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3—10543

FOR GIRLS:

A SPECIAL PHYSIOLOGY;

BEING A

SUPPLEMENT TO THE STUDY

OF

GENERAL PHYSIOLOGY

BY

MRS. E. R. SHEPHERD.

ILLUSTRATED.

TWELFTH EDITION.

NEW YORK
FOWLER & WELLS CO., PUBLISHERS,
753 BROADWAY.
SANITARY PUBLISHING CO.,
159 LASALLE ST., CHICAGO.
1886.

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20 *North William Street, New York.*

1880

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PREFACE.

THE author of this book lays no claim to originality of subject-matter. She has nothing new to say. She does, however, claim originality upon one ground, that of making selections from the writings and teaching of others, and from observation and experience; that of culling here and there knowledge, facts, motives, ideas, and grouping them into practical form.

Seeking to make the material for instruction as complete as possible, she has seized upon and appropriated anything which could contribute to the general design. She has only sought to adapt what others have said to the good of the class for whom she has written.

She herewith submits her efforts to the common sense of her audience, and the common need of our common natures.

TO MOTHERS AND TEACHERS.

It is only fair; it is, in fact, the natural and proper way to reach the daughter through the mother, or the teacher who stands in the place of the parent. The mother has a right—and if she feels a lively interest in the welfare of the daughter, will demand the right—to first, herself, examine that which persons outside the home-circle desire to press upon the attention of the daughter. It is in recognition of this right, and also in the hope of obtaining your co-operation, that this circular is addressed to you.

There have been, inside of fifty years, many works on anatomy, physiology, and hygiene, prepared expressly for schools and colleges, and a rather extensive introduction of this study into our institutions of learning. There is one branch of this subject of a private nature which, on that account, can never occupy a place in recitations admitting both sexes at the same time. A knowledge of special and private subjects pertaining to the health and being of a girl is of vital importance to her. This knowledge, more or less of it, *must come* to her, if she lives to womanhood. Hitherto the only available means for obtaining it was by experience, accident, or stealth. These are three poor teachers; if the first, the child will, in nine cases out of ten, damage and perhaps sacrifice health before she will learn; if the second, then the danger is in learning only a part, and of having much that is impure

and untrue mixed with it; if the third, then the child's innate purity and sense of honor will be injured and perhaps ruined.

In medical works and in private lectures to women, mothers are urged to instruct their daughters in regard to these things, as though it were the easiest matter in the world, when it is one of the most difficult, frequently requiring more courage and skill than the mother possesses. Upon two subjects mothers most strangely shrink from conversing with their daughters. One is religion, and the other is certain functions which have to do with the establishment of womanhood. The girls themselves are not going to broach the subject—it is not their place; although a natural, God-implanted curiosity, and not sinful depravity, as many suppose, incites a desire to learn about them. I had supposed it was because mothers by not beginning with the first lispings of the little one to give proper answers to childish questionings, failed to secure and to retain its full confidence, until a mother spoke of having this same dread, and at the same time of there being perfect familiarity between herself and daughter. An educated physician, having a good practice and the mother of several daughters, said the hardest thing she ever attempted was to give her girls this necessary information.

Mothers would like to put books treating of these topics in the hands of their girls; there are plenty of medical works which present them well enough, but there are so many other themes introduced that they hesitate to give them the book at all.

In some communities, especially in towns and villages, the children exhibit a remarkable precocity in this and kindred matters, so that it is hardly possible to find a girl eight years old who does not know something about men-

struation. Many a mother who supposes her daughter wrapped in the innocence of ignorance would be shocked to learn the amount of information which she possesses. In other communities this state of affairs is fully equalled by the almost criminal ignorance among the young people. Since I have been engaged in this work I have met numbers of women, and some of them young, who knew nothing of their coming "courses" until they were upon them. One in particular I remember, who said: "It has taken me a lifetime to forgive my mother for sending me away to boarding-school without telling me about it." And well she might have so felt, for the course she pursued from fright originated an indurated uterine cancer, which was incurable, and which caused constant suffering protracted through her lifetime. She was forty years old when she told me the circumstance. Others described the shock which their nervous systems received, the effects lasting for weeks, because so frightened at the appearance of unlooked-for blood, not knowing what to do to save their clothing from the stains which would surely betray them. fearing they would be subjected to blame, or suspected of some improper conduct or other, they hardly knew what One thought that certainly a blood-vessel had burst, and became frantic with fear lest she should bleed to death. Others told of washing in cold water, or bathing in some stream, and being made severely sick in consequence at once, or else thrown into a lingering condition of ill health lasting for months, sometimes attended with periods of insanity. In these cases the sickness and suffering made known to the mother what the daughter had been trying to conceal, who after thus having her life jeopardized, learned what was the matter. Sometimes the narration was simply ludicrous, but it is very cruel as well as im-

moral to allow girls to come to this period of their lives without information of what is before them. It is no less blamable to allow them to get snatches of stolen information from companions who generally either lack moral principle or are ill-informed by reading purloined books, or in any other haphazard way. This clandestinely-obtained knowledge is almost invariably mixed with a great deal that is low, vulgar, and harmful, nor does it prepare them to take care of themselves during the flow: an intelligent understanding of which is fully as important as knowledge of the function itself. In this way, too, a false and consequently unnecessary shame is produced, which some mistake for modesty, and which requires years to overcome and replace by a true modesty.

Mothers, do you feel the need of help to tell your girls these things?

Again, mothers can overlook and control the habits and health of their daughters while children; as, for instance, in their clothing. Then the girl goes away to school, or otherwise mingles with young ladies. She begins to feel the dignity of young ladyhood, and imagining her mother's notions of dress are rather old-fogyish, her advice not to wear thin shoes and tight dresses passes almost unheeded. If that mother could have shown her girl her physiological structure, explaining how and why her health was endangered, obedience to this advice would follow almost unasked. One day, after a lesson upon the hygiene of the respiratory organs, the teacher and pupils engaged in a familiar talk upon the lesson of the hour. Said one: "I never wore tight dresses; mother won't make them tight for us, nor get us corsets." Said the teacher: "You have wanted corsets, have you?" She hung her head, and blushing, said: "There was a great deal of fussing in the family on this

account, and that an older sister, when she got big enough to do as she pleased, bought herself a pair of corsets with the first money she earned." The mother doubtless had very good ideas on the subject, but did not know how to impart an intelligent understanding of them to her girls. It is one thing to possess knowledge, but quite another to communicate it. Before girls will learn to be careful of their physical natures they must be inspired with a sense of the duty and desirableness of good health.

The subject of maternity is another hard one for mothers to manage. Many of the foremost thinkers of to-day consider it to be the mother's duty to impart instruction to their daughters upon this topic also; but how to do it, and to get the courage to do it, are the questions. In too many cases the duty is procrastinated until the girls have obtained a crude knowledge from questionable sources, and the mother has almost lost a fine opportunity for obtaining or increasing her child's confidence and love.

Perhaps I address some mother who still believes that it is best for girls to be kept in ignorance of all these subjects as long as possible, fearing that instruction will injure their morals; that somehow it will rub off the delicate, beautiful bloom of modesty and purity that should overspread their souls. Let me ask such a mother to look back to her own childhood and inquire whether proper teaching by a proper person would have hurt herself; whether it would not have been of lasting benefit. I think she will agree with me that it would have done her no harm. Surely, mother, your daughter is as trustworthy as yourself. Ignorance is not innocence, nor is it a safeguard of virtue. We teach a child beforehand that it is wrong to steal. We do not presume that its ignorance of that sin will prevent it from committing a theft. How are modesty and purity most endan-

gered? By correct teaching, or by the leadings of a prurient curiosity, and the teachings acquired by stealth and immoral companions? In one of these ways a knowledge of these things must come to the majority, unless, indeed, it is taught by ruined health and suffering through ignorance.

"FOR GIRLS"

is a book designed as a supplement to the study of general physiology. As hinted in its title, it contains that information, and that only, which every girl should possess on subjects of private interest.

Every girl between the ages of ten and twenty-one should read it. The anatomy, physiology, and hygiene of the female organism, puberty, menstruation, leucorrhœa, self-abuse, reproduction, motherhood, dress, exercise, and rest are among the topics of instruction. Each subject is of vital importance, and is treated in such a manner as not to violate the most delicate sense of propriety. The main facts and principles are adapted to the understanding of quite young girls, while a full comprehension of details can only be obtained by the older girls and young ladies.*

Believing that mothers and teachers may without hesitancy place this book directly in the hands of their daughters and young lady pupils, or if they prefer, give oral instruction, using it as a guide: the author respectfully urges you to examine it.

Hoping that it will meet your approval, and aid in supplying a long-lacked necessity, I subscribe myself

The Girls' Friend,

E. R. S.

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* This book may be placed by trustees of female seminaries in the list of text-books required, that it may be read privately by the scholars, after having finished the study of general physiology, or in connection with it.

FOR GIRLS.

CHAPTER I.

OPENING ADDRESS.

WELL, girls, here we find ourselves, in this living breathing, moving world. We did not ask to live, we did not beg to be born, neither shall we be consulted as to the time nor way we should like to die. To some of us life seems a joyous, happy thing, and we look forward to coming years with hope and pleasure. Some of us, at times weary of life, see nothing in the future but toil and hardship; and, in moments of despair, wish we could die. But no matter how we feel about it, we *must live on.*

We may put a stop to our breathing; we may jump into the water, or take poison, and so end our lives as far as this world is concerned, but we have no right thus knowingly to destroy another's property, for we do not own our lives in the sense that we own many things, *i. e.*, to do with them what we please. We own life as a little girl owns her shoes or shawl. Her father gave them to her to wear. If the child wishes to cut them to pieces, or to give them away, or to

use them for any other purpose than the one for which her father designed her to use them, she must ask his permission. If she does not, she will soon find that her things are not hers. A very small child learns to make this distinction, and so will often ask when articles are given about which it is in doubt, "Is it all my own, to do what I please with?" It is so with living. In one sense our lives are our own, and in another sense our lives are not our own. They are our own to spend as we choose, to make them good or bad, happy or miserable, useful or worthless, healthy or diseased, as we choose. But the fact that we were not consulted as to whether we should like to live, nor how long, proves that another being—God, our heavenly Father—has a prior ownership, and this is why it is wrong to commit suicide.

Life is a mystery to us. We are a mystery to ourselves. But as a sense of the obligation to live is innate with us, our first consideration commonly is, how in fulfilling this obligation may we compass the most comfort, pleasure, happiness in our lives? In what manner shall we control the most respect and love? We take our position in the world, and our surroundings into account and calculate how we can make the most of them. To some the paths of learning seem to present the highest inducements; and literature, or teaching, or authorship is their chosen pursuit. Others are allured by artistic callings; music, the stage sculpture, or painting claim their ardent following. Then, again, some dream of a Utopia of their creating, and strive with all their human might to lessen

the sum of human woe. Some theorize, and some act Others, too many, alas! have no taste for learning, no love for æsthetic pursuits, no wish to help the world along to better times; no desire to mitigate the evils that deform society; they care alone for dress, display, gaiety, and the most foolish things of this world. Another class, with a listlessness difficult to account for in people born to stand upright, breathe pure air, and with reasoning *brains*, have no apparent aim; they are listless and idle, living in human forms the lives of jellyfish. But the most of people have no choice but to unite the two problems, how to live, and how to live most happily; and with this class the problem of food, clothes, and shelter includes that of happiness. They have time for little else than the consideration of how to earn a living.

Thus we see life presents various phases to young girls, modified by their surroundings and personal peculiarities.

For the most part life is sweet, and it does not seem much of a hardship to be obliged to live. If dissatisfaction arises, it is not, generally, that life is felt to be a burden, but because of the surroundings of the individual. The gay, the light-hearted, the affectionate, the serious, the earnest, the proud, the ambitious, the intellectual, and the needy—all these are among my readers. These are looking forward to life, even to long life, and Hope, life's "bright star," points to continuance of all present good, or else the attainment of happiness which the present withholds.

The girls of this country have a greater variety of

pursuits to choose from, and a wider scope for the exercise of their particular inclinations, than those of other lands.

A great deal of pains, too, is taken with their education. Schools are supplied with whatever appliances are designed to aid in mental culture. Almost numberless books are written expressly for girls, having in view the best good of the class for whom they are prepared.

Large sums of money are expended by doting parents upon their daughters, that they may be trained in whatever is prescribed by the highest standard of the present age, or by the society in which they move. Only convince the people that a certain course is best for woman, and the majority are willing to give it to her.

And it is well, for the influence that women wield is tremendous. They are bound to exert an influence for good or evil upon society. The mothers of both civilized and uncivilized nations have to do with the little children in the most important period of their being. The ideas of right, truth, and justice which they instill, or fail to instill, into the youthful mind greatly determines their moral characters when grown to be men and women, who in their turn make nations what they are. It has often been said that an artful, unprincipled woman can excel the meanest man in wickedness; while, on the other hand, some one has estimated that two-thirds of the Christian work of the world is done by women. Woman can not do man's work, but her work is quite as necessary

and comprises fully one-half of human responsibility. I repeat, it is well, considering the influence that women must exercise for good or for evil that their facilities for education should be the very best. It is scarcely possible to over-cultivate love of truth and perception of right principles, or to take too much care that the faculties of intellect in which they peculiarly excel be directed into the highest channels.

But it seems to me that in this very needful instruction, so bountifully provided, a most necessary branch has been well-nigh overlooked, and that, too, one which is the very basis, the foundation of education. Too much attention has been paid to the superstructure. The foundation to which I refer is *physical training*. I put good health as the very first requisite for a life of usefulness and happiness; the corner-stone in the grand structure of the noblest womanhood. To strive for perfect health should be the first duty of a Christian. Some one may demur at this and put a Christian character at the helm, but I maintain that we can not have the *best* Christian character without good health. Again, you may revert to some sick friend of yours who is so resigned to her lot, so sweet, so gentle, so lovely on her sick-bed. You envy her her heavenly frame of mind; would almost be willing to be sick yourself for the sake of making the same acquisition. Ah! but it is not the suffering which makes your friend so lovely. It is because she has learned to be patient with it. I think in every case of confirmed invalidism, where this happy resignation exists, could its developing

process be shown it would be found that previous to its attainment, the person had passed through a dark season of discontent, and perhaps fretfulness at the hard lot which only through strong effort was finally overcome. There is enough in the conflicting, stirring elements of the world to discipline the character if sickness never comes.

The notion is prevalent that sickness is sent as a special dispensation of Providence, but that is a very unphilosophical notion. Good health is the result of our obedience to God's laws, and disease is the result of disobedience of God's laws. The following story is to the point:

"An honest deacon, living in ——, frequently held a discussion with a physician belonging to the same religious society—the deacon declaring that all pains and disease were produced by the mysterious ways of Divine Providence, and the doctor as sturdily declaring that they were produced by mankind themselves, by violating the laws of health. One evening the deacon ate heartily of buckwheat cakes and sausages, and was seized during the night with a severe fit of colic. He sent for the doctor, who very promptly refused to go, sending him word that if God thought proper to afflict him, providentially, with the colic, it was his duty to grin and bear it and not complain; at all events, he thought it was not his place to give medicine that would interfere with the operations of Providence! In an hour or two the servant returned, declaring that his master could live only a short time if he did not obtain relief; and the physician, know-

ing that God's laws were just and inexorable, and that He would not suspend them to relieve a thousand deacons, thought his brother had been punished enough for his folly, and concluded to try the effect of a little medicine. As he entered the room he saw, at a glance, the nature and cause of the difficulty, and giving him a small quantity of tartar emetic, he soon found relief. The worthy deacon learned from sad experience to recognize God's laws for man's *physical* as well as man's *moral* government."

Do not let us make a pack-horse of Providence to carry blame that should rest on human shoulders.

We know that the mind is greatly affected and controlled by bodily conditions. Business and pleasure, work and study, must be suspended entirely when we are prostrated upon beds of sickness. That is plain to all. But perhaps it is not so evident that every departure, however slight, from perfect obedience to the laws of health has an effect upon the mind. Yet so it is. The intellect can not perceive so clearly, nor the disposition be so cheerful and patient, nor our work done so efficiently, when the physical system is even partially out of order. Many a blemish of temper that is charged to the natural depravity of the human heart should be laid to disordered digestion, or a superabundance of carbonic acid gas.

A musical instrument that has bent, or loosened, or rusty, or broken strings, can produce no harmonious melodies. And this human "harp of a thousand strings," that might ever exult in clear, thrilling

harmonious, soul music will inevitably sigh and groan and squeak unendurable discords if its bodily frame is allowed to go unstrung. One single string out of tune will spoil a whole otherwise artistic performance. It is just as essential that *each* part of this exquisitely and sympathetically sensitive human organism be understood and kept in health, and for the same reason

Christ, the greatest practical philosopher that ever lived, Himself recognized and worked in accordance with the principle that the mind is affected by the body. He knew that a soul lodged in a suffering and diseased frame could not flourish in spiritual vigor and beauty; therefore, He made the blind to see, the deaf to hear, the lame to walk, the sick to be well; He cleansed lepers, cast out devils, fed the hungry; then, and not till then, He took their sin-sick souls in hand and preached the Gospel to them. He first made the body a "fit temple for the indwelling of the Holy Spirit" before He gave that Spirit. A fine, well-developed soul needs a good, strong body by means of which to carry out its schemes. The better the health, if other things correspond, the better will be the Christian.

Again, we are at birth endowed with a certain amount of vitality, sometimes called "constitution." The amount of vitality with which each starts out in life, other things being equal, determines the number of years we shall live. When our vitality is destroyed, or used up, we die. But very few people live as long as their vitality promises, or as long as their Creator intended they should live, judged by the constitution

which He gave them. There are many ways of destroying the vitality too soon. It may be done gradually or suddenly. The man who commits suicide is an example of one who destroys it with a single act suddenly. The man who drinks intoxicating liquors, and dies of delirium tremens, illustrates how the vitality may be destroyed gradually by a long series of acts. Every time we violate a law of health we help break down the constitution. Each cold that settles on the lungs makes the lungs weaker than they were before, and less able to withstand exposure. The more we sit in a stooping posture the weaker the spine becomes and the more difficult it is for the shoulders to take an erect position. A foot or an ear once frozen is made tender and freezes more easily the second time.

If we would live out the full length of our days as indicated by our constitutions, we must obey the laws of health. We have seen that the suicide does wrong, because he destroys another's property. If it is sin to take our own lives by a single and deliberate act, it becomes no less suicidal to cut them short by a series of violations of the laws and conditions upon which we have learned that life depends. If we understand that we can not be well when the blood is impure, and that we can not have pure blood without breathing pure air, it becomes just as much a sin to breathe bad air, which is certain to cause premature death, as it does to breathe chloroform on purpose to kill ourselves. We have no right to destroy property belonging to another.

CHAPTER II.

OPENING ADDRESS—(CONCLUDED).

I WILL select but one more out of many other reasons which might be given to show that one of our first and highest duties is to learn and obey the laws of health. Whatever your efforts, girls, to get pleasure and happiness, as girls, out of your present surroundings; whatever your dreams as to what the future may have in store, which the present denies; doubtless, as women, the ultimate destiny of the majority of you will be marriage. Of course this statement will be met with a variety of expressions, from the sneer to the look of disgust. The fact will remain the same, however. Facts never change, but sometimes the opinions of girls do.

It is a fact that the majority of women are married, and for generations to come the same will be true. The wise girl will prepare herself as well as she can to be happy and to perform her duties well in the relations which marriage entails. Marriage is held up before the eyes of girls—tacitly—as a life object. The length and kind of their education, the nature of their accomplishments, their dress, their *début* in

society, all too often speak in unmistakable language that they are arranged with particular reference to catching a husband. Now this *object* held out as the one a young lady should seek to gain may be all right; for, should she not try to make herself as worthy as possible of a *good* husband, seeing that her destiny is to be married? I would not find fault with this aim of a woman's life, but I do find fault with the preparation she receives for actual service in that life.

The range of thought which this book intends to follow forbids my enlarging upon any but the one point of health and physical training, in which it seems to me there is a lack of sufficient preparation for marriage. How true a picture is the following: "The great danger of our day is forcing the intellect of woman beyond what her physical organization will possibly bear. We put our daughters at school at six, and expect to have their education completed at eighteen. The average girl would be mortified not to be through her schooling by the time she reaches that age. In these years the poor thing has her brain crowded with history, grammar, arithmetic, geography, natural history, chemistry, physiology, botany, astronomy, rhetoric, natural and moral philosophy, metaphysics, French, often German, Latin, perhaps Greek, reading, spelling, committing poetry, writing compositions, drawing, painting, etc., etc., *ad infinitum*. Then out of school hours, from three to six hours of severe toil at the piano. She must be on the strain all the school hours, study in the evening till her eyes ache, her brain whirls, her spine yields and

gives way, and she comes through the process of education enervated, feeble, without courage or vigor, elasticity or strength. Languid and nervous, easily dispirited, instead of feeling within herself the freshness and bouyancy of youth, what wonder if she draw back appalled from the new responsibilities at marriage."

Many efforts are being made to remedy these palpable defects in prevailing systems of education. Books are written on health and physical training, and occasionally we hear of schools in which the care of the health and education of the body is made an object of especial attention. Dr. Dio Lewis gives the following among the items of results obtained with him, where physical education constituted a part of the regular system: "Girls came to our school with the stipulation that they should not room above the third story, not being able to climb higher, who within five months walked ten miles in three hours without fatigue. We measured them about the chest under the arms on entering the school, and again on leaving, and found that a common increase in eight months was three inches. There was a still more remarkable enlargement of the arms and shoulders, while the change in their manner of walking never failed to impress us all. Female weaknesses, which, in some form, nearly all of them brought to the school, were quickly relieved, and headaches, after the first month of the school year, were almost unknown among us. It is my deliberate conviction that ninety-nine in every hundred girls may be so developed physically in two years of school life that they can walk ten miles with-

out fatigue, be free from aches and weaknesses, and be nobly fitted for the grave responsibilities of citizenship and motherhood."

It is in connection with marriage that I would repeat and emphasize the importance of considering good health and a full physical development as the foundation or corner-stone in the foundation of happiness and usefulness. Nowhere is health more important. Young men are, as a rule, strong and vigorous. From early boyhood they are physically better trained than girls. They are far more out of doors, breathing pure air, exercising and strengthening their muscles, thereby keeping their nervous systems in tone and duly balanced. Their mode of dress allows free use and full expansion of all parts of the body and they arrive at manhood healthy and fully developed. Consequently they are not adapted to mate with undeveloped, dwarfed, nervous, ailing, delicate young ladies; wholly unable to understand and sympathize with their weaknesses or to have patience with their nervous fancies and requirements. The result that would naturally be expected from such unions, we too often see—disappointment and unhappiness on both sides. The husband is disappointed because where he expected a companion, a helpmeet, he finds only an invalid, unable to accompany or assist him as he would like. The wife is disappointed because where she expected quick sympathy, instinctive appreciation of her sensitive, delicate nature—having heard so much about the "union of souls"—she finds herself misunderstood and seemingly neglected.

Let me tell you, girls, men don't marry sickly women more than once, not if they can help it. Nor at all if they are sensible. Sometimes delicate girls make healthy women after marriage, but no one is sure of such a happy result, and it is true that strong girls sometimes make invalid wives; but that is the exception, not the rule, and is generally a needless change that a little hygienic knowledge might prevent. It requires a great deal of love—a great deal—to enable one to go through years of watching and caring for a sick one and find in it real pleasure. There are many such cases. There are many more where it is done out of a sense of duty, and the task performed with patience simply, a forced patience. There are others where it is done with impatient unwillingness, felt if not spoken.

There was once a young lady in delicate health, also a cripple. She received the attentions of a gentleman who was devotedly attached to her. He asked her to marry him. She told him freely the state of her health, keeping nothing from him, and said: "Shall you be satisfied to take me as I am? Do you still want me to marry you? I'm afraid in a little while you will tire of me when you see how poorly I am, and of how little assistance I can be to you. I'm afraid I shall be a burden instead of a help." "Oh, no, no," he earnestly, and as far as he then knew himself, sincerely answered, "I couldn't live without you at all," and promised constant and unending love and care and watchfulness. They were engaged, and finally married. She left her

father's house, where she might have remained surrounded with every care and luxury. She loved her husband and banished the fears that made her hesitate at first, putting all her faith and trust in the one who had promised so much. The years rolled on. Gradually she began to see that his devotion was changing, and all her fears revived. More and still more plainly, without realizing it himself, he showed that he was getting tired of a sickly, crippled wife. He remained longer and more frequently away from home, and instead of being satisfied with her society, sought other company. One link of love after another snapped asunder, till, as one expressed it, "He would keep her awake night after night, and scold and find fault with her because she was sick." A life thus tender and sensitive, that might have been long a blessing to him had he continued the same love and gentleness he had once bestowed, could not long survive such harsh treatment. When she was on her dying bed she looked at him and said, "Will, you won't scold me any more. I shall soon be gone." He burst into tears, and seemed at last to realize his cruelty, and to remember his broken promises.

A man of principle would have done differently perhaps, yet even he would have been happier, and his love more likely to hold out, with a healthy than a feeble wife. The most disinterested love will tire of constant trial in a sick-room. Human nature is weak, and though men promise fairly, and in perfect sincerity, don't you believe them, girls. Remember that they don't know what they can do, for they have

never been tried. I once heard a physician say, "It's no use talking. A wife that is not physically a woman can not make a man happy." Another estimated "that not one girl in fifty of marriageable age is of marriageable health." Another said, "that the sickness of wives in directions peculiar to their sex was one great source of unhappiness in married life —was often the cause, directly or indirectly, of many divorces."

Now, girls, if you marry you want to be well. Not that you should necessarily use your strength in manual labor, but in order that you may be happy. The main source of the happiness of a woman who loves her husband, consists in the assurance that she is making him happy. Her constant wish is to please him, that she may retain his love. She needs to be well in order to do this. There are many noble men who bear patiently with feeble wives, but all men are not so; and these men would be just as noble and far happier with healthy wives. If you marry a truly noble man you want to be well.

If you marry a man who fails to be all you expect of him, if you do not receive that sympathy and consideration which your love craves, then you certainly want to be well, that you may not be utterly crushed, and can turn your attention into other channels, where you may do much good, find solace, and perhaps a great deal of happiness.

And above all, if you never marry at all—and *young* girls are noted for their declarations to this effect—you need most emphatically to be well. You don't want to be laid by, a useless, pining, puny, ailing old maid,

to be waited on by those who could be better employed. You may have a very beautiful mind, but it will not be worth one-half as much to you as it might, unless with it you have beautiful health. "A sound mind in a sound body" is the sound logic.

It is a fact that between the ages of thirteen and eighteen the foundation is laid for most of the sufferings of maturity. Not one woman in one hundred is in the enjoyment of the same perfect health she had before she was ten years old. This ought not so to be. It is in the teens that, if ever, this foundation of physical culture must be laid, upon which is to be reared the superstructure of intellectual vigor and spiritual beauty; of happiness and usefulness.

And there is yet another motive higher and nobler than those which I have mentioned. These are selfish motives, because they refer mainly to the seeking of health, simply for your own sakes, and your own comfort and happiness in the world. You are to exert an influence over others. Girls, the redemption of the race from ignorance and sin lies chiefly in your hands! A better physical education, more than anything else, is, at present, needed to forward that work.

To explain fully how the accomplishment of this work depends upon physical development would require several volumes as large as this.

Therefore, only one branch can be attempted here. It is on this subject I feel that I have something to say to you while you are girls; to all girls whatever their station now, or whatever it is to be in womanhood. I believe it will do you good, and assist in our mission to the race.

CHAPTER III.

THE PHYSIOLOGY OF WOMAN.

As life and death come to us unsought, so we were not consulted in regard to the material and arrangement of the complicated machine which we call ourselves. We are not responsible as to the form of our physical being. Our bodies as well as our souls were fashioned to the liking of the Creator. We were made in the "image of God," "a little lower than the angels," "wonderfully and fearfully made." When we study the structure and functions of our physical natures, we are studying one of the works of God just as much as when we are engaged in analyzing a flower, or in penetrating the depth of the starry heavens.

In studying ourselves we discover what we find in no other production of the Divine Mind. We find not merely life and instinct united to inanimate matter —we see that in lower animals and plants—but in addition to that we find united the imperishable soul. To the gross, visible, senseless, and decaying body is allied the invisible, spiritual, ethereal, undying mind. In man alone is found a highly developed sense of right and wrong, reason, invention, love, and will which manifest their existence by means of flesh

blood, bones, and nerves. It is this union of soul and body which constitutes man the most wonderful of all the creations of God—the crowning work of the universe.

I confidently expect that every girl who reads this book will do so with earnest, serious thoughts and proper motives, remembering that she is studying the most wonderful creation of her heavenly Father, for the sake of learning how to be well, that she may make the most of herself in her opportunities for usefulness and happiness. I expect her modesty, thus enlightened, will become a true, not a spurious article, and her virtue will be purified and strengthened.

WE WILL NOW BEGIN THE STUDY OF THE SUBJECT OF THIS CHAPTER.

I shall proceed on the supposition that my reader has studied the rudiments at least of anatomy and physiology. At the age of ten or twelve a girl ought to have acquired a general knowledge of this subject. Should my reader know nothing about it, I urge her to procure a book and read it carefully either before going on with this or in connection with it.

Important as every one who has given the subject of general physiology any attention admits it to be, I have long felt that a knowledge of private physiology was quite as important. To be complete, the latter should follow the former as a supplement. For want of some arrangement by which a girl may acquire a special knowledge of what she ought to know about herself she fails to obtain the full benefit of what she has learned.

For instance, girls have heard over and over again, for years and years, warnings against corsets and tight lacing, yet they will go right on disregarding the caution day after day, year after year. I have been astonished, inexpressibly astonished, to find girls, directly from the best seminaries of learning, who I knew had been thoroughly taught in anatomy, physiology, and hygiene, from text-books prepared for general use, still persist in practicing this most pernicious habit of tight lacing, and then, astonishment upon astonish-

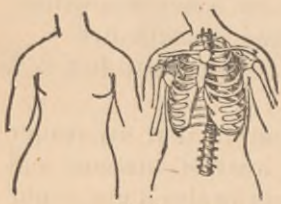

Fig. I.

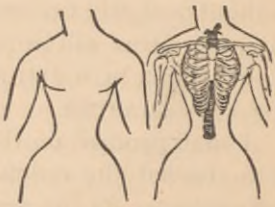

Fig. II.

ment! declare that their dresses were not a particle too tight. These are the words which some of them have recited to their teachers:

"In children and also in adults the ribs are very flexible, and a small amount of pressure will increase their curvature, particularly at the lower part of the chest, and thus lessen the size of this cavity. The lower ribs are united to the breast bone by long, yielding cartilages, and compression may not only contract the chest, but an unseemly and painful ridge may be produced by the bending of the cartilages on one or both sides of the breast bone. Again the carti-

lages on one side may be bent outward, while those on the opposite side are bent inward, thus forming a depression parallel with the sternum. In some instances the anterior extremity of the lower ribs on each side are brought nearly or quite together. In these instances the movable extremities of the ribs are drawn down toward the haunch bones, while the space between the ribs is lessened."

Why, the examination of these figures ought alone to frighten any girl out of corsets. Further on they recite: "So numerous are the bronchial or air-cells that the aggregate extent of their lining membrane in man has been computed to exceed a surface of 20,000 square inches, and Munro states that it is thirty times the surface of the human body. The chest is not only most expanded at its lower part, but the portion of the lungs that occupies this space of the thoracic cavity contains the greater part of the air-cells, and from the lower two-thirds of the lungs the greatest amount of carbonic acid is abstracted from the blood, and the greatest amount of oxygen gas is conveyed into the circulating fluid. Hence, contracting the lower ribs is far more injurious to the health than diminishing the size of the upper part of the chest. If the lungs were diminished in size, the amount of carbonic acid would not and could not be eliminated from the system. Under such circumstances the blood would not be purified. When the lungs are properly filled with air the chest is enlarged in every direction. If any article of apparel is worn so tight as to prevent the full expansion of the chest and abdomen, the lungs in

consequence do not receive air sufficient to purify the blood. The effect of firm, unyielding clothing when worn tight is to prevent a due supply of air to the lungs. The impure blood will be returned to the left side of the heart, and the whole system will suffer. When the air-cells have become partially impervious to air from pressure upon the lungs, these organs become consolidated and still more unable to allow a sufficiency of air even though pure, and scrofula or consumption follows." So much for the effect of lacing upon the ribs and lungs.

With regard to its effect upon the digestive organs they recite this: "Restricting the movements of the ribs and diaphragm impairs digestion. It is noted of individuals who restrain the free movements of the abdominal muscles by tight dresses, that the tone and vigor of the digestive organs are diminished. The restricted waist will not admit of a full and deep inspiration. Pure air is necessary to give a keen appetite and vigorous digestion." Again: "The chest can be deformed by making the linings of the waists of the dresses tight, as well as by corsets." One of my professors used to illustrate by taking hold of his vest, how some girls would do, to prove that their clothes were loose enough. By drawing in the breath the tightest dress will still allow the insertion of two fingers, and some girls seem to think if they can do that with a dress, it must be very loose, while the true test is to see if you can, while in a sitting position, inflate your lungs without straining your dress. "Any woman dresses tight whose dress parts far enough to

show its hooks and eyes; and how few dresses but do this."

Just here I stop to count up the number of writers upon health and authors of text-books that I have read since Cutter's (1850), from which I have copied all but the last of the preceding extracts. I count over twenty who have treated upon exactly the same principles in various ways, and I presume that I have not read half the number. And still, though tight lacing is not as prevalent as formerly, the clothing, as a general thing, is worn altogether too tight even by hundreds who suppose themselves free from this error in dress. I have often wondered what could be the reason that girls who have been so well instructed will persist in practices directly at variance with it. Perhaps, although they know that tight lacing produces consumption and causes dyspepsia, they also know that nature has wonderful recuperative power, and they infer that when incipient consumption declares itself, and their stomachs begin to distress them, that they can then reform their manner of dressing—having learned from their books that the ribs and chest will resume their proper shape if the pressure is removed. And so it will; but why do girls tax nature like that? Every sickness, every overstrained part, every departure from nature's laws, helps to weaken and break down the constitution, and it is wicked to knowingly break those laws—God's laws—on that account.

Do girls persist in dressing as they do to please the boys and young men? They have often been ac-

cused of doing so, and the girls always deny it; declaring they dress solely to please themselves. Without entering upon the pros and cons of the case, I will state it as my belief that this *is* the reason—yes, the real reason after all. But I am glad to see this. It seems to me a very beautiful thing that young ladies and gentlemen like to make themselves attractive to one another; and the more careful they are to make this attractiveness genuine and not merely a surface show, the more beautiful it is. I would not say one word to lessen the strength of this motive, but all I could to increase it.

Girls, a small waist, artificially obtained, is a sham. But boys do not seem to know that any more than you do. Somehow they have got the idea that it indicates refinement and good taste in dress, or that it belongs to a good form, which is one essential of a good-looking woman; and, as you want their favorable opinion, you seek to please in a point so easily obtained—a small waist. This, then, I take to be the reason all correct teaching, all pleadings for health and comfort, all motives of right and wrong, in the matter are so universally set aside.

The attraction of the sexes is well-nigh the strongest motive power in the world. I can think of but one stronger, and that is love of right. Occasionally love of sex and love of right conflict, when the latter should prevail. Generally they harmonize, and it is right to like the society and good opinion of the other sex, and to seek to please them in personal appearance. But just here comes the impcrtant point.

Boys ought to be so taught that they will be pleased only with that which is naturally, not artificially beautiful; with the solid, pure, and good. By books and in many other ways they are learning fast to distinguish between a natural waist, and an unnatural, deformed one. As soon as they become convinced that a natural form and sound health and vigorous strength can belong to a real lady, and that she can not possess an exquisite mental susceptibility without, they will show a decided preference for the society of such. You can help them to form a correct taste by showing that you can have gentility of manners, a fine bearing and address, and a true ladyhood united to glorious physical culture.

These are still more of my reasons for believing that girls ought to receive instruction in special physiology and hygiene; that they should know *all* the whys and wherefores of the evils of improper modes of dress; that they be taught the *whole* method of becoming genuinely beautiful in person, and all about themselves as girls.

Therefore, girls, I propose to give you the remainder of the reasons, and they are vital ones, for allowing yourselves to grow as nature intended. Will you give your serious attention to the following description of the peculiar

PHYSIOLOGY OF WOMAN?

Tne controlling organ in the female structure is the womb. The word woman is only a contraction of the two words womb-man; the first part of the word

describing what kind of man is meant—the man that carries the womb. The scientific name of this organ is the uterus. This is the nucleus of womanhood, the most important and sacred of all her organs.

Fig. III. represents the uterus and its appendages. 1, 2, 3, is the uterus. The upper part, 1, is called the body; the lower part, 2, is called the neck. In the neck is a small opening, 3, called the os uteri, or mouth of the womb. The uterus is about

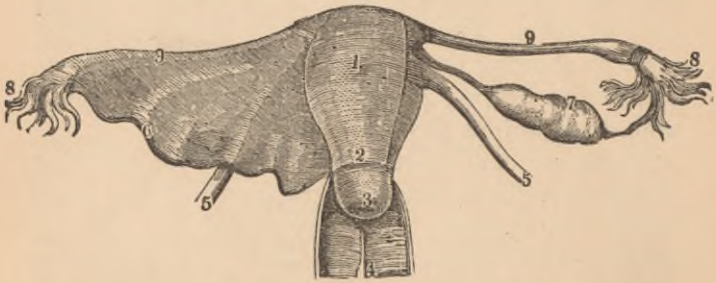

Fig. III.

one inch thick, two and a half or three inches long, one and a half or two inches broad in the widest part, and less than an inch in the narrowest. It is not round, but somewhat flattened back and front. The whole is in shape like a balloon or an inverted pear, and in size rather larger than the nose. The neck, 2, enters the top of a narrow passage, 4, called the vagina. This is from four to six inches long, and is lined with folds of mucous membrane. It has an external opening or mouth called the vulva (see 11, Fig. IV.)

Fig. IV. represents the side view of the uterus. 4 is the bladder into which the urine is secreted from the kidneys, 6 is the outlet of the bladder or meatus urinarius. The vulva and meatus urinarius are covered externally by two broad, thick, fleshy substances, called the labia or lips (see 9, 7. which shows the labia

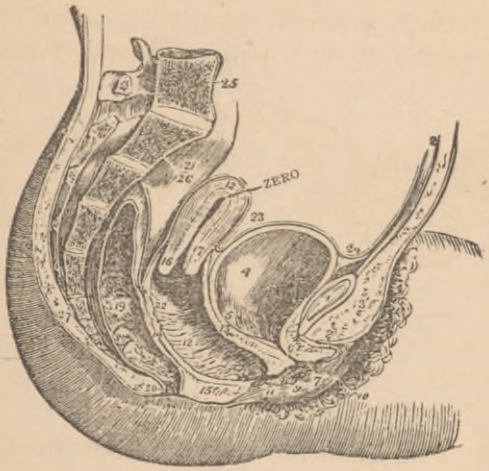

Fig. IV.

of one side only). The organs which have been thus described are sometimes termed the *sexual organs* sometimes the "privates."

19 is the rectum or lower end of the intestines, which discharges residuum or waste solids; 20 is the outlet of the rectum called the anus.

The reader will see that the uterus, 0, and vagina, 12, are placed between the bladder and rectum—the

body of the uterus lying nearly on the top of the bladder. In some persons it lies naturally lower down than in others.

The uterus is kept in its place partially by the compactness and tension of the muscles of the vagina and those that surround it, partially by its own buoyancy, and partially by eight ligaments. Four of these ligaments are represented among the appendages in Fig. III. 5, 5, are two round ligaments, the lower ends of which are attached to the pubic bone, shown at 3, Fig. IV. 6, Fig. III., is a broad ligament. There are two of these, one on each side, only one of which is shown in the engraving. They extend nearly the whole length of the womb and grow fast to the sides of the pelvis. The remaining four ligaments can not be shown in the plates, but consist of two connecting the womb with the bladder in front, and two others which connect it with the rectum behind. It is imperative to the health of the possessor that this little organ should constantly maintain its normal position; and, while the strength and buoyancy inherent in it and the vagina enable it to be partially self-supporting, it is the chief office of the ligaments to aid in securing that important result, hence we find that

THESE EIGHT LIGAMENTS ARE VERY STRONG,

as of course they must be, in order to assist in sustaining the womb in its place against the pressure of the organs above and surrounding it. Let us consider a moment what that pressure would be.

First, the pressure from weight.—I do not know the actual weight of that part of the body lying above the womb, but suppose it must be about one-third the weight of the whole body. The liver—the largest organ in the system—weighs about four pounds. The brain is very heavy, weighing about three pounds. The lungs about the same as the brain. The heart, stomach, and kidneys together about one pound. The bony framework surrounded with muscles and fat, the blood and intestines which form the main bulk, make up the remainder of the weight; and it is near enough to our purpose to suppose it to be almost one-third. Therefore, a person whose weight is one hundred pounds, will have over thirty pounds of sheer weight lying over the uterus, resting, it is true, largely upon the pelvic bones while the body remains erect; but in the various positions we assume daily of bending, crouching, and so on, this support is nearly removed, and there must be great strength in the ligaments to help sustain the womb under all this weight.

Second, the pressure from motion.—Within this upper half of the body an immense amount of work is constantly being performed. So, not only is there the weight of each organ to be taken into account, but also the constant jar or motion which gives additional pressure. Greater strength is needed to stand up under a weight that is continually in motion than a weight that is at rest. It is upon this principle that trains of cars are made to slacken their speed and run slowly over bridges. Let us stop a moment to con-

sider what the pressure from this motion would be The heart sends throughout the system nearly two hundred ounces of blood every minute, or some seven hundred pints per hour, and over eight tons every twenty-four hours. Think what tremendous power is required to withdraw from the pulmonary veins, and then send round the system—thus handling these eight tons four times over, equal to imparting motion to above thirty tons diurnally—these eight tons of blood!

A vast amount of power must be expended by the diaphragm also. Every time the lungs are filled with air, the diaphragm contracts and forces the liver, stomach, pancreas, intestines, etc., downward toward the uterus; and every time the air is expelled from the lungs, the diaphragm relaxes and forces the ribs and lungs upward and outward—the liver, stomach, etc., springing back to position, only to be pushed down again at the next inspiration. And this alternate contraction and relaxation forcing organs down and up occurs about eighteen times a minute through life. The stomach, liver, intestines, lacteals, etc., are almost constantly engaged also in the work of digestion, secretion, and assimilation, and, of course, all the time in action.

The womb is amply provided with power to maintain its proper position in spite of the immense strain and weight that would otherwise crush it. Besides being very strong,

THE LIGAMENTS ARE VERY ELASTIC.

Let us look a moment at the necessity for this quality. How often do we sit in a stooping posture with the head, shoulders, stomach, and abdomen thrown forward and down, of course crowding all down upon the womb. The ligaments must accommodate themselves to the weight and lessened space, and so draw together and bend, which they do, and at the same time be all ready to spring out again at a moment's warning when the body straightens into position. Then, in reaching, running, stepping up and down, bending over, climbing, jumping, and so forth, in the quick and varied movements of a day—how wonderfully elastic must these ligaments be to allow the uterus to accommodate itself easily to all unusual and rapid change of position without damage from concussion and friction.

Nature has bountifully provided for the safety of this little organ. It is placed in the center of the pelvis, away from all hard and unyielding bones, surrounded with soft parts, supplied with an abundance of nerves and arteries which give it its buoyancy, and furnished with strong and elastic ligaments for its support.

The Creator, in making these ligaments and the muscles of the vagina and surrounding parts—for these likewise are strong and elastic, able to support a great deal of weight and pressure—evidently did not provide for the squeezing and weight and whalebones that fashion's tyrannical hand would add. No doubt

He might have made the ligaments far more strong and elastic even than they are—so much so, that if the waist was squeezed tighter and tighter daily, and the intestines were crowded down with whalebones and steels, and pounds and pounds of cotton and dry-goods, and kept crowded down for years upon the womb, making the ligaments and vagina shrink into a space less than one-third their natural length, or else stretched into an unnatural position, so that when the pressure was removed, all would suddenly resume their natural position and health. No doubt He could have done this—but, for some reason or other, He did not; and, although the human system has almost unlimited recuperative power, and will recover from the strain and suffering induced by exposure to varying circumstances — as extremes of heat and cold, damp and dry, fasting and feasting, cutting and jamming—there is a limit beyond which its powers will never rally.

There are, too, many changes to which the system can become accustomed if the alteration be brought about gradually—as, from being fatigued with one hour of hard labor to ten hours of hard labor with no more fatigue; from sleeping on feathers in the house without taking cold, to sleeping on the ground out of doors without taking cold.

But there are some things to which the system will never habituate itself, no matter how gradually and carefully we undertake to bring about a change—and forcing these organs of the pelvis, about which we are studying, to sustain the weight of tight clothing, is

one of them. The ligaments *never can "get used" to it;* and, the consequence is, they will gradually give way. They will struggle nobly to bear up under the new pressure; but, like spent india-rubber, like the elastic cord on a hat, they will lose their elasticity, and become weakened and stretched to spring back no more, unable to return the uterus to position or hold it in its place. This condition is called

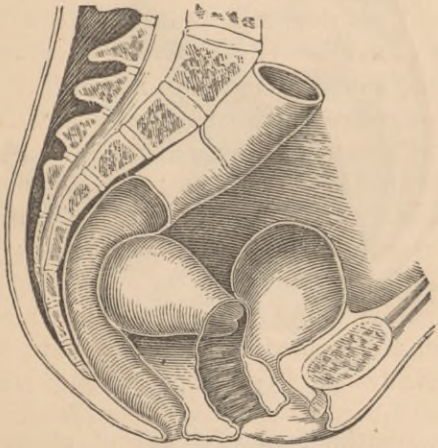

Fig. V.

PROLAPSUS UTERI, OR FALLING OF THE WOMB.

Figs. V. and VI. represent two, out of many, different positions which the misplaced womb will take. Sometimes in the early stages of the complaint its

body will be thrown backward, and the neck forward, as seen in Fig. V. Sometimes, *vice versa*, as seen in Fig. VI., slipping down a little way into the vagina.

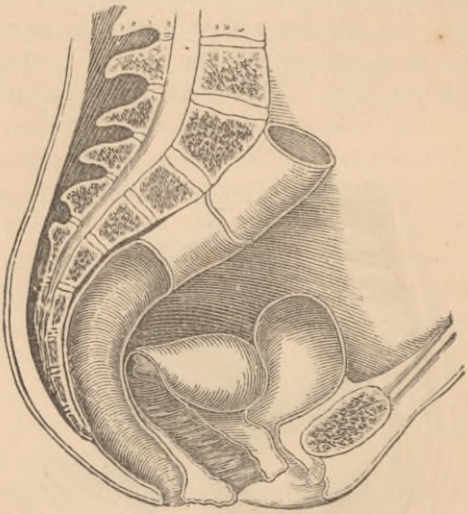

Fig. VI.

Sometimes, without moving out of place, it will double upon itself forward or backward, as the case may be. Sometimes only one ligament will fail to do its part, sometimes two, and so on. Only in advanced stages of the malady do they all together give way. In the latter case the womb will fall clear down and out of the vagina, partially appearing outside of the body, dragging the appendages downward with it, and stretching the ligaments most fearfully

Physicians have corresponding names for the different positions.

From a simple examination of the plates, one would suppose that so small a part of the body, weighing a little more than two ounces (only as much or a little more than four common letters), merely turned to one side, or slipped down a little or tipped over, would make no difference in the general health. But that it does actually cause suffering, and often severe suffering, many a woman can testify from experience; all physicians know, and every girl ought to be taught, as well as the reason for it, that she may be prevented from having to learn through suffering.

CHAPTER IV.

THE PHYSIOLOGY OF WOMAN—(CONCLUDED).

THE uterus, as I have already affirmed, and as might be inferred from the care with which nature has provided for its safety, though small, is an exceedingly important organ. It exercises, as it were, a controlling influence over the whole being, body and mind. It is very sensitive also, being in its turn easily influenced by bodily and mental conditions. A girl having disease of this organ is seldom free from distress in other directions, or happy and cheerful in mind. Or if she is afflicted with severe grief or trouble, or some weakening bodily ailment, this organ is liable to be implicated, or by its sensitiveness readily exposed to participation in the general suffering. This being so, how plain it is to be seen that the womb should be kept from disease and in its natural position. Let us now enter into a more minute discussion of

WHY.

Those of my readers who have obtained some general knowledge of Physiology, undoubtedly became much interested in the study of the brain and nervous system, finding it a description of a far more marvellous telegraphic system than that invented by

Morse. The nerves that ramify the body, dividing and subdividing until they permeate every part in such numerous and minute filaments, that the finest cambric needle can not be thrust into the flesh without touching one, corresponds to the wires that carry messages over the country. The brain corresponds to the offices or headquarters where messages are received and transmitted. A single illustration will give an idea of the amount and kind of work done in this office. A barefooted boy steps upon a nail. That nail causes him exquisite pain while his foot is on it, which is but for a moment. But in that moment, and by means of that pain, let us see what has been done. That nail touched a nerve. That pain was a telegram sent to the brain through one part of the nerve, that the foot was in trouble. But before the boy could take his foot away, the muscles that move his foot must first receive orders to do so from the headquarters, which presently reach them through another line or part of the nerve. And this whole transaction is accomplished in a second.

Perhaps this wound, although done in an intstant, was severe. Nature now sets to work to restore the lacerated flesh and heal the wound. The news of the disaster and need of help are telegraphed by means of another set of nerves—the sympathetic—through the adjoining neighborhoods, each of which has its sub-office—a ganglion—and at once the needed help pours in from all directions, in the shape of blood and nervous fluids, the arrival of which is evinced by the swelling and inflammation of the wounded part.

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Sometimes the whole organism is drawn on for help or is sympathetically affected, and lockjaw sets in. Every portion of the system is intimately connected with the brain and with one another, by means of this complicated and wonderful telegraphic system. Every motion, from the winking of the eyelid to a jump, *en masse*, must each go through the process of sending notice to the brain, and the brain returning orders to the muscles to move.

One portion of the brain is noticeable on account of its extreme sensitiveness. It is the top of the spinal column imbedded in the lower part of the head, and called the medulla oblongata. As all the nerves are ultimately connected with the spine, the gathered nerve-force of the body must all center here on its way to and from the sensorium. Parts of the brain proper may be taken away without endangering life or sense, but the medulla oblongata differs from the brain in being more highly sensitive; if but slightly pierced spasms follow, and if much injured death instantly ensues.

I have introduced these remarks about the nervous system, in order to make plain one of the reasons why the little organ of the uterus has such an influence on the health when out of place. This whole machinery is permeated with nerves, and connected with all the neighboring organs by means of nerves. Nerves connect it with the spine, the medulla, and the brain. By referring to o, Fig. IV., it will be seen at once with what part of the spine the womb is connected—with the "small of the back."

The nerves of sensation are most abundant on the surface of the body, and but few in number, comparatively, within; so that pain from any diseased organ is not felt *in* the organ so much as on or near the surface. A diseased liver causes pain around the shoulder-blade and at the side, rather than in the organ itself. A disease, after long standing or of unusual severity, will produce inward pain, but even then it will seem greatest on the outside. It might be expected then that prolapsus uteri would produce

BACKACHE.

And so it does generally, though not invariably. When the womb is bent up or down, in or out, to one side or the other, by the failure of one or more ligaments to do their part, of course it lies in a different way from that intended by Nature, and the nerves must pull and draw and strain on one side, and bend and cramp on the other. The hurt will not be felt at the place where the difficulty originates, but at the nearest surface-nerve, which, in many cases, is located in this part of the spine. But few American women, or even girls, can say they do not know what backache is, periodically at least, if not constantly. Not a sharp, lancinating pain, as when a nerve is laid bare, but a dull, dragging, steady pain; though sometimes this sort of pain may become acute, with soreness of the muscles and flesh. Sometimes the ache, instead of being in the small of the back, will, from the same cause, be located between the shoulders, and confounded with liver-complaint back-

ache; sometimes it will be in the lower part of the head and back of the neck; sometimes in the tip end of the spine, felt only in the act of rising up or sitting down; sometimes two or three inches above the tip end of the spine. When the womb draws, draws, draws upon the nerves in a wrong direction, after a while, besides backaches, will come

HEADACHES.

Physicians often tell from the location of a headache, by what organ it is caused. Thus, bilious headaches and sick headaches from disordered stomach and liver, are located in the part of the head corresponding to their organs. Nervous headaches have their peculiarities, and so on. Headaches from uterine misplacements are located in the top of the head. The heat and pain just in a spot no larger than a silver dollar, is often continued for years, until the hair all falls out, never to grow again. Oftentimes, instead of being confined to this one spot, it will be united with a general nervous headache, involving the whole brain. With all such headaches the power of thought is more or less confused, the effort to control the thoughts and keep them from wandering becomes painful and trying, and connected reading and conversation almost impossible. Some describe the aching sensation as if all the nerves of the head were being pulled upon and drawn down. Some, as if the top of the head would come off. Some, as though a tight band were drawn across it; and some, as if a good squeezing and pounding would bring relief. "Seems as

if I should go crazy," is the common exclamation; and this is no idle phrase, for many a woman has become insane, and hopelessly insane, from this cause. Nerves thus constantly irritated will soon extend their irritability to the disposition, and

NERVOUSNESS

will be one of the troublesome effects of prolapsus. That disposition which is the sweetest in health will become correspondingly the sourest in disease. The whole world looks dark and upside down to a girl whose nerves are thus sick. Every little failure crushes her courage. Every little obstacle appearing in her way is magnified many times and fills her with alarm. "Mole hills seem like mountains," and she "crosses the stream before she gets to it." Any outward circumstance that is depressing looks doubly hard to bear, and she has no resolution to meet and fight difficulties. She is sure that *she* can not succeed, that some evil will befall *her*, that misfortune is on *her* track. She cries easily, is timid, shrinking, and "blue." Sometimes, indeed, the misery is removed for a time, and the victim experiences an extreme happiness that is quite unnatural, only to be again plunged into sadness quite as intense. If she is so situated that she feels obliged to keep her feelings to herself, she is only nervous, her nervousness intensified by the fact that there is no outlet. But if she is at home or is not restrained by her surroundings, her overstrung feelings will find vent, her nervous conditions will be apt to develop into crossness, scolding, fault-finding. She is

at swords-points mentally at least, and most likely openly, with her nearest and dearest friends, dissatisfied with the neighbors and society in general, frequently indulging in distrustful and rebellious thoughts against her Maker. Mental suffering, though it may be imaginary, is yet real, and is often harder to bear than physical pain. If this girl were well, imaginary troubles would flee away. Real troubles she would be stimulated to bear bravely and cheerfully. Difficulties that before threatened to crush her would only seem, then, to afford occasions for new triumph. Sprightliness, courage, and patience would take the place of ennui, timidity, and impatience. She would look back and wonder how she could have felt so sad and melancholy. The effect upon the

COUNTENANCE AND BEARING

is no less marked than upon the character. Skillful physicians can detect these female troubles by the appearance of the face. The eyes, those "windows of the soul," have a dejected and unhappy expression, corresponding to the mental state, and blue or dark streaks surround the under lids. The corners of the mouth are drawn down, pointing in an opposite direction from that they indicate in health.

Laughing draws them up; crying draws them down A happy, cheerful disposition is indicated by the corners of the mouth. A naturally sad and melancholy one is manifested in the same way. But disease will draw the corners of a sad mouth downward farther still, and for the time being the cheerful one; and it

ıong continued the expression with the disease will become chronic, or second nature. The whole face has a downcast, woe-begone expression. There is no spring or elasticity of gait, no life and animation of manner. Animal spirits, of which none of us can get rid in this world, manifest themselves through a dragging and burdensome demeanor, instead of giving an air of light-hearted gaiety common to healthy youth, that in after years tones down to quiet cheerfulness and steady good nature. In giving location of the uterus the fact was mentioned that with some persons it lies naturally higher up than in others. I venture the conjecture, that when it is placed high, its possessor will be naturally more cheerful and happy than one in whom it lies low. And in any one more than usually low-spirited and irritable, we may be pretty certain of the cause. But there are some people who have prolapsus uteri without backache or headache or any very marked nervousness. In such cases the womb will be bent forward instead of backward, thus pulling or pressing upon nerves in front of the body, rather than those connected more immediately with the spine and brain. In some cases nerves leading to the lungs will be the ones attacked, producing a disease which simulates

CONSUMPTION.

The better to illustrate this, I will select and describe a case from among a number that have come to my notice. I once met a lady who had for a long time received medical treatment for consumption

She had a severe cough and every appearance of lung complaint. Many doctors had employed their art to effect a cure. She had tried different climates to no purpose. At last she met with one physician who pronounced the trouble prolapsus uteri, and prescribed for that alone. Effecting a cure in that direction, the cough left of its own accord, as did all the other symptoms. Doubtless consumption proper would have followed in time; consumption has been induced quite as often, probably, by womb disease, as by want of pure air.

Goitre is a disease developed by this, and some of the most incurable cases of throat disease, and many voice difficulties also. Constant drawing of the nerves in connection with the throat and lungs irritates and inflames them, thus rendering them liable to be easily attacked with colds and humors. With some the nerves of the heart are involved, and they suppose they have

HEART DISEASE.

A young lady had what her physicians pronounced palpitation of the heart. It was not the opinion of one, but of several, as she tried every doctor within reach, and every new remedy that she heard of; all without relief. The difficulty began before she was ten years of age, and continued till she was about eighteen. At that time a cousin of hers, a young man, had just graduated, and was about to commence the practice of medicine. Of course he was much interested in his cousin's case, they supposed to be incurable. The more he examined the case the more

he became convinced it was not palpitation at all. He finally induced her to try medical treatment for female complaint, when, to the astonishment of every one, her heart disease entirely left her. I once met a lady afflicted, as she supposed, with

DYSPEPSIA.

Certain kinds of food distressed her. An apple, I remember, was one thing she did not dare to eat. She had taken medicine, electrical and other baths; had dieted and so forth, for dyspepsia. Finally a physician, wiser than the rest, suggested the real cause—trouble with the uterus—and confined the treatment to this disease alone, when with a cure of this the dyspepsia disappeared. Almost always the fallen uterus presses against the rectum, causing a train of evils in its turn.

CONSTIPATION—(LOCAL)

is one form of evil. There are two kinds of constipation, which I will designate as constitutional and local. The former demands a separate chapter for its consideration. Local constipation is caused by the pressure of the womb against the rectum, almost closing the passage, and when united, as it is in the majority of cases, with the constitutional form, is a prolific cause of suffering. As I mean to make this book useful, I shall use plain language, so that all can understand. With constipation in either case, at any time, the inclination is to strain in order to help nature expel the contents; but in the local form this

straining affords little relief or none, and, indeed, prevents rather than assists the accomplishment of the end sought. In straining, the abdominal viscera is crowded upon the womb, forcing it with greater pressure than ever upon the rectum, and closing the passage still more tightly. The matter which happens to be below this point may be forced out, but there will still be a feeling of unrelief. Straining should *never* be practiced. This of itself will often cause prolapsus. Injections of clear, warm water will give easy and full relief. But sometimes it will not be convenient to use the syringe; as, for instance, being detained from home. At such times let the individual take such a position as will allow her to press with the fingers of both hands hard around the anus, at the same time giving a slight strain from above. This will give tolerable relief, is far better than straining *en masse*, and is useful in any kind of constipation, where a syringe can not be obtained. The fœces should never be retained, for then this collection of effete and really poisonous matter will return to the circulation, seeking egress some other way, causing biliousness, skin eruptions, bad blood, weak lungs, and other diseases. There is also trouble with the

URINE

when the womb is thrown forward on to the bladder, as it often is. I have known *young girls* immensely troubled in this direction, the bladder so losing its tone as to fail of giving the usual warning sensation and need of relief. Every laugh, cough, sneeze, or

other sudden exertion, being attended with an unforewarned discharge of urine; going to church, out shopping, on pleasure trips, etc., becoming simply impossible. Here I would emphasize the danger of putting off attending to the calls of nature, while the organs are still in health. The bladder will, otherwise, become filled to its utmost capacity, thus requiring more than its ordinary amount of space, tend to crowd upon the uterus; then, if at the same time the person engages in dancing, running, jumping, or riding there is great danger that the overloaded bladder will throw the womb out of place. All such sudden misplacements cause the most excruciating pain. Besides, frequently repeated efforts to "put off" will soon paralyze all power to retain the urine, even for an instant. A young girl once went into a wild country place to teach school. Her room lacked a convenience to which she had all her life been accustomed. She was timid, and did not like to ask for it; besides, it was a dozen miles to the nearest store. What to do she did not know, unless it was to force herself to "wait" till she was dressed. In thus forcing nature to change this simple habit she suffered untold misery, and induced the weakness mentioned above. As some of my readers may be similarly situated, I want to advise them, rather than suffer in like manner, to provide themselves with an old tin can in case of emergency.

These are some of the difficulties and sufferings to which the upper half of the body will be subjected when that little organ gets out of place, by the pres-

sure of the clothing forcing the abdominal contents down upon it. But this is only half of the body. Let

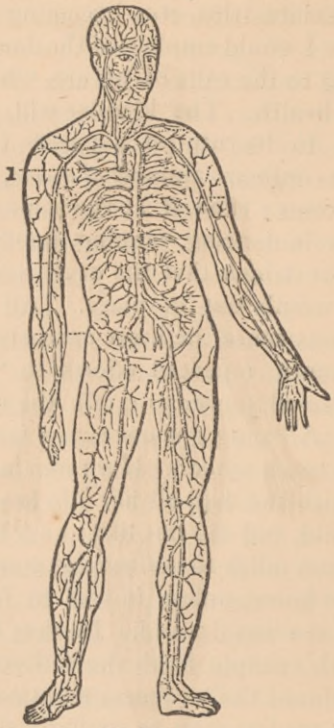

Fig. VII.

us look at the other half. There will be inevitably and invariably such a time with

COLD FEET.

And this is no slight affliction, as many a woman will declare, who can testify from experience.

Fig. VII. represents a front view of the course of the main arteries. Fig. VIII. represents a back view of the main nerves. Close by the side of each artery runs a

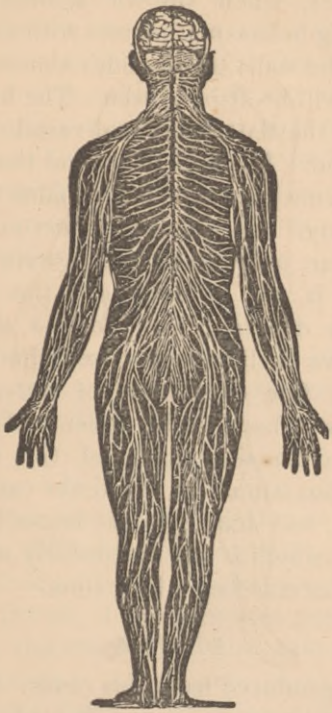

Fig. VIII.

nerve, all through the body. The large artery passing from the throat down the center of the chest, divides into two large branches, each branch carrying the blood into a limb. The same division occurs with the

spinal cord, and nervous fluid is thus also carried into the lower limbs. Now, the womb, though small, is several times larger than an artery, and being a rather hard substance, when thrown against an artery or tissues lying between, it presses with so much force as to flatten the walls till the sides almost meet. The consequence will be at once seen. The blood can not all pass along the flattened blood-vessel; the circulation is impeded. Much of the blood that should go to the feet can not get there, but remains in the upper half of the body. No wonder the feet are cold. No wonder the heart palpitates, the lungs are surcharged, the stomach is out of order, and the head aches. They have a double reason for so doing. The attendant nerve is likewise pressed almost together, preventing a free circulation of nervous matter. That, too, is sent back to the upper half of the body, increasing and causing much of the nervousness. Lack of nervous stimuli in the limbs causes a numbness, soreness, and aching of the bones between the knee and hip, which is felt particularly on going upstairs, and after standing a long time.

SCIATICA

is sometimes produced from this cause. A good way, in fact the only way, to warm feet made cold by prolapsus, is to lie down upon a sofa, or a patient's chair, with the feet to the fire. A recumbent attitude allows the uterus to move into some other position, or to press with less force against the arteries and nerves, so that the blood can circulate more freely

and become somewhat equalized. Bathing and rubbing the feet—a splendid way to warm them when cold from other causes—does little good here, for the reason that the exercise of the arms and chest in rubbing calls so much blood into them away from the feet, that it takes only so much longer for it to become equally distributed after getting into bed, and the feet invariably get cold again before that can take place. There would be no objection to bathing and rubbing if done by another person, the possessor of the cold feet meanwhile lying down. The reader will readily understand the cause of a

BEARING-DOWN

sensation, often severe, located in the lower part of the abdomen, which many women experience with uterine difficulties; also

CRAMPS.

Sometimes the blood will circulate so imperfectly as to cause this difficulty. It generally occurs in the night; the individual being unable to move that part of the body affected. The recumbent position in this case throwing the womb upon the main arteries and closing the passage.

These different forms of suffering seldom all unite at once in the same individual. When the spine and head are badly affected, the organs in the front of the body—*i. e.*, stomach, heart, lungs, etc.—perform their functions seemingly without interruption, and *vice versa.* There are many cases of severe female

complaints, in which the patient never suffers the bearing-down sensation. There are others which never have the form of nervousness represented by *ennui* or low spirits. Three or four symptoms as a general thing only appear together.

These sufferings do not come on suddenly, but very gradually. Physicians repeatedly tell their patients, after a diagnosis and first decision upon the nature of the disorder, "This trouble commenced years ago, probably when you were a little girl."

These diseases do not kill women outright. They live on for years, dragging out miserable lives, and dying by inches.

We can now understand the propriety of calling the womb a very important, a controlling organ. If it exerts so much influence over the whole body when diseased, of course it will exert a correspondingly good influence if kept in health. It is *utterly impossible* to keep it in health, unless it can have room enough in which to maintain an upright position. Here, then, is a vital reason that tight clothing should not be worn. In the next chapter another vital reason will be given.

I can not forbear closing this chapter with a quotation from Catharine E. Beecher, a woman of large experience in dealing with young ladies as a teacher and having ample opportunities for becoming acquainted with the subject, on which she says: "These internal displacements bring upon women peculiar distresses. The pressure of the whole superincumbent mass on the pelvic organs induces sufferings pro-

portioned in acuteness to the extreme delicacy and sensitiveness of the parts thus crushed. And the intimate connection of these organs with the brain and whole nervous system renders injuries thus inflicted the causes of the most extreme anguish both of body and mind. This evil is becoming so common, not only among married women, but among young girls, as to be a just cause for universal alarm. How very common these sufferings are, few but the medical profession can realize, because they are troubles that must be concealed. Many a woman is moving about in uncomplaining agony, who, with any other trouble involving equal suffering, would be on her bed surrounded by sympathetic friends. The terrible sufferings that are sometimes thus induced can never be conceived of or at all appreciated from any use of language. Nothing that the public can be made to believe on this subject will ever equal the reality. Not only mature persons and mothers, but fair young girls sometimes are shut up for months and years as helpless and suffering invalids from this cause. This may be found all over the land. And there frequently is a horrible extremity of suffering in certain forms of this evil which no woman, dressing in present fashion, can ever be certain may not be her doom. Not that in all cases this extremity is involved, but none can say who will escape it. In regard to this, if one must choose for a friend or a child on the one hand the horrible torments inflicted by savage Indians or cruel inquisitors on their victims, or on the other the protracted agonies that result from such deformities

and displacements, sometimes the former would be a merciful exchange. And yet this is the fate that is coming to meet the young as well as the mature in every direction. And tender parents are unconsciously leading their lovely and hapless daughters to this awful doom. There is no excitement of the imagination in what is here indicated. If the facts and details could be presented, they would send a groan of terror all over the land."

CHAPTER V.

A FINE FIGURE.

"A BEAUTIFUL face and form," "handsome features and fine figure."—We meet with these or similar phrases in nearly every story book. The heroine is always so described. Each of us has a different notion of what constitutes a beautiful face, but with almost every one a small waist is the main point of beauty in a fine figure. Let us see what science says concerning this, and if her decision in the matter corresponds with the almost universal opinion upon it. In studying the writings of scientific men upon the subject, we find in substance the following:

Beauty in the figure of a man and beauty in the figure of a woman has each its own and a separate standard. A finely-formed man has broad shoulders and narrow hips. He is broader at the shoulders than anywhere else, tapering from them to the feet. Whether he be tall or short, large or small, he can yet be well proportioned, and full chest and broad shoulders is the measuring point.

Science finds that a well-proportioned, finely-developed woman will invariably have a full bust and ab-

domen and comparatively narrow shoulders. A woman is broad at the hips—from there she tapers both ways. Whether she be tall or short, large or small, she can yet be well proportioned, and broad hips is the point of measurement. Full, plump breasts are also an indication of fine development, and, therefore, of a fine form. A woman with full bust and abdomen will, by contrast, *seem* to have a small waist. She does not really have, but it only appears to be small, because put by the side of larger parts. Place the largest house you ever saw by the side of the main building on the Centennial grounds. By contrast, the house you once thought immense seems very small indeed; it is not really small, but only seems so by contrast. So it is with a small waist on a well-proportioned woman.

Science does, then, coincide exactly with the popular taste for a small waist. An apparently small waist is a concomitant of a fine figure. But there comes a point at which science and popular taste disagree. One says, Give us the small waist by contrast; give us large breasts and abdomen. The other says, If you have not large breasts and abdomen, make believe you have by squeezing up your waist.

Women admire manly beauty, breadth of chest, and fine proportions, because it indicates strength and courage. Men, in their turn, admire womanly beauty, fullness and plumpness, because it gives an air of gracefulness and comeliness. Men and women were made to admire one another, to be attractive

to one another. It is right that they should try to please each other in appearance.

Women, who know that men like to see in them this sign of physical beauty, a small waist, do wrong just here; instead of inquiring into nature's method of making a small waist, *i.e.*, by contrast, they set to work to make one their own way, and in so doing produce a hideous distortion, that not only never deceives an observant or well-taught man, but brings on all those sufferings which make them unlovely in mind and disposition, and useless in body.

Now, girls, science will teach us how we can form a naturally small waist, one really worth having. Let us study her teachings together. No doubt you are quite interested to know them, and will give good attention, meanwhile remembering that we are studying one of the creations of God.

PUBERTY.

At about the age of fourteen a great change begins to take place in the physical structure of a girl. If up to that time she grows as nature intended she should, without tight clothing, it will be found that the width of shoulders, waist, and hips are about the same, the shoulders perhaps a little the broadest. She has no waist and no hips upon which any article of clothing will hang. She is all the way of a size like a beanpole. Turn to Plate III. Besides the womb, about which we have already studied, and the broad and round ligaments, which constitute a part of the appendages, will be seen two tubes (9, 9,) extend-

ing from the upper part of the womb in a horizontal position, protruding on each side farther than any of the other appendages. These are called the *Fallopian tubes.* Below each of them, enveloped in the broad ligaments, is a small oval-shaped organ called the *ovary.* 7 represents one of them. In childhood all these organs are very small and grow but little. About the age of fourteen, however, they take a new start. The Fallopian tubes begin to expand and throw themselves out, and the ovaries underneath enlarge. The bones of the pelvis consequently must grow larger and wider, in order to give them room. The muscular and other soft tissues of the viscera also increase in size, and the pelvic bones necessarily grow large in order that they may continue to perform the office of support to the soft parts. This period in the girl's life is called the age of puberty.

At this time, also, the breasts begin to enlarge, and sometimes grow so fast as to cause pain and soreness in them. A covering of hair makes its appearance upon the labia and in the armpits. The limbs grow plumper and rounder, and the fat begins to fill out all bony and angular places. The girl in a measure stops growing tall, and grows full for a while. Before long she realizes, if nature is unhindered, that she has new strength; she finds that she can lift heavier articles than before, that she can do many kinds of work with much more ease than formerly. Her voice also acquires more sweetness and power.

Not only is a great physical change taking place, but the mind receives a new impulse. Her whole

mental nature moves with quickened activity and power. Ability to understand the metaphysical and abstract commences to develop, and her school studies, if she is intellectually inclined, are pursued with new interest. She reads books and papers that heretofore had been passed by, because she then thought them dry, dull, and uninteresting, finding now many beauties of thought in them before unseen. Perhaps she likes to go to church better than ever before, because she can now comprehend the sermon. A new light of intelligence beams in her eye, indicating the new baptism of thought and redoubled mental vigor. Her manners take on an air of reserve and self-consciousness. She lays aside dolls and trivial plays, and engages in more womanly amusements. The girl is emerging into a woman. Childhood's sweet buds are opening into womanhood's full bloom and beauty.

The time of puberty is the most critical season in a woman's life. Then, or never, must be laid, or rather perfected, the foundation of all after attainments; the foundation of physical culture, vigor of body, strength, and health; the base upon which to rear the superstructure of mental culture and spiritual strength. So, also, must then, or never, be laid the foundation of physical *beauty*, a "fine form," a "beautiful figure," so much admired by the other sex. Without this foundation, considered simply on the ground of beauty, we have no basis for lifelong delicacy, and sensitiveness and sweetness of manner, which are the outward indication of soul beauty.

Physical beauty amounts to nothing, is *not beauty* if the mind is coarse and ungainly. A soul that might otherwise be lovely will become sour and unstrung, and warped if attached to a dwarfed and sickly body. Now and then, it is true, we find a patient loveliness in a diseased frame, but that same loveliness would be far more lovely if its owner were in health.

But I commenced this talk about puberty to show how girls might obtain a scientifically small waist; one that though large by nature would be small by contrast.

When the Chinese mother desires her daughter to have small feet, she takes the feet while they are yet small, about the size she wishes them to remain, and binds them with strips of cloth, keeping them bound day and night for years. The little baby cries with pain, but the bandages are never removed till the infant has come to be a woman and stops growing. There is no danger then that the little feet will take a start to grow again. The mother has succeeded in her aim. Her daughter has, and will always have, small feet.

When the mothers among the Carib tribes of Guiana wish their daughters to have what they suppose to be a beautiful leg, they apply, while the girls are young, what is called the saparu; that is, two bands of rattan, bound tightly, one under the knee and the other above the ankle. This converts the limb into a mere spindle, thicker in the middle than at each end. A historian thus describes it: "Take an ordi

nary broomstick eighteen inches in length, and push it through the middle of a rather small Stilton cheese, wrap the stick above and below the cheese with a red bandage, adorn the cheese with a number of blue spots. This will give a very good idea of the extraordinary shape which is assumed by the leg of a Carib female."

Some of the Indian tribes admire human heads so flattened that a straight line can be drawn from the crown to the nose; and in order that their children may possess heads of this shape, the mothers of the tribe fasten a board to the upper part of the infant's cradle (which cradle is made by bandaging the infant to a flat board), so that one end lies on the child's forehead. The other end is then tied firmly down with strings, and every day for several months the pressure is slightly increased, until the peculiar shape is acquired which gives to the tribe the name of Flathead Indians.

So we see that it has been demonstrated that parts of the body may be dwarfed and stopped from growing by outside pressure.

This is precisely the same result as hanging heavy clothing upon the expanding hips of a girl at the age of puberty obtains. Whether it be tight or loose, is little to this point. The trouble is in the weight pressing down upon the contents of the abdominal region. They need expanding room, and do not get it. The appendages of the uterus are growing, and would make a round, plump, full appearance if they had a chance. Strong as is the inherent vitality of the girl to overcome the pressure of intestines, bones, and

flesh, and force them to accommodate themselves to the enlarging uterine apparatus, it has no power to move quilts and skirts and whale-bones. So these parts drag down and remain small. And the breasts

Fig. IX.—Perfect Male and Female Figure.

sympathetically drag down and are prevented from growing. A full bosom, that every girl should be proud to possess, is inspired, as it were, to grow, and depends for its growth upon these organs below. There will be some expansion, of course, because the

organs are not absolutely and completely bound, but what should be a magnificent development, will be only a partial and misshapen formation. If in addition to this weight is added tight-lacing, *what can we expect?* Just what we repeatedly see around us—nervous, ailing, puny, inefficient, unhappy, slimsy girls, bustled and padded, to make us think they possess in form what they do not. With such bodies as these, diseased and dragged down, how is it possible to obtain or manifest, if it should be obtained, mental development and equipose? It is simply impossible.

I have said that men admire personal beauty in woman. A man whose admiration would be worth anything to a pure-minded and intellectual woman, a man whose purity and intellect is equal to her own —if it is not she does not care for his admiration—admires physical beauty in a woman because it is an indication of mental beauty. It ought to be, at least: it is natural for him to look for it there. It is not always there, I am aware. We often meet women who have fine forms, and are simpletons. Such a man finding the simpleton will cease to admire the form. Such a man finding a sound mind in a sound body, will admire both, as we rejoice in harmony and completeness anywhere.

The next thing in order will be to give girls a test or standard of

MEASUREMENT,

by which they may know whether they have a well-proportioned form or not. Give to a naturalist a

single bone, any that you please, without telling him the name of the animal of which it is a part. The naturalist will tell you not only the name of the animal, and what particular bone that is, but he can tell the size and height and breadth of the animal. The law of proportion enables him to do so. Any well-informed person, by the same law of proportion, can tell whether a girl's waist is naturally or artificially formed. We are often referred to the celebrated statue of Venus de Medici as a beau-ideal of female symmetry of form, because the law of proportion of one part to another, as well as the faultless shape of each part, was so thoroughly carried out in the construction of the image.

The law is this: A woman's waist should be two-fifths of her height. According to this, a woman five feet three inches high should measure twenty-five and a quarter inches round the waist; one five feet five inches should measure twenty-six inches, and so forth.

Another test: Stand, heels together and toes apart, measure around the top of the lower limbs, and also around the waist. There should be nine inches difference between the two measurements. This test can only be used, of course, by girls who have come to full growth, as before the age of puberty the hips, waist, and limbs are nearly of a size. The basis of this test is the size around the top of the thighs. For instance: thirty-four inches thigh measurement should give twenty-five inches waist measurement; if the waist is found to be twenty-seven inches, it shows that the full growth of hips has not been reached; if twenty-three inches, that the person has worn too tight clothing.

CHAPTER VI.

HOW WE SHOULD DRESS.*

AFTER so much has been said about the way we should not dress, this work would be very incomplete without a chapter giving practical directions as to how we should dress.

It is with great pleasure that I can refer my readers to the marked change that has been taking place of late in many prominent circles in regard to dress. It is slowly but surely becoming fashionable to wear many articles of clothing that have been introduced, not because they originated in Paris, but on the simple score that they were in accordance with the requirements of physiology and hygiene. Many ladies of wealth, culture, and social standing are giving this subject their close attention, constantly experimenting and improving upon the first trials of the new reform dress, and some of the styles have even found their way into the popular fashion magazines.

To many of my young readers the contents of this chapter will be nothing new, they being familiar with the modern styles by actually wearing them, and they

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*The illustrations used in this chapter are from the catalogue of Hygienic Under-garments of Mrs. A. Fletcher, of No. 6 East Fourteenth Street, who will send it to any address on application.

may even be better informed in the very latest improvements than is this chapter, as the modes will doubtless continue to change while this book is being prepared for the public.

But there are hundreds and thousands of those who should be among my readers who, while they may be ever studying the newest fashions for the outside apparel, know nothing whatever of the reform undergarments; who still wear the old-time chemises, drawers, garters, quilts, etc., of a hundred years ago. I believe that the majority of girls still belong to the latter class; let me assure them that they need not fear to adopt the changes herein recommended, for Mother Grundy lends her influence to the new side sufficiently to carry them safely through. It is to be hoped, besides, that there will independence enough grow out of the good sense that can not but be awakened after this study of the formation and requirements of a woman's body, to lead every reader to dress as she should, regardless of anybody else.

Tight lacing is not the only thing that needs reforming, but many other parts of the dress require changing. We will examine each one, showing how we should dress; and I will try to be so explicit that those who have never before heard of anything of the kind, will be able at once to put it to practical use. First, then, girls, you should

SUSPEND YOUR CLOTHING FROM YOUR SHOULDERS,

instead of fastening them upon your hips. Before I can say another word I am met with the exclamation

"Oh! my shoulders aren't as strong as my hips. Why! I couldn't stand all that weight on my shoulders." I have actually heard this said, but always by those who had never given it a trial, and only imagined it would be so, or else by those who had never arranged their clothing in a *proper manner* upon their shoulders. "Take a common neck and shoulder yoke," explains Dr. J. C. Jackson, "such as water-carriers sometimes use, and fastening weights to it see how much you can carry a little distance with ease. Then take just such a yoke and make it large enough to fit around the body, resting on the hips as it did on the shoulders, and fastening weights to it, see how much you can carry at that point with ease the same distance, and you will find that you can not carry more than one-fourth as much as you can on the shoulders."

Another physician says: "In attaching a horse to a load we never draw a strap about its body and attach to that for draft purposes, but we seek some part of the body where the draft may come at right angles, or nearly so. That we find at the shoulder, and it is the only part of the animal upon which without great harm a considerable draft may be made. When we wish to support the several pounds of skirts, etc., we look over the woman's body to determine at what point such support or draft, if you please, may be applied. To apply it about her legs or about her waist, is precisely the same mistake that would be made if the draft were attached to the girth of the harness. There is only one point of support, and that is her shoulder."

THE DRAWERS.

Even so light an article as the drawers hung upon the expanding hips of a growing girl is too much. If it be fastened loosely, the *weight* is just the same. "What! the drawers? Well! I don't believe that!" I hear from all quarters, so I must stop again to quell this breeze I have raised. Dentists who wish to draw together two teeth that have grown too far apart, sometimes wind around them a thread of fine elastic rubber, and in a few days the work is done. If we obtain this result upon the hard substance of the teeth, so firmly set in the unyielding jaw, we should not be surprised that a firm, *inelastic* band of cotton worn for years upon the hips before they have come to their growth, would greatly hinder that growth. At mature age a woman might begin to bear this weight on the hips if her health was firm, but even she would not endure its discomfort after having practiced the better way.

THE STOCKINGS,

instead of being kept smooth by bands of elastic or tape, which hinder free circulation of blood and nervous fluid, and so cause numbness, cramps, and cold feet, should be attached to some arrangement of straps that pass upward to the waist. Such stocking supporters are sold ready-made at the stores, but some of them are objectionable because made to fasten around the hips. I have met women wearing them who would not have done so, I am sure, if they had

only remembered that this merely transferred the cause of stoppage of circulation and cold feet from the limbs to the waist, with the additional pressure to the hips. A stocking supporter that answers every purpose can be made at home. A piece of stout cotton tape about a third or half of a yard long may be sewed to the underwaist just in front of the hips, and a button-hole made at the other end of it. Then take a piece of broad elastic tape of sufficient length, fold it over at the middle so as to make the shape of the

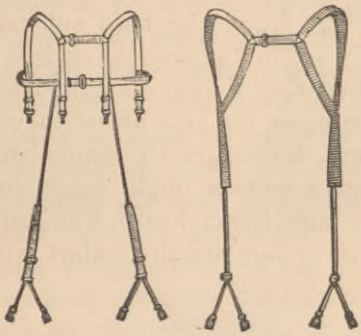

Fig. X.

letter V. Sew a button on to the point of the V, and button it on to the cotton tape. Put a button on to each end of the V, and button them on to the tops of the stockings, by means of loops or button-holes made in each side over the ankles. A movable slide, where they can be obtained, or a buckle, to attach the elastic at the point of the V with the other tape in such a manner that it can be made longer or shorter to accommodate the different lengths of stock

ings, would be a convenience. They can also be suspended from the shoulders, as shown by Fig. X.

In winter, when the stockings pass over the bottom of the drawers, they may be simply fastened to it at the knee with safety-pins or buttons.

SHOULDER STRAPS.

Is there any need that I enlarge further upon the harm, the *wickedness* of wearing underskirts and overskirts, ever so light, or ever so few, supported upon the hips? Whether worn tight or loose the *weight* is still there, dragging down the pelvic organs and preventing expansion of the hips. Many suppose it is all-sufficient to wear their clothing loose. I hope no one will continue to think so after reading this book; but that all will be convinced of the need of some kind of support from the shoulders for every article worn. Some girls complain that straps are uncomfortable, and keep slipping off their shoulders, and that waists are too thick and bunchy. Shoulder straps should be crossed behind like a gentleman's suspenders, and then they will remain in place, also buttoned in front quite near the arms, back of the breasts, so as not to injure them by undue pressure. It is a good plan to buy men's suspenders, if one prefers straps, ready-made at the gentlemen's furnishing stores. They may be found light, white, and washable; the boys' sizes will fit ordinary-sized women. Some sew up the button-holes and put buttons in their places, making button-holes in the bands. Others buy two or more pairs, one for each

skirt, which saves time and need of changing with different skirts. A form that does just as well may be home-made. Two straight strips of broad tape, three-quarters, or so, of a yard in length, joined between the shoulders by a cross-piece five or six inches long. It is to be sewed on to the skirt bands behind, and attached to the front with buttons. See the following cuts:

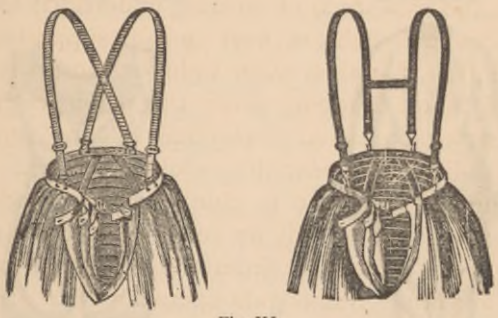

Fig. XI.

THE CHEMILETTE.

As to waists of which complaint has been made, it is just here that the greatest change has taken place in the underdress. The chemise has been discarded altogether. It has been found that although it is a time-honored, it is by no means an indispensable article of clothing, and that it is possible for women to live, move, and have their being without it, in far greater ease and comfort than with it. The skirt of it has been cut off; the waist, made somewhat close fitting, thus doing away with its

numerous folds that gathered about the form under the dress waist, equalled at least three thicknesses of cloth—useless cloth—and it was this that made so many waists thick and bunchy. Now there is but one thickness—a simple waist—attached to the drawers, and the two old-fashioned garments worn as one, and christened with the name of chemilette.

FLANNEL.

Fig. XII.

LINEN OR COTTON.

Fig. XIII.

The stockings, or stocking supporter, may be fastened to the waist of this. Patterns for the chemilette may now be obtained as other patterns are, by sending to the fashion establishments. Flannel chemilettes should be worn in winter, with long sleeves, long legs and high neck. These are manufactured ready for wear, or may be made at home. Those who wear the chemilette, with straps or suspenders for the skirts, or another waist for them—which is to be more

thoroughly discussed further on—will find the "thick b ıchy waist" question satisfactorily solved.

A FALSE BUST.

Next comes the dressing of the bosom. It is the universal testimony of physicians and physiologists, that cotton, or a thick heavy padding of any other material, worn over the breasts of matured women, heats and weakens them, causing them to lose their elasticity and strength; to become flabby and shrink away; if worn by young girls it effectually prevents their full development. Most girls would develop well-proportioned breasts if they would not heat, and press with cotton, or other injurious substances, these parts, which begin to expand at the same time with the abdomen and hips. These glands, moreover, are so intimately connected with the uterine apparatus by means of the sympathetic nerves, that whatever enfeebles the one enfeebles the other. When the organs of the abdominal viscera are weakened and balked in their efforts to widen and strengthen; when they are dragged down by heavy clothing, the breasts will be dragged down and dwarfed even if no cotton or other stuffing should be put directly upon them. Occasionally, however, as a freak of nature, without any apparent cause there are large hips and abdomen and small breasts found together. These persons are almost obliged to add something to their dress at this point. There are false busts made of light, harmless material, ready for sale at the stores, which also give a more natural

appearance to the breast than cotton or anything made at home. And now we come to

THE CORSET.

The corset! What a strong hold this has upon the affections of people! What pages and pages of logic, health, conscience, and common sense have been hurled at it! Yet there they hang in every dry-goods window in the civilized world, and upon the hips of whole armies of well-read women. We might suppose that eloquence utterly wasted did we not hear every purchaser say, "Oh, I do not wear them tight. *I* never lace." Ye corset-haters have not written quite in vain; at last the lesson has been impressed upon the public mind, that tight lacing is injurious. Whether ladies do still lace too tightly is another matter; according to their own acknowledgment they know better. As though lacing was the only danger in a corset! Tight lacing is evil No. 1, lurking in a corset. But we can lace without wearing a corset. As Dr. Cutter says, "The chest can be deformed by making the linings of the waist tight as well as by corsets." As it has come to be the universal acknowledgment that corsets are not bought in order to compress the waist: there must be some other attraction about them which makes them so alluring to the masses. After we have considered the other evils which attend a corset, we will try to find *what* that attraction is. Evil No. 2 is the steels in front. Few realize the magnitude of this evil, which remains the same whether or not the corset is laced. These

steels that are about straight when the corset is new, after a little while adapt themselves to the shape of the wearer, and become curved. Now, I must confess to having worn corsets once in my life, so I write from the stand-point of experience. I put them on thinking if they were only tied loosely it would be all right. I bore the steels very well while remaining in a perpendicular position, but when I undertook a stooping or sitting posture, and writing or sewing for half a day, I began to rebel against them, and soon deliberately took them out and threw them beyond reach of any tortured mortal. Just think of girls buying two and three pairs of steels for a single corset, because they wear it so tight as not only to curve, but actually to *break* them. The steels do not prevent expansion of the hips nor hurt the ribs especially, but they jam right against the abdomen, pushing the contents upon the womb, effectually helping to dislodge it, particularly in delicate women, and as not one in a thousand of those who declare they wear their corsets loose, do wear them loose, just in that proportion is this evil extended. Then there are a number of whalebones running parallel with the steels, so that the pressure upon the abdomen becomes doubly and trebly aggravated, thus aiding the skirts to prevent abdominal expansion. Evil No. 3 is the resting of the corset upon the hips and abdomen, instead of hanging it upon the shoulders. Perhaps, if writers against corsets had directed some of their shots against these two evils, instead of at evil No. 1 entirely, the corset would by this

time have had more open enemies and fewer secret friends.

But there is an attraction about the corset which threatens to outweigh all its objections. This consists in the fact that it makes the outside dress waist sit smooth and unwrinkled, and supports the breasts, giving a neat, trim appearance to the person. Without substituting something that will do the same, we

Fig. XIV.

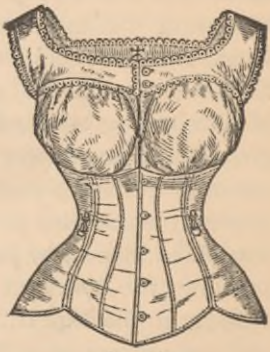

Fig. XV.

corset-fighters may as well consider ourselves beaten in the combat until such time as wrinkles in a lady's dress waist will be considered no more untidy than wrinkles in a gentleman's vest, or until the plain, biased waist goes out of style.

UNDERWAIST.

Figs. XIV., XV., XVI., are styles of waists retaining all the advantages of the corset, without any of its evils, and may also serve as a support to the skirts. Many

girls would prefer such waists and omit suspenders. Either waist must be at first fitted to the form with corsets—put on loose—beneath it, just as a dress waist is fitted. Then a very few, and very delicate, whalebones can be used to stiffen it, to give it proper shape, when the corset will be no longer needed. There should be no stiff bones in front, and the garment, when completed, should be so loose as to allow

Fig. XVI.

a full breath to be taken with perfect ease while sitting The buttons below are to be used to button skirts upon, so arranged that all the bands will not lie on one another, which might prove uncomfortable. The pieces passing over the shoulders bring the weight of the skirts upon them, and the fullness allowed at the bust gives support in that direction. A certain young lady had her wedding outfit made up by a fashionable milliner in Paris, and every dress was perfectly fitted to the form, loose, healthful, and com

fortable, without the use of corsets; the only stiffening used being these delicate whalebones.

A very good substitute for a corset is the corded waist. The shoulder straps are so arranged that they can not slip up on the back or down on the arm. In the place of bones are inserted rows of very stiff card, which, whilst supporting, yields to every

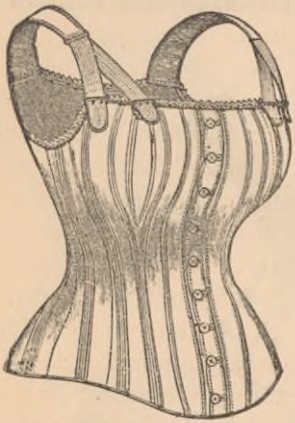

Fig. XVII.—The Corded Waist.

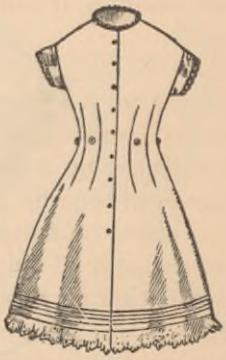

Fig. XVIII.—Waist and Skirt Combined.

movement of the form. It can be washed without changing the fitting of the garment. Dresses fit as well over these waists as over corsets; the drawers and skirts can be buttoned on as on the other waists, or the drawers buttoned on the waist, and over this worn a very pretty garment (see Fig. XVIII.), which is a waist and underskirt combined. The outside skirt should buttoned on this garment.

The Madame Foy corset could be altered so as to

be comparatively harmless. Take out the steels and all the whalebones, except one or two, which may be left for support to the bust, and put buttons upon the front, to which attach the skirts. The skirt supporter behind will hold the back of the skirts without buttons. This corset has shoulder straps, and if the lacings are fastened, half an inch or an inch by measure larger than the waist, and made larger as the waist enlarges, it will do very well.

SKIRTS.

Quilts are a nuisance—an utter nuisance—without one good quality to recommend them that may not be outruled by a better substitute. A lot of petticoats worn together are worse, because they have so many belts. A flannel chemilette, and outside of that another made of muslin or cotton flannel, one short, scant cotton or flannel skirt, to be changed weekly for the wash, and over that a warm balmoral or some other woolen material, made into an outside petticoat—each buttoned to the underwaist—will be an all-sufficient supply of warm underclothing. The warmth will be more evenly distributed over the body, and be light at the same time, which are two very important ends to gain. It used to be thought that a quilt must be worn to give a full appearance to the top of the skirts, or, in other words, to the abdomen and back, but of late years fashion decrees a slenderer appearance. Nature, if allowed to grow free, will develop all the fullness needful to a well-proportioned form; and fashion should and does at

present, sanction but few skirts, and they, even, gored at the top. "One evening," relates a friend, "twenty years ago, to cover my imagined lankness, I donned eleven skirts, two of them quilts, and appeared at a party. In the dressing-room the girls told me I looked splendidly, and I thought so too. It is my devout belief that my subsequent inferiority to the rising college student, by whose side I dragged myself that evening, is due to my weight of petticoats more than to any other five causes. There is not a word of excuse to be offered; I was an unmitigated ninny. Heaven speed the day when such ninnies shall be enlightened or ostracised." It is said that fashion repeats itself once in about so many years. May fortune prevent that style from ever coming round again, and keep it always as reasonable in the line of underskirts as now (1882).

HIGH HEELS

should be cut half off, and this though it may cause the arch of the foot to seem low, will not make it really so. A girl who takes pride in a well-shaped foot, and wears high heels thinking to deceive the observer, deceives only herself. For one who really cares to stop and examine the shape of her foot, and who understands the law of proportion, never makes a mistake here. These high heels throw the body too far forward, of course disturbing the equilibrium of all the organs, the womb with the others, and so while a girl loses nothing, in the estimation of those whose good opinion is worth having, by wearing properly-shaped

heels, she will render herself less liable to have a uterine prolapsus, corns, and bunions. Merchants will take off as much of the shoe heel as may be desired, if so requested at the time a purchase is made.

THE OUTSIDE DRESS.

It now remains to speak of the outer garments. The dress is liable still to be so fitted, with all this change beneath, as to wholly counteract all the good intended to be derived from it, unless one has for a guiding principle the firm determination to give full play and room for all the organs in the body. There are fortunately a great many different modes, all equally fashionable, and some of them less objectionable than the rest. The close-fitting basque that looks well only if *tight*, the street-train, the heavily-trimmed overskirt may be omitted forever from the toilet without exciting the unfavorable notice of the fashionable world. The Gabrielle pattern may be cut over into a healthful and modish suit, making it narrower in some of the gores and omitting the train. It answers well for a house dress made of calico or gingham, and for the street, made of alpaca, cashmere, or silk, with a half-fitting polonaise of the same or a different material superadded. Some would prefer a single skirt with some form of loose sacque, of which there is an infinite variety of pretty styles and trimming; others might choose to add an overskirt. Then there are plaited and yoked waists sometimes in style for young ladies. The trimming of skirts should not be multitudinous and heavy. The richer the material the less trimming is required.

LEGGINS.

It is a good plan to have a pair of these on hand, patterns of which may be obtained at the fashion establishments. They may even be lengthened into over-drawers. These are to be put on in the winter when going out for a long cold ride, or to attend evening meetings and lectures in halls proverbially cold—as most of them are; or to wear whenever one is not certain of spending a length of time in a comfortable temperature.

GENERAL REMARKS.

Now and then fashion may take a freak to adopt some style of outside gear that one must wear, or be strongly marked as odd in not wearing it. But even in this we may often favor ourselves by choosing material that is more healthful than some other. For instance: when fashion demands bustles, we can choose those which are light and cool, made of wire or steel—being sure to suspend them from the shoulders; instead of those made of paper or stuffed with hair or cotton, so heavy and heating, and resting upon the back and hips.

The padding of the bust is also subject to choice in selection, as has been explained in another place.

We can make selection for outer garments of those colors which are the most healthful. Black is the most unwholesome color that can be worn. It is warm in the sunlight, because it draws and absorbs the sun's rays, but cold in the absence of the sun. It is nearly the same as being in a dark room when

dressed in black. It is not so much the heat of the sun as its light that we wish to secure, for we can make up for the former by increase of clothing. The light colors are warmer in cold days and cooler in hot days, for they reflect heat and transmit light. The following is a description of an experiment once tried with four different-colored pieces of cotton cloth spread upon the grass in May. White, black, yellow, and green were the colors, spread side by side, fastened with pegs, and allowed to stay a month. The latter two pieces were faded nearly white. Under the black, the grass was either dead or yellow, like that under a board or rock; while, under the white, it was growing finely—green and fresh as ever. May we not learn an important lesson?

The clothing should be equally distributed over the body. This point is of infinite importance. It seems so plain, that the allusion made to it in the page on skirts might be thought sufficient. Much has been written on the subject, yet observation shows there is still need of talking it up. Those parts of the body which nature provides with fat and muscle need less extra covering than those in which bones and nerves lie near the surface. The ankles and wrists, then, ought to be protected more than the top of the head and small of the back. The head needs rather to be kept cool. "Keep the head cool and the feet warm" is the true philosophy, which is oftener reversed than otherwise, the despot Fashion decreeing a mass of false hair on the head and thin shoes on the feet.

The spine should be well protected. We see here the absurdity of supposing that if the head is covered when we are doing short outdoor errands it is sufficient. The *back* should be covered as well; and if only one can be covered, let it by all means be the spine. I should not advise one who has always worn only a bonnet when running on errands in the back-yard to leave it off suddenly in the middle of winter; but if a person should begin in the fall of the year to make these little trips with bare head, and shoulders protected, she could go out in the coldest day without harm, but the spine can never get accustomed to being chilled, and many a cold will be the result of its constant exposure.

Nubias or tippets should never be worn over the ears in winter, nor the throat bundled; that is, for constant wear. They may be used occasionally, for a day or two during some severe cold snap, or for a long cold ride. A great deal of sore throat and gatherings in the head and ears are caused by dressing them daily in this way, making them so tender that accidental exposure when uncovered will inevitably produce disease.

A sack or shawl or some extra over-garment should be always at hand summer and winter, to throw over the shoulders and back when one is attacked with a feeling of chilliness.

Chilliness is nature's warning that the insensible perspiration of the body is being checked and thrown inward upon the vitals, instead of passing off through the pores of the skin; it is dangerous to allow one's

self to sit or stand and bear it because it would look fussy or foolish to get the extra garment. Many instances of fever and bowel complaint as well as two-thirds of all colds could be warded off by attention to this one thing, as experiment will prove to one who takes cold easily. The other third of all colds arise from a low state of vitality in the system, with which dress has less direct, though always an indirect, influence.

The pride in having small feet, in which so many indulge, may be an innocent one, until it is carried so far as to prevent dressing the feet warmly in winter, when it becomes absolutely wicked.

Many girls have undertaken to wear different articles of the reform dress separately, retaining all the remainder unchanged. This does not work well, because that one garment would not be in harmony with the rest of the dress, and the result often is a return to the old style with prejudice against the new one. The better way is to change altogether, and be sure that you have a pattern that properly fits yourself, and not put on something made for another individual "just to see how I shall like it." You will be almost sure not to like it, and to blame the style instead of the misfit. I know a girl who will be always, I am afraid, an enemy to the chemilette, because she made a suit after a pattern belonging to a much smaller person, without succeeding well in enlarging it. It pulled in one place, drew in another, and tore in still another. She now declares it is the most "horrid thing" she ever had on.

Then it is very frequently the case that girls take off their corset and wear their clothing loose for a day or two; at the end of that time declaring emphatically, "Well, I can't wear *my* clothes loose. Say what you please, I feel as though I should fall all to pieces. I've tried it. I'm obliged to have stays to keep me up." At first, when I heard this complaint, I thought it was all nonsense, and had no patience with such an excuse, until I heard the following story related by a doctor's wife:

A stout, healthy German girl came over to America, and hired out to do housework. Of course she soon began to ape the puny, delicate, native girls in dress, bought a corset, and learned the art of lacing. She would draw the strings as tight as she could with her hands, then put them over the bedpost and tighten them still more, after the most approved method. For fear she might lose some of this acquired smallness during the night she wore it to bed, and as she put it on under all her clothing did not touch it except to tighten the strings as she grew smaller. I was not informed whether she changed it for the wash or not. In a very few months her health began to fail. (Strange, wasn't it? The climate didn't agree with her, some thought). Soon the marked symptoms of consumption set in, and after a while she was confined to her bed, when my friend's husband was called to prescribe for her. Her darling corset still girted her wasting frame until she became too weak to change her linen without help, when it was discovered by her attendant, who

told the doctor. He ordered it taken off, which was done. This at once threw the girl into the most acute suffering. She screamed with pain and could not be eased and they were obliged to put it on again. Several attempts were afterward made to take it off, but with like results; and soon after, the girl *died with her corset on*, a martyr to fashion. Then a *post mortem* examination revealed the awful fact that the ribs were imbedded in the inflamed and suppurated lungs.

The historian tells us that infants undergoing the head-flattening process among the flat-head Indian.. give no indication of suffering except when the board is removed, and then they cry as if in distress, only becoming quiet when the board is replaced. Some times a very sore boil will feel easy while a finger is pressed upon it; but when the finger is removed, the pain becomes more intense than ever for a few minutes.

Now, we may better understand the suffering of the sick girl, when attempts were made to remove her stays. The inward pressure upon the ribs caused by the corset had gradually become second nature to her lungs, and as these lost their natural elasticity by disease, rested for artificial support upon them. When the whalebone and steel upon which the ribs had in turn learned to lean were suddenly removed the sore lungs fell with the relieved ribs, and caused the pain. The corset first prevented the air from getting into the most minute air-cells in the lower part of the lungs, rendering them an easy prey to the disease, which extended very soon to the whole lung.

This incident is not exaggerated in any particular; it rather, is not painted in half the horrible colors it deserves.

It is not mere pretence, then, that those who have worn corsets for some time do not feel comfortable without them. The way for such to get rid of them is to loosen the strings gradually. Do not try to take them off all at once, if it is too uncomfortable to go without them, though many girls would rather bear with the unpleasant feelings a little while than to make frequent changes in belts and waists.

There are many bad habits which it is better to remove by degrees than to drop suddenly.

CHAPTER VII.

BESIDES THE DRESS.

In this chapter we will consider other causes of prolapsus uteri besides bad habits in dress. Girls may wear their clothing just right, yet from want of knowledge break some other laws of health which will induce these diseases. One of the most common ways of breaking down the health comes through indulging in

VIOLENT, EXTREME, AND UNUSUAL EXERCISE.

1. *Heavy Lifting*

comes under this head. A girl, with whom I am well acquainted, was once helping an old man to lift a stove. He was rather stupid and did not work to suit her, so she just gave one lift alone. Instantly something snapped in her back, so it seemed to her making a noise so loud as to be heard. (He probably thought it a whalebone). Since that time, seven years ago, she has not seen a well day.

Another girl wanted to have a ten-gallon keg full of syrup taken out of a room she was scrubbing. Being somewhat provoked because her brother would

not stop then to do it, she carried it out herself, and immediately felt something give way near her stomach. From this act she dated sufferings to which she was ever afterward subject. Young nurse girls should never lift and carry around heavy children.

2. *Running.*

The ovaries (7 in Fig. III.), to which attention has already been called, are subject to a variety of diseases. Hundreds of women and girls, little girls, too, have experienced sideache right in that spot, generally on the left side. Sometimes people have sideache in the chest, but this particular sideache in the ovary is all we will speak about here. Running too far and too long will almost always produce it, because the womb is jolted a little out of place, and draws on the ligament which attaches the ovary to it, and consequently pulls down upon the ovary, which, situated quite near the surface of the abdomen where the nerves are most sensitive, feels the strain instead of the womb, which lies farther within. If any mother after reading this page hears her little daughter complain of sideache, let her inquire *where* the sideache is, and if it is in that place, instead of saying to her, "Never mind, you will get over it soon," require her to lie down, or at least sit down, until the pain is over. This position and rest will allow the womb to get back to its place, when the pain will cease. A great many little girls run all the way to school, their whole nervous systems wrought up to—as we might say—boiling point, from fear of being tardy. A very injuri

ous proceeding. Mothers should see to it that their girls start in time to prevent this, instead of keeping them back till the last minute, saying when the little one expresses a fear of being late: "Well, you can run." The recuperative power of most children is wonderful, and they will get over these sideaches for a good many years, without heeding the precaution to require rest when they have them, or, without trying to prevent them; but the ligaments become weakened by every attack, and after a while the pain will recur on less provocation than violent running, or the ovaries will become inflamed, giving constant pain and sometimes lead to the terrible ovarian tumor.

3. *Jumping the Rope*

too long at a time is a frequent cause of this ovarian sideache, and should either not be allowed by parents and teachers, or watched very carefully.

4. *Riding*

over rough ground in wagons without springs, especially over the "hind wheels," and when the horses are driven at high speed, will produce this sideache. This sort of riding is known principally in country places in the West. But girls that have such sideaches should not be allowed to subject themselves to it. The pain sometimes produced in this way is excruciating, with a very great and weakening strain on the ligaments. The young girls are most generally seated over the back wheels when the wagon is full. Grown women and men had better be put there instead.

I hope now, after reading of the danger of lifting, running, etc., my readers will not rush to the other extreme. Lifting, running, jumping the rope, and riding are excellent exercise. The danger in them lies in their being *carried to extreme*, or made *unusually violent*. Mothers should encourage their children to lift and to run, but always caution them not to do too much; tell them why, and try to show them how they may know when to stop. Jumping the rope is only likely to become an injurious play when the children try to see who can jump the longest without stopping, counting up to 100 or 200 meantime. But if children persist in carrying their ambition too far, then the play should be forbidden.

5. *Running Up and Down Stairs*

is liable to the same objections and abuses. And when any of these excesses are practiced in clothing which hangs unsupported by the shoulders, directly pressing upon the abdomen and hips, and also in clothing which is tight, these sufferings are three times as likely to occur as when the dress is properly adjusted. Many girls imagine that the reason their health failed was because at boarding-school they were obliged to go up and down so many flights of stairs. If they had added: in laced corsets and skirts fastened round their hips, the statement would more likely be true. Boys run up and down stairs without harm; girls ought to do so, and if their dress was as loose and as evenly distributed over the body as that of boys, they could. Indeed it is more frequently the

dress than the lack of strength which forbids girls from participating in exercises which render boys so robust. By both boys and girls the ability to engage in severe and protracted exercise should be acquired by constant practice, increasing gradually in severity, but never undertaken spasmodically.

GOING BEYOND THE STRENGTH

daily, for weeks in succession, is another way by which prolapsus uteri may be produced. The preceding paragraph advising that the ability to engage in severe and protracted exercise should be acquired gradually means within the bounds of certain limits, *i. e.*, keeping *within* the inherent strength possessed by the person. Such exercise is healthful and strengthening but to go beyond the strength is sickening and de bilitating. We will now consider some of the most common ways of doing this.

1. *Ambition*

leads many girls to go beyond their strength. The work which mothers require their girls to perform while at home seldom hurts them—is good for them But when girls get away from home they will often do or themselves what they do not do for their mothers. Among this class of girls are those who are anxious to get an education. These, by working for their board or by boarding themselves, doing their own sewing, and studying out of school hours besides, will often encroach on vitality that belongs to future years. Another class are those who are learning a

trade. These often deprive themselves of all physical exercise, strain every nerve to get through apprenticeship and set up business for themselves. When that time arrives the temptation to overdo becomes still greater, because then they get into a hurry to make money, or into a worry to please the public and secure custom. So besides depriving themselves of needful exercise, they often deprive themselves of needful sleep. Another class are housekeepers. House-cleaning time furnishes a good opportunity for going beyond the strength. Instead of taking it by easy stages, they will rush it through, doing in three days what would, if timed according to the strength, require six. The result is, often, a doctor's bill to pay. I have known servant-girls to work hard in the kitchen all day, which would not hurt them in the least if they rested afterward; but instead of that, at least once a week, they would go to a ball and dance all night.

Teachers furnish another and a large class of those who go beyond their strength daily, spurred on by ambition. There can scarcely be found a more exhausting occupation than teaching. And it is often more than a temptation, even a positive necessity that the teacher do too much. Teachers should sleep all they can. Such a thing as a faithful teacher sleeping too much is next to impossible. They should make it a *point* to sleep *all they can.* Teachers should be careful about taking too much physical exercise, unless, indeed, their schools are small and easy. The notion prevails extensively that teaching being

a sedentary employment, therefore long walks and much exercise, out of school hours, is desirable Some may be so constituted and so situated as tc receive benefit by such a course, but generally the kind of exercise which a teacher needs is something that, without calling the nerves to still farther strain, gives recreation, relaxation, pleasure; like light, facetious reading, merry conversation, jolly company, music (though I should not advise running the organ pedals long at a time when tired), etc.; anything which relieves the mind of school anxieties without taxing the system. Recreation rather than downright exercise is what the teacher needs. Of course I do not mean to take the very utmost extreme, and say *no* exercise. It is the right kind of exercise to which I would call attention. I dwell upon this particularly because so many young girls enter the teachers' ranks invariably to break down after a few years, that might longer retain health if they would observe these two precautions in regard to sleep and recreation.

2. *Too much walking*

is one way of going beyond the strength with others as well as teachers. A great many physicians make a mistake in this thing, advising their patients to walk for exercise when they would do them greater service by advising them to use the chest and arms for exercise. I know of nothing more insipid than walking for the sake of walking, or, in other words, taking set walks for the health. If united to this object, there is

another; as, going to see a friend, going on errands of benevolence, searching for botanical or other specimens, or walking with pleasant company; then, if one's strength has not been previously overtaxed, a walk will be beneficial. Milliners, dressmakers, book-keepers, and those who sit all day long, would be greatly profited in this way. But clerks, teachers, and those who feel exhausted after a day's work, may be still further wearied instead of refreshed, and all classes should contrive to find some way of calling the muscles of the upper extremities into action. The health-lift, and some of the gymnastic exercises, are good for this. The tendency of a great deal of exhaustive exercise is to draw the muscles and internal organs downward. This is why too much walking is objectionable. The womb especially tends to fall. Calling the arms and chest into action counteracts this tendency. It draws upward, and helps better than anything else to bring the womb to its place when it has prolapsed; strengthens the ligaments so that it will remain in place and prevent prolapsus if it has never occurred. No one should depend wholly upon walking for exercise, but alternate it with arm exercise.

3. *Standing on the Feet*

all day is very injurious for women, because it keeps one set of muscles and nerves upon constant strain, and gives other sets no chance for exercise. I can not but pronounce it barbarous in merchants not to allow their lady clerks to sit while waiting for custom.

ers to come in. Teachers should sit a part of the day. It is this standing in one position which makes ironing the most tiresome part of housekeeping, though it in this case seldom becomes injurious because not long continued.

A TEST.

How shall I know when I have gone beyond my strength? is a question which might be asked with a great deal of propriety. No specific rule can be laid down that can apply to every person and every case, for work and exercise that would weary one, would only be sport for another. To say we should not allow ourselves to become fatigued would be poor philosophy, because fatigue is promotive of health. "How good it does seem to go to bed tired," said a girl to me once; "to feel that one has accomplished something through the day. My life now is so much more satisfactory than it used to be: when all I had to do was to make my bed, sew a little, play on the piano—I love music, but one can not play all day—read, but one can't read all the time—paint, write, embroider—anything to pass away time. How good it does seem to go to bed tired." I could not help thinking while she spoke of many another girl who doubtless at that moment were wishing that she "might go to bed once in a while without being *alt tired out.*"

Some people, because the text-book says that exercise is indispensable to health, draw the inference that the more we walk, the more work we do, the more

exercise we take, the healthier we shall be. They seem to forget that the text-book also says: "The muscles should be used and then *rested.*" To be often downright tired is healthful, but to feel every night dispirited, dragged out; to feel when one has once sat down as though she could never rise again, and as though she cared little whether or not she ever did; to rise in the morning still with a feeling of weariness; to be unable to move out of just such a pace, as *running* down-stairs, or the distance of a block without causing lameness for two days afterward, then one has gone too far; beyond her strength. She is using up nervous force faster than the system can manufacture it.

The result will soon be nervous prostration. The nerves will let down their tone; they will lose their power of recuperation, and the uterus will be one of the first organs to suffer, because the ligaments will have no strength, and the womb itself no elasticity. Chapters III. and IV. give an account of sufferings that will follow.

Every one must judge for herself how much she can do, always stopping short of a feeling of being "all give out." If teachers and others would apply this test they could judge for themselves whether a walk after school, working in the garden, or any other physical exercise, is the sort they need in their particular case, and how much. All could know how far to run, how much to jump the rope, how much to run up and down stairs, how heavy weights to lift, how long to stand in one position, how much work to do, and so forth. No one need be afraid of

being tired, *real tired*, but to be "all used up," "tired to death," every day for weeks, is very wrong.

To unite bad habits in dress with too much exercise, doubles the danger. Women would not get tired so soon if they would dress properly. A part of their strength is used in struggling against the weight and tightness of their clothing, though with proper dress and wrong ways of exercising female difficulties *may be* produced. "Tired to death" is a common expression, used by many persons thoughtlessly, when, in fact, at the time they may simply be a good, healthy tired. I linger upon this point, fearing that the ones I would like to assist will think I do not mean them. Ambitious, earnest, patient souls, straining every nerve to do all they can in the world, adopting the (for them) wicked motto, "It is better to wear out than to rust out." Besides a full week of secular work, attending church and teaching in one or two Sunday-schools on the day of rest. Such ought to remember that in this way they are rendering themselves liable to be laid up —a burden to friends and a care for others—to lingering invalidism. They have no right to impose such ill health upon others, which a judicious observance of the laws of exercise and rest would prevent. To labor all we can consistently with the laws of health is all we shall be required to answer for. The Lord will look after what we can not do. The trouble with such too often is, that they overdo before they are aware of it; still, such, if put upon the right track, will, with a little observation, learn to time their efforts with physical ability.

I have also lingered upon this point fearing that some will think I mean them when I do not. A great many people think they are working themselves to death and deplore the injustice of fate for making them work too hard, when in reality they could do a great deal more with decided benefit. There is more danger that such may think I have intended the foregoing remarks for them than that the ones whom I really would like to warn and assist will be willing to admit that they are overworking.

TOO INACTIVE A LIFE

renders women and girls subject to prolapsus uteri. This is the other extreme. Where one gets tired to death with work, five get tired "doing nothing," that is, nothing useful, satisfactory to themselves or anybody else. This is a source of female difficulties. Through another method the same result is reached. The blacksmith who would keep his arm in a sling day and night for a week, would find it as weak and lame as the blacksmith who should use his arm day and night for a week, without stopping a moment to rest. Use wears anything out. A broom, a carpet, a shoe, a coat by use loses some of its particles. A muscle, a bone, a nerve by use loses some of its particles. Unless they are used, these particles remain stationary and get old and flabby, and lose their vigor. Fresh, new particles are more healthful and desirable than stagnant ones. Spry, quick, vigorous action uses up, wears out, displaces particles already ripe for use, and therefore space is created for fresh matter to be

deposited where the old had been. If the waste goes on rapidly, and the needed rest and sleep are allowed in order that repairs may succeed to waste, the replacing of new particles will take place rapidly, and vigor and elasticity will be the result.

If the movements of the individual are slow and aimless and scant, the waste will be correspondingly imperfect. The supply will correspond to this in turn and be meager and feeble. Flabbiness, weakness, dullness will be the physical and mental manifestations. The unused fibers will give a sense of weight and weariness, so that "tired doing nothing" is a most appropriate description of the facts in this case. If, on the one hand, the vigorous action is carried so far as to prevent rest and sleep, the newly manufactured particles can get no chance to set, to build up and on; any more than one can easily put a delicate hook upon a swiftly swinging pendulum. Stop the pendulum, and it can be put on. So stop the active mind and body when fatigue indicates that old paticles are worn out. Lie down and sleep, and busy nature will load up with a fresh set. If one does not sleep, but continues the exertion past the point of fatigue, then only weakness and exhaustion will be the result.

The same result precisely occurs when, on the other hand, the old particles of matter remain to get stagnant from want of agitation and action, and the accidental use of that word stagnant, carries me at once to an apt illustration: that of a stagnant pond of water. Running streams never get stagnant. A stagnant body and mind become clogged and weakened

debilitated and sick, and the uterus of such a woman is affected likewise, and oftentimes becomes diseased, ulcerated, or cancerous perhaps; and if she wears her clothing wrong, or if obliged to make hasty exertion, as from accident or fire or fright, ten to one she will be prostrated with sudden prolapsus.

I must stop here to beg of any mother chancing to read this, who having a child ordinarily and especially more than ordinarily active, never to awaken it in the morning; *never*. Because, in a growing child, the work of *construction* as well as reconstruction is going forward during the hours of sleep. Put the child to bed early, nature will do the rest.

Also, I would urge upon mothers the duty they owe to their daughters, to see that they have sufficient and proper exercise previous to and during the age of puberty. Good, round, sound, hard work is far less injurious than a lazy, aimless, do-nothing and good-for-nothing life, spent indoors, over books and embroidery. The foundation for long life, healthy life, vigorous manifestations, sparkling, animated manners, sweetness of disposition, spring and "get up," is grand, solid, protracted physical culture. The order of nature is first the body, then the mind. Give the physical a chance in youth—there will never be another opportunity.

If I could, I would induce every mother to take her girls into the kitchen. There is no other place so well calculated to give them the right kind of exercise. I would have them every week do such a part of the housework; such a part of the washing and iron-

ing, cooking, dish-washing, sweeping, lifting, making beds, etc., etc.; on the same principle that leads some parents to send their boys on to a farm for the spring and summer of two or three years, at about the age of fourteen, and see that they work there, too, just on purpose that their frames and muscles as they set for life, may set strong and vigorous. Allow the body all the foundation it can have during the years of development, and then the mind can be worked and drawn on, *ad libitum*, without harm in after years.

I want to say a word in praise of, as a means of health, that much-despised and dreaded part of the housework done in the wash-tub. If I should be required to choose one part of the housework only for exercise, as a health measure I should by all means choose to do the washing. It gives variety of motion—for that reason it excels ironing—it gives action of the chest and arms, and quick, vigorous motion of all the muscles. It makes one tired, but that, if not carried to excess, is desirable. It cleanses the hands and softens them. Those who handle slates, books, chalk, ink, brooms, fuel, or do any work that keeps the hands out of water, will find that an hour or two of rubbing at the wash-tub will cleanse and soften them as nothing else will.

Care should be taken to dry the hands before going out of doors in raw, windy weather, or else they will chap. The only complaint that seems at all plausible against washing is, that it makes the back ache. But it is not the work which makes it ache. It is the position. Some put their tubs on benches so low that

they are obliged to stoop entirely too far down to reach them. It is this which makes the back ache. The tubs should be so high that but little bending is required, and that little easy and natural. Some say that the stooping posture is the only one which allows "purchase" enough to get the dirt out of the clothes. A little practice would soon convince them of the error of this notion. The tight dress and weight on the hips doubtless has much to do with the backache, as well as the position. It would be well if some of the noted health and strength possessed by professional washerwomen could be obtained by the delicate daughters of wealth and ease, and in the same way.

Girls should never be kept in the kitchen all day, but should be sent out of doors *to play* a great deal. Should be kept as merry and happy as possible at all times, particularly when about the work. The housework that they may be required to do, if considered as a stint, and positively required to be *well* done, will stimulate to quickness of motion, so desirable, and will be, although sometimes irksome, still performed cheerfully, if the child knows it *must* be done, and done well, after which a play-time comes. Exercise is of little account unless the heart and vim are in it. An unpleasant task if useful and proper will, if persisted in, soon become comparatively pleasant and beneficial.

There will doubtless be among my readers mothers who will *not* send their daughters into the kitchen The next best thing for them to do is to provide some sort of exercise which shall call the muscles of the

arms and chest into use. And I hope that all listless, aimless young ladies among my readers for the sake of their own health and happiness will stir about and do something—do something useful. If at first it seems unpleasant, no matter, it will seem different after a while, and you will "feel so much better" physically and mentally that you will be thankful that you made the effort.

Here I will give a bit of my own experience, hoping that it will be of practical service to somebody. After teaching school eight years in succession, ten months in each year, four years of that time "keeping bach" that a younger sister might attend school; doing a large part of our sewing; taking music lessons; reviewing studies for yearly examinations; attending evening meetings, Sunday-schools, socials, etc.; all crowded in partly from a sense of duty; boarding a mile from school; subjected to exposure and nervous taxation from inconvenient, ill-constructed, overcrowded school-houses; my health completely failed. Nervous prostration and female ailments combined. I was determined to take no medicines for cure, knowing that I needed rest and change first, then to contrive some way to recruit my strength. I was all nerve, and had no muscular base for them to build upon; was so reduced, that if I worked or thought steadily upon any subject for two hours, it always brought on a nervous headache; any unusual excitement or anxiety did the same thing. I could not sweep a room, ride in a buggy very far, or walk a short distance without headache. Finally it came about that

if I did not sleep at a certain time every day, a headache came on which lasted the remainder of the day. One whole summer I did nothing but rest and sleep. Then, as the weather grew colder, found that I felt a little stronger, some days taking no nap through the day, finally going without altogether. I used my strength gradually as it returned, thus gaining more, and believing that I had made a mistake in not exercising my chest and arms more, and walking less, resolved to go into the kitchen and at the washtub, which I did. I determined to stay there until I was able to accomplish a hard day's work without harm, accustoming myself to it by degrees. My expectations of the result did not fail me. The first year my strength slowly increased, but I did not gain an ounce in weight. The second year I began to weigh more, and rapidly from 105 pounds came up to 125, which from my stature and build was my normal weight. In two years my health and strength had returned. Meantime other teachers were breaking down, and I had an opportunity of observing the result of the various plans which they pursued to regain health. Some took a course of medicine; some of baths; some went to the mountains or to some other climate. I did housework for my health, and recovered faster than any of them. As will be seen, therefore, I have based my advice to other girls upon personal experience and observation, and not upon a fine-spun theory. I was myself led to try this course by the teachings of others whose ideas I thus proved to be true.

SLEEPING UPON HIGH PILLOWS

is another way of inducing prolapsus uteri, or of increasing it, and preventing a cure where one is under taken. The pillow should be no higher than the shoulder is wide from the neck out; many prefer to sleep with no pillow at all. The level position allows the intestines and organs above to press their weight in some other direction, than as, through the day, upon the uterine apparatus, thus allowing the womb to come up to its place or to tend in that directior This is a valuable aid in perfecting a cure, and also is a preventive measure.

A CONSTANT STOOPING POSTURE

is, for the same reasons, a bad habit to contract. Falls will often produce prolapsus uteri. An acquaintance of mine, when she was a little girl, fell down-stairs. She did not receive any injury that was supposed to be worth noticing at the time, any more than to get a smart bump on the head. She had a constant sideache, however, for some time afterward, which gradually wore away, but years later it was found that an obstinate prolapsus of long standing, undoubtedly dating back to that fall, was the cause of much periodical suffering during the years of puberty. The sideache experienced after the fall was located in the ovary, caused by an acute prolapsus, resulting from the fall, and which in time came to be chronic; and as the new situation of these organs became second nature, *that* kind of pain ceased, but other troubles took its place. Sometimes the sudden jerk of a wagon

over rough places, rocks, or ditches, has produced this sideache, indicating prolapsus. Sometimes physicians suppose the individual to be suffering from inflammation of the bowels or bilious colic, when the pain is, instead, caused by sudden uterine misplacement.

I throw out these suggestions that mothers may have an eye to the welfare of their young daughters in this direction. These sudden attacks are always easily cured by physicians who understand their business. In the absence of a doctor let a mother stand her little girl on her head a minute; sometimes that will bring instant relief. Or, if too large for that, require her to lie down with her feet and abdomen very much higher than her head. The pain attending sudden prolapsus is excruciating and deathly, nearly or quite producing spasms. It does not always cause sideache, but sometimes a bearing-down sensation in front and around the rectum. Little girls as young as three years old and upward have been known to suffer with these things, though if properly dressed are not very liable to do so. The majority of those suffering from this trouble had it commence and continue a long time with no pain at all, and often go through the whole list of consequences to other parts of the body or the mind without pain in the womb or its immediate vicinity.

And now a few words in regard to the

METHOD OF CURE.

In the majority of cases it will cure itself, only give it

a chance. Proper exercise and rest, proper position day and night, proper food and dress is the prescription. In very bad cases where there is little muscular strength or nervous stimuli, a simple mechanical support of a soft cotton ball, around which a thread is tied for easy removal, and which is inserted through a speculum with a stick or some other article about the size of a lead pencil, may give relief to bad headaches and backaches, and worn with great comfort occasionally twenty-four hours at a time, until the natural strength returns. Pessaries and abdominal supporters for general use are justly voted by the foremost physicians as abominations.

I want here to warn all ladies against those doctors who will undertake to cure female diseases by local treatment alone; who make no inquiries, or give no directions about dress, exercise, etc.

CHAPTER VIII.

MENSTRUATION

In a previous chapter we studied about some of the changes which took place in a girl's physical structure at the age of puberty. Turn again to the same engraving (Fig. III.), to which we then referred. 7, one of the ovaries, corresponds to the ovary of the flower, as described in text-books on botany. Like that, these ovaries are filled with little ovules. At the age of puberty these ovaries begin—as we have already learned—to expand, and the abdomen to enlarge, to make room for them. The ovules at the same time begin to grow, and each month one of them reaches its full development, bursts, and is thrown out of the system. They are at full size very small indeed, being no larger than the point of a pin.

8, 8 represent finger-like extremities about as large as hairs, called fimbriæ, or fringe, which reach down and grasp the bursted ovule, and convey it to the Fallopian tubes, 9, 9. The interior of these passages is covered with fine threads like hair, which point toward the womb. These little threads are constantly shrinking up and throwing themselves out, so that anything which lodges on them can not remain, but

is thrown downward toward the uterus. The Fallopian tubes likewise are in continual motion, contracting and expanding with a worm-like or wave-like movement, and always downward toward the womb Thus the ovule, which is taken up by the fimbriæ, is carried to the tube and passes along that to the womb, which being hollow in the center, allows it still to go on through its mouth, where it enters the vagina and escapes through the vulva.

The motion of the tubes and their thread-like covering are a beautiful provision of nature to keep the parts in health. Otherwise the ovule might go the wrong way or lodge in some of the threads and remain, or some of the mucous discharges, instead of passing out of the womb and vagina, accumulate upon the ovary, and that become diseased. and infect with disease all the surrounding parts. As it is, if nature is undisturbed in her functions, it is not possible for disease to take place in that way. Everything which enters the tubes from the end next to the ovary must pass on through them, and it is not possible for anything to get into the tubes from the end next to the womb. But disease often attacks the tubes and the ovary. Sometimes the tubes become inflamed or paralyzed or thrown out of place; in which case the contents will lodge and remain or pass the other way, or fail to act at all upon the ovules. And in this way often arise inflammation or dropsy of the ovaries, tumors, and abscesses. Here, again, we see the great danger of preventing the expansion of the hips by hanging skirts and other garments upon them; the

danger of wearing corset steels and of lacing; the danger of doing anything which causes prolapsus uteri. This is one way of producing paralysis of the tubes; the fallen womb not only straining and pulling the ligaments out of place, but straining and pulling and weakening the tubes, and rendering them unable to perform their motions, and thus clear the system of impediments which nature intended should be thrown off in that way.

We have now described but one-half, and practically the most unimportant half, of the process by which the ripened ovule is discharged from the system. It requires usually three or four days for this to take place, and it is always aided and accompanied with a discharge of blood. The blood as it were washes out the ovule. The tubes and ovaries are supposed to become congested, and the blood to rush up and to ooze through the parts, and thus accelerate the clearing of the passages. This part of the process is of great practical importance to girls. This is the greatest of all the changes which take place in their physical structures at the age of puberty. It is this which separates girlhood from womanhood. Gradually, but surely, if nature has her own way, the girl will acquire the plump, full, well-proportioned form, physical vigor and endurance, mental strength and acumen, sparkiing attractiveness of animal spirits and cordiality of manner which matures into the grand stateliness, intellectual ability, and personal loveliness of middle life. How important that nature should have her own way: plenty of expanding room about the hips if she has

her way; plenty of sleep she needs, as we saw in Chapter VII.; plenty of exercise, as in Chapters V. and VII.

This point of exercise is of great importance. He who would increase his talent must not hide it in a napkin, but put it to use, that it may grow. So the girl who begins to find that she can lift heavier articles (see Ch. V.) and to do many kinds of work more easily than ever before, and feels a disposition to jump, skip, and run, should use the newly-developing talent of strength it she would become still stronger. And while her muscles are growing and setting for life, make them set as deep in strength as possible. Over-exercise, however, should be carefully guarded against during all the years before she stops growing. It is far less injurious in mature life to overdo than at that age. Hold back the intellect if it seems more active in proportion than the body, although it is not necessary to restrain it altogether. The body dies at threescore years and ten, but the soul lives forever, and what it misses in this world it can make up in the next. But the body can never make up in later life the stamina and caliber it fails to acquire in youth.

This discharge of blood of which we have spoken is called the *menses*, the Latin word for month, from which is derived the term menstruation, which refers to the same thing. Catamenia means the same. Courses, monthly turns, spells, and periods are all words in common use for this function. With the majority of girls, the age at which this occurs is fourteen and fifteen, though some are as young as eleven and some as old as eighteen. I believe there will be

found, where it occurs young, a correspondingly premature condition of the whole person. The bodily frame may be unusually large for the age, though sometimes it is unusually small. But there is a certain maturity of manner and mind which indicates its approach; and, on the other hand, where it occurs later in life, there will be found a certain unripeness in both body and mind. It is better that it take place too late than too early, on the principle of "Late ripe, late rotten," and no forcing medicines or processes should ever be resorted to, unless disease or malformation be the retarding cause, and then only under the supervision of the physician. This occasion should be

PAINLESS.

Nature so intended it. In perfect health there is not the least symptom of its approach, nor is it attended with the smallest degree of unpleasant or painful sensations. This I know from personal experience, and from being told the experience of others. This I know from observing how in my own case and that of others, as the general health fails or improves, pain at this time increases or decreases. I suppose not one in one thousand can say they have always been free from suffering at this time, though every one ought to be able to say it, and would, were she otherwise in perfect health. Some, who are perfectly well for a few of the first years, afterward meet with a change in this respect, and grow gradually worse. Many are utterly prostrated, are obliged to take drugs—such as laudanum—to render themselves insensible to pain

are sick a number of days before the flow commences, and feel very weak after it ceases. Sometimes the flow continues for a fortnight, and then after two weeks it comes on again. In the two weeks of respite, a continual dread of the next spell, caused by a recollection of what they endured during the preceding period, makes life an almost insupportable burden. So almost universally is this experience attended with more or less suffering, that many—physicians included—suppose pain to be an unavoidable part of the function.

The commonest signs that this period is near at hand are pains in the small of the back, or a bearing-down sensation in the lower part of the bowels. Sometimes there will be no bodily suffering, but extreme nervousness, wakefulness, irritability, or mental depression. The first digression from a state of complete health is accompanied with either a disturbance of the mental balance, or a feeling of physical weakness, and that it is more comfortable to sit than to move about for the first half day. The better the general health, the less noticeable difference in feeling between these days and any others, and it should be so little as not to deter one from going anywhere or doing anything she wishes. Also, if the health is good the menses will be

REGULAR,

returning with perfect precision once in about twenty-eight days. Regularity is a point to be secured. Some never know when to look for their courses, sometimes going without them for six weeks, then again but two or three. Some have them every three weeks instead

of four, and some regularly pass a few days over four weeks. But if the general health is good and no suffering is experienced at the time, no notice should be taken of this, as long as good health, painlessness, and regularity are maintained.

Where irregularity is an habitual condition, however, the individual should consult some physician, if one can be found who does not rely on medicine alone, but who will give hygienic directions for bringing about a change in this state of affairs.

Occasional irregularity may occur, which need cause no alarm, or resort to medication. Sometimes persons who are generally regular, may be thrown into intense mental excitement which will cause the menses to appear out of season. Great joy and unexpected happiness, severe disappointment, anxiety, fright, anger, or bad news, may do it. Overwork, producing exhaustion and fatigue, sometimes has the same effect. As much rest and quiet as it is possible to secure should be obtained, and no medicines whatever used unless prescribed by a doctor.

Should a day or two more or less than the usual number sometimes intervene, even a week, without any apparent cause, if the health remains as usual, it need excite little anxiety. It is only constant irregularity which should receive particular attention. The

LENGTH OF TIME

required to complete this discharge varies with different persons—three or four days being the usual number. The quantity discharged also varies in the

same way. Sometimes both quantity and time are too much, exhausting and prostrating the individual. Sometimes both are insufficient, and the system, being unrelieved from matter that should pass off, becomes diseased.

The time and quantity required to keep one in health might make another sick, so that one can not judge from her own experience what another's should be. The only test is to consider whether the general health is good; if it is, then the time and quantity ordinarily experienced is the normal condition for that individual, be it more or less than the usual rule.

NAPKINS

are almost universally worn at this time to protect the clothing as much as possible from becoming soiled. They are usually square, folded corner-wise into a narrow strip and worn between the limbs, fastened by the two remaining diagonal corners to some part of the clothing, back and front. Some button them on to belts, some fasten them by strings drawn through eyelet-holes made in the corners, but no arrangement should be tolerated for a moment which rests the weight on the hips. Like the other part of the clothing, it should be attached to something which carries the weight to the shoulders.

Linen is the best material out of which to make napkins, being more easily cleansed than cotton. They should be, at least, one-half yard square, and a few inches larger for tall persons. In cleaning these articles they should never be plunged into hot water,

as that will set the stains, but should first be put to soak in cold or tepid water a few hours before washing.

CAUSES OF PAINFUL MENSTRUATION.

In most of those cases where great suffering is a continual accompaniment of this function, it is caused by some misplacement of the uterus. (Turn to Figs. V. and VI.) When the body of the womb is bent upon its neck at right or acute angles, as seen in these figures, the internal passageway is often almost closed. Sometimes this happens, the neck keeping its proper place, the body only getting out of position. Sometimes united to this position the whole organ will prolapse, in both cases stretching or cramping the tubes more or less. In this condition of the parts, what else could be expected but severe pain; the nerves of the passages becoming, as they must be, strained with the surcharge of blood, dammed up, as it were, at these points, passing off in driblets instead of flowing freely as it should do. What wonder that menstruation proceeds with pain and suffering! What wonder that those who are subject to backache find that their back aches worse than ever! What wonder that the dyspeptic is sick at her stomach, vomits freely, and loses her appetite! What wonder that the nervous girl has severe attacks of ennui, exhibits strange freaks of disposition, and seems almost unable to control her feelings! What wonder that all the sufferings attending prolapsus uteri, described in Chapters III. and IV., are aggravated at this time!

Whatever causes this disease causes painful menstruation. Injurious methods of dress, tight lacing and hanging the clothing upon the hips, is the principal cause. Reverse the cause, and a cure may be obtained. Gradually, if sudden change is unpleasant, loosen the clothing and suspend from the shoulders. I have known radical cures of painful menstruation take place after a simple following out of the above direction. It will do little good to merely loosen the clothing at the time, but it must be so worn throughout the month, if benefit is to be obtained.

Sometimes painful menstruation is caused by the formation of membranes and clots which irritate in passing away. Some of them are as large as the hand. Application of hot water will oftentimes relieve the pain when this is the case, and with some persons cold applications are more soothing than hot. I can not speak with certainty upon this point, but should judge that a cure might be obtained permanently by constitutional treatment; that is, such obedience to the laws of health in regard to diet, pure air, exercise, sleep, etc., as nature always requires, if we would be well. There must be some cause for the blood to clot and membranes to form; and if the resulting pain is as severe as described, it would be worth while to try the hygienic method of living. Let my reader who is a victim of the troubles under discussion first adjust her clothing as it should be, then if she does not obtain relief, consult a *good* physician, who can give constitutional treatment without, or in connection with, medicine, meantime

using hot or cold applications for temporary relief If all this fails to cure, there probably exists some malformation of the organ which causes the difficulty, and which can only be removed by surgery Girls should avoid

TAKING COLD

at this particular time. One girl ran out in the early morning dew and cold barefoot to milk the cows; another stood barefooted on a damp cellar floor while churning; another stood a few minutes on the wet grass in slippers—in each case respectively the feet being unused to going bare and thinly shod. Before night they each came down with fever and excruciating agony, and their menses stopped entirely. Unless something is done at once to bring them on again, most generally a few hours of suffering will terminate life. Sometimes the flow is checked by taking cold in such a way as not to produce immediate danger, but, instead, will cause dropsy or quick consumption.

We can see from these examples how necessary it is to guard against taking cold at this time, and many exposures that one could pass through with impunity at any other time should be guarded against now. Here is a little experience given by a friend illustrative of this point, and showing, also, how to deal with sufferings caused by such means. She says: "I once awoke in the night suddenly in the utmost distress. I could not help groaning outright, and felt very faint and weak, yet could not be still. For

tunately I was at home, and mother a good nurse. I aroused my sister, and she awoke mother. They built a fire in a trice, made some hot drink, and putting hot applications upon the bowels and feet, started up a perspiration, and in about half an hour I felt much relieved, but was not able to be up for two days. Had I been obliged to wait for relief till a physician could be called it seemed to me I should have died. This was an obstruction caused by taking cold. The only way I could possibly have taken cold was two days before; I had made an afternoon visit to a neighboring house. Being a very warm day, I had neglected to take an extra garment to wear home. The air had suddenly cooled, and I remembered of having felt quite chilly before reaching home."

At any other time this chilliness might have done no harm. Still, chilliness prolonged many minutes and repeated many times in close succession at any time, is dangerous. So long as a person prevents a feeling of chilliness, so long are they safe from taking cold. It is imprudent to sit with wet feet and damp skirts. Keep warm by dressing warmly. Keep out of drafts of air. These precautions, well to observe at all times, demand almost imperative attention on these special occasions.

It is possible that we may at some time be traveling, or be surrounded by circumstances beyond control, so that unavoidably the health may be exposed to peril. A knowledge of what ought to be done may enable one to remedy, before it is too late, any harm

that would be likely to develop itself. For instance, if we accidentally get our feet wet, we should keep moving until we have a chance to dry them. If we have reason to fear we have taken cold, we should get up a perspiration immediately. It is often easy by the use of some simple means to counteract the influence of the most untoward circumstances.

The following is related as an example: A young lady, a school-teacher, went skating one day at noon in company with others. She broke in near the edge, where it was just deep enough to wet her under-clothing quite to the waist. Her skirts did not get wet, as they floated on the ice. She was helped out by the others, went back to school, taught the rest of the day, walked a mile or more home at night, all without drying herself; and although she was unwell in this way at the time, she did not receive a particle of injury. Her keeping in motion and keeping warm saved her, and probably no chilly wind was blowing which was in her favor. Had she been pupil instead of teacher, obliged to sit instead of having a chance to move around the room, she might not have escaped so easily. We should remember, when exposed to cold or wet, to keep in motion if possible; should not sit nor stand still, but keep stirring until we can change the clothing, rubbing the feet or other exposed members briskly, dry off, and get warm as soon as possible; if in a pespiration, should cool off gradually.

As has been stated on another page, immediate suffering is not always produced by a sudden check

of the monthly flow. One may pass over three or four months without its recurrence, feeling no particular change in the general health. I will relate such a case, for the purpose of describing the simple and effective cure, from which some may derive profit. It was of a young lady who from having caught cold at this time, had no appearance of the menses for three months. The only effect upon her so far had been to make her listless, melancholy, and weak. At last she joined a class in gymnastics. To vary the exercises, one evening the professor drew up his class in two columns, and placed them on opposite sides of the room. The two who stood at the head were then to try a race down the long hall, and see which should win; then the next two, and so on. When it came her turn, she summoned all her energy, ran with all her might, and won the race. It was the best thing she could have done, for that same night menstruation set in freely; her health, which was verging on a decline, was rescued. The next month nature seemed to be forgetting its duty again, and she had already passed over several days without its putting in an appearance. Just at this time she was caught on her way home one day as a thunder-storm was coming up. She was obliged to hasten her steps into a run to keep out of the rain. This was the needed remedy again; better than any medicine. She had no trouble afterward.

Taking cold during the monthly period seems to cause inflammation sometimes, which produces sudden and severe distress that requires hot drinks and

hot applications that will cure as suddenly as caused Sometimes taking cold seems to cause a sort of partial paralysis, or deadening of the sensibilities and power to perform the function. Dropsy sometimes follows taking cold. The electric battery, properly applied, will oftentimes give a new start to the delinquent forces, and is an excellent remedy for dropsy. Besides avoiding exposure to cold at these periods, there are other

EXPOSURES

which should be avoided. Heavy lifting, for one thing. The girl that was mentioned in a previous chapter who lifted the stove, did it while in this situation, hurting herself so that her menses did not return for seven years. It is very seldom that an individual lives so long after a stoppage of this kind. I will mention that the persistent application of electricity restored this girl to health at last. Exposure to extreme fatigue from overwork should be avoided While one should be able to perform a usual amount of labor, she should not plan to do more.

Some at this time are obliged to be careful about what they eat and drink, many articles producing great distress then, taken freely at other times. These vary with different individuals, and no one should try to force her stomach to contend with that which some previous trial has shown disagrees with it.

Singers are sometimes troubled with a partial failure of the voice during menstruation. A lady told

me that she very materially injured her voice by forcing herself to practice when it was difficult for her to do so. A hint to the prudent girl will be sufficient.

A life of inaction—want of exercise—is another reason so many girls suffer pain. An acquaintance of mine was always so sick that she had to spend the first half day, at least, in bed, and suffered a great deal during the whole time. She at length engaged in an occupation which took her from home on a daily walk of a mile or more. Her health in this respect began at once to improve, and after a few months she experienced little or no discomfort throughout the time, plainly showing that the trouble in her case was insufficient exercise. Two-thirds of these pains, irregularities, excesses, and suppressions would be unknown if girls would wear their clothing as they should, take proper food and drink, and sufficient exercise in the *pure air*. The other third would be produced by malformations and by accidents and exposures beyond one's power to evade. The latter, as has been seen, may be generally offset or subdued by use of the proper means. For mental accidents, frights, bad news, etc., rendering one suddenly unnerved, we should try to realize a Heavenly Father's presence and power, and calm ourselves with religious consolations.

The function of menstruation seems to relieve the system of a surplus accumulation of blood and bad humors, although the worst blood is not especially devoted to the purpose. But it is noticeable that one

afflicted with pimples on the face will be rid of them at this time for a week or two; that sore throats and colds which are contracted during the month seldom entirely disappear until the next monthly turn. In a day or two, then, the system will rid itself of disorder faster than in a full week before. Sores, wounds, and bruises heal sooner then than at any other time. The whole system seems to be relieved, if not cleansed, of many impurities. This adds to the danger of having the flow checked. The bad blood and humors that may be lurking in the system, failing of partial relief through the natural outlet, are returned to the circulation, and often strike the vitals.

MENOPAUSE.

When women reach the age of forty-five, menstruation usually ceases altogether. This period is called the menopause, or change of life. It is considered a critical season. For, as was just stated, when this outlet, which keeps at bay impurities that collect in the system and tend to breed disease, is obstructed or ceases entirely, they are thrown back into the circulation.

So now, if there is scrofula in the blood, or liability to any other disease, it is likely to renew its appearance in all its strength, and unless some course of medication or hygiene is resorted to—the blood cleansed and the disease destroyed—fatal effects are apt to follow. Women who have observed the laws of health during all their past life, and suffered little or none at each menstrual period, will have no difficulty now. It wil'

end as it began, with no alteration of the usual feeling of comfort and good health. Those who are feeble during this change, but can be safely carried through, will be likely to live to a ripe old age, and be stronger and healthier than ever before.

The daughter, whose mother arrives at this age and is in a delicate state of health, should seek, by every means in her power, to lighten her cares, to share her labors, and treat her ever with the utmost consideration and tenderness. With good nursing and care at this eventful period she may be spared many years.

Thoughtfulness and kindness on the daughter's part is no more than due in return for all the anxiety with which the mother watched over her while she was blooming into womanhood.

CHAPTER IX.

LEUCORRHŒA.

WE are now to consider a distinct disease, almost as universal among women as it is common among them to experience various disturbances of mind and body while menstruating. It will generally be found that painful or irregular menstruation is accompanied with leucorrhœa. This is a discharge likewise from the vagina, of a mucous character, and of a whitish color, much resembling in appearance the white of an egg The name in common use for it is "whites." At first it is thin and watery. Where it is of long standing it thickens and becomes more abundant. In its later stages it may have a reddish, a green, a yellow or a brown appearance. It is generally attended with a great deal of languor, especially in the early part of the day; with fainting, changeable appetite, palpitation of the heart, shortness of breath, paleness, dark circles round the eyes, and pain in the back and loins. Occasionally a woman may be found who has a discharge of this kind constantly, yet who seems to feel, and looks, well; but such cases are rare.

The fact is, leucorrhœa is not a disease in itself, but only a sign that disease is existing in some of the internal organs, or a sign that the whole system lacks

vitality or vigor. This discharge is to the pelvic organization what a catarrhal discharge is to the head, or expectoration is to the lungs, a sign of inflammation, irritation, or weakness; and the difference in consistency reveals to the physician what part is affected and of how long standing.

Misplacement of the uterus is usually attended with leucorrhœa. Common colds, affecting the mucous membranes of the whole system, extend their influence to the mucous lining of the womb, vagina, etc., creating this discharge, similar to that of the lungs and nostrils. Catarrh of the head might be classed with this in the same way. Inflammation or congestion originates the whites. So does fatigue from too long continued and steady application to one object of pursuit. Sometimes over-anxiety and other strong mental excitement will produce it. A lady, whose husband was conductor on a railroad train, told me that, when he failed to come home at the time appointed, her anxiety lest some accident had happened, became so great, as always to bring on an attack of whites. Anything that overtaxes and debilitates the nervous system is apt to be followed with this result.

Many times there will break out around the mouth of the uterus little pimples similar to those which come upon the lips and face. These mature and break, and of course throw off matter. This condition is called ulceration. These ulcers will keep forming, breaking and discharging, and in time may unite into one large sore. If not cured or attended to in time, it may become an abscess, or even cancer.

When the womb prolapses, its mouth presses against the walls of the cavity surrounding it. The jar and motions of the body cause it to rub back and forth a great deal. Such friction applied to any part of the body, no matter in how healthy a condition it may be, will produce irritation, and in time ulceration; therefore improper modes of dress, by first bringing on prolapsus uteri, which causes the womb to rub against the sides of the pelvis, generates ulceration, and from that one kind of leucorrhœa. An ulcerated condition is not always produced in this way, but sometimes from humors in the blood, and also from general debility. How foolish it is to think of trying to cure leucorrhœa by simply taking medicines, or by injections and washes, which only reach the surface. Outward applications alone for surface discharges are worse than nothing—are absolutely dangerous. Such discharges, of course, must come from disease inside the body. To cure that discharge with washes may strengthen the parts to which it is applied, so that the flow may be prevented from coming that way, but the cause remains untouched and still at work, and *will find some other outlet* for its load of matter. If it can not find its way out through the proper organs, it may go to the lungs, or form an internal abscess or cancer.

I have met with a lady who said she spent hundreds of dollars in trying to get cured of leucorrhœa. At last a doctor prescribed injections of some preparation of iron. After two or three applications the leucorrhœa stopped entirely, but soon afterward she

commenced having severe ovarian side-aches, with frequent spells of bloating like dropsy. The wise way to restore the health is to remove the cause of the disease first, when some little medical assistance will hasten the end sought. No permanent relief can be obtained when this disease is induced by wearing laced corsets until they are removed, or, if the system is run down with general debility and nervous prostration, until the nerves are toned and invigorated and the strength renewed.

Leucorrhœa has no special periods of recurrence, but varies with different individuals. Some are not free for a day. Others will have it a few days before the regular monthly flow; others immediately after. Others still, for a few days about half way between times; others only upon occasions of mental excitement, fright, or fatigue. Some have all the bad feelings and symptoms, yet so little of the discharge that their attention is hardly called to it. Some have so free a discharge that there are no bad feelings except weakness and loss of animation. This is a prevailing characteristic, for it is very weakening. Weakness is always a result, and oftentimes it is a cause. Menstruation is a natural process, a function promotive of health; but leucorrhœa is an unnatural process, a result of disease.

Often in its beginning the whites originates, not exactly from disease, but from uncleanliness of the parts, and if unchecked will become so aggravated as to induce disease by excoriation. For instance, at the close of each monthly flow some of the blood

will still remain in the folds of the vagina, and unite with the natural oily secretions and mucus, which are thrown off by the glands provided by nature to keep up a healthy moisture of the labia and other parts. The irritation produced by the presence of a foreign and, as we might term it, a corroding substance, and the effort of nature to rid herself of it may result in leucorrhœa. If the blood was always pure, and all the functions of the whole organism performed according to the plans of nature, taking into account pure air, proper food, sleep, and exercise, there would be no trouble here. The blood and mucus meeting in the vagina would not interfere with one another, but would be cleansed by the provisions of nature. But where her operations are interfered with we must introduce some foreign aid, and the common-sense remedy which would suggest itself to the mind is—soap and water.

Within forty-eight hours after their close a thorough cleansing with castile soap-suds followed by clear water should be given with a syringe. Thus all acid and irritating secretions would be cleared out of the passage-way, which might otherwise remain to do mischief, and leucorrhœa in its first stages be corrected by this simple means. When the whites are the result of disease in the system, such as nervous debility, prolapsus uteri, and ulceration, these injections are also beneficial, but should never be wholly relied upon to effect a cure. It should be united to treatment intended to influence the constitution, or hygienic treatment.

Many physicians oppose the wearing of closed drawers by women. In bad cases of leucorrhœa the odor arising from the discharge confined from the air in this way becomes extremely offensive to the patient at least, and may extend beyond the confines of the dress, and when she comes near the stove or register, if at no other time, be detected by the bystanders. A free circulation of air by open drawers is wholesome to the parts, as well as a deodorizer. It is well enough for little girls, and even advisable for them to wear tight drawers, but it is probably best for young ladies and women to wear them open.

A recapitulation of the important points contained in this and the preceding chapter will close the subject:

1. Menstruation is a natural, healthful function of womanhood.

2. It should be painless, and should occur regularly every month.

3. Whatever tends to enfeeble the nervous system impair the circulation, destroy the tissues, or otherwise undermine the constitution, will produce a variety of disturbances at this period.

4. Leucorrhœa is a usual sign and attendant of violations of the laws of nature.

5. Take care to secure the natural conditions—*i. e.*, painlessness and regularity at the menstrual period—and the health will be good at all other times; also *vice versa*.

6. Those who would do this must study and *practice* the laws of health.

CHAPTER X.

REPRODUCTION.

ANY girl with an inquiring mind, to whom these chapters have presented entirely new subjects, has no doubt wondered why we were made with these sexual organs; of what use the womb is; and why this flow of blood called menstruation must take place. Every organ, she reflects, has its use: the ear is the organ used for hearing; the stomach for digestion; the feet for locomotion, and so on; and she asks, Now, of what use are these? It is the object of this chapter to answer these inquiries.

Every plant and every animal has within itself the power of reproduction—that is, of producing more plants or animals like themselves. The process differs with different species, but the result is the same in all—viz., a new being similar to the old one.

Birds and fishes lay eggs which are hatched into young ones afterward. The cat has kittens, the cow a calf, the horse a colt, born alive. All plants bear seed, which must be put into the ground, sunned and watered, before they will reproduce their kind.

The Creator made these arrangements, so that when the old ones died, or were killed, or were used

for anything, more might take their places. If He had not, this earth would soon be a bare and desolate place, instead of the beautiful world it is now.

Human beings, likewise, have within themselves the power of reproduction, or the power of keeping the race alive. Accordingly, as one generation passes away, another succeeds it. The sexual organs are the organs of reproduction. Their use is to bring children—little babies—into the world. You and I and all of us were little babies once, and were developed or formed within the uterus, and born by means of the sexual organs. On page 38 we called the womb the most important and sacred of all the organs in a woman's body, and now you can see why we did so. Do you not think it very important that men and women should be born into the world? Is not your own life of great importance to you? Is it not of great importance that your parents and brothers and sisters are alive? How lonely your days would pass without your playmates and friends! Then as the older you grow, and become men and women engaging in the world's work, the more important will human life seem than even it does now. It is very important that the Creator planned to have a succession of men and women, so that when people die from old age, disease, or accident, others can take their places If He had not, there would soon be nobody to enjoy the beautiful things that fill the earth. Trees, vegetables, animals, metals, and other things that are of use to make us comfortable, would all go to waste. Man is the head of creation; he has dominion over

all; and, if there were no means of keeping the race alive, earth would soon be without a master.

Human life, too, is a very sacred thing. We are taught that we possess souls which are to exist forever; that we have feelings capable of experiencing always joy or sorrow, peace or misery, happiness or anguish; that we have minds which may continue to acquire knowledge throughout eternity, and how much there will be to learn—all about the millions of stars that may be, many of them, inhabited planets similar to ours—all about how flowers grow, the habits of birds and insects, how mountains were formed, what causes the lightning and the aurora borealis, what God is, and what the soul is, and all about a thousand other things that now we do not fully understand.

It is in view of the fact that it is by means of the womb that useful, important lives, and sacred, undying souls are brought into the world, that we have called it the most important and sacred of all the organs.

Doubtless my reader will next wish to make inquiries as to *how* little children are formed in the uterus and born into the world. As there are many reasons which make it proper for an earnest, honest-minded young girl to know something about these things, I will proceed to explain to her as much as she can understand.

Near the beginning of Chapter VIII., the ovaries are referred to as corresponding to the ovaries of flowers. As the process of reproduction in human

beings resembles in many respects the same process in plants, we will carry out the parallel.

Little babies must have both a father and a mother, as must the baby rosebuds and the baby buds of all other flowers and plants. When a gentleman and lady marry, they usually next make for themselves a home, and it is in the home that their little children are born. We might compare the calyx and corolla of the blossoms of the flowers to the homes of people, and call the stamens and pistils the father and mother of the little children of the flowers. What beautiful homes some of the flowers have! Mr. Rose surrounds himself and wife with scores of lovely, bright-colored petals, some painted damask, some yellow, some tinted a delicate pink, some pure white, and so on, according to the taste of the owner. Mr. Columbine lives in a house composed of but one row of petals, divided into several long, tube-shaped compartments. Red and yellow are the chosen colors of the dweller in the lowlands; while his cousin, who lives in the mountains, chooses a delicate lavender hue. Mr. Sunflower gets his name from having such a gaudily-painted house like the rays of the sun. Mr. Violet gets his name from having selected that color of the rainbow for his home.

But I leave my reader to follow out at her leisure the various tints and shades, and the innumerable shapes of the homes in the plant country, and I will go on to compare the parents in that land with those in our own.

The flower mother is called a pistil. At the lower

part of the pistil is situated the ovary filled with ovules or seeds, or rather the rudiments or beginning of seeds. You all know that unless flower-seeds are fully ripe they will not grow. In order that they may ripen, a certain process must always take place. The flower father has a part to perform before the seeds can ripen. We will call the stamens the flower father. The anther of the stamens produces what is called pollen, a yellow, dust-like substance. This must fall upon the top of the pistil, called the stigma, be carried down the slender stem beneath, called the style, and lodged among the unripe ovules in the ovary. The pollen is brought to the stigma in different ways. Sometimes the winds shake the blossoms and blow the pollen over; sometimes the wings of insects brush it off.

The pollen has a fertilizing power, and as soon as the ovules receive it they begin at once to develop. They take a new start, and as they gradually grow plump and round, the ovary becomes larger and larger to give them room. It expands immensely, until by and by it gets so large we call it a pod. After a while the seeds become fully ripe and able to grow alone, each one by itself, and then the pod bursts open, letting the seeds fall to the ground.

If you dig up a seed that has been in the ground a few days, or soak one in water until it swells—a bean or grain of corn are good examples—and then open them, you will find two tiny leaves and a stem. This is called the germ or embryo, and is the true baby plant that now needs only proper conditions of

food and sunlight—good care and nursing—to make a full-grown plant.

The ovules which in the human female fill the ovaries, are the rudiments or beginnings of more human beings, and, if subjected to certain conditions, will each become an infant. They will not all develop at once as flower ovules do, but only one at a time in the majority of cases, though sometimes two or three develop at once, and twins or triplets are born. Neither do they remain in the ovary as flower ovules do, but are thrown out one every month and carried through the Fallopian tubes into the uterus. All of the ovules not designed to become human beings pass on through the womb, down the vagina, and out of the body by means of the blood of menstruation, which washes them away; these ovules are at once destroyed and can never be further developed.

Like the ovules of the plant, the ovules to be developed need a fertilizing power, similar to the pollen, before they can become human beings, and this power must likewise be furnished by the father, which consists of a fluid called semen. This semen, when carried in an act called copulation through the vagina and brought in contact with the ovule, after it passes into the womb, and while it is still there, will have the same effect upon it that the pollen does upon the flower ovules, or, as we might say, will fertilize it.

The semen and the ovule are composed of the richest and strongest elements of the blood—the most precious portions of the human system—and when brought in contact with each other in this way

in the uterus in some mysterious manner still undis covered commences at once a new process, and becomes the embryo of a little child. The womb closes so that this ovule can not escape as the others have done; menstruation ceases; many changes take place one after another to the imprisoned ovule, which is now called a germ, embryo, or fœtus. This embryo is nourished by the mother's blood, and the little ovule, at first about the size of the point of a pin, gradually grows larger and larger. As the embryo increases in size the womb will also expand until i reaches an enormous size, and may, in this, be likened to the seed-pod of the blossom. At the end of nine months this embryo has developed to a full-grown infant, able to continue to grow outside of the uterus, and so it next makes its escape through the mouth of the womb down the vagina and out of the vulva which all spread open as it passes along to give it egress. This helpless, innocent, new-born infant, this miniature individual, now only needs good care and nursing to become a full-grown man or woman.

At the age of puberty, when the monthly period of menstruation has become established, it is possible for a girl to have children—to become a mother. Women can not have any more children after the menopause or change of life.

We have seen how necessary it is that the race should be kept alive, and how valuable are our own lives and the lives of our friends, both in this world and in the next. The same Creator who made the flowers and who planned how we should be born, also

sanctioned the institution of marriage, in order that one man and one woman could be brought together in such a way that children should be born in the home and have a mother's tender, loving care, and a father's strong arm to provide food, shelter, and protection.

N. B.—In preparing this theme it was taken for granted that the reader understood the rudiments of botany. If one should be ignorant of the subject she should read some "First Lessons in Botany," and, though but ten years old, she will find it of itself a pleasant and instructive study, and will be more able to get a clear understanding of this subject.

CHAPTER XI.

FIVE GREAT LAWS.

LET us consider several important lessons that may be learned in connection with the subject of reproduction:

1. *Transmission* is a law of nature. This means to pass through or hand down from one generation to another. Inherit and hereditary descent are words which have the same meaning. To illustrate: when the father dies, the children inherit the property, or they receive it by hereditary descent—that is, it descends from father to son, or we sometimes say the father transmits, hands over, or gives his property to his children. The same law holds good with his mental, moral, and physical possessions. They, too, descend from father to son. The color of eyes, hair, and complexion; the disposition, smartness, and tastes of parents are transmitted to children, and we say that children have inherited them. A belief in this law is very common, and is often expressed in such remarks as: "John has a very quick temper; takes after his father." "James is a true chip of the old block." "Laziness runs in the family."

2. *Culture improves species* is another law of nature The wild sour apple-tree may be cultivated until it

brings forth a large, luscious fruit. Any fruit, flower, vegetable, or plant whatever, if properly planted, watered, weeded, and pruned, will become larger, sweeter, better every way than the original. Cows, sheep, fowls, horses, and other domestic animals have been tamed, trained, and improved in appearance, disposition, strength, flesh, size, and use, becoming much higher and better than they were in a wild state. As it is with animals and plants, so it is with man, only in a far greater degree. The early history of England furnishes a good illustration of what cultivation will do for men. Its first settlers were wild, uncouth, ignorant people. To-day the inhabitants of England rank with the foremost of enlightened, civilized nations.

3. *Neglect degenerates species.* Degenerate means to revert, or go back again to a wild, uncultivated condition. "It is a poor rule that will not work both ways." Keep the sunshine out of an orchard by neglecting to prune the branches; permit the weeds to grow thick upon the roots and tall about the trunk, absorbing the moisture and nutriment of the soil, and in a few seasons it will become so degenerated that it will bear sour, gnarly apples, no better than wild fruit. Allow domestic animals to run at large awhile in forests unfed and uncared for by man, they will soon get to be rough in fur, thin in flesh, and wild and unmanageable as at first. Let England neglect to educate the present rising generation, and become slack in applying means for cultivating the masses, in making and enforcing wise laws, and the country

would gradually degenerate until a few generations hence would present barbarians like the earliest settlers.

4. *Succeeding generations improve faster than the first.* Although the tendency of seeds if left to themselves is to produce plants not quite so good as the plant on which they grew, and sometimes to revert entirely back to the old stock, still, cultivation counteracts this tendency, and the plant will improve much faster and with less care, as a general thing, than did the first one, or the one that bore the seed. Train an intelligent dog to perform certain tricks; her pups will learn those tricks with far less teaching than the mother dog required—it will come to them almost instinctively. Capture a colt on the plains tame and break it to the harness. Her colt at the same age may be broken much easier than its mother. This law like the preceding may be equally applicable to mankind. It may be very hard work to teach the first generation, and may require a large outlay of time and money. But the children of those people will learn much easier, and the same amount of money will go farther and educate more persons in the same length of time. The capabilities of the third generation will still be an increase upon the second. For example: give a set of persons extra physical training, so that the muscles of arms and legs increase much in size and strength, their children will naturally be strong and muscular and require less training to surpass the parents. The children of those who possess musical taste and culture will

have a natural musical tendency very easily developed.

5. *It is more important to improve the mother than the father.* This law has been abundantly tested and found applicable alike to plants, animals, and man. It is better that both parents should be equal in improvement, but if the father be good and the mother poor, as the offspring partakes most of the mother's nature, being influenced by her before its birth during the nine months she carries it beneath her heart, it will be poor like her. But if the father be poor and the mother good the offspring will be good. So that if but one sex can receive culture, training, education, it should be the women.

We will in the next chapter so combine these five laws as to make them of practical benefit to girls and draw one grand far-reaching lesson from them.

CHAPTER XII.

SOMETHING ABOUT MOTHERHOOD.

WE must each one exert an influence over others. "No man liveth to himself, and no man dieth to himself." Girls should not only obey the laws of health for the benefit it is to be to themselves individually, in order that they may be more lovely in person, because more healthy; more attractive in mental manifestations, because good health makes sweeter, brighter dispositions; more happy, because more healthy and attractive; but mainly should they obey these laws, because, in so doing, they may secure qualities of body and mind which will lead them to exercise a better influence over others than they otherwise could. The former are selfish motives, the latter unselfish—Godlike. We *must* throw out some kind of an influence over others. The archer who aims at a mountain-top will strike higher than one who aims at a fence. The girl who goes about saying, by her actions, she don't care what others think of her, or how they are influenced by her, makes an unpleasant impression upon them. But one who tries to make the most of herself and her talents can never forget others, and though she may adhere to the good and true, even among those who oppose the

good and true, not caring if they do disapprove of her, realizes she impresses them, hopes she may do them good, and has a feeling of satisfaction the selfish girl never experiences.

But there is another way in which we may exert an influence over others besides in the impressions we make upon those around us. The majority of girls will marry. The majority of those who marry will become mothers. It is through the great laws of Transmission and Improvement, or Degeneracy of Species, that girls are to effect a tremendous influence upon others for evil or for good. It is necessary to have good health, so as not only to be able to make a husband happy, and to have a pleasant influence over him, but so that they may exercise a good influence over their children, not only after they are born, but before. Whatever quality is desirable for a child to possess must be commenced in the mother. The child will inherit this, and, according to law fourth, a little more with it, which it can still add to after it is born, and the more it has to start with, the faster it will improve. During the nine months that the mother is carrying the embryo beneath her heart, she is constantly influencing its little growing body and mind. It is daily feeding on her blood. As she is, so will her offspring be. Even as mothers exert the most influence over children, so it is of the utmost importance that girls should be strong in body and perfect in mind.

Neglect degenerates species through the law of transmission. If muscles are not exercised they be-

come weak and flabby. If fresh air do not freely penetrate to the most minute air-cells of the lungs, that part of the lungs becomes enfeebled, an easy prey to consumption. Let the eyes become sore, the liver torpid, the stomach dyspeptic, their several organs lose their tone and vigor; the next generation will inherit a tendency to the same diseases, and will contract them much more easily than did the parents. How common are such expressions as these: "He has heart disease, his father died with it, it is likely he will"; "consumption runs in the family"; "she is nervous, like her mother." Now, girls, these are among the important reasons that some of your mothers will not buy corsets for you, and a great reason that you should not buy them for yourselves when you come to an age that you may dress as you choose. It is because some were taught to lace when they were little girls, in the days when less was known about Physiology than at present, that some of you have frail, weak constitutions.

This reminds me of what a lady physician, also the mother of eight children, told me. She was born in England, where she lived until twenty years of age. When less than ten years old her mother had her go to the stay-maker's, where her clothing was removed, except the first garment, and her measure taken for stays just as *tight as possible.* The stiffening then used was thin, stout boards, two and three inches wide for the back and front, with whalebones intervening. This process was followed for every new corset till a number of years afterward, when she

learned better and abolished the stays. "But," said she, "my form was ruined for life, and I have not a child as strong as I was." I have heard many other mothers make the same remark: "I have not a child as strong as I was" at such or such an age.

Tight lacing is one of the main causes, although not the only cause, of this degeneracy. A great-great-grandmother wore these board-stiffened stays all her life. It did not kill her, for she lived to a good old age. Her daughter—the great-grandmother—laced with steels, whalebones, and strings, and it did not kill her, but she did not live to be quite as old as her mother. The daughter—the grandmother—laced, was somewhat weaker than the other two, and lived only to middle age. Her daughter—the mother, yours, perhaps—laced, and was sick half of the time; had to be very careful the other half; "couldn't stand anything," and probably dies much younger still than any of the preceding generations.

What kind of a constitution could she transmit to her daughter, to you? An inheritance of weakness, delicacy, and easy liability to sickness. Therefore *you* are suffering from the folly of your mother, grandmother, great-grandmother, and great-great-grandmother; and your child, unless you study and practice the laws by which you may assist in restoring the old stock, will be more puny, short-lived, and effeminate than yourself.

Some one asks, "*Must* disease, consumption, weak eyes, nervousness, etc., etc., inevitably be transmitted

to children? Is there no way to prevent it?" Yes there is a way to prevent it, wholly, or in a great measure. If a person is of consumptive tendency, or possesses any other defect, let her begin at once to cure it, not by relying upon medicines, but by finding out nature's way of strengthening weak parts and driving out disease.

Species may be improved. Fill the lungs with fresh air, even to the minutest air-cells, and this can not be done in tight clothing. Exercise the muscles and they will grow strong; and this can not be done if clothing hangs upon the hips. Sleep sufficiently to cure nervousness. Eat proper food, etc., and any one may become healthy and well who has any constitution left to begin upon. The next generation will be stronger than the preceding, and each succeeding one will be still better if the laws of health continue to be observed through all of them.

Many a young lady, perhaps every one, reads these lines referring to her duty to a future generation with little interest, possibly with scorn, and dismisses that part of the subject as though it were beneath her notice, with the exclamation—mental at least—"I don't care for that! I'm not going to have any children when I marry!" Don't, girls, don't say that. You don't know what you are talking about. The whole subject may look differently to you one of these years. I know how it seems to you now, and do not much wonder that you feel so.

I know that young ladies free from care, free to go and come, feeling pleasure in sight-seeing and com-

pany, look upon their mother's life—what they know of it—and that of other married women who have families, with pity, considering them to be lives of drudgery and hardship. They mark the hollow cheek, the weary eye, the bent form, the old, faded look, the spiritless manner, the intellect that does not keep pace with the times.

They see them tied down at home almost constantly, year after year, their time never their own, but repeatedly broken in upon by the demands first of this child, then of that, then of another. They infer from all this that it is the number of children which brings about such a change in the personal appearance of young ladies so soon after marriage; that causes them to give up all the freedom that before yielded them pleasure. They do *not* know that they may find a new kind of pleasure in love, in a home of one's own, and even in doing and caring for their children, that may far exceed the pleasures of girlhood. They do *not* know that much of the drudgery and confinement within doors is wholly needless that it is not necessary to grow old and faded in raising a family; that it should be a woman's study to avoid this.

I know there is little in the children themselves which, to such casual observers as girls, makes motherhood look desirable. And the more intimate the acquaintance by persons that never had children, the more certain it becomes that children are not angels; rough, saucy, lazy, heedless, untidy, impolite, mischievous—why, I have seen but few—now and then a child

seemed nearly perfect, about five in a thousand *by actual count*—that did not have at least *one* fault, and that carried to an unpleasant extreme.

I know that some girls would avoid motherhood because they have obtained in some way an indistinct notion, much exaggerated in their imaginations, that the bearing of children must be attended with an immense amount of terrible pain and suffering.

I know how it looks to girls. I have tried to see how the other side, the mother's side, looks. Said an invalid mother a few days before her death, "They talk about the care and trouble of children. If I could only be spared to train Allie, I should ask for no more beautiful or satisfactory lot. I do not know what will become of him. I can only trust him to God." Now Allie was a romping, wide-awake boy, as full of failings as the majority of children, and no more attractive than they. His mother saw in him what she had never seen in any child during her girlhood.

An old lady of sixty years was one day talking with some younger women about the troubles of her life; her husband's business failures, poverty, deaths of friends, etc., when one suggested, "Yes, and then you have raised a large family of children, and that must have brought a great deal of trouble."

"Oh! I never count having my children among my troubles. If I had never seen any more trouble than that I should think I had had none. I do not think what I have suffered on their account is to be compared to all the comfort they've given me. What should I do without my children!"

One writes: "And what are the joys of parties of fashion, or freedom from the sufferings which God has appointed, compared with those of a true mother with a large family of children around her! I could mention such a mother, who reared up a large family of sons and daughters. On one occasion she was found with her four sons sitting on stools at her feet, as they sat when boys. One was a governor, a second was a judge, the third sat in Congress, and the fourth was a general in the U. S. regular army. The daughters (four) moved in silver orbits also. Can any language describe the joys of that widowed mother?"

It is a fact, other things being equal, that women who have had children are healthier and stronger than before. Only a few days since I heard a woman volunteer this thought, as being her experience. I frequently hear mothers make similar expressions. As to the pain and suffering accompanying the birth of children, let me assure girls that they have no need to fear motherhood on that account. It is true women have and do suffer extreme anguish, and often lose their lives, but it has mainly been caused by ignorance. Science has made such advances in these days, even on this subject, as to show those women who will study and practice her precepts, how most of the suffering and all of the danger attending childbirth may be avoided. I can not help referring again to the dreadful corset, or tight dressing without corsets, and clothing hung loose upon the hips, as being greatly responsible for this suffering and death. And I would earnestly exhort girls once more to dress

properly in these respects, in view of the probability —the almost certainty—that they will marry and become mothers; for, in addition to all the previously-named benefits arising from such a course, the last but not the least is the safety and comparative ease with which children may be borne.

Perhaps, girls, you will some time see that there is no position in the world more sacred, more noble, more beautiful, more enviable, and with proper preparation and education for it, as little to be dreaded as that occupied by the successful head and guide of a true home.

Then don't, don't allow yourselves to indulge in words and feelings against maternity. Prepare yourselves, rather, whether or not the blessed lot be yours, to become a judicious, honored, loved, and loving mother.

CHAPTER XIII.

SELF-ABUSE.

THERE is another way of undermining the constitution, ruining the health, and finally causing death, called secret bad habits or self-abuse, in regard to which girls should receive especial instruction. Hundreds of my readers do not need this chapter for their own sakes, but they should read it, as they may learn something which may assist them in their intercourse with other girls. There are girls who need to read it for their own good, and I shall endeavor to write so plainly that the youngest reader may understand the most of these pages.

Self-abuse means a fingering and handling or playing with the sexual organs, and is given that name because the whole body and mind is affected and abused by it. This practice will cause more blood to flow to the sexual organs than would naturally go there—blood that ought to go to nourish and sustain some other part of the body—which, being thus robbed, will constantly grow weaker.

The face will lose its fresh, rosy complexion for want of blood, and become a dead pale with a greenish hue, the lips fade, and the ears become white, like marble. The eyes will lose their bright, sparkling

look, and become dull and sunken, and surrounded by dark, purplish rings. The muscles of the body will become soft and flabby, and a young child or a young lady that ought to be plump and fresh and gay will begin to look old, faded, and worn out.

The extra amount of blood called to the privates causes them to swell and inflame, creating a desire to still handle and rub them for relief, but this only makes them feel worse instead of better, and increases the difficulty.

After a while a discharge of whitish matter passes away from them daily. This discharge is very weakening, and the whole system suffers from it.

We have already learned how closely the sexual system is connected with the brain by means of the nervous system. The sexual nerves become irritated by the swelling and inflammation, and this irritation is communicated to the brain-nerves, causing the person to manifest a nervous, cross, irritable temper.

The memory becomes poor, so that lessons can not be learned easily, or remembered when learned, and there will be a dislike of books and reading, and the pupil will never pay attention to what her teacher says. Soon she becomes so weak and listless that she can not play as long nor walk as far as the other children, because she tires so easily.

So great a change takes place in the eye, the face, the skin, the muscles, the temper, the mind, and the actions, from loss of blood and by nervous irritation, that no person need hope to conceal this habit from others. Every physician and a great many other

people can tell by the looks and actions what is the matter, although they may say nothing about it.

Gradually, but surely, the constitution gives way, and, unless the practice is abandoned, disease in some form will lay the victim upon a bed of suffering. Perhaps a sudden cold will settle on the lungs and bring on consumption, or dyspepsia attack the stomach with its excruciating pains, or St. Vitus' dance strike the nerves, or a fever the brain. It is true these diseases may come upon one who does not abuse herself, but the difference is that the one who has been addicted to this habit has so weakened her constitution and used up her vitality that she has little power to throw off the disease; the remedies used to effect a recovery have little left to work upon, and she will be far more likely to sink and die than the other one. If, possibly, the patient lives through a severe sickness, she will be shattered and weakened for life beyond the possibility of a full recovery of the health and vigor she ought to enjoy, unable to accomplish any great object in life, or effect much good in the world; and, worse than all, insanity is often the result of self-abuse upon those who practice it. Think how terrible it must be to lose one's mind and become wild and delirious! The insane asylums have many persons in them crazy from this cause.

Besides being a practice hurtful to the health and mind, it is a sinful practice, because it is putting organs that are intended for a sacred and important purpose—that of bringing human beings into existence—to a vile, selfish, vulgar use. If you let them entirely

alone, except to keep them clean, now while you are young, so that they can grow properly and arrive at a state of perfect development, when you come to maturity they may be the means of the greatest blessing to you.

But, if this practice be persisted in, you will never be fitted to marry and have charge of a family and a home, or, if able to marry, you will be so weakened and diseased that you can not have children, which may sometime seem to be a great misfortune, however it may appear to you now. Or, if you have children, they may be born diseased, constitutionless, liable to suffer for the mother's error all their lives, to that mother an additional source of unhappiness and sorrow.

And think what will be your feelings of remorse, if married to a pure and honorable man, to reflect that there was in your past life a practice like this, that you were once guilty of, that you can not speak about without hiding your face, burning with blushes of shame.

Any little girl who has never touched this part of her body, except for the purpose of cleanliness, should be very thankful. I am sure she is out of danger of ever doing so after she reads this chapter. Any others who have learned to do so can stop right away if they will, before any further harm comes from it. Determine with all your might that you will *never do so again*, no matter how strongly you may be tempted. And you can ask God to help you break off this bad habit. With His assistance you can do it

much more easily. The next thing to be done in correcting this evil is *not to allow yourselves to even think about it*, and He will also help you to control your thoughts.

The next thing is, bathe the inflamed parts in cool water, or warm water, whichever gives the most relief, as often as they feel disagreeable and irritated.

Servants and other grown people who tell children to practice this habit are very ignorant, vulgar, and wicked. You should have as little to do with them as possible, and always run away when they begin to say anything which you know they would not say if your mother was within hearing. Some of these people may seem to be kind and polite when with grown folks, but at heart they are very mean. Pure, refined ladies and gentlemen are always careful to talk and behave as well when with children as when with those of their own age. It is sometimes right to talk about some of these things; always when we wish to learn to preserve the health of the bodies God has given us. A mother, a sister, or some dear friend, who has not a sneaking, low way, are the ones, and the only ones, you should trust yourselves to talk with. The best earthly friend a girl can have is her mother. She will never intentionally do, or say, or advise anything that will lead a daughter to harm. A good way to get rid of bad girls when they say, "I will tell you something if you'll promise not to tell anybody, not even your mother," is to answer, "I'll promise not to tell anybody, except my mother." The girls will generally get angry when you say that, and will not

tell you at all. But girls should remember two things —first, that it is not treating their best friend well to listen to *anything* they can not tell their mother and, second, that it will only be some impure, vulgar thing which they are ashamed of when they want you to promise not to tell *her*, so you will not lose anything important. All proper knowledge will come in due time when you are old enough to understand it.

In almost every school are some vulgar girls who teach the younger ones this hurtful practice. If you know any such, of about your own age, you should tell them what the consequences will be, and try to break them of it. Sometimes you may be obliged to sleep with such girls; you should never sleep with them if you can help it; but, if you must, do not allow them to talk in the low, vulgar, mean manner that so many girls like to do every chance they have. They may laugh at you, and try to prejudice your mates against you, and get them to make fun of you, too, for not doing as they do; but no matter for that. Probably you will find among them one or two nice girls, who will think as you do, and be on your side. If not, you had better have no friends at all than the others. You can find a great deal of pleasure alone, if you try, and by and by you will get acquainted with some nice girl if you are on the watch for one.

Most girls, however, if they were plainly told that self-abuse will make them sick, perhaps crazy, would stop at once and be sorry they did not know it before; instead of hating and ridiculing you, would be-

come your firm friends, thanking you for trying to save them.

Should any one tell you she does not believe there is any harm in it, for she has done so a long time and is not sick yet, you can tell her that some are more easily affected than others, owing to the difference in the natural constitution. Some will be sick in a few weeks, others not for months, and others not for years. The more delicate and sensitive the organization, the sooner will the results be seen, and it is because she has such a tough and strong constitution that it does not affect her so soon; but she will sometime certainly suffer the consequences if she continues the habit.

What a beautiful opportunity comes in just here for older sisters to do good. Too many older sisters are so full of their own plans and enjoyments as practically to ignore the presence of the younger members of the family. Many, too, are sighing for some field of usefulness, overlooking, or not knowing about, this occasion of doing good right at home. They can secure the love and confidence of their younger sisters by manifesting an interest in the games and conversations of their little schoolmates, by leading them to converse freely on all the details of play, and cause them to feel they have no right to keep secrets from such a friend as a mother or a true sister. Some mothers and sisters effectually seal forever the lips of the little one who, in unsuspecting innocence, comes to them repeating the first vulgar words they have overheard, by saying, "Oh, hush.

Aren't you ashamed! Where did you hear such nasty talk? Don't ever let me hear the like again." Ah! that mother or sister misses a golden opportunity; first, for securing the child's confidence, which, if once obtained, will be easy to hold; and second, for teaching the child its first lesson in purity. This golden opportunity! How many have thus been thrown away! How almost criminal the course which some parents pursue in summarily punishing the son or daughter caught in some censurable act, without a kindly word of explanation or warning. When the child comes with its first improper words, it may be well to have an air of being unutterably shocked; but it should not stop there. Kindly make inquiries into the circumstances, ending with serious, earnest, yet loving advice. In this way, one faithful older sister might influence a whole neighborhood. She would ascertain if the little ones were going wrong, and either inform their mothers or delegate her sister to warn her little associates. It might require some moral courage, but if undertaken in a spirit of love, with a realization that it may be the means of preserving a loved one from moral and physical ruin, the necessary strength needed to perform the task would be sure to come.

The foregoing has been written in the interest of those who have been, or may be, led astray through the influence of evil-minded individuals. There are, or may be others led into the habit through the *influence of disease*. One of the diseases which originates self-abuse is called pruritus. This is an

external eruption appearing between and upon the labia. We can readily see how this habit might almost unconsciously follow, when we think what an intolerable itching this must cause. It is sometimes incessant and distressing, and nothing seems to be able to allay it. Sometimes the patient is so bad that she can not go out or see company. She is tormented nearly to death. Some in their agony have fainting spells, catalepsy, or spasms, or become delirious. Some are obliged to have their hands tied to prevent them from tearing themselves to pieces. Sometimes there is a similar irritation of the parts without any eruption.

There may be a burning or inflammation of the parts caused by the menstrual blood lodging and remaining in the folds of the vagina, which, together with the natural secretions of the surrounding glands, becomes acrid, with an excoriating tendency on every part it touches, causing them to become raw, with great swelling and tenderness. If unchecked, it will create a discharge of offensive matter, terminating in external ulcers or abscesses, and even mortification may set in. Those who are very fleshy are, perhaps, more inclined to be troubled in this way.

Leucorrhœa, produced by constitutional disease, may be of an acrid and excoriating nature, inflaming and irritating the parts.

Unnatural growths of different parts, amounting to malformation, may cause much inconvenience, discomfort, and disease.

Pin-worms may pass from the anus to the vulva and labia, producing irritation and inflammation.

These are some of the ways in which, through disease, the practice of self-abuse may become established. The patient, naturally seeking to relieve the bad feelings by manipulation with the hand, may create a new and pleasant sensation. The desire to produce it again becomes irresistible, and repeated indulgence strengthens the habit. Once commenced it not only aggravates all the difficulties at first existing, but leads to others utterly ruinous to the physical and mental being.

Those who are troubled with unpleasant sensations in their sexual organs, so that their attention is frequently attracted to them, and who find that they are growing worse, should not tolerate and endure as long as possible in silence, but should go to their mother and tell her that something is the matter. It is no more disgraceful to have disease strike this part, than any other part, of the body. Your mother knows it is not; you can tell her freely, and she will not blame you or be ashamed of you.

Salt-and-water washes, sitz baths, and injections are excellent outward applications for all these difficulties. Salt and water will destroy, at once, pinworms that come to the surface.

I will close this subject by relating what might be termed a representative case of self-abuse caused by disease. A young girl, after the death of her mother, was placed in the care of her grandmother. She was a good girl, loved school, was the pride of her father, a model of behavior for her associates. A disease—not a vice—a disease such as has been described,

gradually fastened itself upon her. She was afraid to speak to her grandmother or to any one about it, but took her Bible, went by herself and prayed, thinking to be relieved in that way. She only grew worse. Her instinctive efforts to allay the itching and inflammation actually produced the vice of self-abuse. The first thing her friends knew, besides a general failure of health, which I suppose they must have observed, she became partially insane. Then they bestirred themselves for medical aid. After trying different methods without avail, a lady physician took her into her own family. Suspecting the cause, she treated the girl in such a manner as to win her confidence; slept with her, and kept her in sight the most of the day for three months. Besides administering bodily remedies, she explained these things to her, and found she had not sinned morally, not thinking of any wrong in the practice. In a few months the health and reason of the young lady were perfectly restored. She exhibits the most unbounded gratitude toward her physician for her recovery, and is to-day an ornament to the society in which she moves.

CHAPTER XIV

CONSTIPATION—CONSTITUTIONAL.

EVERY one believes constipation to be an undesirable condition, but few know any other method of overcoming it than by taking medicine. From time immemorial it has been the custom to take pills, castor-oil, salts, seidlitz powders, rhubarb, or some equally disgusting preparation to "move the bowels." It is quite appalling to think what valuable time and eminent brains have been employed in inventing some potion that should surpass everything preceding it in the line of physic. It is most astonishing to contemplate the fact that so many smart, learned men—physicians whose life-work was to care for the health of the body, should for so many years have overlooked nature's remedy for constipation, and to-day hundreds of doctors still give purgatives, not only in acute attacks of disease, but to be taken every day in mild doses when the person is in usual health, as a preventive.

Some have progressed a step, and have substituted the syringe for medicine. This is far better and often useful, but it is not nature's remedy, and can in no possible way be made a complete substitute for nature. What is nature's remedy? To ascertain this

we must first do as we should do in every case of disease—we must find the cause. Then remove the cause, and a cure will be effected.

Some persons in casting about for the cause of this trouble have supposed it to originate in frequent neglect to attend to the calls of nature, and for a cure recommend setting apart regularly each day a certain time to attend to this duty, waiting an hour or two if need be till accomplished, and "*give the mind to it.*" But nature's way is to make the call so imperative that it can not be set aside. Some have thought sedentary occupations caused it, but persons who exercise a great deal are troubled with it. No doubt an inactive life aggravates it, but the first cause lies back of that. Some have thought it was a result of growing old, those of advanced age being more subject to it than children. Many imagine it was caused by some previous attack of illness which left its effects in that way. But all of these are erroneous notions, as any one may prove to complete satisfaction who will try nature's remedy.

It has been found by the investigations of some of the more advanced scientific medical men, and confirmed by experience, that the cause of constipation lies chiefly in the food.

The principal article of diet is wheat. This is generally made into white flour, and cooked in different ways. Now wheat is the product of nature, but white flour is not. Wheat is robbed of properties very essential to health when it is made into white or bolted flour. Let us see. Take common starch, sugar, glue

the white of an egg; add in imagination gastric juice mix—what an impenetrable, immovable mass closely adhering together! It will not move unless diluted. Introduce such a concentrated mass into the human stomach—and this is done by white-flour eaters, as only ingredients answering to the articles we imagined mixed together are left after bolting—what must be the inevitable consequence? Indigestion in the stomach and obstruction of the bowels—constipation. We need a diluent. What should it be? Water would be an aid; but water penetrates slowly and with difficulty, and when, as is common, tea is steeped in it, its diluent power is lessened, for chemistry informs us that the leading property of tea is tannic acid, which is an astringent; therefore tea helps to bind instead of loosen.

Coffee paralyzes the liver, and helps to create "biliousness." The juice of fruits aids greatly in cutting up this collection of solid matter, its acid character rendering it more easily penetrative than water; but the fact is, such a mass should never be allowed to get *in* to the stomach, and never would if nature's way was observed. Wheat contains natural diluents which, if used, would prevent this. If the food contained in kernels of wheat was all ground up and eaten together, a concentrated, impenetrable bulk would be impossible. Nature's true diluent of wheat is the dark nutriment which lies next below the woody and siliceous bark or shell. It is also noticeable that this food prevents summer complaint, diarrhœa, cholera, etc., the bowels being loose enough, but never too

loose. It is well known that some of the worst cases of diarrhœa follow suddenly the most obstinate costiveness.

"There are cases where persons can not use coarse bread on account of its irritating action on inflamed coats of the stomach." Modern science has shown that *coarse* food, as such, is not necessary to good digestion, and that good health which commonly accompanies regular movements of the bowels. The food *must be fine enough to be perfectly appropriated in digestion*, or much of it is wasted in the excrement. Wheat is a typical food-substance, containing all the chemical elements which a human being contains. White flour is not a typical food-substance, and does not contain all the elements in a human being. Moreover, white flour of wheat is rich in the least potent of food-elements and poor in those most valuable. In white-flour-making the method is nicely planned so as to save the white inside part, which contains little besides starch, and to exclude the dark food-layers which are albuminous and nitrogenous, and carry the minerals of the grain, which are never found in starch.

What we need is a fine WHOLE-WHEAT FLOUR, free from shucks and shells and useless hulls and trash, and this it is now possible to obtain in all large cities. New York city supplies it to all parts of the world, and has for seven or eight years. It is as fine as the starch-flour of commerce, but it contains no hulls and skins and shells. It makes a dark, sweet, acceptable bread, which contains all that there is in the body of

man, in nature's own proportions. It is made by first rubbing off the four outside bran-coats of the grain, and then reducing the remainder to a fine flour without the use of millstones or any frictional devices which generate heat. The hulling is done by machines, but it can be done by hand very easily. Fill a collander with choice wheat and pour cold water through it until each grain is moistened. Then rub it by handfuls until the woody shells are rubbed off, which will quickly follow; then pour the wheat into water and the shells will rise to the surface, leaving the food-portion of the wheat at the bottom. Pour off the top water and the shells, then drain the grain, and it is ready for boiling in place of "wheaten grits" and other harsh, insoluble foods. If a perfect and easily digested bread-flour is required, this hulled wheat should be dried in an oven or in the sun, and may then be ground in a simple mill, as will be hereafter described.

It is the *nitrogenous and the mineral elements* of wheat which are excluded from white flour, because they are not white, because they darken the flour and render it unsalable. It is these elements which nourish the nervous system and the brain, and which provide substances for the up-building and repair of muscles and bones. It took years upon years to show that wheat ground up was not the best food for human beings. Sylvester Graham detested white flour, as he should; but he did not know that coarse wheat-meal, while containing all the useful food-elements, was largely wasted by reason of its association with

indigestible shelly substances. Analyses of excreta proved this; and now advanced hygienists are discarding most of the "grits" and "grahams," and using decorticated wheat and whole-wheat flour instead They find that coarseness is, as we before remarked, not required, not desirable, in fact, but simply that *all the food of the grain should enter into the flour.* By the use of a fine flour, a superfine flour, indeed, made without heating (such as what is called "Cold-Blast Whole-Wheat Flour,"* for example) and without bolting, intestinal torpor is entirely averted and constipation never occurs, unless some other cause exists. Nerve-food is thereby supplied to the rectal motor nerves, and the fœces are expelled before they become hard and dry and impacted.

Pin-worms are effectually destroyed by such a course of living. None are troubled with them who are not constipated. Fruit and whole-wheat flour bread fed to children would do more to rid them of worms than all the panaceas in the drug-store.

Now, flour ground fine and sifted is robbed of very essential ingredients, the gluten and the minerals. Besides, the grinding of the grain between two ponderous stones moving swiftly produces friction. This friction heats the flour as it passes through, and heat takes the life out of anything more or less. A baked apple has not such a lively taste as a raw one. Cold-slaw is considered by many to be superior to cooked cabbage, and it is because it has more vim, freshness,

* Supplied by the Health Food Company 74 Fourth Avenue New York.

and life that heat takes out. The heating process destroys some of the sweetness as well as freshness of the flour. What an insipid article commercial white flour is! The reason people do not realize it is, they have "got used to it." Let them live on whole-wheat bread exclusively for a few months, and they would see the difference.

Again, white flour lacks phosphorus. Phosphorus feeds the brain and nerves, and in wheat and other grains is contained in the germ and in the gluten, which are nearly all thrown out by bolting.

Again, the bones, teeth, hair, nails, and muscles are robbed of their means of nourishment, when the gluten is sifted out. White flour is the main cause of decayed teeth. A lady had a daughter four or five years old, who had always been sickly, and whose teeth had all decayed. She was placed under the treatment of a physician whose ideas were in harmony with these views. He made inquiries as to the girl's diet, and found she had eaten food, mostly cake, made of the whitest flour, and confectionery without limit. He made a complete change in her diet, forbidding white flour in every shape, substituting whole-wheat bread, mush, grits, etc. In a year and a half the child had not only entirely recovered, grown strong and hearty, but the new teeth had made their appearance, with a splendid coating of enamel, which set decay at defiance.

Many might attribute the child's poor health and decayed teeth to confectionery, but I am acquainted with persons who never indulged in candies, cakes

and other sweets, but whose bread *did* consist of white flour, and whose teeth decayed early in life. White flour has nearly all of the bone-making material bolted out of it, so that teeth and some other parts of the system must suffer in consequence if much is eaten.

Piles are very often produced by constipation, and when this is the case can be cured by removing the cause and prevented by preventing the latter. An unpleasant fullness in the lower part of the abdomen, a bearing-down sensation similar to that experienced in uterine misplacements, is caused by piles and constipation. Women often suppose they have prolapsus, when in reality it is piles which causes the pain.

Headaches and pimples on the face are sometimes produced, and biliousness, lung, liver, and heart diseases increased by impeded intestinal circulation The terrible straining which constipation instigates has doubtless caused misplacements of the uterus. For this reason a syringe should be used or directions followed as given in Chapter IV. Curing some uterine difficulties will cure local constipation. Regulating the diet is nature's remedy for curing the other kind. This is not a cook-book, but a few recipes are inserted for those to commence with who for health's sake would like to try the new kind of food:

1. Hulled wheat boiled whole is a most palatable dish. It requires long cooking, from a half to a whole day. Cracked or crushed, it may be boiled after the following rule:

2. Two cups of crushed hulled wheat, wet with scalding water, to which add four cups of water,

either cold or hot. Place the vessel containing this into a kettle of boiling water. Cover and boil two hours. (Or, better still, use the farina boiler.) When done pour into dishes first dipped into water to prevent sticking. It may be served with cream and sugar, and is considered most delicious.

3. Crushed oats cooked in the same way are excellent, and may be used for variety's sake. This recipe requires, it will be observed, twice the quantity of water as of crushed grain. Sometimes more water may be used, especially with wheat, so that when cooked it will be quite liquid. When cooled, however, it will be of the consistency of blanc-mange. It may be molded in like manner, being careful to first dip the mold in water.

4. Granulated oats are relished by some when united with water, spread very thin upon a tin, and baked.

5. Whole-wheat flour may be made into mush. It should be stirred very thin into boiling water, and left on the top of the stove two or three hours. This will thicken and thoroughly cook it.

6. Whole-wheat flour may be made into bread with yeast as is white flour, except that it requires no kneading. It should be stirred with a spoon and left as thin and moist as it is possible and keep loaf-shape.

7. It may be made into gems. "Into cold water stir flour sufficient to make a batter a trifle thicker than that used for ordinary griddle-cakes. Bake from one-half to three-quarters of an hour in a hot oven in

gem-pans. If iron pans are used they must be heated *hot* each time before filling."

The different grains can be prepared in a great variety of other ways for the table. I am very happy to say that gems, whole-wheat flour bread, and mush are becoming fashionable, but there are still many sections of the country where such things are unheard of. One who knows the value of this kind of food is sometimes troubled on being placed in situations where it can not be procured. In such cases eat more freely than usual of vegetables and fruits if they can be obtained. Fine flour bread and molasses or syrup alone will prevent this trouble with many persons.

Figs are also useful when proper dietetic habits are not possible.

An itinerant preacher once used to take bran in his saddle bags to use as a medicine upon his journeys, stirring a portion of it in water, and drinking it every morning before breakfast.

But no American traveler at this day gets very far away from wheat, and a little trouble will secure the best food in the world. A small hand-mill, costing only $2.50 in New York city, can be obtained from Messrs. Fowler & Wells, the publishers of this work, by the use of which and a little trouble in hulling, enough perfect wheat flour and crushed wheat can be made in ten minutes to last a family twenty-four hours, and it will cost very little in wheat regions. Grinding and regrinding will give a flour sufficiently fine, and the coarser particles can be reserved for

mush-making, in which more perfect solution is secured by reason of the presence of an excess of water.

Buttermilk is an excellent laxative drink.

To substitute medicines for diet in constipation is about as blind and senseless an operation as that of a man who "steps over a dollar to pick up twenty-five cents."

There are some so constituted that they can consume bread made of white flour without suffering from constipation; but such are liable to be diseased in some other way. They lose valuable brain and nerve, bone and teeth nourishment, and will grow very fleshy and phlegmatic, or else thin and dyspeptic.

CHAPTER XV.

AS TO YOUNG MEN.

YOUNG men and women ought to have abundant opportunities for becoming acquainted with one another. I agree with those who advocate the association of the sexes as freely everywhere as in the home circle. Girls having extensive acquaintance with young men will not be as liable to repose confidence in some false suitor and be led to ruin, or to suffer with bashful timidity, which in many becomes ridiculous prudery, reserve, and false modesty.

By extensive acquaintance is not meant a lax, loose familiarity, but the same friendly, respectful intercourse with the brothers of young lady friends as, if well brought up, a girl has with her own brothers. The remembrance that a given young lady or gentleman is some one else's sister or brother may be some guide to one who is at a loss to know how to act in the presence of strangers. Think how you would like to see a brother treated, not as though he were a criminal or unworthy of respect surely, unless deserving of such treatment. Be yourself, therefore cordial and polite, until you have proved them contemptible.

A girl whose moral nature has been well cultivated,

so that it leads off in her character and actions, as it should do, and who has this opportunity for becoming acquainted with young men, will know by intuition when she is in the presence of one who can not be trusted. Dr. Napheys calls this intuition a "mysterious instinct beyond all analysis—a tact which men do not possess and do not readily believe in. She feels in a moment the presence of a base, unworthy nature. Where a suitor is not a man of low motive, but merely quite incongruous in temper and disposition, this same instinct acts, and the man, without being able to say just why, feels that he is laboring in vain. If he blindly insists in his wooing, he has no one to chide but himself when he is finally discarded. But if the man is worthy and suitable, does this blessed instinct whisper the happy news with like promptness to the maiden's soul."

A young lady of fine mental organization will so delicately and instinctively manifest her repugnance that a sensitive man will take the hint. And if he is not sensitive, does not understand hints, but persists in manifestations that are offensive to her, she should not hesitate to speak as plainly as the case may require. In regard to laxness and familiarity between the sexes, the following excellent remarks apply from "What Women Should Know":

"Much has been written concerning undue familiarity between the sexes, and there can not be too urgent caution given to young girls on this matter. They should consider themselves sacred from the touch even of the other sex; and most young men

who have a due regard for virtuous womanhood will respect this sacredness upon the merest intimation of such desire upon the girl's part.

"Yet such is the laxity of society in this particular, that a young girl is frequently placed in a difficult position. Kisses are freely proffered and freely accepted between the sexes, and the girl who refuses them is too often set down as a coquette or a prude. This refusal is, in many cases, considered as a mere challenge to take a kiss unasked. When this is the case, it is better to submit quietly and passively, than to keep up any prolonged resistance; but it is well, if possible, to make the giver feel that he has incurred displeasure.

"I would have a girl in no case *give* a kiss except to her betrothed, and to be chary of such caresses even to him. If a girl can not refuse a kiss without placing herself in an awkward predicament (as, for instance, in games in which kisses are the forfeit), let her be entirely passive in the matter.

"Now all this is not for the sole purpose of preserving men's future wives for them pure and chaste, but to protect the purity of men themselves. Young girls do not know, but sometimes I think they ought to know, that the passions of men are much stronger and more easily inflamed than their own. A levity of behavior thoughtlessly and — inasmuch as she does not know the consequences—innocently pursued by a young girl, has excited the passions of her male companion almost beyond his control, so that, though he has given no evidence of it in her presence, he may

have gone from her side directly to the arms of a fallen woman. This is a difficult subject to discuss, and one through false modesty seldom or never approached.

"But girls ought to be made aware of their responsibilities in this matter. Many a young girl would undoubtedly stand aghast if the ruin she may have thus wrought were brought home to her. So let young girls be very careful, and feel that they have not only their own moral safety, but that of their companions of the other sex in their keeping."

The question which puzzles some girls, when young men do attempt liberties, is *how* to object, *what* to say? Bold, rude advances they would be at no loss to know how to repel; but when some man, gentle and amiable in manner, proffers attentions which girls have been taught should not be allowed, it seems to them harsh and impolite to say or do anything which would look like reproof or suspicion that another was in the wrong. They can not make it seem possible that *he*, so mild and complaisant, could be actuated by mean, low thoughts; and while they feel the impropriety of his conduct, do not want to hurt his feelings by objecting to his actions, in case they do really proceed—as he would make them believe—from friendly, brotherly interest.

There are other girls who always seem to know just what to say and do under such circumstances. They are not afraid of speaking their minds, no matter whether it hurts the feelings or not. Such might only laugh at the fears of a timid girl, and think the

space devoted to this topic all wasted It is not for such that these directions are intended, but for those who are ignorant of the evils which grow out of too great familiarity between the sexes, and for those timid natures who are really troubled about how to meet improper advances from gentlemen.

First, fix this simple rule in your mind: Do not allow a young man to take the *first* liberties with your person. It is a safe rule to follow, for your own sake, as well, as has been seen, for his own.

There are men who, just out of simple curiosity, try to see how far they can go. They like to test girls, without really meaning any harm. If you stand on your dignity, they will find you are to be trusted, knowing that if you allow nothing of the kind in them, of course you would not in any one else.

There is little danger of hurting the feelings of such men; indeed, they are watching to see if you will repulse them, and will respect you for so doing, and ever after hold you high in their estimation.

You can in a great many quiet ways, without a word, make them feel they can take no liberties with you. "Don't, please," may often be sufficient to say. If they make a pretext to look at your breastpin or necklace, say, "If you wish to look at this, I will take it off," proceeding at once to do it; taking it off, even if they object then to putting you to so much trouble.

A friend gave me the following experience of her own: There was once a social gathering of young people at the house of an acquaintance, herself among

the number. During the evening she sat in earnest conversation by the side of an excellent young man. Before long up went his arm to the frame of her chair. She did not mind that, as she was not leaning back. Pretty soon his arm slipped down nearer to her waist. She was in the midst of a sentence, but arose immediately, still talking as though nothing had happened. She remained standing, still facing him, conversing pleasantly. "Sit down, sit down," said he; "what's the matter? What makes you stand?" "Oh, nothing," she replied; "I thought you wanted my chair." "What do you mean?" said he. "What do you mean?" "Well, I thought your arm was a little out of place, that's all," and she took her chair again, and all was as pleasant as before. The young man thought all the more of her for this, and never afterward attempted the least impropriety.

It is not necessary to be stiff and distant to keep men in their right places. One can be perfectly free, easy, and pleasant, yet be delicately persistent in requiring them to let one's person alone. That man who repeats, and insists upon repeating, attempts of this kind, in spite of plain intimations that it is against one's wishes, may be set down at once as lacking either in virtuous, pure motives or fine feelings, no matter how smooth and attractive his manners or plausible his excuses. *Never yield to him in anything.* Be sure, though you can not fathom his intentions, *there is something wrong with him*, and shun him as much as possible. Do not delude yourself that some man of your acquaintance is an ex-

ception to this. There is no exception. This very method of resisting advances is to some men only a strong temptation to persist until they finally win their wishes. Remember this: be firm, yield not a single atom. A pure, noble-minded man will respect and be guided by the slightest token of disapproval on this point by the lady in whose company he may be.

Young ladies realize too little the influence they may exert over the other sex. They can lead them just where they please. When in their society they can entertain them with frivolous nonsense, or can weave fun and frolic with common-sense, high-toned culture, and appreciation of the fine and beautiful in nature and art. That girl especially with wealth, position, and independence of character at her command, has great responsibility resting upon her, both as leader for other girls and in personal influence directly over young men. In a certain town the women clubbed together and drew up a set of resolutions to the effect that they would not keep company with any gentleman known to use tobacco in any form or who was not strictly temperate. The document was circulated. At first the young men ridiculed the undertaking with a great air of bravado, and declared they could hold out as long as the girls could. Quietly, but persistently, the girls went on their way. The first excitement died down; still the girls were firm. By and by one young man after another left off his wine and dropped his cigar, and these disgusting and ruinous habits were effectually banished from that

circle. Closely allied to this subject is another, no less than the "social evil," on which I shall introduce some remarks by Dr. Dio Lewis:

"Men go prowling about, seeking to seduce and ruin girls, and will stand by each other, even in this infamous business. When a poor girl, overcome by the arts of an oily-tongued villain, perhaps by a promise of marriage, consents to sin, how you drop her, and shun her, and sneer at her. A hundred times I have heard chivalrous men declare that 'women have no honor; they never stand by each other. If one gets into trouble the rest forsake her and run away.' Girls, if you care to commend yourselves to men, stand by these unfortunate ones, encourage them, help them. You needn't fear being soiled; the spirit in which you would engage in this angelic service would serve as a perfect shield. I know something of men. I have lived in many countries. I have been much in society, have been to some extent what is called a man of the world, and have talked with men about women hundreds of times. I am confident that nothing would so elevate a young woman in the estimation of all noble men as the brave defense of an unfortunate sister. It would thrill us all, and lift you into a heroine.

"If a few hundred of you would join hands around the social evil, even in a city like this, where it has attained huge proportions, you could bring it within reach of Christian aid. Nothing, this side of God, do men revere as they revere virtuous women. Let it be known among men that the victims of their lust

have been taken under your protection, and the whole aspect of the question would instantly change. Instead of looking upon the unhappy ones as fair game, men would suddenly become conscious that they were dealing with your friends, and therefore with you."

CHAPTER XVI.

LOVE—PASSION—MARRIAGE.

For Marriageable Young Ladies.

A TRUE marriage is the perfect union of soul and body. The marriage ceremony is not the marriage; it is only the form by which the public are notified that certain persons intend henceforth to live together in the closest possible union.

A mutual love is, by common consent, made an essential condition of marriage. And what is love? The love that leads to marriage is an altogether different sentiment from that love which persons of the same sex entertain for each other. As young gentlemen and ladies approach the years of maturity, they become conscious of a new and strong attraction for each other's society that differs materially from the boy and girl friendships of their early school-days. They find an influence, or magnetism, unconsciously thrown by one sex over the other. It would be more exact to say, there is an attraction felt by persons of one sex toward some certain ones of the other sex, while toward certain others there is felt a repugnance, or, at least, indifference. To this attraction, influence, or magnetism, when it exists in its strongest

form between one man and one woman, has been given the name of Love.

This attraction is based upon the fact of sex and physical adaptation of temperaments, heightened and deepened, when the mental and moral nature, with general culture and tastes, are similar. Some suppose it to be based upon the mental adaptation of individuals, but the same culture, the same mental and spiritual suitableness, and the same temperamental fitness may exist between persons of the same sex, and but little or none of the peculiar pleasure experienced that is felt when in the society of those of the opposite sex, conclusively showing that sex is the real cause of the attraction. The question then follows, *Why* is it the case? It is because the sexual nature, which begins to develop at the age of puberty—and there is an age of puberty in boys as well as in girls, though unlike in its character—requires satisfaction. The sexual nature creates wants that must be met before the fullest development of persons can take place.

Marriage is the heaven-ordained way for men and women to associate, so that all the longings and needs of their whole being may be gratified. For, people have an instinctive sense that not only the physical nature, but that even the purely intellectual and spiritual elements of soul will flourish best in the companionship of one chosen and cherished above all others of the sex. In a perfect union this will be the case. What one lacks in character the other will supply. Faults will be remedied, because criticised

as the world does not criticise, in love. Rough tendencies will be smoothed down; self-control, patience, industry, and many other virtues induced or strengthened. The soul, with all its capabilities, is spurred to its fullest development, discipline and ripeness in a complete marriage, as it can be in no other form of life. The promptings of the soul, rather than of the senses, will constantly remain uppermost, governing all its actions, keeping the body under subjection, with all the lowering tendencies thereof. In this way only will mutual respect—without which love will be short-lived—be awakened and continued.

But the sexual nature—the attraction based on sex—has in the history of the world exerted no small share in the marriage relation. To this part of the attraction we will give the name of passion. Passion is supposed to form a part of love; that love and passion are so mingled together that it is hard to tell where one ends and the other begins. All marriages are not perfect or true marriages. Many of them are contracted for the sole purpose of gratifying passion. It is lust, then, instead of love; body, instead of soul, which leads off as the motive of all actions in that relation. The opposite of health, long life, and happiness will be the final result of such a marriage.

The united sentiments of love and passion, or attraction, exist in the hearts of both men and women —God-implanted. It is only when passion is perverted from its legitimate use, or becomes a controlling rather than a subordinate power, that it should meet with reproach.

The majority of authors—all that I know anything about—have declared that the passion of men is much stronger than that of women. It may seem like presumption in me to venture an opinion that may even appear at variance with this. I may be mistaken, but I surmise that it is the early training—or want of training—and the whole training of men which has led them to give their passions greater prominence than nature intended; that law and public opinion have both favored this prominence. If all this was changed to what it should be, men would suddenly find their passions were not half so strong nor hard to control as they had been only too glad to believe them. I surmise that giving both sexes the same and proper training in the matter, it would be found there was an innate difference in the mental constitution of men and women, extending even to their passions, rendering them unlike in manifestation—not strength. I surmise that if men's passions *are* the strongest, it is not a natural, but an acquired strength, and ought not so to be. They should be about the same. If, in reality, I am in error, and it can be proved that, as certain physical conditions operate to make the muscles and voices of men stronger, their bony framework larger, with a heavier growth of hair, and, perhaps, with stronger minds than women, therefore their passions would likewise be stronger; then I would reply that the same physical conditions should operate to give a corresponding strength of self-control, so that they would be just as easy to keep within bounds as those of women.

Let us consider a little the difference in the mental manifestations of the two sexes. There is in the nature of the generality of women, and girls as well, an acute and all-pervading sense of the æsthetic. Her home, her family, and social relations, her daily toil and even the grosser necessities and functions of her physical being, are clothed in roseate tints; enveloped in a fine subtle atmosphere; surrounded with a high, pure sense of delicacy and refinement that few or none of the opposite sex—though equal and surpassing in many other qualities, do not possess and can scarcely understand. It sheds a beautiful charm over society, so that men are forced to conclude that women are nearer heaven than themselves, and caused some one to remark that "Woman was a link in the chain between man and heaven." If a woman has a strong moral and intellectual nature, and this finer sense that idealizes and beautifies everything, she may possess passion and not know it—she will call it all love. Let such a woman fix her affections upon one of the opposite sex, her whole being becomes transported with the love she gives and that which she receives. No sensual, vulgar thought ever mingles with her almost angelic affection; a love that would nearly lead her to give her life to save the one she loves. Passion that in a mind of an opposite stamp becomes beastly lust, is so transformed in her that she believes it to be only an intense, unadulterated love.

But, then, if it is *only love*, why may she not be affected similarly by the bodily presence and society of another woman? And withal, whatever she may try

to persuade herself to believe, she can not but realize that it is his physical presence—his *manliness* that thrills her; that the slightest touch of his hand magnetizes, as it were, her whole frame. She shuns to analyze the feeling, but indistinctly desires to drink in more and more of this magnetism, and feels that it would do her good to come closer and closer to his person. She scorns any thought of passion and the like, but it is there nevertheless, and its consummation is what she unconsciously craves. If anything occurs to prevent marrying him, it may make her miserable or cause a fit of sickness, and perhaps to die of a broken heart.

There probably are a few women who enjoy certain men's society, and are devoid of passion, who actually have no capacity for that experience. The sentiment they do entertain for them is rather admiration than love, because they possess some quality of mind or point of culture that gratifies the taste. These women should never marry until they meet with one whose physical as well as mental nature pleases them as above described. If they never meet him there will be some other place in the world for them to occupy instead of the married state. It would be well enough for such a one to marry a man with as little passion as herself if she could be sure of finding one, but otherwise I fear she would not be happy.

We have considered the woman's peculiarity of mind. Let us look at the man. He all this while may have similar experiences of thrills and magnetic touches under the influence of her presence while he

is engaged in courtship, but he makes no mistake as to the nature and origin of these sensations, but owns up at once that he wishes to possess her person in physical union. His mind lacks ideality; is given to dealing with facts rather than fancies, with realities more than sentiments; takes things as they are, and not as they should be; is self-centered, practical, calculating. His training has been, very likely, such as to increase rather than offset his natural bent of mind in regard to sexual matters. He has heard the rough talk and coarse stories of men; has found out some of the wicked ways of society. His out-door life has led him to become acquainted with the habits of some domestic animals, and to make his own comparisons.

We are not to suppose that because he does not have the same mental characteristics he therefore can not fully appreciate, admire, *love*, the refinement of thought, keen intuitions, delicate sensibilities, which distinguish the chosen one of his heart. He may love them all the more because he does not possess them, even as, though he can not sing soprano, he can enjoy the exquisite tones of her voice perhaps more than if able to execute the same himself. He may also, in spite of his want of ideality, be thoroughly honorable and conscientious in all his dealings with women.

What is my reason for bringing up this subject in this way? To explain: Society is often startled by the birth of illegitimate children, and what makes the news more shocking is that the child's mother, probably, was one of the choicest girls in that society

Sometimes a coarse, bold, fast girl commits the same offense, and people all exclaim, "Just what I expected!" but when a gentle, retiring, religious, smart young lady from some of the best families falls, nobody can understand it. Least of all can the girl herself understand it, except to know at last that she was most wofully deceived.

Much harm to both sexes has resulted from the wide-spread teaching that the passion of men was made by God to be stronger than that of women. It has led millions of men to feel justified in gratifying lust, under the name of passion, at any cost, sacrifice, or suffering to their victims, both within the marriage pale and outside of it. Men stand by each other and shield each other in it all; for have they not been taught—and women have echoed the same idea, adding to the mischief—that men have sexual needs that women know nothing about. Hundreds of women will say, and say it because they believe it, that if a woman carries herself straight—that is, makes no improper advances in the society of gentlemen—she will never be imposed upon or insulted. Happily for the safety of women—I was going to say for the honor of men, but I don't think him much deserving of honor who can not resist such a temptation—this is *generally* the case, but it is far, very far from being always so.

The consequence of this belief is, that when a girl is seduced, all the women, and most of the men, will take the seducer's part, throwing all the blame upon her, saying, "Well, if she had behaved herself, and not tempted him, she would not have got into trouble."

God knows, and that seducer knows, if the public do not, how unjust and untrue that accusation *generally* is.

If the teaching on this subject had been that men and women were made of the same clay, subject to the same temptations, pleasures and vices, and answerable each for himself and herself when we allow ourselves to fall into temptation, then men would be thrown upon their own responsibility for sinning, and not blame some innocent, ignorant girl for his evil deeds, saying, "She kissed me and raised the devil in me." I refer all girls who read this to the previous chapter, and beg of them to follow the advice there given, to be careful in regard to kisses, caresses, and liberties allowed from men. It is well to heed it in the present state of society, because men have been so badly taught in several matters that no girl can be certain she may not lead some man to ruin, unintentionally, by doing otherwise. But at the same time girls would be perfectly justifiable in asking, "What did he allow me to kiss him for if he could not stand it? He should know what the consequence would be to himself, and not expect me to guard his purity." It certainly is not fair to expect women to govern their own passions and men's too, and then, when they fail to do so, heap the sins of both upon her head alone—she who belongs to the *weaker* sex (?). Ah! when men from babyhood have been taught the sacredness of their own bodies, the beauty of modesty, the duty of keeping their health good and their thoughts pure, the true use of their sexual natures, and the sexual rights of women, I feel sure they will

find self-control to be quite as easy and natural for them as for women, and certainly as incumbent upon them.

Let us see now if we can understand how it is possible for a good girl to be seduced. I have heard their recitals of the methods used to lead them to ruin—recitals that would make angels weep. They have told how honorable and upright their would-be lover has made himself appear to be; how carefully he studied her mental tastes, and tried to gratify them; how genial and courteous his manner, and unwearying his attentions; hiding with hellish tact his demoniacal character, making himself appear verily as an angel of light, until he got her to confess her love for him—a real love, that was just ripe, ready and waiting to bestow itself with almost deathless grip upon some one who could supply her longings for companionship and love returned. Had he been a conscientious, honorable man this would have been quite proper for her to do. Now the wily villain, knowing he has her complete confidence, talks of marriage and engagement; that they should be nearer and plainer-spoken on that account; enlarges upon the "true" woman; and she, poor thing, avows her love to be true as steel and lasting as eternity, and he proceeds to test her love by breaking down her virtue, meeting all her arguments and protests, perhaps, by telling her she does not love him, or assuring her that all engaged couples live the same as married, or representing to her what an angelic influence she wields over him, that he can not be good or do good without

her as he ought, and intends to stay with her always why, then, wait? why not be all in all to each other at once? perhaps brings up the Bible, reading passages that suit his purpose.

And so after a long time and long effort, with a perseverance worthy a better purpose, he gains his object. She knows she loves him, and would make almost any sacrifice to help him be good, to prove how true and single-hearted her love, never doubting for a moment that his love for her is as pure and unadulterated as she believes hers to be for him, and that he will never forsake her, finally yields, as it were, because she must. The sequel to this is better known to the public than the part just related. She now is forsaken and blamed by her family and friends, scorned by society, branded by the world, hunted down by any common scavenger, who now thinks her fair prey for the gratification of his beastliness, and, worst of all, deserted by the lover for whom she sacrificed herself and all that the world held dear. That must be a heart of stone that does not bleed at the contemplation of her broken heart, broken hope, and broken life. Most likely, after the excitement dies down, she sees him welcomed into the society that will never again open its doors to her, though she is far more worthy in reality. (I do not here refer to the avowed prostitute.) But then, society believes that a man's passion is greater than a woman's, with little power of self-control; and, if women did not lead them astray, they would never do wrong. At any rate, if he will promise to do better in future, they can easily forgive the

past offenses, especially when led to it by the wiles and arts of a woman, who should control both her own passion and his too.

The harm resulting to men from wrong teaching on this subject we have already considered; now we are prepared to see the harm resulting to women. It leads them to blame and misjudge the girl who falls. In nine cases out of ten "they are more sinned against than sinning."

Girls are misled on this account. They believe *their* love to be without passion. They suppose them selves to have no passion, and to their susceptibility to the magnetism of the other sex they give the name of love—scorning, hating anything so vulgar as passion. Now, they ought to understand that it *is* passion which forms a part of the love that would lead them to marry a certain man. They ought to know that passion is a God-given instinct, which if properly exercised is nothing to be ashamed of, but will conduce to health, long life, and happiness. It is as sacred an instinct as any we possess, for by its exercise human beings are called into existence, which are to suffer or enjoy forever. And what can be more sacred or important than this or the means that bring it about.

A girl should fix it immovably in her mind that the only proper time to exercise this instinct is after a marriage that is announced to all the world by some lawful ceremony, and then when the man who has won her love tries by his artful, specious sophistry to make her believe something short of marriage will do as well, her indignation will be at once aroused; or, if

he promises marriage afterward when he has obtained this test of her love, she would be likely to tell him that a man who cared so little for the law or for her wishes would care very little for his promise. And this is the case generally; men will not marry—promise or no promise—girls who will be the same as wives to them without marriage.

Taught in this way girls will not be deceived about the nature of their regard to their suitors, and I think not half as likely to be led astray, for they will penetrate immediately the smoothest language when backed by a wicked motive, and they will never be so love-bound and love-blinded that they can not break the chain when they find it woven about an unworthy object.

Let no one suppose such teaching will rub off the delicate, beautiful plush of modesty and purity that should overspread a girl's soul, or do away with the ideal, the æsthetic in her character. No danger of that. It will be increased rather than diminished, and so will her moral courage and self-control. Remember, ignorance is not innocence, nor is it a safeguard of virtue.

If girls shall receive a truer idea of their own natures than they have had heretofore; if they shall be led to feel and act more leniently toward the unfortunate ones of the sex; if, in consequence of reading this chapter, *one girl* shall be prevented from going astray, the end for which it was written will have been attained.

And now in closing I should like to recommend to

all young ladies about to be married, or lately married—and I do it without the knowledge of either publisher or author, so it is not an advertisement, but out of an earnest desire to do good—the continuance of this chapter and this book in two books written by Mrs. E. B. Duffey, called "What Woman Should Know" and "The Relations of the Sexes."

ADDENDUM.

(Which only the older readers will need, care for, and understand.)

SOME time has elapsed since the above was planned and penned. Among the thoughts presented are some I considered at the time new and singular, and, doubtless, very many of my readers will so consider them; but those who have kept pace with the forward march of ideas will find them to be somewhat in the rear.

After thinking it over I have decided to let the chapter remain as it is, because the sentiments may be instructive to many, and will be a stepping-stone to the more radical ideas now coming to the front; ideas which I will here briefly present.

Many earnest students of sexual ethics have lately begun to teach—

1. That God's primal law is that men and women should maintain pure continence, both before and after marriage; that the sexual function should *never* be exercised except for the purpose of procreation.

2. That a chief object of marriage should be the perpetuation of the race; that the latter should never

be allowed until the most systematic, beautiful and healthy physical nature can be imparted to offspring; the best mental and moral condition, with a strong will and clear conscience to preside over all.

3. That women should maintain the fullest liberty and control over their persons after marriage, the same as before it; that they alone should decide when procreation ought to take place.

4. That the magnetic, passional attraction of the sexes for each other, which develops at the age of puberty, may find the most ample satisfaction by association upon the higher social, intellectual and spiritual planes of life.

5. That as a means of equalizing and tranquilizing passion, and of obtaining that true knowledge of each other which ought to precede marriage, the sexes should associate freely everywhere, in educational, social, business and political circles, the same as in the family and home.

Let us inquire what would be some of the results if these views—which are directly the opposite of the general belief and practice of to-day—should be universally adopted and carried out.

1. Prostitution—to find a cure for which has long puzzled the heads of the wisest statesmen in vain—would suddenly disappear of its own accord for lack of patronage, men having ascertained that their passions are, by nature, no stronger than those of women; that health, strength and "physical necessity" do *not* demand a special gratification, but on the contrary are promoted best by a life of continence and virtue.

2. The seduction and betrayal of girls and the birth of illegitimate children would cease, because girls will have been taught better than to believe that true love requires a physical basis of lust to make it binding and permanent.

3. Divorce—now on the increase, and perplexing philanthropists to secure a remedy—would become very rare, because people will have better opportunities for becoming acquainted with each other before marriage; and because marriages would be contracted for higher, nobler purposes than at present—the object of securing legal gratification of the animal passions being left entirely out of the calculation.

4. The number of human beings born would be very much lessened, but their quality vastly improved, because the human race would be increased and multiplied by design, not by accident, and only by those capable of replenishing and subduing the earth, which is far from being the case now; and because the costly and precious seminal secretion of men, and nerve force of women, would never be wasted for sensual and unholy purposes, but would, on the principle of conservation of force, be transmitted to succeeding generations, producing in them stronger constitutions and greater recuperative power.

Of course those who promulgate these doctrines do so with the full knowledge that they are running counter to old established beliefs and customs, but they are examining the subject in all its bearings, and successfully refuting all arguments brought against them They find that science and the Bible agree upon these

views and may be used in their defense and confirmation. They believe that the standard of virtue set up by Christ in Matt. v. 28—which doubtless was intended to shield wives as well as other women from the power of lust—is not only possible of attainment, but that actual sexual reform is at hand, and is merely a question of time.

I greatly rejoice that the light of purity is dawning upon this night of sexual slavery and degradation, and earnestly recommend my readers to make themselves thoroughly acquainted with the subject under consideration.

It is obvious that this book is not the place to present proofs and answer objections; the most that can be done here is to refer the reader to sources from which further information may be obtained.

There are several Woman's Moral Education Societies formed in different cities of the Union, for the purpose of studying these and kindred topics.*

Young ladies, you who are to be the matrons of the future and the mothers of men, let me entreat you never to enter that most momentous of all the relations of life—marriage—until you have investigated this theme. Your own comfort and happiness will be enhanced thereby, and the duties devolving upon you will be more easily and satisfactorily performed.

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* The *Alpha* is a periodical devoted to the discussion and dissemination of these principles, and is edited and published by Caroline B. Winslow, M.D., Washington, D.C., at $1.00 a year.

APPENDIX TO SECOND EDITION.

I.

THE MENSES.

A NUMBER of years since one of the physicians of out town declared it his belief that the loss of blood accompanying the escape of the ova in menstruation was not intended by nature; that it was induced by false modes ot living, especially the dress, and aggravated by the napkins so universally worn at the time.

Shortly afterward I met a tall, blooming young lady, over twenty years of age, with a remarkably clear complexion and red cheeks, and the most perfect health, who told me that the menstrual period with her had always been only a slight discharge of whitish matter unaccompanied with blood.

Within the last few months this subject has been agitated somewhat extensively by certain medical writers, and it is likely to become one of great interest and importance to the human race. The ground is by them taken that this monthly loss is unnatural, debilitating, and wholly useless.

M. Roussel, a French physician, a writer in the early part of the present century, says: "Originally, the menstrual flow did not occur in women, but was produced artificially by too succulent and nutritious a regimen and afterward propagated from generation to generation." To

these causes is added, by later physicians, the excesses of married life, as one which has had as much to do in bringing about this degeneracy as all the others combined.

Scientific investigation has in the past been very meagre and unsatisfactory, but, so far as it has gone, tends to confirm these views.

It is known that "our American squaws never suffer from menorrhagia or uterine hemorrhage. The peasant women of Germany and other European countries who labor in the fields seldom sustain any loss of vitality from this cause." There are several instances known and on record, of perfectly healthy women in the more cultivated classes that never had any appearance of it.

Some women have experimented with themselves, and find they can largely control it, preventing its return for months at a time by right habits of living, including—

1. Wearing the clothing loose and evenly distributed over the body; omitting heavy quilts and many skirts, so as not to overheat the pelvic region—which is naturally the warmest part of the body and needs the least clothing—and warmly covering wrists, ankles, and spine—parts having nerves most exposed.

2. Proper diet; eschewing tea, coffee, etc.; all warm drinks having a relaxing tendency; also, all condiments, as peppers, spices, etc. Giving up the use of fine flour and flesh meats, as being stimulating, but not strengthening, and everything tending to let down the tone of the nervous system, which natural food and drink keeps always in a tonic condition. Common salt in particular is known to have a strong influence on the sexual natures of animals and man.

3. Observing the laws of exercise and rest; fresh air and sunlight.

Medical treatment has been given to others by doctors believing the discharge to be a disease, and proceeding on this assumption have cured their patients of it entirely.

Chapter VIII. will be applicable to ninety-nine out of every one hundred girls, for many years, perhaps generations hence, because they have inherited the tendency from their ancestors

A sudden stoppage of the menses by cold baths, and other cold applications, by going barefooted when unac customed to it, by taking cold in any way, are very danger ous, as previously explained, and unless brought on again immediately will prove fatal. This is not the way to prevent this flow of blood. Let no reader attempt such a thing. The cure referred to here is to be obtained gradually, by a strengthening and building up of the physical forces, and this can take place only by degrees and in obedience to hygienic laws.

There will be some thoughtful young ladies among my readers who may make good use of this knowledge if they will.

Also, perchance, an occasional one who will fail to have the monthly turn as the other girls do. She will see by this there is no cause for alarm if her general health remains good. But if her complexion is sallow, or affected with humors, and she does not feel well, she should seek a physician, who will prescribe, not "to bring the menses on," but to bring about general good health. Menstruation will then take care of itself.

II.

NO SEX IN DISEASE

ONE critic fears that page 48 will aid in spreading "the old masculine error of magnifying the sexual nature of woman and making it dominate her whole being. We want to outgrow as fast as possible the idea that woman is more a sexual being than man. I have never been able to perceive that a diseased womb exercised a greater influence on the imagination, nerves, and general health than a disordered stomach, liver, and spleen."

I think only readers who have been brought up under the *régime* of that old masculine error will have it recalled to mind by the page referred to. But lest some of the younger ones should in any way be led into that same mistake, I will take this occasion to plainly state that man is as much influenced by his sexual nature as woman is by hers; that in either case a misused and abused sexual system will bring dire consequences upon the whole organism —mental and physical. A woman is no more liable to disease because she is a woman than a man is because he is a man. If we find that women *are* more feeble in health than man, we shall also find that it is because of their living indoors, without as much exercise in the fresh air and sunshine as men have; because of their improper modes of dress, and other barbarities, and not because of sex. Sex should never deter a woman from engaging in anything she is otherwise fitted to perform.

Any diseased organ seems to capture the entire person in its sway of suffering; even so small a thing as a boil

sending thrills of pain clear to the brain, and throwing a sickening influence over the whole being.

With these cautions and additions, I think page 48 will still prove to be true.

III.

THE WASH-TUB.

AGAIN, one can not endorse what is said in praise of the wash-tub, on page 115. "Experience and observation go against it," she says. "I have myself suffered many weeks of cruel invalidism from attempted exploits in that direction, and I have a daughter whom I fear is invalided for life from a grandmother who endorsed the wash-tub theory, persuading her to do the family washing instead of having it sent out, as it ought to have been. I have yet to find the *first woman* who does much washing, who is not afflicted with prolapsus uteri."

I should be very sorry indeed to have written anything which will cause young women to undertake washing to their injury. It is quite possible this may happen, unless further explained, so easy is it to mistake a writer's meaning and rush to some extreme not intended at all.

Page 115 was not meant for half invalids, but especially for healthy, growing girls, as a means of developing the chest and furnishing exercise for the upper half of the body. If girls walk much during their minority, and use the arms comparatively little, the calf of the leg becomes well developed and will remain so through life, while the arms will be spindles, and no amount of labor in after-life

will cause them to enlarge very materially, and *vice versa.* And, by-the-way, here is the secret of the much-admired small wrists and ankles; they are small by contrast. It is this same arm and chest exercise which a great many of our girls need—more particularly those who live in villages and cities—and I do not know of any more available way of obtaining it than at their mothers' wash-tubs.

But besides this, it is my firm conviction, based upon experience, that washing never did, nor never can, hurt even an invalid if performed in a proper position and dress, timing the labor to the strength, following the test given on page 110, being sure to stop when tired, or, if the individual is very weak, a little before that.

It is a most excellent counteractant (if that word is allowable) for a sedentary or inactive life, for nervous prostration arising from overtaxed nerves and neglected muscles, and for general devitalized conditions. Even where these cases—which mainly require a reviving of the vitality—are accompanied by prolapsus uteri, it is advantageous to wash and do other work, a little at a time, remember, with the assistance of the contrivance described on page 121, until the strength returns. It is absolutely necessary to success that a cheerful, willing mind accompany the undertaking. Confirmative of these assertions are many known cases of women supposing themselves too weak and unwell to work, who, on being left widows with families to support, obliged to exert themselves at the wash-tub and other manual labor, have had health and strength restored thereby.

Young mothers who are at the same time housekeepers and not very robust, have enough draft upon their strength without touching the washing. They do not need the exercise for their health, having exercise enough without it. Female difficulties are sure to afflict those who thus overdo.

Then, there are others who do not heed nature's warning of weariness, and get similarly punished; because, forsooth, the clothes must be hung out, the tubs emptied and put away, the floor mopped, and a dozen other things done first. I suspect the lady critic and daughter come under one of the two last-mentioned classes. This is not washing for the health, and is not recommended in these pages. One who really would make her work conducive to health, rather than destructive of it, should do only what she is able each day, leaving the remainder till tomorrow.

IV

STANDING ON THE FEET.

OBJECTION is also made to what is said on this subject, page 108, as not applicable to all women, some claiming to have better general health at work requiring them to be on foot from ten to eighteen hours per day, than when engaged in either housework or sedentary employment. One is strongly reminded by this of the old adage, "What is one man's meat is another man's poison." I have lately met *men* who could not endure this position long at a time, and it may be a weakness common to some of both sexes. Those afflicted with it must keep out of stores, etc., as clerks, unless they can accustom themselves to standing by degrees. If the discussion of this and kindred subjects arouses investigation in those who would blindly follow some calling to the detriment of their health, it will have answered its purpose.

APPENDIX TO THIRD EDITION.

THE CALL OF NATURE.

A FRIEND, who has for many years been a great sufferer from the habit of constipation contracted in her youth, while attending school, thinks there is not enough stress laid upon this topic in the foregoing pages.

It was the intention of the writer not to enlarge on subjects upon which girls could obtain information in school physiologies, but as the probabilities are that this work will be read by many who have no access to such books, I will yield to my friend's entreaties and add a few words upon this point.

The two causes already considered, viz.: improper dress and diet, will, with perhaps a few exceptions, cause this condition in every one, but there is probably another way of producing it, even where the clothing and food are correct.

This is when persons sitting much of the time, as students, sewing-girls, book-keepers, etc., persist in neglecting to attend to the call of nature. The inactive position of the body, the mind being engaged in other and often pressing duties, and at the same

time using the will power, make it comparatively easy to conquer the desire.

This, if repeated daily, causes the call to grow fainter and fainter, until by and by it becomes a habit. The intestines get to be, as it were, partially paralyzed and unable to perform their natural functions, and costiveness is the result, so confirmed that it is often very hard to cure.

When once an abnormal state is induced in the system the tendency ever afterward is an easy recurrence of the same disorder (see page 21), and many persons, after suffering severely in this respect, though they may readopt correct habits, find themselves subject to frequent attacks, it may be for years following.

Especially is this true of piles, a usual attendant of long-protracted constipation.

Just consider for a moment what becomes of this foul, decaying, waste matter when retained. Why, it is returned to the circulation, reabsorbed by the blood, thus poisoning it, producing pimples, humors, and boils. Some of it passes through the pores of the skin in the shape of insensible perspiration. A part goes off through the lungs in the form of bad breath.

Now the lungs, skin, blood, etc., have enough of their own work to perform without having this extra labor thrown upon them which belongs to the bowels to effect, and if thus constantly overloaded with double duty, will in time break down under the strain, and fevers, biliousness, headache, lung trouble, and almost every disease is produced.

Sometimes the individual will suffer immediately for breaking this law—though generally nature is slow in her punishment—from a gas arising in the intestines filled with the putrid mass, which, not being able to escape through the plugged-up rectum, causes severe colic, and even inflammation of the bowels—a dangerous disease.

Another point. Some people think their habits all right, when perhaps for months, or may be for years, there has only been a partial evacuation, always some fecal matter left remaining to become hard and dry, or forced back into the system. Let the

SYRINGE

be used freely in such cases, and in all cases of a confirmed state. A syringe should be a part of every young lady's wardrobe whenever she is to be placed in circumstances where she can not control her diet. Where this instrument can not be obtained, the

SUPPOSITORY

makes a very good substitute. This consists of a piece of soap, tallow, or molasses candy about the size of the finger, cut round and smooth, and introduced into the rectum. This will soon be expelled, followed by a movement of the bowels. Oftentimes the person's own finger makes a tolerably good suppository, especially where only a partial action occurs, to force away all lumps of impacted matter.

Both to break up constipation and to prevent it,

let the bowels be promptly discharged every day. Let no feeling of laziness, or wish to delay so disagreeable a task to a more convenient time or better opportunity, lead to the neglect of this important duty.

Even while the instinct of modesty should be regarded whenever possible, and nature's call may, if it can be, postponed occasionally a few hours without special harm where the habit is usually prompt, yet if workmen, travelers, and others are constantly passing in the vicinity of the water-closet, no attention whatever should be paid to them. Go right along as if no one were in sight. Most folks are too much occupied with their own affairs, or have too much good sense to notice you, and those that are mean enough to ridicule you are not worth minding, for they will not pity you, suffer for you, or pay your doctor bills if you get sick for your foolishness in fearing them.

Next, for correcting the habit, eat plenty of ripe, uncooked fruit *at meal-time*, the more juicy the better, with coarse breadstuffs, and if of sedentary life, take all the exercise possible.

Try all these things with persistency before resorting to medicine. In nine cases out of ten no medicine will be needed.

FOR GIRLS. A Special Physiology; or, Supplement to the Study of General Physiology. By Mrs E. R. Shepherd. 12mo, extra cloth, price, $1.00.

The following notices of this work are from Representative people, and are a sufficient guarantee as to its nature and value

"Jennie June" says: New York, *August* 8, 1882.

Gentlemen:—I have read "For Girls" with care, and feel personally obliged to the author for writing a book that is very much needed, and that mothers not only can, but ought to place in the hands of their daughters. Mrs. Shepherd has executed a difficult task with judgment and discretion. She has said many things which mothers find it difficult to say to their daughters, unless forced by some act or circumstances, which alas, may prove their warning comes too late. "For Girls" is free from the vices of most works of its kind, it is neither preachy nor didactic. It talks freely and familiarly with those it is written to benefit, and some of its counsels would be as well heeded by our boys, as our girls. Respectfully yours,

Mrs. J. C. Croly.

Mrs. Caroline B. Winslow, M.D., of Washington, D. C., in an editorial in the *Alpha*, says: "It is a book we most heartily and unreservedly recommend to parents, guardians, and friends of young girls to put in the hands of their daughters and their wards. It fully supplies a long existing need, and completes the instruction ordinarily given in physiology in our high-schools and seminaries. This book is rendered more valuable and important, as it treats with perfect freedom, and in a wise, chaste, and dignified manner, subjects that are entirely neglected by most teachers of popular physiology. . . . . None but a woman with a crystalline intellect, and a pure loving heart, could have written this clean, thoughtful, and simply scientific description of our sexual system, and our moral obligation to study it thoroughly, and guard it from any impurity of thought or act, from injury through ignorance, abuse, or misuse. It has won our entire and hearty approval, and enlists us as a champion and friend, to do all in our power for its sale, not for the pecuniary compensation of its author, but more for the lasting good of our girls, who are to be the teachers, wives, mothers, and leaders, after we have laid aside our armor and have entered into rest."

Drs. S. W. & Mary Dodds, physicians, with a large practice in St. Louis, Mo., say: "The book 'For Girls,' which we have carefully examined, is a valuable work, much needed, and it is difficult to say whether the daughters or their mothers would be most benefited by a perusal of it. You will no doubt find ready sale for it, all the more, as there is hardly another book yet published that would take the place of it."

Mary Jewett Telford, of Denver, Colorado, says: "Mrs. Shepherd has earned the title of 'apostle to the girls.' No careful mother need hesitate to place this little book in her daughter's hands, and the probabilities are that she will herself learn some helpful lessons by reading it. While there is no attempt made to solve all the mysteries of being, what every girl ought to know of her own organism, and the care of what is so 'fearfully and wonderfully made,' is here treated in a manner at once practical, modest, sensible, and reverent."

The Phrenological Journal says: "A book designed for girls should be written by a woman to be perfect; it being understood as a matter of course that she possesses a thorough familiarity with the subject she discusses. The author of this book indicates an unusual acquaintance with the anatomy and physiology of the feminine organization, also a ready acquaintance with the other phases of social relationship belonging to woman in her every-day life; with a more than common discrimination in gleaning just such material from general professional experience as is best adapted to her purposes. The style of the book is clear, simply colloquial, and has nothing garish prudish or morbid about it. It is bright without being flippant in thought, agreeable reading without awakening anything of the sensual or exciting. It concerns the healthfulness and the well-being of the girls who are soon to become wives and mothers of the world. There is no doubt but what many of the seeds of diseases in women are sowed in girlhood, and therefore this book should be placed in the hands of every young man, and of every mother of a daughter in the land."

OPINIONS OF REPRESENTATIVE PEOPLE.

Mrs. Belva A. Lockwood, the celebrated woman lawyer of Washington, says:

"Messrs. Fowler & Wells—Gents: I have carefully read and considered Mrs. E. R. Shepherd's 'Physiology for Girls,' and find it a plain, simple, scientific, and rational guide for mothers and teachers in the education of girls. It is a useful and valuable book that may safely be placed in the hands of, and should be read by, every young girl in the land. It takes hold of the structure and the functions of the human system just where the physiology of the schools leaves off, and in a clear and simple explanation, tells what to do, and what not to do. The language is pure and chaste, and the writer has avoided the technical terms which would have rendered the book too intricate for the class it is designed to benefit. Mrs. Shepherd has conferred a practicable and available blessing upon the world, and upon young girls in particular, in the production and publication of this book. I have had an experience of fifteen years in the education of girls, and feel that the writer of this physiology has solved a problem over which many a teacher's head and heart have ached."

Sarah M. Ellis, M.D., of New York, says:

"I have just read 'For Girls' with the utmost satisfaction. It is a book that every mother and daughter ought to read. The subjects are treated with the most consummate delicacy, and yet with great force. Would that every word might be read and treasured as deserved. Really it is *the book for the age.* I wish it could go forth freely. I feel that the needs of such a book are pressing. I have spoken of the book, and my friends are eager to possess it, have promised to send for it."

Dr Dio Lewis, the well-known writer on Physiology and Health Topics, says:

"It is a long time since I have read any work on the subject of human health with as much interest as your recent publication, 'For Girls,' by Mrs. Shepherd.

"I have written at the conclusion of more than one chapter such words as, 'The best presentation of the theme extant.' I trust you are employing the most energetic measures to place it in the hands of our American girls. A philanthropic person could spend $10,000 in no wiser way than to place it in your hands for the distribution of this inestimable little book."

Alex. M. Ross, M.D., F.R.S.L., of England, Medical Director of the "Society for the Diffusion of Physiological Knowledge, of Canada," says:

"I thank you much for the brave little book, 'ForGirls,' just received. Mrs. Shepherd has made the world her debtor by this valuable contribution to the literature of social science. If a copy of this book could be placed in the hands of every girl between the ages of 12 and 20, in the land, it would prove a rich blessing to generations yet unborn, and do more toward the physical regeneration and improvement of women than all other existing agencies operating in that direction. I shall do all in my power to further the circulation of this book."

Dr. M. Augusta Fairchild, author of "How to be Well," says:

"'For Girls' is a book of unusual fitness for its mission. The best judge of a fine painting is often found to be one who is the least skilled in the rules of art, and so, perhaps, the highest praise an author covets, is that awarded by the appreciation of those to whom his books is a revelation.

"A representative of so large a class which 'For Girls' will reach and bless, a young lady of rare culture and high mental endowment, but very ignorant of just what she ought to know, was persuaded by my recommendation to read this book with her mother. On returning it, she exclaimed with much earnestness, 'My good doctor, I can never be thankful enough that you placed this book before me. I feel now that my expensive education is worthless without the knowledge gained from the study of this good little messenger. Why, I was blindly groping my way, and this book revealed my position as on the verge of a precipice, over which, thanks to the author of "For Girls," and to the Providence which led me to read it, I shall not fall."

"How did your mother like it? 'Oh, mother thinks it a wonderful book, and wishes to introduce it among her friends, though she has never before done such a thing as to talk of the subjects it discusses.'

"There is just the strong point. The author is so very happy in her manner of saying exactly what should be said, that event he prejudiced, and I might add prudish, will listen and be helped. I congratulate the woman who has the ability and the will to do such a good work for girls and for matrons."

OPINIONS OF REPRESENTATIVE PEOPLE.

Mrs. C. F. Ballentine, the superintendent of the Somerville School on the St. Clair River, Mich., writes:

"We have forty copies of Mrs. Shepherd's book in use in this school—it seems to us as a strong and bright light illuminating many very dark places in human knowledge. A wide introduction of this valuable little book into the schools for young ladies, in this land and over the seas, would bring out of the depths of human misery, multitudes of poor women who have so sinned against their delicate organizations solely on account of ignorance; and would save still greater numbers from ever bringing upon themselves the evils incident to a blind warring against nature's laws."

Dr. C. E. Page, the author of "How to Feed the Baby," says:

"Of Mrs. Shepherd's book I can not say too much in praise. This is the book I have been waiting for, and wondering who would come to the front with just such advice for girls and their mothers. It is well calculated to open the eyes of many parents, and to fasten open many more who have been looking over and thinking of the points treated of in 'For Girls,' but who have been at a loss just what to say to their girls and how to say it. I have read the book carefully, and could hardly suggest the addition of a word; certainly I would not erase a single sentence, but put the book in the hands of any girls. Mothers should get this book: they need have no fear of its harming their children. They must make their girls wise, to prevent others from making them vulgar. For the promotion of the moral and the physical health of their daughters, the wholesome relations between them and their parents, I know of no work which will compare with this."

Sarah B. Stearns, a member of the "Board of Education," at Duluth, Minn., says:

"I have had the pleasure of hastily glancing through your newly published work, entitled 'For Girls.'

"It is a book of inestimable value to the class for which it is intended—our precious girls. Every mother should get it for her daughter, and every lady interested in the cause of education should see to it that teachers have this 'Supplement to Common-school Physiology,' to put into the hands of all girls who have become prepared to *understand* and *appreciate it*, by the partial knowledge given in the common-school course.

"If the book is as widely used as it deserves to be, thousands and tens of thousands of women will have reason to be grateful to Mrs. Shepherd for writing, and to Fowler & Wells for putting into print, this little epitome of all that young *girls do most need to know concerning themselves*, and what they may *do toward keeping themselves well, pure, strong, and happy*."

Mrs. Clemence S. Lozier, M.D., of New York, says:

"I have read 'For Girls,' and wish to give it my hearty sanction. Girls of to-day are the 'coming women': with them rests, to a large extent, the future health and well-being of our families, and the race. This book, while it treats of questions of the most vital interest, is written with the utmost simplicity and plainness in purity of thought and diction."

Mary L. Heald, M.D., of Healds' Hygeian Home, says:

"The work you have just published, 'For Girls,' is a very valuable one. It presents the truths of Science in an attractive form. The writer of the work under consideration will attract many by the simplicity of her style. Every girl should possess a copy of this excellent volume, for much of the happiness of the human race is dependent upon the intelligent action of our sex, in matters especially pertaining to girlhood, wifehood, and motherhood."

Dr. Charles Cullis, of 13 Somerset Street, Boston, Mass., the Proprietor of the "Faith Cure," says:

"Thanks for the copy of 'For Girls.' I am sure the book will do much good, and I wish thousands of mothers might read it. To this end I pray."

Mrs. E. B. Duffey, the well-known writer, and author of "What Women should Know," says:

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