bottles, tubes and

nipples is imperative, and any slight disturbance of the digestive system should be corrected at once. The child's mouth should be examined frequently and the first indication of thrush met with proper treatment. The mouth should be washed lightly but thoroughly through the interior to remove any milk that may remain; after which a wash of sage tea in which a little borax has been dissolved will be all that is needed. The disorder rarely lasts more than a few days.

Diarrhea.

Diarrhea is Nature's method of eliminating objectionable matter from the digestive tract. In babes at the breast the condition is often caused by the mother's indiscretion in eating or drinking, or by worry and mental disturbance which so alter her milk that it is indigestible.

In hand-fed infants similar causes may be traced, as change in the feed of the cow, milk from a different cow, or some slight decomposition in the milk not noticeable to the adult sight or taste. A previous indigestion may have existed in a small degree, which will result in severe diarrhea.

The treatment will consist in finding and removing the cause, and in soothing and giving rest to the digestive canal. The child must be kept quiet, and heat applied. Never use remedies to check a diarrhea at once, as this prevents removal of obstructions and brings on serious illness. An enema of hot water will often bring relief without other aid.

Dr. Westland says: "As a general rule the less medicine given to infants suffering from diarrhea, the more rapid their recovery will be; and no medicine at all with the exception of one small dose of castor-oil at the commencement of the illness should be given unless sanctioned by medical advice. The symptoms which would indicate the urgent necessity of skilled advice are, mainly, great frequency of motion,

the presence of vomiting, a wasted and pinched appearance of the face of the infant, tendency to coldness of the hands and feet, and indications of twitching and convulsions."

Constipation.

Constipation is an unnatural condition, coming usually to the nursing babe from the diet of the mother. The colon, or large intestine, becomes impacted with the residuum of food which should have passed away. Want of regularity in feeding and holding the child out to stool are among the causes.

The first thing to do in constipation is to remove the impacted fæces. This may be done by injecting one to four teaspoonfuls of sweet oil to remain for six hours. To prevent the oil from being passed out at once a pad should be held against the rectal opening for five minutes. The object of the oil is to soften the hardened fæces. If there has been no action for six hours, then use an enema of warm soap and water, or salt and water. A teacupful will be sufficient to use for a small infant; more for an older child. The syringe tube should be anointed with soap or vaseline to insure a painless entrance. If possible, prevent the immediate discharge of the water by pressure on the anus. This gives time for the muscular activity of the colon to be well established.

The best position for the babe is on his back, or resting upon the abdomen upon the mother's lap.

The soap suppository is often used to cause an action of the bowels. This is made from a piece of castile soap, shaved to the size of a lead pencil, tapering at one end, and about two inches long. It is moistened in water and inserted nearly the whole length. In from one to five minutes the bowels will be moved.

After unloading the colon, attention must be directed to the cause.

NEVER GIVE A PHYSIC. A physic stimulates the secretions of the intestines and causes a free passage, but the reaction must come. The intestinal juices fall below the normal, the food cannot be well digested, and another wrong condition ensues resulting from the physic. After the lower bowel has been unloaded, try to overcome the constipation before it gets to be a habit. Massage over the abdomen for five or ten minutes at a regular hour each day will stimulate muscular activity. Give the child plenty of water to drink; in especial, a drink of pure water the first thing in the morning. Water is natural to the body, and except when the body is very warm, or there is a bad diarrhea, it would hardly be possible to give a child too much water.

Colic.

Colic has been a tormentor of infancy for generations; and the causes thereof are manifold. In infancy it may come from chill, from improper feeding, from maternal indiscretions, Dr. Stockham says: "Severe colics are usually the result of derangements of the liver, and when mothers are badly nourished the child is frequently *born* with the trouble."

A mild paroxysm may be relieved by rubbing a warm hand over the bowels. Also rub the feet; it assists in equalizing the circulation, by which the pain is overcome.

A warm bath of five minutes' duration is excellent. Let the sufferer be undressed and immersed to the armpits. When he is removed and dried, he may be placed without dressing in a warm blanket with a hot-water bottle to the feet. If sleep does not come, apply a poultice of cornmeal, or flaxseed in which there is a dash of mustard; previous to this the bowels may be relieved by a warm water enema. Then give a half-dozen drops of brandy in some warm water, by way of the

mouth. The stimulant is suggested if there is depression of the fontanelle, which suggests collapse.

The preventive measures for colicky babies are warmth to the bowels and extremities, and regularity in feeding. The bowels must be kept warm by the flannel band, and the feet covered with soft wool socks and booties.

It frequently occurs that infants do not pass away the meconium, or urine, for many hours, and sometimes not for days. If twelve hours elapse without action, the child should be immersed in a warm bath. This will relieve any congestion of the blood which may have prevented action of the kidneys. If there is any mammary secretion, putting the babe to the breast at once, allowing it to nurse, gives it material for causing the digestion and kidneys to act. If there is no secretion the babe may be given a small teaspoonful of pure soft water, which will clear the mouth, throat, œsophagus and stomach, and start an action in the digestive tract.

Teething.

Under natural conditions there should be no constitutional disturbances during the period of teething. If the mother is well, living an even, hygienic life, her nursing babe should experience no suffering during early dentition. And if the child is fed with regularity, has plenty of food and fresh air, the later dentition should cause no disturbance to the system. But if the body is not kept in wholesome condition almost any disorder may be fastened upon the child, the most common being of nervous, or of digestive, origin. Feverish conditions are also easily generated. But there is no single cause so prolific in fatality as the belief that teething is the cause of serious illness. When this explanation suffices the real cause of the illness is overlooked.

There is usually some irritation of the gums when the teeth are growing. Let the gums be frequently bathed in cool water. Allow the child to have a small, firm, clean piece of white cloth dampened in cool water to pull through his own toothless gums. Babes will always make strong efforts to gain relief. In addition to the irritation there is sometimes inflammation; often to such an extent that little ulcers are formed. These can be distinguished from thrush by the absence of any fungus growth. Indeed it is rare that thrush is to be seen after time for teething. Should the ulcers occur the application of glycerine of borax is excellent to apply to the gums twice daily. Lemon juice rubbed gently over the swollen gum is also excellent to relieve irritation. Lancing is not often needed.

For a general nervousness, the tepid bath night and morning is an excellent sedative. Given just before putting the babe to bed, it insures a quiet night, almost certainly.

A spasmodic attack known as "child crowing" comes on during dentition, sometimes. Usually there are preliminary symptoms in the form of a peculiar croaking in the breathing for days previous; again the spasm may occur without warning. Certain muscles connected with breathing are arrested in their movements. The child becomes suddenly stiff, throws its head backwards with staring eyes and an alarmed expression; the blood receding, the face becomes pale, then livid. Attacks of this nature, if severe, are attended with danger of sudden death.

What is to be done must be done quickly. Apply a cloth wrung from hot water to the throat; hold a stimulant to the nostrils; as camphor, ammonia. If these are not effectual get the child into hot water as soon as possible. As the spasm passes off the breath is drawn with a crowing or hissing sound.

Children with tendencies to "child-crowing," or *laryngismus stridulus*, as it is technically called, should be placed under medical supervision to prevent recurrence.

General convulsions differ from child-crowing in there being spasmodic action of the voluntary muscles. The attacks are sudden; the child is observed to be suddenly stiff, hands clenched and breathing arrested temporarily; after a few seconds there are convulsive movements of legs, arms and face; the mouth is moved irregularly, the face is twitched in different directions; the eyes roll from side to side, the eyelids wide open; arms and legs twitch in a marked manner, the convulsive movements extending to fingers and toes. If the attack is due to the irritation of teething it will be of short duration. There are many causes for this disorder.

The best treatment for immediate use is the hot full bath. If water is at hand, fill the bath-pan and place the child in without removing the clothing. Let it remain for five or ten minutes, then wrap up warmly and administer an enema of warm water. Often this is sufficient to produce a complete relaxation.

If the convulsion occurs shortly after eating it would suggest something indigestible in the stomach, and vomiting should be induced as soon as the child is able to swallow. If possible, tickling the throat with a finger is a good method. Frequent recurrences of this disorder suggest some serious cause for the attack. Place the child at once in the care of a reliable medical practitioner.

Colds—Croup.

When dentition does not proceed normally, and there is nervousness, slight causes are apt to produce severe consequences. Chill that might not affect at any other time may bring on colds, croup, bronchitis, etc. The tenderness of the

gums may communicate itself to the nasal passage, to the windpipe and bronchial tubes, and through chill may cause a state of inflammation. The cold commences with difficulty in breathing through the nose, accompanied by a watery or mucous discharge. This causes mouth-breathing and irritates the other breathing passages by lack of the warmth usually prepared by filtering in through the air passages of the nose and face. Within a short time a croupy cough develops. About this time *spasmodic croup* is apt to occur through the night. The child upon retiring may seem fairly well, but, within an hour or so after sleeping, will be awakened by apparent choking and a loud, ringing cough. While the attack is on it is frightful to witness, but is seldom fatal. If it lasts longer than a few minutes efforts must be made for relief. If it is possible, saturate the atmosphere of the room with steam. If the sleeping-room has no means of heating water, a small oil-stove is valuable to have at hand. Induce vomiting by means of syrup of ipecac, a teaspoonful every ten minutes; or by tickling the palate with the index finger. Vomiting assists to release the mucus which is closing the windpipe. Apply a compress wrung from either cold or hot water; cold seems more preferable for the reason that it will draw the heat of inflammation to itself; it will get warm and stay warm, while a hot compress will cool off. Renew the compress every hour until relief follows. If there has been any constipation the bowels should be cleansed with warm water. Dr. Keith says: "If warmly dressed and properly fed, the croup cannot 'catch' a child."

Bronchial Affection.

The bronchial affection is extension of the "cold," or inflammation, to the bronchial tubes. The child must be confined in a room with an even temperature night and day

until the attack is over. It must not be allowed to get cooler than 65 degrees Fahrenheit. Every inhalation of cold air aggravates the disorder. The use of steam is valuable to soothe a cough. Each family in which the children are subject to coughs and colds should be provided with a vaporizer. Open fires are best for the rooms in which bronchial patients are confined, as the air-tight stoves dry the air of the room and exhaust the oxygen. When the cough is severe and breathing impeded, apply a compress over the lungs and well up against the throat; cover with a dry flannel. Or apply a poultice of corn meal into which a little red pepper has been thrown and scalded with hot water; or a mustard poultice. These are counterirritants, bringing inflammation to the surface. When the attack is not severe, rubbing the chest and back with a stimulating liniment, such as camphorated oil or ammonia and oil, will be sufficient. Keep the bowels freely open by means of enemas if there is no natural action. Water is not a foreign substance to the economy of the body and can almost always be used with safety.

Summer Complaint—Cholera Infantum.

A prolonged diarrhea, sometimes known as *summer complaint*, causes great mortality among infants; and often attacks occur during dentition, although not caused by that process. The symptoms are frequent watery movements from the bowels, which at first may be green, and then brown and frothy. Sometimes there is a fetid odor, sometimes a soapy smell; the latter indicates there has been no intestinal action beyond the duodenum, as it is there saponification of the food takes place. Sometimes the passages are mixed with mucus and undigested food. When there is nausea and vomiting the disease is *cholera infantum*, a malady of the entire digestive tract.

Improper food and impure air, together with the enervating heat of summer, cause summer complaint. Bottle-fed babies are most susceptible to it. It is very difficult to find a prepared food that wholly agrees with an infant, and digestion is upset by experiments. After weaning-time many children are allowed to sit at the table with adults and be helped to whatever is served. The digestion of a baby, or a two-year-old, is not capable of making use of an indiscriminate diet, and rich food is unsuitable except for active, vigorous adults who are much in the open air.

Some children are prostrated at once by an attack of this nature, while others lose strength gradually. It is best to put them to bed whenever the movements begin to look suspicious, especially if the head is hot and extremities cold. Quiet is absolutely necessary along with heat applied to the extremities to equalize the circulation; apply cold compresses to the head and change frequently. The juice of fruits is excellent to allay both thirst and feverishness; when this is given strain through a sieve to prevent any pulp from being part of it. The juice of blackberry is very good; babies that have held nothing on the stomach soon accept unsweetened blackberry juice. Orange and lemon juices are also very grateful. Little food can be appropriated when these attacks are on; what is given should be in liquid form, as solid substance would have an irritating effect on the mucous lining of the alimentary canal. Milk, reduced one-third by boiling water, may be a stand-by if relished. Administer regularly. Barley water, rice water, thin oatmeal gruel are good. Allow the barley or rice to soak for some time and then pour off the water for the invalid.

If twenty-four hours' nursing, with quiet, in a well ventilated room, quenching thirst with pure water and fruit

juice, and feeding liquid food, does not act for the better, send for your family physician. Do not let the patient get too exhausted before sending for skilled attendance. But, unless the case has been too aggravated by unhygienic living, the above treatment ought to suffice, if given with care and conscientious attention to the patient.

Abscess of the Ear.

Abscess of the ear is occasionally to be met with during dentition. Sometimes it is so severe as to occasion convulsions. A babe cannot make its distress known except by gestures and cries, and when this disorder is present it will cry and toss the head from side to side, raising a hand to the afflicted side.

When this is suspected, relief may be had by plugging the auditory canal with a cotton pledget soaked with laudanum. The outside may then be covered by a hot compress.

The painful stage of the abscess rarely lasts more than a day, disappearing when the pus begins to flow.

Should convulsions occur, the treatment has been given heretofore.

Infectious Diseases.

There was a time when it was supposed every child must have chicken-pox, mumps, measles, whooping-cough and the like, and mothers would take their children into families so affected in order to inoculate them with the disease. But it is now known to be true that healthy bodies resist disease, and the doctrine of health is reverberating where sickness and disease once swayed. Of the progress of the medical profession Dr. George F. Shrady said: "It now embraces biology, psychology and metaphysics, and is becoming *more the work of prevention than the cure of disease.*"

The mother of children should preach and practice moderation in all things unless it be breathing fresh air; and even in that there can be a kind of intoxication by breathing too much too long. It used to be customary to arouse the children of the family when the adults got up, and make them do half of the work, with the result that few arrived at healthy maturity. Studying causes, many of these adults have been bringing to light the precious gospel of health and happiness during childhood as the basis of serviceable and happy maturity.

Try by all means at hand to make your children "sound in wind and limb," "healthy in body and mind," and they have within themselves power to resist disease.

If you have not been successful in so doing, following are some statements as to the common diseases of childhood, with their treatment:

The infectious diseases are those which may be communicated from one person to another in books, clothing, food and other articles. They have a definite run, and have four distinct stages, which are the *stage of incubation*, or between receiving the infection and any active symptom of illness; the *stage of invasion*, or the period between the symptom of illness and the eruption; the *stage of eruption*, from the time the eruption appears until it disappears; the *stage of desquamation*, or shedding the cuticle in the form of scales.

Chicken-Pox.

Chicken-pox is a mild disorder, rarely giving a child more inconvenience than a slight feeling of nausea or headache. The eruption appears in the form of small red spots unevenly distributed over the body; these rapidly change to watery vesicles surrounded by a pink ring. The vesicles are not of uniform size; some are the size of a pin-head, others may be a

quarter of an inch in diameter. The eruptive stage lasts three or four days, and is characterized by much itching.

The child should partake of a mild, unstimulating diet, and have the bowels freely active; the itching may be allayed by warm baths and vaseline applied afterwards.

It is most contagious in the last stage, when the scales are dropping, and can be carried away in the clothing of others.

Measles.

Measles is an eruptive disease very easily spread, because the contagion is strongest during the first, or incubation, stage, when people are least apt to guard against it. This stage lasts about twelve days, and only during the last two or three days is there a suggestion of cold with weak, watery eyes and stopped-up nose. Then there are headache, fever, sore throat, cough and catarrhal symptoms, generally accented. The eruption begins on the face near the roots of the hair, spreading downward, covering the whole body within twenty-four hours. The fever usually increases as the eruption comes out, and decreases with its disappearance. The catarrhal conditions also increase with the eruption. Care must be used in measles to prevent chill; if the blood is made to recede from the surface to the internal organs, bad complications will occur. But the sick-room should be well ventilated and have plenty of light. Sunshine and air are nature's disinfectants. The room should be kept at a temperature between sixty-five and seventy degrees, Fahrenheit, night and day. Let the patient have a simple diet of bread and butter, fruits and rice, with milk as a beverage, and plenty of water during the illness. Frequent spongings with tepid water are very grateful during the eruptive stage. Any complications, such as difficult breathing, or increased feverishness, will call for medical skill.

Scarlet Fever.

Measles and scarlet fever have some points in common that sometimes cause one to be mistaken for the other. But there are differences enough that they may easily be known apart. As, for instance, in scarlet fever there is rarely any cough, in measles the cough is troublesome; in measles the eyes are watery and eyelids swollen, in scarlet fever the eyes are dry; in measles the eruption is rough to the touch, in scarlet fever it is not. There is a difference in the color, too, measles being of a raspberry hue, while scarlet fever is what its name implies. The rash in measles begins about the face, in scarlet fever on the chest. In the latter a white line is left for a few seconds after pressing a finger over the point of eruption.

Both diseases are contagious throughout their duration, but measles is most so in the stage of incubation, while scarlet fever is most so during desquamation. Both vary in severity in individual cases, but scarlet fever, of all infectious diseases, is most apt to assume a severe form, and therefore should be under medical supervision. Perfect sanitation is imperative, and upon attentive, intelligent nursing under the physician's direction the child's life depends, while, to prevent a spread of the contagion, child and nurse must be isolated for about six weeks, or until the diseased cuticle has been replaced by firm, new skin.

Small-Pox.

Small-pox is in the class of eruptive fevers, but public sanitation takes hold of the disease so quickly, it is not necessary here to give any but distinguishing features. The period of incubation is about twelve days; then, as in other fevers, there is chilliness, headache, dizziness, high temperature, and a very marked pain in the center of the back and loins. The lat-

ter, in connection with pain and tenderness in the stomach, and more or less nausea, would indicate small-pox. Especially so if there is epidemic small-pox. It is contagious from the varioloid that results from vaccination sometimes. A severe case of small-pox was that of a young lady who slept with a school-girl sister who had been vaccinated under the compulsory vaccination law. The inoculation caused so severe a fever it was communicated to the sister, who had small-pox. Varioloid is just as contagious as small-pox. It cannot be known at the beginning of the malady how severe it will be. It depends on the resisting powers of the individual.

The stage of invasion lasts about three days, when the eruption begins to appear in the form of small, red pimples, which feel like shot under the skin. The face, neck and wrists are first covered, then the body, and finally the lower extremities. The pimples increase in size until about the eighth day, when suppuration begins. Scabs are then formed after another week, which, unless great care is used, leave marks or depressions over the skin. The fever commences to subside when the eruption begins. Before the eruption there is usually more or less delirium, so that a small-pox patient needs constant attendance.

This being a very infectious disease, patients are always isolated and their clothing burned or disinfected.

Mumps.

Mumps and whooping-cough are two diseases which, while not eruptive, have a development similar to those that are. Mumps is a disease generated, Dr. Ruddock says, by peculiar conditions of the atmosphere which breed "a specific morbid miasm." It occurs most frequently in cold, damp weather. The stage of incubation is from eight to twenty-one days,

during which time the patient has "that tired feeling." The stage of invasion begins with chill, headache, fever, and sometimes nausea with vomiting. Local symptoms are manifested in pain and tenderness under the ear; the parotid salivary glands swell, and continue to be sore and painful for a week or more. Sometimes but one gland is affected at a time, sometimes it leaves one and goes to the other, lengthening out the progress of the disease. In severe cases the whole face presents a tightly swollen appearance, but the skin over the gland is rarely discolored. A great deal of discomfort is caused by the inability to eat without pain. It is infectious throughout the disease, but most so during the stage of incubation.

No active treatment is needed unless by exposure or want of care the disease is transferred to the testicles of the male or to the breasts of the female. These glands should then be treated with compresses to allay fever. The diet must be plain, the bowels freely open, and the patient kept in an even temperature. Always, in any disease, there must be care exercised as to perfect sanitation.

Whooping-Cough.

Whooping-cough (or Pertussis) resembles the foregoing diseases in having distinct stages of incubation and invasion. The former is from a week to two weeks, and in the latter days expresses itself in the symptoms of a common cold; the stage of incubation begins with fever, loss of appetite, fretfulness, etc. Cough is usually present from the beginning of invasion, and from that gains in severity. The spasmodic attacks of the cough occur with varying frequency, from three or four attacks during the twenty-four hours to an attack every hour of the twenty-four. Each paroxysm consists of a number of sudden, violent, short expiratory efforts,

that the patient seems on the point of suffocation; then the deep-drawn inspiration assumes the sound of a whoop, which assures the temporary safety of the suffering one from loss of breath. The thick, ropy expectoration differs from the ordinary cough, and may signify the disease even though no "whoop" is heard. There is a gradual lessening of the number of paroxysms until the cough is entirely gone. Recovery depends more or less upon the climate and season of the year. If there are no complications, ordinarily the disease will be over in from four to six weeks. Weather being damp or stormy and the patient confined, the cough may be persistent. The following is excellent to relieve the cough:

Take one lemon and slice thin; add half-pint flaxseed, two ounces of honey, one quart water.

Put on the stove and let simmer for four hours, but not boil. When cool, strain and add water enough to make a pint of liquid. Give a tablespoonful four times daily, and also after each severe paroxysm of the cough. It helps in the majority of cases, especially where care is used to perfect sanitation and to keeping the bowels open.

Complications most likely to occur in whooping-cough are inflammation of the lungs, including bronchitis, convulsions and bleeding at the nose.

To arrest excessive bleeding at the nose, let the child lie flat upon the back with head elevated. Apply cold water or ice to the forehead. In obstinate cases powder of gum Arabic blown into the nostrils with a quill will stop the discharge.

Bronchitis.

Bronchitis is inflammation of the bronchial tubes. It is indicated at first by a dry, resonant cough, which may be accompanied by a wheezing. When it has existed for a day or two the cough becomes softer and looser, and the wheezing is

succeeded by moist gurgling sounds. Breathing is more difficult lying down. The expectoration at first is transparent mucus, which becomes yellowish and more fluid-like as recovery approaches.

Small children very seldom know how to expectorate, and the swallowing of mucus may cause some derangement of the digestive tract.

Bathing the chest and back with a stimulating liniment helps to overcome the inflammation. If severe, apply poultices to the chest and back. After the poultices have been removed protect the lungs, front and back with flannel or cotton bathing.

The *most important* remedial agent in treating bronchitis is to preserve an even temperature in the sick-room. The steam kettle is often advisable also.

Diphtheria—Tonsillitis.

Diphtheria is a disease always of serious import, so infectious in character that the patient ought immediately to be isolated with the nurse. It begins to be noticeable by chills, fever, quick pulse, husky voice, inflamed throat, and sometimes vomiting and diarrhea. Where there is bad sanitation is the place where diphtheria will devastate. The local characteristic of this malady is a dry, swollen throat, sooner or later covered with glistening white patches. The membrane changes color as the disease progresses, to yellow, to gray, and even to black.

Tonsillitis is a disease for which diphtheria is mistaken sometimes. Upon examination the tonsils will be seen to be enlarged; very commonly the surfaces are dotted with white points, though occasionally spread over the tonsils. But this is limited to the *tonsils*, and can be removed by scraping with

the handle of a spoon. In diphtheria the patches may cover not only the tonsils, but also the roof of the mouth, the hanging palate and the pharynx, and can never be separated by scraping.

Diphtheria always requires skilled attention. Tonsilitis may be relieved by compresses or poultices to the throat; gargle or spray the throat with a solution of borax in raspberry leaf infusion. Inhale the vapor from a hot infusion of bayberry bark and vinegar. Keep the bowels open.

Membranous Croup.

Membranous croup is said by some to bear a relation to diphtheria, the two diseases having a resemblance. This disease begins as a hoarse cold, and its progress is so slow that one often does not suspect it until it is too late to save the child. The croupy attack usually awakens the child in the night. He is frightened and restless and cannot lie down with comfort. There must be no dalliance. Send for your most trusted doctor at once. In the meantime try to induce vomiting to relieve of the smothering mucous membrane. Administer an infusion of pleurisy root, with ginger and lobelia added, every fifteen minutes till vomiting occurs. After vomiting give it every half-hour to maintain relaxation; if suffocation seems imminent increase the dose and the frequency of administering. Have the bowels move freely. Put hot applications to the feet if the extremities get cold. Fat babies are most susceptible to this scourge—this terror of mothers.

The Mother's Medicine Chest.

Every mother should have her medicine chest for emergency cases, keeping it safely locked from the busy, inquiring fingers of little Miss Peep or Paul Pry. A knowledge of the uses

of remedies which may be the "ounce of prevention" in saving a beloved life is worth while cultivating. In the medicine chest should be arnica, camphor, vaseline, ground mustard, ground flaxseed, turpentine, adhesive plaster, a roll of bandage not wider than two inches, a pair of scissors, etc.

External applications are of much value and can be used with safety and benefit when one would not (and should not) trust one's self to administer internal medication. The digestive apparatus must be guarded against derangement, for upon it the whole body depends for nourishment. Mothers and nurses should be very chary of the "give-some-medicine" hobby in slight ailments.

External applications have four purposes. First, to increase or diminish the temperature of the body; second, the maintenance of moisture; third, counterirritation; fourth, absorption of medication.

The first is accomplished by means of hot-water bottles or bags of ice; the second by means of compresses, which are prepared by folds of cotton or linen dipped in water. These should be covered by dry cloths; or better, by a piece of oiled silk, which retains the moisture better.

Counterirritation relieves internal congestion by diverting a portion of the blood supply. Mustard plasters and stimulating liniments are most commonly in use. A general rule for the application of a counterirritant is, the greater amount of surface covered the less amount of irritation should be set up. A mild mustard plaster, or a cornmeal and capsicum poultice, may be applied to the back and chest in inflammation of the chest, while a very strong one may be used for a pleurisy pain, or over a small portion of the skin.

Generally two of the objects for which external applications

are used may be accomplished by a poultice which furnishes both heat and moisture.

A fountain syringe and hot-water bottle are important adjuncts to maintaining the health of the family. These, in connection with the bath used intelligently and perfect sanitation, will overcome the minor ailments and largely assist in curing those of a serious nature.

CHAPTER VIII.

Afflictions Peculiar to Women.

THE generative system of womankind is not peculiarly sensitive and prone to derangement, as one would think upon superficial consideration. That so few women are free from "female weakness" is due to ignorance of the special anatomy and physiology of their nature. Through the lack of correct information the body is misused and abused, and no part of it more so than the sexual system, through the oldtime theory of its degradation, as if the First Great Cause would select a medium of impurity to multiply and replenish the earth. Health and morals will be without self-support so long as the generative system has been disregarded, for it, in its true conception, is the basis of purity—of physical, mental and spiritual health.

The foundations for female afflictions occur in girlhood very often, through dress, immoderation in exercise or lack of exercise, and the secret bad habit known as self-abuse or masturbation. Corsets, tight dresses and heavy skirts curse a large majority of womankind, not only in youth, but in maturity as well, for the reason that they are ignorant of cause and effect. The ignorance prevents any degree of self-reliance, so that for mental ease they *must* follow the fashion, be it what it may.

The followers of Madame Grundy, after several years' devotion, become unsexed. That is, the pressure upon the vital parts, including the generative system, prevents free circulation of the blood, which carries vitality to all parts of the body. This constant loss to any organ weakens and in time makes it useless.

Effects of the Corset.

A writer to *Physical Culture* says: "At thirteen or fourteen the corset begins its stifling and demoralizing influence physically, mentally and morally. It crushes in on the great vital center at the waistline; it crushes down on the organs of sex, displacing, weakening and deforming. This great nervous center, that depends upon the use of the muscular system at this part of the body for growth, strength and the perfect working of its functions, practically lies there in an abnormal, inactive state. The bones of the corset prevent the body from bending at the waist; hence these muscles and the entire abdominal region gradually deteriorate in vigor.

"With the organs of sex thus surrounded by weakened, flaccid muscles, in which the blood barely circulates, can one expect girls to develop that power and instinct of sex which is as much a part of true womanhood as light is a part of day? It is the instinct which gives them clear, definite ideas in the selection of husbands. It is the instinct that protects her and the man she marries from excesses that degrade, demoralize, and at times destroy."

Healthful Dress—Exercise.

Healthful dress is not incompatible with beauty, as any who *knows* can testify, and street and visiting gowns can even follow the prevailing mode to a given extent. A woman who

has defects will, of course, upon adopting rational dress, try to develop her body where it is lacking. She whose waist has been compressed cannot stand or walk as gracefully as the unhampered woman, but no one is ever too old to learn, if the mind is fully determined.

Moderation in recreation and labor will guard against the evils which result from inactivity or overexertion. While actively exercising let the muscles of the body be without restrictions, so that full, deep breathing is possible. Waist breathing is natural breathing, the principle being the same as in a pair of bellows. The floating ribs are lifted, the air inflates the lungs and expands the waist; the ribs are lowered, the diaphragm becomes concave, and the air is forced out of the lungs. Conscious breathing develops lung capacity when the waist is free from restrictions.

The destruction of health that comes from self-abuse is usually combined with the corset habit, together laying dreadful waste. A young woman who can use her reason against the evils of conventional dress is pretty sure to save herself from other evils because of innate tendency toward perfecting herself.

Pure Thought, Activity and Knowledge.

To prevent self-abuse the mind must be filled with pure thoughts, which will crowd out the darkness of ignorance. Then the voice of passion must be recognized as a prompting to activity and the whole being kept busy. Idleness begets sensuousness, and sensuousness in turn robs one of the ability to do.

Dr. Mary Wood-Allen says: "The youth entering upon puberty might have explained to him some of the mysteries

of life; probably it would not be incompatible with his age to explain to him that the life of the animal or vegetable kingdoms is continued through the power of reproduction with which the Creator endowed the whole produce of the earth. This power of reproduction or generation constitutes the *very essence of life*. To enable this vital function to be fulfilled every plant and every animal is furnished with organs of reproduction. As it has organs of respiration for breathing the air, organs of motion, organs of digestion for assimilating its food, so it has organs of reproduction for handing on the life it has received and reproducing itself in its offspring. This is the most important function of the whole vital economy of every living form."

Dr. Cordelia Green says: "The procreative organs are so arranged in both sexes that through the medium of the sympathetic division of the nervous system the brain and spinal cord—in fact, every element of soul and body—are in direct communication with them. With mental or physical excitation there is great exaltation of the action in the brain and spinal cord, with congestion of the procreative as well as the nervous centers. Next follows the movement downward to the pelvis of all the creative force, and the vital energy which is the source and sustainer of all human activities is given off and lost.

"Disturbing brain influence is kept up quite as certainly by the states of thought and feeling as in any other way, and may become so constant as to produce the most exhaustive drainage of the strength."

To eradicate excitement of the procreative system, body and mind must be kept clean and active. Food must be pure, simple and nourishing; the body must be free and untrammelled. The difficulty of overcoming self-abuse is because

of the exhaustion of will-power. But activity increases strength because activity is natural. When idleness is known to be dangerous as the cause of the abnormal appetite of passion, and healthful action made a habit, cure will soon be effected.

The disorders commonly known as female complaints are inflammations, ulcerations, abscesses, tumors, dropsy, cancer, catarrh, etc., which afflict the generative organs when they lose vigor from any cause; in addition to these are the displacements of the uterus.

The Causes of Woman's Ailments.

The causes of these disorders are many, but the chiefest of all will be found to be errors in dress, overexertion, or too frequent intercourse after marriage, which may or may not result in frequent child-bearing, miscarriage or abortion. Of the latter Dr. Stockham says: "It is the undesired and undesigned maternity that is revolting to the nature of woman. As long as men feel that they have a right to indulgence of the passions under law, no matter what the circumstances, what the condition of the wife, or the probabilities of maternity, so long will the spirit of rebellion take possession of women and the temptation enter their souls to relieve themselves of this unsought burden." And Dr. Delos F. Wilcox says: "What is to be said for the man who, for the sake of his individual satisfaction, or even for the sake of some slight increment of health, would pile his burdens upon the back of a woman already loaded down with the pains and dangers of menstruation, pregnancy and child-bearing? What is to be said of the young fellow who has wasted himself until, to alleviate his condition, he marries a healthy girl to shift upon

her and a family of children as much as he can of the penalties of his indiscretion? What is to be said of the rugged husband who, for the sake of his 'health,' compels his wife to choose between chronic pregnancy and the discomforts, dangers and moral deadening attendant upon abortion and the use of expedients to prevent conception? The doctrine of man's 'necessity' was born of sensual indulgence, and is perpetuated by self-deception and overweening selfishness."

There is another affliction, too, that comes from husbands who have indulged in indiscriminate intercourse. Many so-called womb disorders are but the result of impurity brought by husbands to wives whose amateness cannot satisfy the demands made upon them.

Dr. W. P. Gray, writing to *The Medical Brief*, says: "I can never treat a case of syphilis, whether of recent or constitutional form, without feelings of horror and regret. If the disease could be confined to the real guilty violator of the sexual laws of chastity it would not have such a destructive and contaminating influence on innocent motherhood and offspring.

"I know a beautiful young woman, as pure as gold, who was wooed and won to the companionship of a syphilitic husband, only to give birth to a blasted child; both mother and child finally succumbed to this terrible disease of rottenness and filth.

" * * * Why not require physicians to register such cases the same as any other contagious disease by contact or exposure?"

"Even castration by law would not be too severe a punishment to such diseased persons who would marry other and innocent persons to spread and contaminate them with this loathsome disease."

Like should mate with like. An impure woman should not impose upon a pure man; vice versa. The status in the mind of each can be determined before marriage by following the suggestion of Delos F. Wilcox, Ph. D., who says: "No marriage has the promise of success unless the lovers are so conscious of the responsibility of the relation and so trustful of each other as to be willing to ignore the barriers of so-called propriety and reach an explicit understanding regarding the relations which shall obtain between them after marriage. The frank discussion of the sex-life and the duties of parenthood forms only the bare essential of the free communications of courtship."

Of course, the relation cannot be entirely understood before marriage, but all possible light on the laws of nature (which are the laws of God) will prevent a ruinous exhaustion of their life-forces in the bonds of wedlock.

Leucorrhœa.

A very common ailment of women is that known as leucorrhœa, whites, or catarrh of the uterus or vagina. In health the mucous membrane of the uterus and vagina is always kept moist by its own secretion. When this mucous fluid is secreted in too great quantities it is the condition called leucorrhœa. The discharge presents various shades and consistency. Physicians are able to tell from the nature of the discharge whether it comes from the vagina or uterus. When from the vagina it is generally a light creamy-looking fluid; that from the neck of the uterus is a tenacious, albuminous fluid and rather copious; from the lining membrane of the uterus the discharge is of an alkaline reaction, profuse, and generally precedes and follows menstruation; in ulceration of

the mouth of the womb the discharge is profuse and semi-purulent. The disease is not usually accompanied by pain, but is never long-continued without producing derangement of the general health through exhaustion. The constant drain will, if not checked, result in nervous irritability, hysteria, difficult respiration, uterine derangement, and even consumption.

Greatest attention to cleanliness must be observed. Every young woman who has had a menstrual flow should be taught the use of the vaginal tube of the syringe. A syringe is as necessary an article of the toilet as soap, towels, combs and brushes. If it is "against nature" to use the syringe, the same argument holds in the use of the other articles human-kind has invented according to its needs.

Mr. Edward B. Warman, in the *Ladies' Home Journal*, said: "Internal baths when properly taken are often more essential than external baths. The four avenues of elimination must remain unobstructed if perfect health is to be obtained or retained."

The vaginal douche should be a part of the daily bath, and flushing the colon should occur twice or three times a week before retiring. The odor of the bowel passages should be an argument to persons of ordinary intelligence for giving the lower bowel a regular bath. As a prophylactic no one item of care of the person will tell more strongly for health.

For the cure of leucorrhœa hygienic regulations must be observed. If the urine is scalding, drink flaxseed tea or an infusion of marshmallow root. As a vaginal injection use twice a day one ounce of the following in a pint of lukewarm water:

White fluid hydrastics, 2 ounces.

Borax, $\frac{1}{2}$ ounce.

Distilled witch hazel extract, 1 pint.

Inflammation may affect any or all parts of the generative system; it is the more serious when all are involved, of course. It is *ovaritis* when the ovaries are inflamed; *salpingitis* when the Fallopian tubes are inflamed; *metritis* when the uterus is wholly inflamed; *vaginitis* when the vagina is inflamed. The disorder is the same in greater or less degree, and the symptoms are much the same, varying only in location. There are stinging, burning sensations, sometimes sharp flitting pains, a swelling and tenderness of the affected part; chill, followed by fever, may be the first symptom of the ailment, and headache a constant attendant. When any degree of inflammation becomes chronic the nervous system is more or less deranged in sympathy.

Severe cases will call for medical attendance, as there are dangers from complications. Mild cases are relieved by first flushing the colon. The lower bowel should first be emptied of the impacted fæces; then the colon be filled with hot water. This relieves the congestion on three sides of the generative system. (Notice the position of the ascending, transverse and descending sections of the colon.) It should be retained as long as possible. One quart of water may be retained at first; at other treatments the quantity may be increased.

Quietude in bed is essential; apply a stimulating liniment over the abdomen and use a hot-water bottle to the feet. This equalizes the circulation.

Where the vaginal canal is inflamed, as it may be from too frequent or too violent intercourse, or from the use of pessaries, the hot water injections must be used to the vagina. A continuous stream of hot water will drive the blood from the parts and for the time relieve the inflammation. Remove the cause, cleanse the bowels regularly, and if the vaginal dis-

charge is offensive add a few drops of myrrh to the vaginal injection, which should be used at least twice daily.

Displacement of the Uterus.

Displacements of the uterus are rather tedious to cure, but the chief ingredient to that end is a sincere desire of the sufferer to be cured. There is no remedy taken internally that will cure displacements. Rest and a simple diet, with exercises for strengthening the abdominal muscles, are the means of cure.

The different uterine displacements are known as prolapsus, retroversion, anteversion, and the flexions, or where the uterus bends upon itself.

The uterus is supported by eight ligaments and by the muscular strength of the vaginal walls. When all of these supports yield there is prolapsus or falling of the womb, when the organ descends into the vagina, and often through the valva, and becomes external. The relaxation of the uterine supports is, of course, due to debility from some cause. Often the cause is found to be in a too early getting up after tedious or severe labor, when the parts have been very much weakened or lacerated.

The cure will consist in occupying at night a bed elevated at the foot at least eight inches higher than the head. Rest during the day at least an hour in the morning and an hour in the afternoon, with the feet and hips elevated. This may be effected by placing an inverted chair upon the bed or lounge, making it comfortable by means of padding with pillows or bed covers. This uses the law of gravitation to replace the uterus. Avoid any heavy labor when upon the feet. While in the lying position practice waist breathing, as by that means

the abdominal muscles are exercised. Dr. G. R. Taylor, treating upon this subject, says: "Increase the pump-like action of the chest, and it will be found that the displaced pelvic viscera will return to their normal position."

Is it necessary to remind any woman who has suffered from falling of the womb not to wear corsets, heavy skirts, etc., to press the viscera out of position again? One who wants to be cured and *stay* cured will not repeat the aggravating causes.

Astringent vaginal washes assist in restoring tone to the vaginal muscles, and are much used in the treatment of this disorder. The following is good: Use as an injection twice daily a pint of tepid water in which has been dissolved one and a half teaspoonfuls of powdered alum. Always in using medicated washes the parts should first be cleansed of unhealthy discharges.

In retroversion the uterus is turned or bent backwards; pain resulting from this displacement will be a prolonged and sickening ache in the lower part of the back. The position of the uterus will aggravate any tendency to constipation. Here the flushing treatment will be especially valuable in that it cleanses the colon, and by the dilation of its walls with water tends to push the uterus back to position. The chest-and-knee position favors a return of the organ to place. The patient kneels upon the knees and chest so that the hips are highest. When the organ is returned to position she must then practice the same methods as for curing prolapsus.

In anteversion the body of the uterus is thrown forward against the bladder. There is a sense of fullness in the pelvis, of weight and bearing down, accompanied by pain in the rectum and perineum; frequent desire to pass water, and partial

inability to do so. The uterus can be returned to position by resting upon the back with hips elevated, and by using the same treatment as for prolapsus.

In any female disease the return to health is greatly assisted by cheerfulness, mental activity, deep breathing, bathing and friction of the skin, and the internal bath.

Ulceration.

Ulceration is usually to be seen at the neck of the uterus or on the lining membrane, and is induced by impurity of the blood determining to a weakly uterus. It may be of scrofulous or syphilitic origin, or other less virulent impurity may induce it. It is attended with an offensive discharge, and there is much stinging pain in that region. Inflammation always attends ulceration, so the treatment is as in that disorder. The impurity in the blood may be assisted out of the body through vapor baths, pure food without stimulating drinks, flushing the colon, and by taking a blood purifier such as the following:

Yellow dock, $\frac{1}{2}$ pound.

Bittersweet bark, $\frac{1}{4}$ pound.

Figwort, 2 ounces.

American ivy bark, 2 ounces.

Grind together and macerate for forty-eight hours in one pint each of alcohol and water. Strain and sugar to make two quarts. Dose—One or two teaspoonfuls after meals.

Ulceration of the womb may lead to cancer, which is a malady hard to overcome.

Intercourse should be avoided. Disease may be imparted to the male, and excitation is bad for the female suffering from this complaint.

Abscesses, tumors, dropsy and cancer will require skilled treatment.

The Menopause, or "Change of Life."

Any disease of whatever nature can be greatly modified by hygienic regulations, by keeping the four eliminative processes active, by free, untrammelled dress, pure food, pure water and pure air in abundance.

Women who have pinned their faith to the doctors and medicine alone will be found to be dragging through many years of invalidism, with physicians' fees preponderating.

The best cure for any disorder is in its prevention. Therefore, be moderate in all things.

The menopause cannot properly be classified as a disease any more than pregnancy or menstruation. It comes when the childbearing period is at an end. One writer says: "Ordinarily all the sufferings and ailments incident to this period can be accounted for from some ovarious or uterine disease, dyspepsia, or other deviation from health. Irritation or congestion of the ovaries, more than any other cause, decides the numerous symptoms of the climacteric."

The childbearing period lasts from thirty to thirty-five years normally. It is sometimes prolonged beyond that time, sometimes cut short.

The beginning of the menopause is marked by irregularity in menstruation. The periods may be absent for several months, or there may be frequent and profuse flowing. In

some women these conditions alternate. The irregularity continues on an average of three years. Some of the pathological conditions of the change of life are hot flashes, chill, profuse perspiration, capricious appetite, heartburn, sleeplessness, pain at the base of the brain and down the spine. Uterine hemorrhage sometimes occurs, and tumors, cancer, polypi, etc., are of more frequent occurrence than at any other period of life.

Knowing that this is a critical period of life, women approaching the menopause should prepare to give the body necessary attention, while not allowing the mind to dwell too continually upon self. The system should be fortified with nutritious food and the four eliminating avenues kept in activity. If internal cleansings have not been the rule, they should be begun and adhered to during the change.

For hot flashes, heartburn and sleeplessness disordered digestion will be found to be the cause, in which case use the stomach bath every morning before eating. This consists of drinking a pint of water as hot as can be taken. Hot air baths are especially valuable during this period; by this means the millions of pores of the skin will bear outward much impurity which will cause painful manifestation if left in the system. Fleshy women can hardly use water too freely; thin persons should be more sparing.

At puberty the ovaries enlarge; so when menstruation ceases and the organs no longer have so much work to do they shrink and become small. The uterus diminishes in size, likewise the vagina and mammary glands. But a woman can be just as healthy at the menopause as she was at puberty, and be more sweet and feminine and more truly enjoy life than in girlhood.

When menstruation is encouraged as long as possible, the tendency to uterine growths is materially lessened. It is

also preferable that there be little or no intercourse during the change, to avoid congestion of the parts.

Sometimes the secretions from the uterus and vagina are acrid and cause external soreness, in which case a little borax or baking soda should be added to the water for vaginal irrigation. A compress over the abdomen at night will reduce the temperature where there is congestion.

Finally, keep your soul youthful by keeping abreast of the times and thinking and planning to be well. As Prentice Mulford says: "If you expect to grow old and keep in your mind an image or construction of yourself as old and decrepit, you will assuredly be so."

PART IV.

HEALTH AND HYGIENE

PRACTICAL LESSONS FROM A COMMON-SENSE
SCHOOL OF MEDICAL SCIENCE.

“An ounce of prevention is worth a pound of cure.”

PART IV.

CHAPTER I.

The Relation of Health to Beauty.

EVERY woman has the very natural desire to be attractive, and "how to become beautiful" is a question much discussed in books and magazines at present. While every woman may not have regular features or the special color of eyes and hair that she most admires,—she *can* have the beauty that perfect health always brings, and it is to show you how to retain this precious possession that the following illustrations have been made.

Every woman who buys a sewing machine thinks it quite worth her while to learn how to run it, so as to produce the best possible results. But how few women spend as much time studying their own bodies—these wonderful machines that have been given us, and that so easily get out of order when their owners do not give them proper care and attention.

Good digestion and good circulation bring a beauty which does not fade, and a healthy mind and body are the true essentials of, and do more for a woman's happiness than anything else can.

First, I want you to see where some of the most important organs of the body lie, and how easily their functions can be disturbed by tight lacing.

In the frontispiece you will notice, the liver and stomach are underneath the ribs and somewhat protected by them from any undue pressure. The kidneys are just below and behind. Over to the right is the vermiform appendix, which may cause so much trouble if at all crowded.

To the left is a portion of the large intestine going down.

You will notice it ends in the rectum after the turn low down on the left side. In front of the rectum is the uterus, and in front of that is the bladder. All the other space is filled with the small intestine. The results of too tight lacing are clearly shown in Plate 1.

Compare this with the frontispiece and you will see quickly the disordered condition described in Plate 1. Remember the organs have got to go somewhere, and whenever the waist is too small, some organs have to go up and some down and get wedged in together in such a way that they cannot act. Remember, besides these organs shown there are several feet of small intestine, which also wishes to have a little room.

A woman who laces tightly cannot bear a healthy child, and her foolish belief that such a distorted figure as she manages to produce is beautiful, leads to much suffering.

Exercise is the key to the situation, for no woman can walk well or become proficient in any of the present fashionable forms of exercise unless she dresses properly and allows her body plenty of freedom. I do not advocate slouchy dressing, for neatness and trimness need not mean harmful lacing.

Constipation is one of the most common evils from which women suffer, and if allowed to continue it ruins any complexion.

To be healthy, the bowels should move at least once a day, and regularity is one of the best safeguards against constipation. Go to the closet at a certain time each day—say within half an hour after breakfast, and you can soon establish the habit of regularity, unless there is some cause which needs a physician's attention. The bowels soon accustom themselves to continued doses of medicine and after a time will refuse to act without some purgative. The only safe procedure unless you act under the advice of a physician, is an enema. For this take a quart of warm water as near the temperature of the body as possible, add six or eight drops of glycerine and then make a soapsuds, *using any good clean soap*, preferably, pure Castile. Lying on left side is position in which to take an enema. Plate 2 shows the position and the various turns of the large

intestine after leaving the rectum, and a comparison of this with Plate 1 will show at once why an enema is more effective in the reclining position suggested than in the upright position usually assumed. The water cannot be forced far enough up in the bowels to be effectual unless the patient is in a reclining position on the left side. The glycerine used, prevents the very delicate membrane lining the bowels from becoming irritated by the water. A glass of water regularly taken just before retiring and another before breakfast (hot water preferred) will aid much in curing constipation.

Plate 3 shows you the pelvic cavity as if you were looking down on it from above with the organs in their normal condition, and giving you an idea of their relative positions. You will notice that the uterus—or womb, as it is often called—in its healthy state leans forward toward the bladder, which is the natural position. It should not tip back.

In the abnormal condition referred to the uterus is tipped back and lies against the rectum, thus partially closing the large intestine and forming one of the common causes of constipation as well as the source of the dreadful backaches that etch lines in so many women's faces.

To elevate the uterus and keep it in its proper place, the knee and chest position, as it is called, is recommended by many good physicians. Get down on knees and chest, then inhale long, slow, deep breaths, exhaling as slowly. This breathing exercise in this position inflates the vagina and serves to push the uterus up and forward into place. You cannot keep this position but one or two minutes at first, but gradually extend the time to three or four minutes. This treatment taken faithfully both night and morning will soon keep the organ in proper position.

Plate 4 shows you a normal uterus, with its usual appendages. The Fallopian tubes branch off on each side, and with the Broad Ligaments hold the ovaries in place. The Round Ligaments come out from the uterus and extend to the abdominal wall. The Round Ligaments hold the

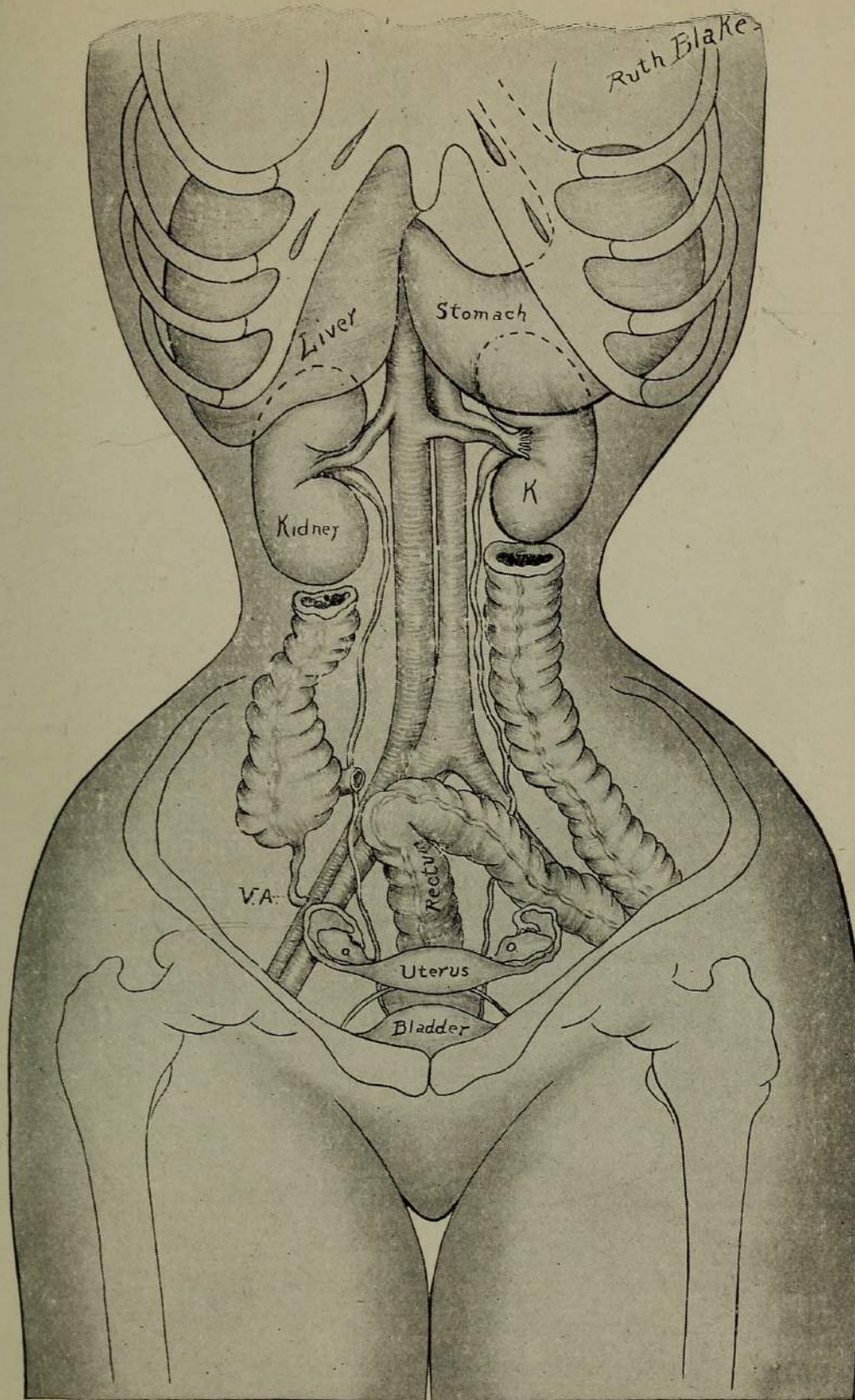


Plate 1

A TIGHTLY CORSETED FIGURE.

Showing the crowded condition and displacement of some of the important organs.

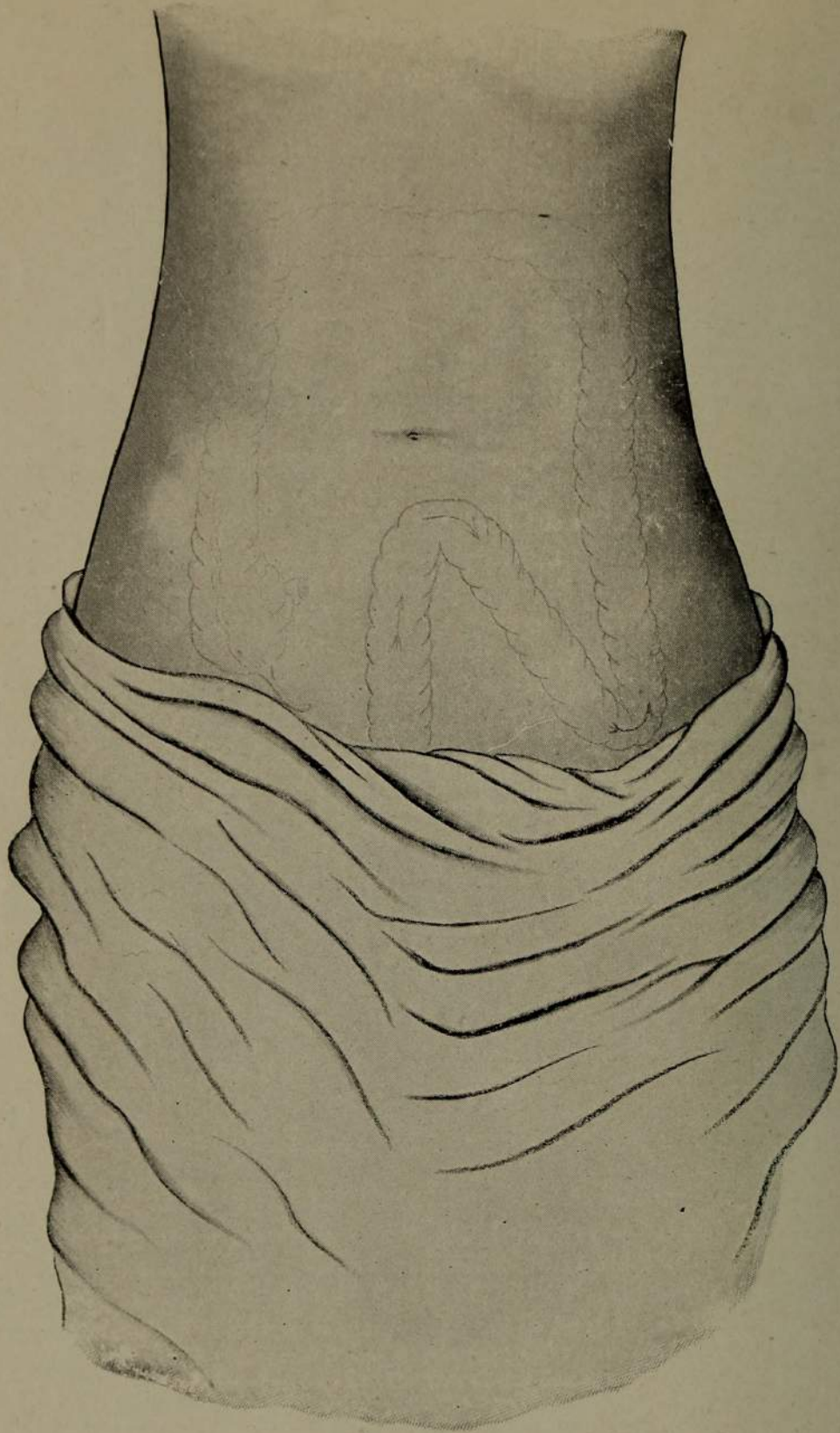


Plate 2

OUTLINE OF THE LARGE INTESTINE.

Arrows show direction of water when taking an enema.

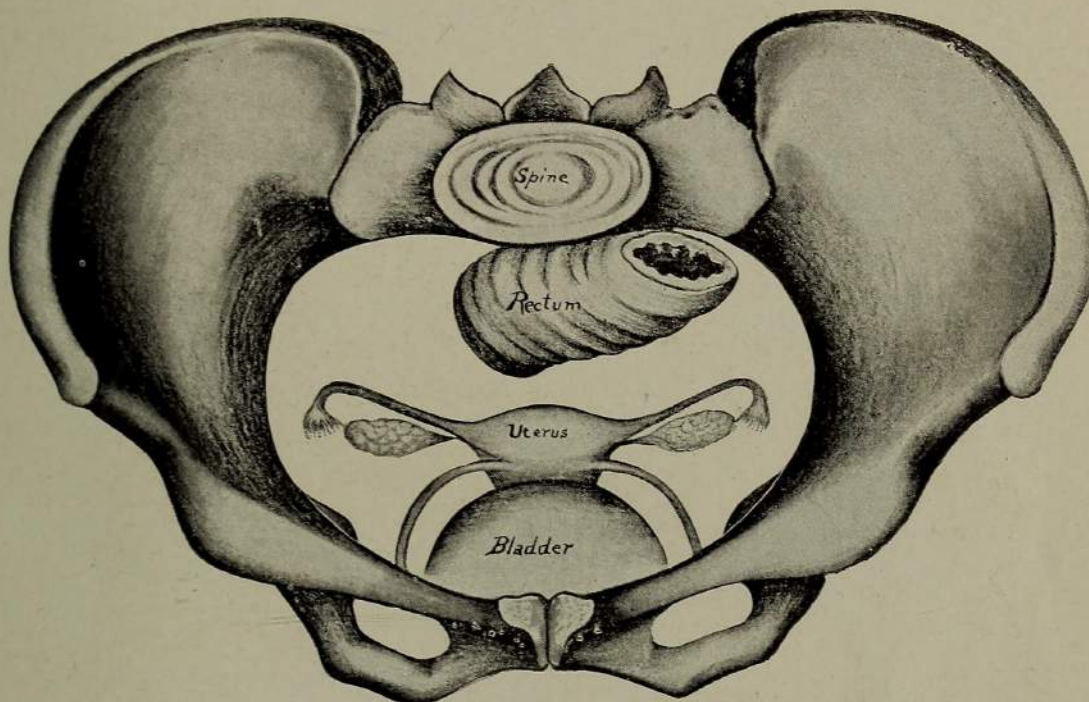


Plate 3

SECTION OF BODY, LOOKING FROM ABOVE.
Showing correct position and place of three important organs.

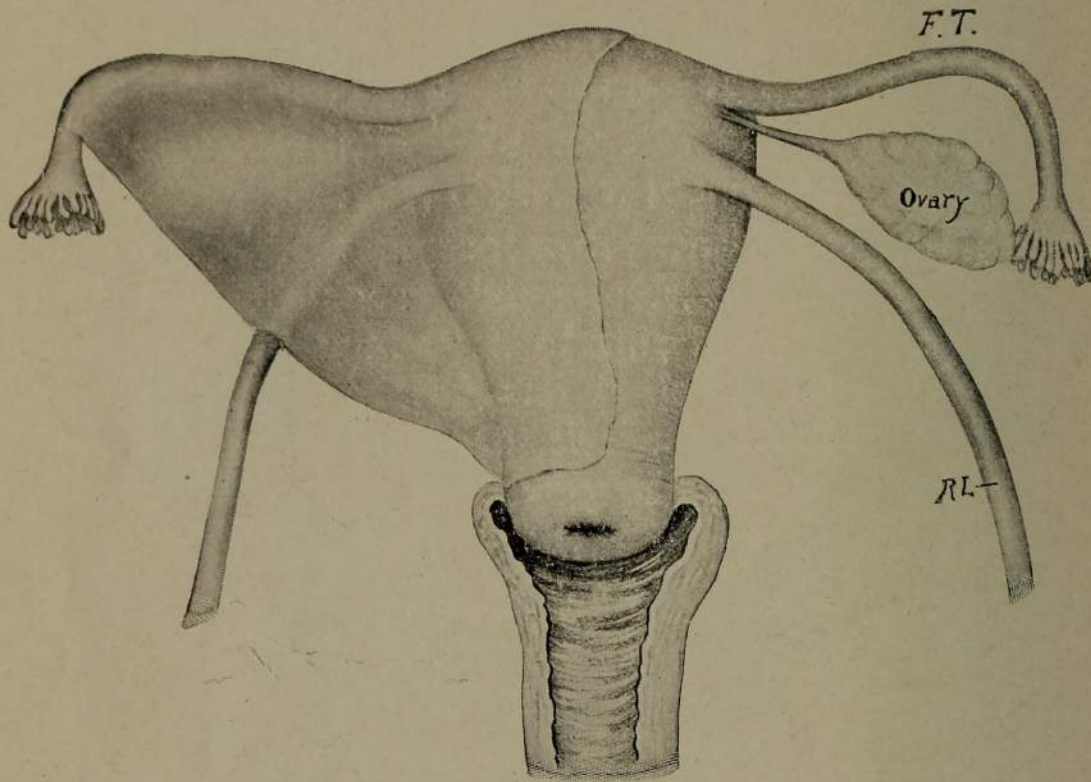


Plate 4

NORMAL UTERUS, OR WOMB, WITH ITS APPENDAGES.

F. T., Fallopian Tube. R. L., Round Ligament.

uterus over toward the front in its normal position. When the uterus drops back, these ligaments have to stretch out until the strain is severe.

In conclusion I cannot urge too strongly the importance of cleanliness, and let me advise you in the words of the photographer, "look pleasant." Cultivate a cheerful spirit, take such sensible care of your mind and body that they will be sound and healthy and the very best kind of beauty, the kind that lasts, will be yours and your offspring's.

RUTH BLAKE.

CHAPTER II.

Long Life Not a Secret.

THE length of life allotted to man, as mentioned in the Scriptures and usually accepted as established, is seventy years. But this is not irrevocable, for few of the many born live to that age, and many live beyond. This particular age has only been hit upon as a sort of average; strictly it is not even that, as so many children die under five years of age. But it is the period which every healthily born, normal being should reach, if no violence befall him. Scientists, who measure longevity by the various epochs in our growth and decline, declare that a century is the normal duration of man's existence on earth. But really the length of life cannot as yet be estimated, for we do not know to what extent we may be able to preserve our powers, nor how much we may accomplish by using our universal life forces to renew our energies. As long as the waste of life does not exceed the renewing process, we may live and exercise all our faculties. With a good constitution, no heritage of bad traits or weakness, an obedience to the laws of health and happiness, there is no need of placing a limit to the length of man's earthly existence. There should be time enough to develop one's capabilities, time enough to acquire a knowledge of earth's resources, time enough to exhaust the range of earthly experiences.

Rational Methods of Living.

To be able to live a long, useful and happy life, one must study rational methods of living. The best and most reasonable process of preserving strength and health should be made part of the general education. From trustworthy statistics it is ascertained that man, at the present time, reaches the zenith of his mental and physical powers between the ages of fifty-six and sixty-five. If he understands the laws of life he should not deteriorate for thirty or forty years. It is known, too, that he need not lose any mechanical skill or artistic ability he may have acquired until long past the term of life which has been accorded him as his limit.

Michael Angelo was still giving to the world samples of his finest work at eighty-eight. Milton, lacking one sense by which men enrich their powers, did his best work at the age of fifty-seven, while Johnson manifested his highest abilities at seventy-two. In looking over the dates at which our greatest scientists and philosophers have achieved their best tasks, we see that they were at their height a long time past what is usually considered middle age. Darwin was sixty-two years old when his last, best work was finished; Spencer, beyond the three score years and ten, was still the greatest philosopher the world has ever known; Gladstone, Bismarck and many another gladiator in the great sociological arena gave proof of their unflinching vigor after the four-score year-mark was attained. Leo XIII. at more than four score and ten was not only the efficient head of the Roman church, but a marvel of physical, mental and intellectual activity. The long active lives of these men prove that our faculties need not fail us with the flight of time. Simple living, high mental and moral aspirations, lively interest in and keen sympathy with the movements of humanity, will preserve the freshness and vital-

ity of youth down to the last days of a well spent century. We waste too much energy in our younger days, needlessly and uselessly. When men and women do not do this, they find that they possess a sufficient energy for emergencies even in advanced old age. Nearly all nervous waste is avoidable. Over-work, over-eating, dissipation, unnecessary exposures and insufficient nourishment wear out the vital forces and decrease the energies which ought to carry existence further on. Idleness, inertness, lack of proper ambition, dull our faculties and leave us rusting away. Excessive exercise apparently strengthens for the time, but generally does so at the expense of one's vitality. Trained athletes do not often reach the age of sixty, the nervous force being diminished by too rigorous exercise in youth.

During the civil war, observation proved that those soldiers could best bear the hardships of war, such as exposure to cold and wet, fatigue, lack of sleep, hunger, etc., who had lived moderate lives, enjoyed some leisure, good food and comfortable surroundings. These were found among the middle classes, the denizens of cities and villages. Men raised on farms, men accustomed to hard labor from childhood, work-hands from mills and mines, for all their apparent robustness, succumbed more quickly and in larger numbers to the privations of military life. Their stores of vital force had been impaired by the reckless drafts made upon them in earlier life.

The foundation of a long and happy life must be laid at the beginning, indeed it should be based on the lines of several generations behind us, for a great deal depends on the physical and mental attributes of our ancestors. We should, then, understand that we can economize our vital energies, and that the length and usefulness of our years are in our own keeping.

If we study into the secrets of life, and are valiant and strong enough to thoroughly control our habits, our appetites and desires, if we determine to be more the master than the creature of circumstances, we may govern the term of life as well as the manner of it.

Nature and the Will.

It is wrong to be sick, ailing, inadequate for the activities of human existence. Much depends upon what we will to be, and on our will being in accordance with the laws of nature. Nature always resists disease, and goes about her work of healing as soon as conditions will permit. A calm, well balanced frame of mind, the needful rest, the right amount of nourishment, pure air and cleanliness will almost always insure speedy recovery if no organ of the body is seriously wasted or injured. Medicine alone does not cure. It may bring the organism into a condition wherein the healing process may proceed; it may banish the consciousness of pain which may be so intense as to interfere with the restoring work of Nature—though pain itself is an evidence of Nature's endeavors to cure—but it cannot do the work itself. The flow of life forces accomplishes that.

We must learn to live naturally if we would make the most and best of ourselves. We should eat simple food—that which a normal appetite most desires—and we should eat in moderation, never greedily or hastily. We should sleep as much as nature seems to demand, and no more. We should breathe correctly, in a way which experience and observation prove are most conducive to health and strength—therefore most natural. We must labor and exercise enough each day to keep our living machinery in good order; *we must keep our bodies clean*; we must wear such clothing and live under such

shelter as reason and experience convince us are best for our welfare. We must feel kindly toward all mankind, and we must dwell upon the most hopeful and promising aspects of our external conditions, keep cheerful and avoid all needless worry, anxiety, or feelings of anger, jealousy or revenge.

An indulgence of acquired appetites or inherited abnormal tastes has a tendency to shorten life. But the natural, healthy man may satisfy his ordinary appetites as he will and feel no evil effects. A person starting out with a strong constitution, living under favorable conditions, may live to a hearty old age and tell us that he has followed no special rules in eating, drinking, exercising and resting, but has trusted to the instinctive demands of his nature. Where nothing had ever come to pervert the appetites and desires, these could be depended upon. In a case of this kind, it would probably be discovered that the habits and mode of life were those which the combined wisdom of all the past and present pronounce helpful and natural.

Those who have lived wholesome, natural lives for a number of years, find, when the emergency arises, that they can endure a season of hardships better than one who has weakened his constitution either by over-indulgence or by over-work and insufficient or unwholesome food. Such a one can face the influence of an unhealthful climate, of poor food and unusual exertion, without being appalled. His reserved strength and vitality, especially if he brings a brave demeanor and a cheerful, determined mind to bear upon the situation, will carry him through any ordinary trial. The one who habitually lives according to Nature's laws, may, if he brings a peaceful, confident mind to the occasion, safely eat bad food or none, for a time, endure cold and wet and hard work, and suffer little or not at all.

People do live under conditions which are startlingly unfavorable up to and past middle age. They astonish others by the great amount of work they perform, by the little sleep they take, by the coarse food upon which they manage to subsist; they seem hardy and tough, but a sudden collapse is sure to come before the time allotted for a natural life. They have lived on their capital of health and strength, and suddenly they meet the appalling realization that they are bankrupt. They can make no assignment and begin over, for each individual possesses only his own portion of vital power. When once destroyed or wasted it cannot be restored.

True it is that economic conditions at present do not allow men and women to live as they should. The majority of people work too hard and are forced to subsist on too little; they have no means of cultivating their mental and moral natures; they breathe poisoned air, and they cannot keep their clothes and their bodies clean. But in Nature's domain there is no real lack. She furnishes food in abundance in return for a little labor; she affords fresh, pure air, earth space, beauty, joy. Only through man's bad management is there an apparent lack of any of these things, for never has humanity pressed too closely upon her bounteous resources. Man can restore the equilibrium of demand and supply if he will. If the minds of the people everywhere will comprehend that each and every one has the right of access to Nature's gifts, and that such restoration must and shall be made, *it will be done*. How, this is not the time to try to tell. Thought force has accomplished all that civilization boasts of today. It can accomplish much more if directed right.

Too much luxury and too little work are as bad as want and too much toil. The rich man or woman who has only to conjure up a new sensation, new appetites to gratify, is no nearer

health and true happiness than the toiler whose products he enjoys. The out-of-work man who is denied a chance to labor has even a better show, for he lives close to Nature, because he must.

Making the Best of Life.

But every one can make the very *best* of his opportunities. He may believe that life is not so full of happiness that he cares to prolong it, but he should remember this: that while he lives he will enjoy more happiness and confer much more happiness on others if he is well and cheerful and in possession of all his faculties unimpaired. There was once a time when it was considered commendable to be sick; it indicated delicacy, and called forth the active sympathies of friends to the extent that an invalid was quite a sovereign in a household. But we know today there is nothing honorable in being sick. Indeed it is something to be ashamed of; for willingly or unwillingly, knowingly or ignorantly, some of Nature's laws have been broken, and one is paying the penalty. We have no right to inflict ourselves helpless, weak and despondent upon our fellow beings, if we can possibly avoid it. Still, if one must be ill, it does not better matters to pine and lament that one must be a burden. Receive the loving care of friends cheerfully and frankly, and encourage them by your own lightheartedness in accepting the situation. The world is beginning to acknowledge that one's greatest happiness is found in what one bestows upon others, not in what one takes from them. And the good one can do, the happiness that may be conferred upon others, the peace we may ourselves know in the course of a long, active, wholesome life are incalculable. To live rationally, to preserve all the faculties at their best, down to the last, is worthy of one's best and highest endeavors.

The young are usually happy in their very inexperience. The vital forces pulse through their veins with the delightful spring of youth, and their spirits bound with eagerness and anticipations of the beautiful, untried world before them. The older people should find happiness in sympathizing with and sharing their pleasures; they should know how to direct and restrain amiably and agreeably, and to give them the benefits of their richer experience without autocratically reproaching them for their ignorance and heedless errors. A natural leader will be willingly followed, while a domineering ruler will arouse feelings of resentment and rebellion. One who is dogmatic in giving instructions concerning eating, drinking and physical exercise is seldom heeded. Courteous, kindly suggestions are wiser and more effectual.

One may determine early in life to keep young in feeling, interests and sympathies, and if these resolutions are firmly adhered to, until the *habit* of cheerfulness is well established, others will never remember that he or she is growing old. Women have preserved their loveliness and attractiveness until past the age of eighty; and men have drawn about them the brightest minds of their day, all eager to listen to the rich and lofty sentiments of well stored minds, until the last years of a century of useful life closed upon them. These enviable characters have ever been genial, simple in their tastes and habits, sympathetic, progressive. Their minds are never allowed to ossify, nor their bodies to decay. To show what women may be throughout a long, lovely life, we give this illustration:

Jane Clermont, that beautiful woman beloved by Byron and adored by Shelley, died not far from ninety years of age. Her eyes, her figure, her color and teeth remained perfect, her abundant hair, whitened by the years, only made her the

lovelier, and she was charming in her manners always. Throughout her long life she invariably ate sparingly, and only simple foods, and she went out every day; above all, she always maintained a keen interest in youthful persons, and delighted in fresh and fine thoughts, whether they were expressed in books or conversation. Indeed, she was to the very last a most fascinating companion for both the young and the mature. It never occurred to those about her that she was not as young as they. Her society was so eagerly sought that she was compelled to deny herself daily to an access of visitors who were anxious to enjoy her brilliant conversation, infectious laughter and graceful personality. She always reserved an hour in every day for solitude and absolute repose of mind and body.

PART IV.

CHAPTER III.

“Breath is Life.”

“**A**ND He breathed into his nostrils the breath of life; and man became a living soul.”

Breath is life. To breathe is to live, and all things that live breathe inwardly the great living forces of the universe, and outwardly the matter that has done its work and is sent back into the great reservoir of life to be renewed. The trees and plants take in the gracious air, the very earth breathes, and the ocean swells and subsides in rhythmic movements. To know how to breathe in the fullest sense is to be well and happy and strong.

People who live close to Nature breathe more correctly and are less liable to disease than the civilized who have not learned that true enlightenment takes us back again to Nature's methods. The North American Indians habitually “keep their mouths shut,” and are therefore among the hardest races in the world. They breathe deeply and *fill* their lungs with every breath; and health and strength flow in with the pure air they absorb.

Correct Breathing the Basis of Bodily Health.

We possess a proper organ for breathing, and it should be used. The mouth was never intended for that purpose, and incalculable evils result from this misuse of it. It has been found that Nature provides an arrangement of fibers for

straining the air before it is permitted to touch the sensitive linings of the head passages, throat and lungs. These fibers grow inward toward one another and prevent the entrance of the minute, invisible enemies to health which seek to find lodgement in our bodies. The natural warmth of the nose moderates the temperature of the air in cold weather, and is in every way so finely constructed for its purpose that in its proper use health and a long life may be secured with little aid from drugs or other outside props and supports.

The people of the East believe they can solve the secrets of life and learn to control all matter by learning to breathe aright. The Yogi breathing is a part of a course of discipline by which the "adepts" attain their mastery over natural forces. Their peculiar breathing exercises are practiced daily; they can send the breath to any part of the body, and bring about such effects as they will. They believe that there is more in common air than a mere combination of oxygen, hydrogen and nitrogen; that by rhythmical breathing one brings himself into harmonious vibrations with the higher powers, and the essence of life itself can be grasped. They can, by a long course of breathing exercises, banish sickness, sorrow, evil and despondency, and can control, in time, not only themselves, but matter and the forces by which matter is moved. A number of people in this country have taken up the study and practice of Yogi breathing, with, they claim, remarkable results.

A prominent physician has written a large book on correct breathing. He claims that on the manner of breathing depend not only our health, strength and happiness, but our morals, our spiritual growth, our powers of self-control, even the duration of life as far as we will to live. All the universe vibrates, and if we would be attuned to its higher forces, we must learn to vibrate, through breathing, harmoniously with their vibrations.

Whether true or not that all may be gained which the occults claim, it can be demonstrated that correct breathing is the basis of healthy living. George Catlin, who spent thirty years among the North American Indians and knows probably more about the habits and customs of aboriginal tribes than any other man living, says that civilized man owes to his unnatural modes of breathing the readiness with which he contracts all kinds of contagious diseases. He has written a work entitled, "Shut Your Mouth and Save Your Life." He says in this book that, ignorant as the squaw mother is of what constitutes the knowledge pertaining to civilization, she seems to know intuitively that the nose is a protection to the delicate inner passages, and should be used to breathe through. The first discipline of the little pappoose is to prevent the lazy drooping of the lips, and to compel it to breathe through the nostrils. She tips the head forward and covers the mouth when the child is asleep, and gives him instructions as soon as he is old enough to understand.

The majority of contagious diseases, as well as colds, catarrah and malarial affections, may be avoided to a great extent by keeping the mouth closed whenever it is necessary to inhale impure air. People should not talk in an atmosphere freighted with impurities, or when its temperature is very low. They should not only breathe through the nostrils, but should overcome any habit of allowing the lips to drop apart, for it allows a ready ingress for microbes or poisonous or foreign atoms which may be floating in the air, especially where dust is flying about. It affects the expression of the face, unpleasantly suggesting ill-breeding or an intellectual lack of some kind.

Breathing through the mouth is most dangerous at night when noxious gases most abound, and there is no sunlight to

dispel them; cold is felt more keenly at that time and the dampness is more irritating. If the determined will is not sufficient to insure correct breathing through the hours of sleep, a pillow should be arranged so as to tip the head forward, or a bandage placed over the mouth. A thorough course of self-discipline may be necessary to fix the habit of correct breathing, especially if there is an inherited tendency, strengthened by custom, to breathe carelessly with the mouth open. But the effort will be well worth while for the added health, beauty and vitality acquired. It has been ascertained by the observation and experience of army and navy officers that men who habitually sleep with the mouth open are much more subject to contagious diseases than those who do not. Indeed, in one instance, where a man-of-war was stationed near a far-away coast, and the small-pox became epidemic, only the sailors who had never been trained to shut the lips in breathing succumbed to the disease.

Correct Breathing.

Deep and regular breathing promotes good health, and is a strengthener for the weak. It expands the lungs and fills out the chest, while more oxygen and ozone are carried into the body. Short, gasping, uneven breaths are hurtful; they keep the nerves in a tumult, and keep up a discord in the system. The organism cannot adjust itself to spasmodic breathing, and the calm, confident poise so necessary to good health and happiness cannot be attained. Adepts in breathing attach great importance to *regular* respiration.

By breathing slowly, evenly and deeply for twenty minutes or half an hour, when one feels the symptoms of a severe cold coming on, an attack of pleurisy, congestion of the lungs, or even pneumonia, may be entirely thrown off. One should

sit comfortably in a reclining chair, the shoulders well back, the hands folded in the lap, the muscles of the limbs wholly relaxed; one should then inhale deeply, slowly, through the nose, and exhale in the same manner, at regular intervals. The air should be as pure and fresh as it is possible to obtain, and not warmer or much colder than 68 degrees. The lungs will, by this exercise, be able to clear themselves of foreign matter, and the muscles of the chest regain their flexibility. This is one of Nature's remedies, and, when her laws have not been too violently entrenched upon, is the best of cures.

A fine exercise for the preservation of health and the gaining of additional vigor is to fill the lungs with fresh air every morning and evening in this manner: Stand erect, with the heels together and the toes pointing outward. the knees stiff and the arms hanging with inclosed hands close to the side. The shoulders should be thrown back as far as possible, the chin held up to stretch the neck, and the lips should be firmly closed. In this position, raise the body slowly upon the toes, inhaling deliberately; maintain the attitude as long as it is not uncomfortable, then slowly sink and exhale the breath. Do this once more by standing on the right foot alone, then the left. This exercise includes but three long breaths, which are perhaps sufficient for beginners. As one grows more accustomed to it, the exercise may be repeated three or four times. An Indian might run a mile, or a denizen of the forest chop down a tree before breakfast, to obtain the same results, but the town and city resident, accustomed to sedentary pursuits, will find this sufficiently difficult at first.

Many afflictions, not generally supposed to be connected with the manner of breathing, may be traced to bad habits in taking one's necessary oxygen, such as the bad formation and arrangement of teeth, their decay, facial neuralgia, etc.

The gums, teeth and tongue become too dry during the hours of sleep if the mouth is kept open, and various diseases of those organs are brought on.

Let us strive to secure pure, fresh, deep, regular breaths of air for each moment as it passes; then may we pray with a clear conscience for our "daily bread." For next in importance to breathing is the nourishment that sustains our bodies in the activities of daily life. Pure air and pure food and our manner of taking them are wonderfully significant in preserving health and vitality.

CHAPTER IV.

How, When and What to Eat.

SOME eminent physicians have declared that the quality of food does not matter so much as the quantity and the manner of eating. One has said: "Even the widest selection of food is inoperative as a remedy for our bodily ills, without due care and deliberation in mastication, and also a proper mental mood for eating." Many people have become convinced in recent years that in general we eat too much. In this one particular we cannot take the natural man, the savage or the Indian, as a model; for the more civilized and enlightened a man is in its true sense, the less is he likely to gormandize.

The refined and cultured eat simply and sparingly, never of heavy, rich foods, though a class of fashionable, self-indulgent people may still consider it luxurious and proper to dine on elaborate, highly seasoned dishes to the point of gluttony. They have but gone back to the habits of primeval man, who gorged, when he might, until he could no longer move, and required his women to feed him. But this creature could fast for days, if it was necessary, and suffer no inconvenience. Natural man would have acquired more rational methods of eating had the supplies of food been constant and regular. But in the days when their fortunes in the chase or on fishing ex-

peditions must determine their supply of provisions their systems were compelled to adapt themselves to the conditions; they learned to eat enormously when they had food, and to fast patiently when it could not be secured.

Men of the middle ages, when the militant spirit was most dominant, were little better. In the long, terrible wars, when food was often a matter of chance, or depended upon the success or failure of armies, men ate, when the opportunity presented itself, as long as anything remained. The literature of less than two hundred years ago gives us pictures of gigantic feasts where whole oxen, sheep, pigs, roasted to a turn and flanked by flagons of strong ale, adorned the table; we are told how men ate and drank until they fell to the floor to sleep away the effects of their gluttony. Indeed, but one or two generations ago the virtue of hospitality was to tempt the guest to eat to his fullest capacity, and the test of manliness was to be able to swallow anything and everything set before one. Only within the last century have moderation and method in eating been seriously taken up in a scientific manner. The tendency has been in the past, when disgust has sprung up from over-eating, to go to the other extreme and eat coarse and unpalatable foods in most abstemious quantities. But this is as bad as too much indulgence. There is consistency in all things, and there must be a rational, logical theory of nourishment which can be reduced to a practical system.

We might depend upon our normal appetites, only that the mixture of races, the complicated foods, the bad habits of an over-heated civilization, have deprived us of normal appetites. We can only judge by experience and observation after long years what kinds of food are best calculated to promote vigor and the normal action of all the organs. Even when we

discover what is in general best adapted to human requirements, we do not know what varieties suit different individuals, and this must be discovered by each for himself. Experiments should be made rationally, however, with the aid of such knowledge as has been gained by others, in regard to the effects of various foods and the peculiar elements needed by one's system. Age, occupation, inherited tendencies, temperament should be taken into account, or one's experiments may result in discomfort, shattered health and loss of vitality.

Three Safe Rules in Eating.

Aside from the kinds of food to be eaten, there are three rules that can be safely adhered to by every one.

One is not to eat too much—to cease eating before the feeling of being filled to repletion is reached.

The second is to eat slowly, in a calm state of mind, and masticate every mouthful thoroughly.

The third is never to eat and drink at the same time. Animals do not drink when they eat, and our reason should guide us, if instinct does not. The desire to drink while eating comes from a hurried, nervous gulping of food. If one had all his life eaten deliberately, chewing so slowly that the natural flow of saliva sufficiently moistened the tongue and throat and the food, he would probably never thirst for drink while eating; but generations of perverted habits have changed the natural appetite, and it cannot now be depended on to always direct aright.

Even as it is, it is safer to trust to a child's appetite than to an unscientific mother's arbitrary decisions. Many housewives consider discipline, or the carrying out of their own theories in regard to nourishment, more important than their children's taste. They provide what is most convenient to

themselves or what they believe is best for their children, and, though their palates may rebel, the little ones are compelled to eat it. To force a child to eat food it does not want is cruel at the time and often results in irremediable consequences later on. It is wise to withhold certain things known to be injurious, for the child can have no definite craving for something it has never tasted—only a general curiosity to experiment on whatever it sees. But it should never be forced to eat what is distasteful to it. Many children die young solely from the conscientious but unwise course of mothers; others go through life with impaired constitutions, debarred forever from the enjoyments of good health.

Variety in Food Desirable.

We have grown to be a complex people. We are the descendants of many different nationalities, each possessing different tastes according to the climate, products and necessities of their country. Our own climate is variable, our products infinite in kinds and quantities; we have developed capricious, discriminating tastes, and we do not thrive on any one diet, as do, for instance, the eastern people, who can subsist on rice day in and day out all their lives. They wonder at us that we pander to our comprehensive tastes, and cite their own simple living and natural lives as examples of wisdom. But they forget that while in their country custom, climate and caste have fixed the taste in food for centuries, we are a mixture of nearly all the nations of the earth, inheriting their natural and cultivated tastes, while our commercial systems have brought the foodstuffs of the world to our own doors and bade us choose among them. We would no longer thrive on one or two articles of food, and experience and reason teach that variety in food enhances our welfare.

Still it is possible to modify and simplify our diet, if it has been too rich, too complex or too heavy. Culinary art has heretofore run too much to decoration, and to toothsome delicacies calculated to tempt satiated appetites. There are visible signs that in the near future cooking will be studied as a science, and more regard will be paid to suitability, proper chemical changes, wholesomeness, than to richness, elaboration and the exciting of abnormal appetites. We will eat more simply when that time comes, but our tables will look more beautiful. For what is more artistic than the commingling of fruits in a natural state, nuts, crisp, tender vegetables, and light grain cakes formed from scientifically prepared flour?

But whatever changes we make must be made gradually and carefully. Sudden alterations may cause disturbances in the system difficult to overcome. The body, after having adapted itself to a certain diet, does not readily adjust its functions to an entirely new course. Each one must be guided by his own judgment and knowledge of his body's needs, not by what fashion or theories dictate. Corn-meal is liked and easily assimilated by some, while to others it is heating and indigestible. Graham has been considered wholesome, as it was thought to maintain a natural condition of the alimentary passages. But this is a mistake. The fine edges of the grain cut lightly into the delicate surfaces of the viscera, causing a moisture to exude which facilitates the passage of digested and undigested food. So great are the healing properties of the natural forces that no injury seems to result for many years. But the damage manifests itself sooner or later.

Vegetarianism.

Vegetarianism benefits some people, but it should not be insisted upon, for our minds are various and complex, and

fruits and vegetables do not always furnish all that the system requires. The animals digest several varieties of vegetables which we could not assimilate, and their flesh contains the results of processes not possible to us. But all meat should be thoroughly masticated. The importance of this cannot be overestimated. Only when the digestive organs are worn out trying to pulverize tough flesh fibers, and it is too late, do many of us realize this.

Never urge the appetite; follow its leadings as it is unperverted. Take no "appetizers," and do not crowd the stomach. It is best, as a usual thing, to eat sparingly of sugar and candy. On account of the starch contained in bread, sedentary people should eat little of it. We should not chill our stomachs with iced drinks or flush them with hot washes. And while we still adhere to the custom of putting into ourselves the conglomeration of foods we do, above all, let us *masticate* them well. We should not eat when excited, tired, nervous or angry. Wait until calm, even if we miss a meal or two, and good health and youthful vigor far into old age will be our reward.

We eat to sustain life, and if we eat wisely, we will be healthy and live long. We must adapt our food to our age and occupation or calling, and to the temperament of our systems. This may seem an indefinite bit of advice, but we each have an inborn instinct which will guide us in such matters, if we will allow ourselves to be guided. This infinite guiding instinct is true of botanic life as well as animal life. The little growing vine directs its course wisely and clings to the nearest support. We eat to live, and life is warmth, development and repair, and gives us the power of exertion and action.

Food the Fuel of the Body.

In all the countries under the sun, in youth or old age, the human body, when in a healthy state, maintains the same temperature, ninety-eight degrees Fahrenheit. Food acts as a fuel to us, as the warmth of our bodies is derived from food. Sugars, starches and oil are concentrated forms of carbonaceous food, and some of them are composed mainly of this element. Many persons are greatly concerned over the large amount of sweets devoured by young children, but without this element of food it is said that the healthiest infant would die in a short time. As we grow older we covet the meats and oils more. Who has not noticed the grandmother's fondness for a bit of the fat with her steak? It would be just as unwise to deprive the old of the luxury of some nice bits of fat as to deny the child the sweets over which he makes himself a gourmand. As reason is the guide in these matters, this accounts for over-indulgence in children, and it is not the sweets which make them sick, but the indulgence to excess which makes the trouble. We should not eat by fixed rules or measures, as this is not natural. We also eat for the generation of those internal forces of brain and body which constitute our efficiency as immortal beings. As food gives nourishment, and this includes warmth, growth and repair, and gives to the brain and body strength and power to work, we must learn that it is necessary for us to have different kinds of food, although milk, eggs, etc., have more than one element.

Three things are essential to our daily food. These are carbon, to keep us warm; nitrogen, to give us strength and flesh; and salts, which combined with carbon and nitrogen make them nutritious.

The power to perform bodily and mental labor must be sup-

from its resemblance to the albumen, the white of an egg.

The blood is made by foods containing albumen, and as the blood is life, foods which build it up sustain us best. This is why bread is called the staff of life. Thus foods which contain a large amount of carbon would not build up the blood and strength and enable us to accomplish a great amount of labor. It is not always the size of a man that is to be taken into consideration when looking for a good strong laborer, but the size of his appetite is a very good criterion, for a man with a good appetite will be able to do a good day's work if not hindered by some bodily condition or infirmity. A good brain-worker should eat well, also, for, if debility of body sets in, the brain will consume itself because nutriment is not supplied to it fast enough through proper food and a healthy, vigorous digestion.

The Right Times for Eating.

It is best that all who wish to be healthy and prepared for their day's work should eat a hearty breakfast, that is, a breakfast of nourishing food. For instance, a man may eat a hearty breakfast and ride through a deadly marsh without harm, while if the man crossed the marsh without first eating his breakfast, he would likely die of some malignant fever within a short time. Food stimulates us as soon as it reaches the stomach, as it calls into activity the circulation of the blood, and in a short time the whole body receives and feels the strengthening influence. As the body cools down rapidly when food has not been taken for some time, the early breakfast in winter is especially healthy for old persons and children, as it is a promoter of health. If a person does not have an early breakfast in winter, it takes longer to raise the natural heat of the body, and as no work can be accomplished to

work can be accomplished to any purpose until this internal heat is brought up, the earlier the breakfast the better.

As there is a "miasm" or impure element in the early morning air, and this same element is present after sundown, presumably the healthiest time to eat supper is shortly before sundown. The healthiest dinner hour is at noon time, as the morning work brings an appetite at that hour, and a quantity of food taken at that time sustains the body for the afternoon work.

As the stomach is composed of muscles it is called an organ or machine, and in a healthy condition performs the work of digestion, so far as it is concerned, in about five hours, so that most individuals will at least find it pleasant, if not convenient, to eat every five hours.

As soon as the food is digested by the stomach, it passes out and leaves it empty for a time. In an hour or two, certain vessels connected with the stomach fill with a fluid, and as they distend they cause the sensation of hunger, which makes us wish to eat again. As soon as we partake of food, they empty their contents among the food, dissolving it and preparing it for nutrition. Thus it will be seen that if food is taken into the stomach before it is emptied, it will arrest the digestion of the first food taken, which remains in that condition until the last food taken in is brought to the same condition, when both go on together. If the food remains in the stomach too long it sours, on account of the high temperature of that organ, and this causes improper and imperfect nutrition.

CHAPTER V.

Sleep and the Bath.



*W*E *live* only in our waking moments, we imagine, and sleep has been called "the twin sister of death." Yet life's activities would drag heavily were it not for "Nature's sweet restorer, balmy sleep." In sleep we are "created anew day by day." But it is important that conditions for sleep be made favorable, or sleep becomes an enemy which lays its victim helpless while poisonous vapors and disease germs get in their deadly work. We must sleep; or power wanes, courage ebbs away, and the mind becomes weak and confused. If one cannot sleep at all, insanity and death ensue. One will suffer more from loss of sleep, before relief comes by death, than from inanition.

We cannot bestow too much care upon our preparation of sleeping-apartments. Too often the little corner that cannot be otherwise utilized will be dedicated to sleeping-rooms that cannot be flooded with light, swept by pure breezes, and warmed by the sun's health-giving rays. This is bad economy, if one values good health. Exhalations from the body linger in the bed clothing until purified by plenty of oxygen.

Proper Sleeping-Apartments.

Bed-rooms should be light, airy, and not too small. They should be comfortably but not showily furnished. Only arti-

cles of use should be permitted in sleeping-apartments; decorations should consist in the cleanliness and freshness of the appurtenances. Heavy drapery, tidies, nick-nacks which catch and hold the dust, are in better taste in other rooms. The walls should be of some soft, neutral tint, and such ornamentation as is allowable should be quiet and simple, so as to be restful to the eye. Means of ventilation should be as perfect as possible, that proper respiration may be insured.

It is more pernicious to keep a dark bed-room artificially lighted than to allow it to remain in the shadows. Gas-jets, candles or lamps consume the little pure air which finds its way into close rooms, and should be prohibited. They should be as little used at night as possible in all sorts of rooms, for the same reason. Gas-jets turned low are more harmful than when the blaze is turned on fully, since the poison inevitably escapes when burning low. A faint jet of light in a lamp will destroy all the oxygen in the air faster than will a full blaze. One should remember exactly where the lamp stands and keep a few matches at hand, rather than vitiate the air with the smoky wick of a low-turned lamp.

A person with weak lungs should sleep in a large room, where currents of pure air may constantly sweep around, above and below the bed. A tent, or a roof without walls, is still better. In the pure air of the higher regions consumptives sleep in the open air in hammocks swung among the pine trees, with great benefit. The open air is never hurtful if one is warmly wrapped in light and fleecy blankets.

The clothing of the bed should be aired daily, and very frequently hung on a line in the sunshine. The filling of mattresses and pillows should be subjected to 150 degrees of heat, a temperature which will destroy all decaying substances, and not injure hair or feathers. Fresh air is a great disinfectant.

Plants without flowers have been recommended, because both in daylight and darkness green vegetation throws off oxygen, and absorbs impurities and carbonic acid gas. Flowers and ripening fruits consume oxygen, and should not be brought into the room where an invalid or an infant is sleeping, nor should they long remain in a healthy person's sleeping-room.

A bare hard-wood floor, with a few soft rugs placed where comfort or convenience demands, is much neater and more wholesome than thick carpets, which secrete dust and bad exhalations. The rugs are easily shaken, the floors quickly washed off; and the housewife is not so afraid of letting in sunshine and fresh air if there are no curtains and tapestries to fade. Papered walls are not advisable, as they gather dust and impurities. A hard-finished wall from which the effects of flies and other insects can be washed is much better.

Flannel sheets should be used in the winter, and even in the summer thin baby flannel or woolen batting is preferable to closely woven cotton or linen sheets. Flannel blankets for invalids, when the weather is cool, are better than quilts or cotton comforters.

How Long One Ought to Sleep.

The time to be consumed in sleep varies in different people, but it seems that a third of the twenty-four hours of the day may be profitably passed in invigorating sleep. People live, work hard and appear to keep robust for many years on less sleep than this, but they are more certain to break down young than those who sleep well their eight hours daily. Many boast of doing with five and six hours, but they do so with hollows sinking under their eyes and wrinkles tracing telltale lines in the forehead.

There was once an old author who wrote a large philosoph-

ical (?) book on everything in the universe and some things that are not there at all, who upbraided people desperately for wasting so much time in sleep. He advised his readers to rise at four o'clock every morning and begin to study. If work were necessary, it might be done through the busy, noisy part of the day, but with the quiet of evening they were to commence their studies again and pursue them until 12 o'clock at night. Thus, he said, one might snatch a third of a lifetime in the hours idly spent in sleep, to devote to the acquiring of wisdom. But hours thus stolen from those that Nature requires in which to repair the wastes going on in wakeful hours must some time be repaid. The end of life comes all the more quickly, when there will be no choice as to whether you will sleep or remain awake.

When to Sleep.

"Early to bed and early to rise," is no doubt a wise admonition, or was in the day it was spoken, for artificial light was crude and scarce, there was no temptation to prolong the activities of the day into the darkness of night, and people's constitutions were adapted to the natural division of the day. But the inventions of modern times, which afford the brilliancy of the day during the night, have lengthened the time of action. We have developed more social pleasure, and acquired a faculty for working, studying, improving and enjoying until after daylight ends. Perhaps we have shortened our years by so doing, but it would be impossible, even if we would, to get away from gas-jets and electric lights, back to the "tallow dips" of old times. Nor is it desirable, if we will yield something to Nature's demands and resist the temptation to remain awake, using our brains and nerves until long after they rebel with weariness. If we will but sleep *enough*, Nature will for-

give our breaking of the old rule, perhaps, and adjust our systems to suit the new conditions.

We certainly ought not to curtail the hours of sleep at both ends of night, and if we will not retire early we ought not to force ourselves to rise too early. We feel in these modern days like repeating with John G. Saxe:

“God bless the man who first invented sleep!
So Sancho Panza said, and so I sing.
But condemn with curses loud and deep
The man who first invented early rising.”

But the earlier hours of the night are certainly best calculated for sound and healthy slumber. We find ourselves more cheerful, amiable and better-looking when we *can* go to sleep early and wake with the birds. Late hours set up a kind of stimulated activity within us, and we find it difficult to fall into sleep directly upon retiring. We are wakeful, and grow “nervous” presently *because* we can not, and sleep is driven farther away than ever. Our muscles are at a high tension, and often the hands are clenched tightly and the teeth ground together.

To induce sleep, rise from the bed and rub the body from the head downward with the open palms of the hands. Then lie down in an easy position, relaxing every muscle, and banishing with determination every disturbance of mind. Breathe deeply, regularly and slowly through the nostrils, and picture a field of waving wheat or tall grass, rising and falling in soft, billowy motions, or a peaceful lake lapping the shore gently, and no sign of life present. The monotonous, undulating sensation will affect one like a soothing lullaby, and sleep will soon follow. Often a walk in the open air, taken immediately before retiring, will induce sleepiness. To struggle for sleep,

to long for it too intensely, is to banish it. Gentle thoughts of pleasant, simple things are found to be more effective.

It has been ascertained that within the human organization there is an ebb and flow of vital forces, as there is in the sea. Mental or physical exertion performed during the low period of activities is at the expense of man's stored-up strength, and can never be replaced. At ten o'clock at night man's energies have greatly relaxed; between the hours of one and three they are at their lowest ebb. All the faculties should be at rest from a little after ten to six or seven the next morning. One should at least assume a reclining position, relax the muscles and banish disturbing thoughts from the brain after the hour of ten.

If one's sleep has been satisfactory, one will wake in the morning refreshed, and experience, after a few minutes, a desire to begin the activities of the day. If there is a tendency to doze after it is really time to get up, it is usually a sign of over-eating, of insufficient air, or improper respiration. A normal, sound and strong person may be trusted to sleep enough, and not to sleep more than his nature requires, if conditions are favorable. The occupation of many people prevents sleep during the hours especially suited to slumber, and they are compelled to adapt themselves to odd hours. No doubt this changing of night into day detracts from the vitality, and materially shortens life; but if such a worker will train himself to fall into slumber quickly, and to catch readily at any opportunity for a few minutes' repose, he can preserve his strength and health to a great extent.

Sleep is a restorer; and sometimes excessive sleep seems essential. In cases of weakness, exhaustion, relief from pain, the inclination to prolonged slumber is sometimes remark-

able. But the patient should not be aroused, for Nature understands her work, and furnishes what is needed.

Never awaken a sick person to administer medicine. No medicine can aid Nature so much as healthy sleep. If in an extraordinary instance a child or patient should sleep much more than seems reasonable, do not strive to arouse him with rude shocks; he requires medical attendance.

Cleanliness is Godliness.

Having bestowed proper attention on respiration, nourishment and repose, we should give due regard to keeping the body pure and clean. Cleanliness is next to godliness, and indeed *is* godliness—purity. Water is as essential to good health and happiness as good food and pure air; but the method of applying it has as many phases, and may work injury or benefit, according to the manner of using it, as with these necessities. Water is a blessing to us, a restorative, a remedy, it soothes and cleanses us—yet it may be used in such a way as to prove itself an enemy. With a little knowledge and the exercise of reason there is nothing to fear.

The principal purpose of a bath should be cleanliness. But, from the number of those who shock themselves daily with quick cold-water plunges, shower baths, etc., one would judge cleanliness were the last object sought after. These may be endured by many, even prove beneficial to robust, warm-blooded people; but they do not cleanse. And the person who depends upon these means alone will be surprised, on taking a Turkish bath or a good warm bath of any kind, to find how *dirty* he really is.

Cold baths are not to be condemned indiscriminately. A pint of water but little colder than the air of the room, rubbed briskly over the body with the open palms, followed by a vig-

orous toweling in the morning, will set a healthy person in a glow and establish a cheerful, animated poise for the whole day. But if one shrinks from the water instinctively, if there is a chilled sensation, and the lips and the ends of the fingers turn blue, then cold baths should be tabooed. As one may keep up a course of slight injury to himself in eating or overworking for years without perceptible consequences, so one may take a cold bath daily, chilling the blood slightly each time, and feel tolerably vigorous. But the strain on the system is too great, and sooner or later evil consequences will be felt. Very delicate persons should not indulge in cold baths, because they do not possess sufficient vitalizing reaction. Even those who have in reserve a great deal of constitutional vigor may feel the effects some time.

The Proper Manner of Bathing.

The proper way to bathe so as to eliminate all the exudations from the skin is to have an abundant supply of soft, clear, warm water, good soap and the means for a thorough rubbing. One should wash until *clean*; then rinsing off with clear warm water, followed by a mere touch of cold to give tone to the system. Rub with good bath towels until thoroughly dry, and the true object of a bath will have been attained.

Very warm baths, indulged in too frequently, are weakening. Some people cannot endure entire immersion even in warm water, as it disturbs the action of the heart; these should plunge the feet in heated water while the rest of the body is being rubbed with the hands or a sponge. For a cold or an aching condition of the body, a very warm bath at night is beneficial. Sitting in a large tub of hot water, with a blanket about the shoulders, for twenty minutes or so, is an excellent

remedy for a hard cold, or as a preventive after severe exposure. But one should retire immediately afterward, and cover warmly with flannel blankets.

Impure water is as deleterious to the skin as to the stomach.

If the water is doubtful, add a little sal soda, borax, or, better still, ammonia. Vegetable soaps are best, and for delicate skins those soaps which contain little alkali in proportion to the quantity of oil should be used. Scented soaps should be avoided, as they are not so apt to be pure, and artificial odors are not always pleasant.

Elderly people should not indulge in baths of too long duration; in fact, every one should bathe in a manner most desirable and most comfortable. It is never best to urge against shrinking nerves any kind of a bath; as a usual thing, the feelings are a safe guide. Many people welcome a warm bath when weary, some feel refreshed from a cold one, while others cannot think of it until after a rest on a couch. Generally, bathing when tired is exhausting.

Sea-bathing is a delightful and refreshing exercise to most people, but when a chill follows a plunge the bather should be careful. One should become accustomed to the salt atmosphere before going into the surf; only after several days of taking the sea air into the lungs is it safe to plunge into the brine. Then the trial should be brief and followed by a speedy drying. If a sense of warmth comes immediately, one is safe to try again, but if one's lips turn blue he should make up his mind that the salt water is no friend to him, or that his condition is not such as to take kindly to that treatment.

As a substitute for sea-bathing, saturate a flannel cloth in water well impregnated with sea salt, dry it and use daily after a warm bath. It is very beneficial to the weak who cannot endure sea water. When lives have been despaired of a

rubbing of sweet oil, almond oil or cocoa butter well into the pores of the skin has furnished the necessary nutriment and stimulant, and saved them. But this should not be resorted to except in extreme cases.

There are various kinds of baths of hot and cold water, wet sheets, and packing, that are effectual remedies, but they should be understood and given with as much care as one would administer medicine. Therefore only trained nurses should apply them, when cases seem to call for such treatment. It is safe to give, as a general rule, a cold bath in fevers; in great pain and in cases of inflammation, hot water applications.

The human civilized being *must* keep clean. The savages do not often bathe and are not particular about a little dirt more or less; but their open-air customs compensate for their lack of cleanliness to a great degree, though they would not succumb to certain epidemics so readily if they were more addicted to washing themselves. Aborigines who live near the water use it daily. No doubt the absence of cleanliness among some races arises originally from a lack of water. But the conditions of civilization make cleanliness imperative; retribution comes quickly to those poor people who crowd together in cities, and who cannot or will not bathe. Some method of purifying the body must be adopted—let conditions, circumstances, tastes determine what; only, *be clean*.

THE END.

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DICTIONARY OF MEDICAL TERMS

- Abdomen (n.)** Cavity between the diaphragm and the pelvic floor; belly.
- Abdominal (adj.)** Relating to the abdomen.
- Abnormal (adj.)** Contrary to law or system; irregular; unnatural.
- Abortion (n.)** Untimely birth.
- Abscess (n.)** A gathering of pus in any tissue.
- Accoucheur (n.) (Fem., Accoucheuse).** One who assists women in childbirth.
- Acute (adj.)** Not chronic; coming speedily to a crisis.
- Alimentary (adj.)** Pertaining to feeding or nourishment.
- Allopathy (n.)** A school of medicine which aims to cure disease by means of remedies producing effects opposite to the symptoms of the special disease treated. (See Homeopathy.)
- Alterative (n.)** A mild cathartic.
- Ambidexterity (n.)** The use of both hands with equal facility.
- Amenorrhea (n.)** Suppression or retention of the menses.
- Ammonia (n.)** Spirits of hartshorn.
- Anaemia (n.)** (See Anemia).
- Anatomy (n.)** The art of dissecting an animal body.
- Anemia (n.)** Want of blood.
- Anemic (adj.)** Bloodless.
- Anæsthetic (n.)** Any substance used to render persons insensible to pain.
- Adipose (adj.)** Fatty.
- Animal (n.)** A living being endowed with feeling and voluntary motion. (adj.) Pertaining to animals; gross; carnal.
- Anodyne (n.)** A medicine allaying pain.
- Antenatal (adj.)** Before birth.
- Anteversion (n.)** Bending forward.
- Antiseptic (adj.)** Preventing or retarding putrefaction.
- Ānus (n.)** The opening or outlet of the bowels through which excrement is expelled.
- Aorta (n.)** The great artery of the heart.
- Aperient (adj.)** Laxative; loosening.
- Aphtha (n.)** A disease otherwise called nursing sore mouth.
- Appendix vermiformis (n.)** A blind process on the caecum, 3 to 6 inches long.
- Arterial (adj.)** Pertaining to an artery.
- Artery (n.)** A tube carrying blood from the heart and connected with the veins by capillaries.
- Astringent (adj.)** Binding; contracting (opposed to laxative or aperient).
- Auricles (n.)** Upper chambers of the heart.

- Auricular (adj.)** Relating to the ear, or hearing.
- Auscultation (n.)** The act of determining diseases by listening to sounds within the body.
- Axilla (n.)** Armpit.
- Bacteria (n.)** Animal organisms of the smallest size.
- Birth (n.)** The act of bearing or bringing forth, or of being born.
- Cæcum (n.)** A cavity open at one end; the blind gut, or that part of the large intestine beyond the entrance of the small intestine.
- Cancer (n.)** A malignant tumor.
- Capillary (n.)** Hair-like vessel conveying blood from the arteries to the veins.
- Capsicum (n.)** Cayenne pepper.
- Cardiac (adj.)** Belonging to the heart.
- Carnal (adj.)** Fleishy; sensual.
- Catamenial (adj.)** Monthly; pertaining to the menstrual discharges.
- Catarrh (n.)** Discharge of mucus from a mucous membrane.
- Cathartic (n.)** A purgative; that which increases the action of the bowels.
- Caul (n.)** Membranes which, if not ruptured, cover the new-born child's head and face.
- Cavity (n.)** A hollow place.
- Celibacy (n.)** The unmarried state.
- Cell (n.)** A small, closed hollow place. In organic structures a minute sac, filled with fluid, and originating the parts of animals or plants by growth or reproduction.
- Cellular (adj.)** Pertaining to, consisting of or containing cells.
- Cellulitis (n.)** Inflammation of cellular tissues.
- Cervix (n.)** The neck.
- Cervix uteri (n.)** The neck of the womb.
- Chorion (n.)** The external membrane enveloping the fetus.
- Chronic (adj.)** Of long continuance.
- Chrysalis (n.)** The form of a butterfly, etc., before reaching the winged state.
- Circumcision (n.)** The cutting off the foreskin in the case of males, or the internal labia in the case of females.
- Clavicle (n.)** The collar bone.
- Climacteric (n.)** A critical point or period.
- Coccyx (n.)** The terminal bone of the spine.
- Colon (n.)** That part of the large intestine extending from the cæcum to the rectum.
- Conception (n.)** The act of conceiving in the womb; the beginning of embryonic life.
- Congestion (n.)** Unnatural accumulation of blood.
- Conjugal (adj.)** Belonging to marriage.
- Contusion (n.)** Bruise.
- Convergent (adj.)** Coming together or inclining to one point.
- Convuluted (adj.)** Rolled together.
- Counterirritant (n.)** An irritant intended to relieve an irritation already existing in another part.
- Cuticle (n.)** Skin.
- Defecation (n.)** The act of voiding feces.
- Degeneracy (n.)** Decline; moral degradation.

- Desquamation (n.)** The peeling or shedding of skin in the form of flakes or scales.
- Diagnosis (n.)** Distinguishing a disease by its symptoms.
- Diarrhœa (n.)** Flux; morbidly frequent evacuation of intestines.
- Digitalis (n.)** Fox-glove.
- Diaphoretic (adj.)** A remedy producing perspiration.
- Diaphragm (n.)** Muscular sheet separating chest and abdomen.
- Diphtheria (n.)** A malignant membranous disease of the throat.
- Diphtheritic (adj.)** Pertaining to diphtheria.
- Diuretic (adj.)** Causing increased discharge of urine.
- Duodenum (n.)** That part of the small intestine between the stomach and the jejunum.
- Dysmenorrhœa (n.)** Painful or difficult menstruation.
- Embryo (n.)** The beginning of anything; first state of an animal or plant not distinctly formed.
- Embryonic (adj.)** In an initial (beginning) state.
- Enceinte (adj.)** Pregnant.
- Enema (n.)** Injection.
- Enteritis (n.)** Inflammation of the intestines.
- Epidermis (n.)** Outer skin.
- Ergot (n.)** Smut of rye. A poisonous fungus growth.
- Eustachian valve.** A valve of the heart, directing the course of the blood.
- Evacuate (v.)** To empty.
- Excoriation (n.)** Chafing or abrasion of the skin.
- Excrement (n.)** Waste matter discharged from the animal system; dung.
- Excrete (v.)** To discharge from the system.
- Fæcal (adj.)** Pertaining to or containing fæces.
- Fæces (n.)** Excrement; dregs.
- Fallopian Tubes (n.)** The tubes leading from the ovaries to the uterus.
- Fetal.** Same as fœtal.
- Feces.** Same as fæces.
- Feculent (adj.)** Foul; muddy.
- Fecundation (n.)** Impregnation; fertilization.
- Fertilize (v.)** To enrich or make productive.
- Fetal.** Same as fœtal.
- Fetus.** Same as fœtus.
- Fimbriated (adj.)** Fringed; finger-like.
- Flatulence (n.)** Presence of gases in the stomach or bowels.
- Flex (v.)** Bend.
- Fœtal (adj.)** Pertaining to a fœtus.
- Fœtus (n.)** A young animal in the womb which has passed the embryonic state; human child in womb after fifth month.
- Fomentation (n.)** The act of applying warm lotions or poultices.
- Formative (ndj.)** Shaping.
- Function (n.)** Special work or action assigned to an organ.
- Ganglia (n.)** Nerve centers.
- Ganglionic (adj.)** Pertaining to ganglia.
- Gangrene (n.)** Mortification of soft tissues.
- Gastritis (n.)** Inflammation of the stomach.
- Generation (n.)** Bringing into life.
- Genesis (n.)** Origin or production; beginning.
- Genitals (n.)** The exterior organs of generation.

- Germ** (n.) First principle; seed-bud; origin.
Germinal (adj.) Pertaining to germs.
Gestation (n.) Pregnancy.
Gland (n.) A secreting organ.
Gustatory (adj.) Pertaining to the taste.
Gynecologist (n.) One who practices or studies **gynecology**.
Gynecology (n.) The science which treats of the female organs.
Homeopathy (n.) A school of medicine which aims to cure diseases by a system of minute doses of drugs which in health excite symptoms similar to those of the disease treated.
Hemorrhage (n.) A flowing of blood.
Hemorrhoids (n.) Piles.
Hygiene (n.) The science of the preservation and restoration of health.
Hymen (n.) The original membrane often found at the orifice of the vagina.
Hyperemia (n.) Excess of blood.
Hypogastric (adj.) Pertaining to the lower abdomen.
Illicit (adj.) Unlawful; forbidden.
Immature (adj.) Unripe; undeveloped.
Imperforate (adj.) Having no opening.
Impotency (n.) Want of male sexual power.
Impregnate (v.) To make pregnant; to cause to conceive.
Inchoate (adj.) Unfinished; only begun.
Incubation (n.) Hatching.
Individual (n.) A single person or thing; one. (adj.) Pertaining to one only.
Induration (n.) Hardening.
Infusoria (n.) Microscopic insects.
Innate (adj.) Inborn
Inoculate (v.) To insert the virus of a disease in the skin or flesh.
Insomnia (n.) Sleeplessness.
Integument (n.) Skin.
Intestine (n.) The long convoluted tube extending from the stomach to the anus.
Introversion (n.) Turning within.
Involuntary (adj.) Independent of the will.
Jejunum (n.) The first part of the smaller intestine.
Labia (n.) The lips of the vagina.
Laxative (n.) A purgative medicine. (adj.) Relieving costiveness; loosening.
Leucorrhea (n.) The whites. (Disease of the vagina causing a mucous discharge.)
Lingual (adj.) Pertaining to the tongue or speech.
Lochia (n.) Discharge from the womb after childbirth.
Lymph (n.) A colorless fluid in animal bodies.
Mammal (n.) An animal that suckles its young.
Mammary (adj.) Pertaining to the female breast or mamma.
Manna (n.) A sweetish secretion from many trees.
Marital (adj.) Pertaining to marriage.
Masculine (adj.) Male.
Massage (n.) Manipulation of surface and muscles for healing purposes.
Masturbation (n.) Self-abuse.
Materia Medica (n.) The science of the nature and properties of

all substances used as medicines.

- Mature** (adj.) Ripe; developed.
Maturity (n.) Ripeness.
Meconium (n.) First excrement of new-born child.
Membrane (n.) A thin layer or fold of tissue.
Menopause (n.) Change of life.
Menorrhagia (n.) Excessive menstruation.
Menses (n.) A periodic bloody flow from the uterus.
Menstrual (adj.) Monthly.
Menstruation (n.) The discharge of the menses.
Mercury (n.) A white liquid metal. In medicine, a salt or preparation of that metal, as calomel, blue pill, etc.
Metritis (n.) Inflammation of the womb.
Miasm (n.) Noxious effluvia.
Morbific (adj.) Causing disease.
Mucous (adj.) Pertaining to mucus.
Mucus (n.) A viscid or slimy fluid secreted by a mucous membrane.
Narcotic (n.) Inducing sleep or stupor.
Nasal (adj.) Pertaining to the nose.
Neuralgia (n.) A pain in the nerves or face.
Nutrition (n.) Nourishment.
Obstetrics (n.) Midwifery, tokology.
Offspring (n.) Issue; children.
Optic (adj.) Pertaining to the eye or the sight.
Organ (n.) In medicine, that by which a natural operation is carried on.
Os uteris (n.) Mouth of womb.
Osseous (adj.) Bony.
Ova (n.) Plural of ovum; eggs.
Ovary (n.) The part of the female in which the egg of the offspring is formed.
Oviducts (adj.) Tubes which convey the ova from the ovaries to the uterus.
Ovule (n.) A small egg. The diminutive of ovum.
Ovum (n.) An egg. (Plural, ova.)
Palliative (adj.) Serving to mitigate or cover up.
Paralysis (n.) Palsy; cessation of function.
Parent (n.) Father or mother.
Parturient (adj.) Bringing forth young.
Parturition (n.) Childbirth.
Passive (adj.) Unresisting.
Pathological (adj.) Pertaining to diseases.
Pathology (n.) Science of diseases.
Pelvic (adj.) Pertaining to the pelvis.
Pelvis (n.) The bony structure inclosing the urinary and genital organs.
Perineum (n.) The floor of the pelvis.
Peritoneum (n.) A membrane lining the walls and organs of the abdomen.
Peritonitis (n.) Inflammation of the peritoneum.
Physiology (n.) The science which treats of the organs of plants and animals.
Piles (n.) Tumors in and about the anus.
Placenta (n.) The after-birth.

- Pledget (n.)** A small tent of lint, or compress, laid over wounds, ulcers, etc.
- Plethoric (adj.)** Fleeshy; fat.
- Post-mortem (n.)** After death.
- Post partum.** Subsequent to childbirth.
- Pregnancy (n.)** State of being pregnant.
- Pregnant (adj.)** Being with young.
- Primipara (n.)** Woman who has brought forth her first child.
- Procreation (n.)** Production of young.
- Prognosis (n.)** Foretelling the course of a disease.
- Prophylactic (adj. or n.)** Preservative.
- Prolapsus uteri (n.)** Falling of the womb.
- Puberty (n.)** Ripe age in the sexes.
- Pubes (n.)** External part of the organs of generation, covered with hair in puberty.
- Pubic (adj.)** Pertaining to the pubes.
- Pulmonary (n.)** Pertaining to, or affecting, the lungs.
- Puerperal (adj.)** Pertaining to childbirth.
- Purulent (adj.)** Consisting of pus.
- Putrefaction (n.)** Offensive decay; rotting.
- Pyemia (n.)** Poisoning by absorption of pus.
- Rectal (adj.)** Pertaining to the rectum.
- Rectum (adj.)** Lower portion of the intestine.
- Renal (adj.)** Pertaining to the kidneys.
- Retroversion (n.)** Falling backward.
- Sac (n.)** A bag, cavity or receptacle closed at one end.
- Saline (adj.)** Salty.
- Saliva (n.)** Spittle.
- Saponification (n.)** Conversion into soap.
- Sciatic (adj.)** Pertaining to the hip.
- Scrofula (n.)** A tuberculous disease, generally hereditary.
- Scrotum (n.)** The pouch or bag containing the testicles.
- Sebaceous (adj.)** Fatty; oily.
- Sedative (adj.)** Quieting; soothing.
- Semen (n.)** Seed; the male generative product of animals.
- Seminal (adj.)** Pertaining to semen or seed.
- Sensory (adj.)** Pertaining to the sense of feeling.
- Septum (n.)** Interior wall by which different parts are separated.
- Serous membrane (n.)** The lining of cavities having no external opening.
- Siesta (n.)** A midday nap.
- Sitz-bath (n.)** A bath in a sitting position.
- Spasmodic (adj.)** Pertaining to spasm; coming in spasms.
- Sperm (n.)** Animal seed.
- Spermatozoa (n.)** Microscopic particles, capable of motion, that exist in semen.
- Stadium (n.)** Stage. (Plural stadia.)
- Stamen (n.)** The male organ of a flower.
- Sterility (n.)** Barrenness.
- Stimulant (n.)** That which excites.
- Stimulate (v.)** Excite to action.
- Suppository (n.)** A bolus or pill to be placed in the rectum.
- Suppuration (n.)** The generation of pus, as in a boil or abscess.
- Synchronous (adj.)** Occurring at the same time.

- Synovial fluid (n.)** A transparent, viscid fluid secreted by membranes.
- System (n.)** Regular arrangement of parts or things to form one entire plan or scheme.
- Term (n.)** Full time of gestation.
- Testicle (n.)** Seminal gland or stone.
- Testis (n.)** Testicle. (Plural, testes.) -
- Therapeutic (adj.)** Curative.
- Therapeutics (n.)** Science of the use of remedies for disease.
- Tissue (n.)** Material composing a part.
- Tocology (n.)** Same as Tokology.
- Tokology (n.)** The science of childbirth. From the Greek words tokos (birth) and logos (discourse, knowledge).
- Toxicological (adj.)** Pertaining to poisons.
- Trachea (n.)** Windpipe.
- Tumor (n.)** A swelling.
- Tympanum (adj.)** The drum of the ear.
- Umbilical (adj.)** Pertaining to the navel.
- Umbilicus (n.)** The navel,
- Urinary (adj.)** Pertaining to the urine.
- Uterine (adj.)** Relating to the uterus.
- Uterus (n.)** Womb, in which the fœtus is developed.
- Vagina (n.)** A sheath; the passage leading from the uterus.
- Varicose veins.** Veins permanently dilated, with accumulation of dark-colored blood.
- Vascular (adj.)** Pertaining to the blood vessels.
- Vena cava (n.)** The large vein communicating with the heart.
- Venereal (adj.)** Pertaining to sexual love; when applied to disease, that arising from sexual intercourse.
- Venous (adj.)** Pertaining to the veins.
- Ventricle (n.)** One of the lower chambers of the heart.
- Vermiform (adj.)** In the form or shape of a worm.
- Vesicle (n.)** A small cavity in the human body; a little bladder on the skin.
- Vicarious (adj.)** Suffered or done in the place of another.
- Virus (n.)** Contagious or poisonous matter.
- Viscera (n. pl.)** The organs contained in the abdomen.
- Vital (adj.)** Necessary to life; indispensable.
- Vulva (n.)** The narrow opening in the external parts of the female organs of generation.
- Zymotic (adj.)** Caused by bacteria or fermentation.