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Copied from Patrick McDowell's celebrated statue, entitled, "The Triumph of Love."

PLAIN FACTS FOR OLD AND YOUNG

OR THE

SCIENCE OF HUMAN LIFE

FROM INFANCY TO OLD AGE

AN ILLUSTRATED

Cyclopedia of Special Knowledge for All Classes

ON THE

HYGIENE OF SEX

Comprising the Anatomy and Physiology of Reproduction in Man, Illustrating the Wonderfully Interesting Sexual Phenomena presented by Plants and Lower Animal Forms, and Discussing in a Comprehensive and Practical Way all Important Questions Relating to the Functions Characteristic of Sex in Health and Disease; with an Introductory Chapter on General Anatomy and Physiology, and a Concluding Chapter on Obstetrics and the Care and Feeding of Infants

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BATTLE CREEK, MICH.

1910

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PREFACE

THE author of this work offers no apology for presenting it to the reading public, since the wide prevalence of the evils which it exposes is sufficient warrant for its publication. The subjects with which it deals are of vital consequence to the human race; and it is of the utmost importance that every effort should be made to dispel the gross ignorance which almost universally prevails, by the wide diffusion, in a proper manner, of information of the character contained in this volume.

This book has been written, not for parents only, nor for any single class of persons, but for all who are capable of understanding and appreciating it. The prime object in calling attention to the increasing prevalence of sexual excesses of all kinds, and the terrible results which inevitably follow the violation of sexual law, is to protect the innocent, enlighten the ignorant, and hold up a high standard for clean and wholesome living.

In order to make more clear and comprehensible the teachings of nature respecting the laws regulating the sexual function, and the evils resulting from their violation, it has seemed necessary to preface the practical part of the subject by a concise description of the anatomy and physiology of reproduction. In this portion of the work, especial pains has been taken to avoid anything like indelicacy of expression, yet it has not been deemed advisable to sacrifice perspicuity of ideas to prudish notions of modesty. It is hoped that the reader will bear in mind that the language of science

is always chaste in itself, and that it is only through a corrupt imagination that it becomes invested with impurity. The author has constantly endeavored to impart information in the most straightforward, simple, and concise manner.

The publishers recognize the fact that this work should be judiciously circulated, and to secure this will take care to place it in the hands of agents competent to present it with discretion; yet it may be read without injury by any one who is sufficiently mature to understand it. Great care has been taken to exclude from its pages those accounts of the habits of vicious persons, and descriptions of the mechanical accessories of vice, with which many works upon sexual subjects abound, and which can only lead to evil by imparting knowledge which has no element of saving grace.

The first editions of the work were issued with no little anxiety on the part of both author and publishers as to how it would be received by the reading public. It was anticipated that no little adverse criticism, and perhaps severe condemnation, would be pronounced by many whose education and general mode of thought had not been such as to prepare them to appreciate it; but it was hoped that persons of more thoughtful and unbiased minds would receive the work kindly and with appreciation. This anticipation has been more than realized. Wherever the book has been introduced it has met with a warm reception; and of the many thousand persons into whose hands it has been placed, hundreds have gratefully acknowledged the benefit which they have received from its perusal, and it is hoped that a large proportion have been greatly benefited.

The addition of two whole chapters for the purpose of illustrating how this subject may be brought before

the minds of boys and girls in a proper manner, adds greatly to the interest and value of the work, as there seemed to be a deficiency in this particular in the former editions.

J. H. K.

BATTLE CREEK, MICH.,
October, 1879.

PREFACE TO ENLARGED EDITIONS

SINCE the preceding paragraphs were written, nearly one hundred thousand copies of this work have been placed in the hands of interested readers in various parts of the United States. One large edition has followed another with such rapidity that the plates became considerably worn, and the book has been entirely reset, and several new chapters have been added.

Both the author and the publisher desire to express to the reading public their sincere thanks for the generous support which has been accorded their efforts in behalf of popular education upon a subject so universally ignored and tabooed. The wall of prejudice, which in the early years of the introduction of this work threatened to present a serious obstacle to its usefulness, has been gradually broken down, and there is evidence among the more intelligent class of people of an increasing sentiment favoring the frank and open consideration of the subjects herein presented.

December, 1885.

J. H. K.

NOTE.—After the sale of nearly two hundred thousand copies of this work, it is still in demand. In the preparation of this edition, much valuable matter has been added, considerably enhancing the value of the work which has already received so cordial a welcome from the reading public.

January, 1894.

J. H. K.

THE TWENTIETH CENTURY ILLUSTRATED EDITION

MORE than a quarter of a million copies of this work have been printed, and placed in the hands of interested readers in all parts of the English-speaking world. Many thousands of letters received by the author and publishers have testified to the value and usefulness of the information presented, and of the method employed in imparting special physiological facts. The subject is one of perennial interest and supreme practical importance.

In bringing out this illustrated edition, the publishers have the utmost confidence that the generous appreciation hitherto accorded this work will be continued, and that its mission of usefulness will be still further amplified and extended.

PUBLISHERS.

June, 1901.

REVISED AND ENLARGED EDITION

The destruction of the plates of this work by fire has given the editor and publisher an opportunity for its thorough revision and the addition of several valuable features, especially a chapter on general anatomy and physiology, giving a brief outline of the "body temple," a chapter on the use of simple remedies for disease, emergencies, etc., and chapters on obstetrics and the care of infants.

July, 1903.

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INTRODUCTION

BOOKS almost without number have been written upon the subject treated in this work. Unfortunately, most of these works are utterly unreliable, being filled with gross misrepresentations and exaggerations, and being designed as advertising mediums for ignorant and unscrupulous charlatans, or worse than worthless patent nostrums. To add to their power for evil, many of them abound with pictorial illustrations which are in no way conducive to virtue or morality, but rather stimulate the animal propensities, and excite lewd imaginations. Books of this character are usually widely circulated; and their pernicious influence is fully as great as that of works of a more grossly obscene character. In most of the few instances in which the evident motive of the author or publisher is not of an unworthy character, the manner of presenting the subject is unfortunately such that it more frequently than otherwise has a strong tendency in a direction exactly the opposite of that intended and desired. The writer of this work has endeavored to avoid the latter evil by adopting a style of presentation quite different from that generally pursued. Instead of restricting the reader's attention rigidly to the sexual function in man, his mind is diverted by frequent references to corresponding functions in lower animals and in the vegetable kingdom. By this means, not only is additional information imparted, but the sexual function in man is divested of its

sensuality. It is viewed as a fact of natural history, and is associated with the innocence of animal life and the chaste loveliness of flowers. Thus the subject comes to be regarded from a purely physiological standpoint, and is liberated from that association with grossness which is the active cause of sensuality.

There are so many well-meaning individuals who object to the agitation of this subject in any manner whatever, that it may be profitable to consider in this connection some of the principal objections which are urged against imparting information on sexual subjects, especially against giving knowledge to the young.

Sexual matters improper to be spoken of to the young.

This objection is often raised, it being urged that these matters are *too delicate* to be even suggested to children; that they ought to be kept in total ignorance of all sexual matters and relations. It is doubtless true that children raised in a perfectly natural way would have no sexual thoughts during the earlier years of life, and it would be better if it might be so; but from facts pointed out in succeeding portions of this work, it is certain that at the present time, children nearly always do have some ideas of sexual relations long before puberty, and often at a very early age. It is thus apparent that in speaking to children of sexual matters, in a proper manner, a new subject is not introduced to them, but it is merely presenting to them in a true light a subject of which they already have vague ideas; and thus, by satisfying a natural curiosity, they are saved from supplying, by their imaginations, distorted images and exaggerated conceptions, and from seeking to ob-

tain the desired information from evil sources whence they would derive untold injury.

What reason is there that the subject of the sexual functions should be treated with such maudlin secrecy? Why should the function of generation be regarded as something low and beastly, unfit to be spoken of by decent people on decent occasions? We can conceive of no answer except the worse than beastly use to which the function has been so generally put by man. There is nothing about the sexual organism which makes it less pure than the lungs or the stomach. "Unto the pure all things are pure," may have been written especially for our times, when there is such a vast amount of mock modesty, when so much pretense of virtue covers such a world of iniquity and vice. The young lady who goes into a spasm of virtuous hysterics upon hearing the word "leg," is perhaps just the one who at home riots her imagination in voluptuous French novels, if she commits no grosser breach of chastity. The parents who are the most opposed to judiciously imparting proper information to the young, are often those who have themselves been guilty of gross breaches of the laws of sexual hygiene. In the minds of such persons, the sexual organs and functions, and everything even remotely connected with them, are associated only with ideas of lust and gross sensuality. No wonder that they wish to keep such topics in the dark. With such thoughts, they cannot well bear the scrutiny of virtue.

Sexual subjects are not, of course, proper subjects for conversation at all times, or at any time in a spirit of levity and flippancy. This subject should always be handled with the greatest delicacy of expression. Gross and vulgar forms of speech in relation to sexual sub-

jects should never be employed in presenting the subject to the young, and the greatest care should be taken to avoid rousing morbid curiosity or stimulating the passions. The object of imparting information is to allay curiosity by gratifying it in a wholesome way, and thus to prevent that precocious and morbid excitement of the sexual nature which is the natural outgrowth of ignorance, and is stimulated by those obscure hints and allusions which come to the notice of children even at a very early age.

Knowledge is dangerous.

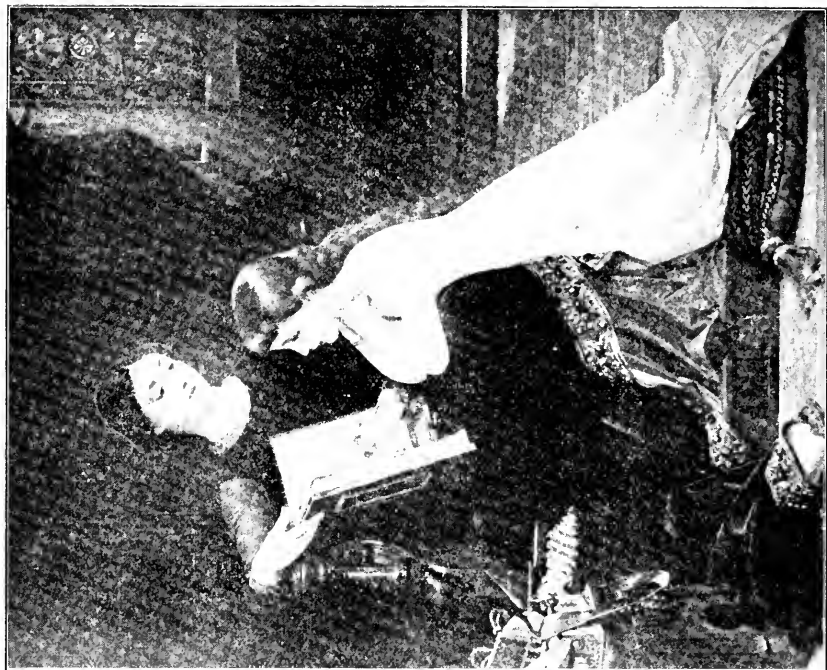
Very true, knowledge is dangerous, but ignorance is still more dangerous; or, rather, partial knowledge is more dangerous than a more complete understanding of facts. Children, young people, will not grow up in innocent ignorance. If, in obedience to custom, they are not encouraged to inquire of their parents about the mysteries of life, they will seek to satisfy their curiosity by appealing to older or better informed companions. They will eagerly read any book which promises any hint on the mysterious subject, and will embrace every opportunity, proper or improper — and most likely to be the latter — of obtaining the coveted information. Knowledge obtained in this uncertain and irregular way must of necessity be very unreliable. Many times — generally, in fact — it is of a most corruptive character, and the clandestine manner in which it is obtained is itself corrupting and demoralizing. A child ought to be taught to expect all such information from its parents, and it ought not to be disappointed.

Again, while it is true that knowledge is dangerous, it is equally true that this dangerous knowledge will be





28 THE CHILD AND THE WORLD



CHARACTER BUILDING

gained sometime, at any rate; and as it must come, better let it be imparted by the parent, who can administer proper warnings and cautions along with it, than by any other individual. Thus may the child be shielded from injury to which he would otherwise be certainly exposed.

Young people should be left to find out these things for themselves.

If human beings received much of their knowledge through instinct, as animals do, this might be a proper course; but man gets his knowledge largely by instruction. Young people will get their first knowledge of sexual matters mostly by instruction from some source. How much better, then, as we have already shown, to let them obtain this knowledge from the most natural and most reliable source!

The following paragraph from Dr. Ware is to the point:

“But putting aside the question whether we ought to hide this subject wholly from the young if we could, the truth, it is to be feared, is that we cannot if we would. Admitting it to be desirable, every man of experience in life will pronounce it to be impracticable. If, then, we cannot prevent the minds of children from being engaged in some way on this subject, may it not be better to forestall evil impressions by implanting good ones, or at least to mingle good ones with the evil as the nature of the case admits? Let us be at least as wise as the crafty enemy of man, and cast in a little wheat with his tares; and among the most effectual methods of doing this is to impart to the young just and religious views of the nature and

purpose of the relation which the Creator has established between the two sexes.”

When shall Information be Given?— It is impossible to designate a certain age at which all children should receive information on sexual subjects. Children differ. A safe rule is that a certain amount of knowledge should be imparted as soon as curiosity is manifested in this direction. If there is reason to believe that the mind of the child is exercised on this subject, even though he may have made no particular inquiries, information should not be withheld.

How to Impart Proper Knowledge.— No little skill may be displayed in introducing these subjects to the mind of the young person in such a way as to avoid rousing the passions and creating sexual excitement. Perhaps the general plan followed in this work (p. 74) will be found a very pleasant and successful method, if studied thoroughly, and well executed.

All information should not be given at once. First obtain the child's confidence, and assure him by candor and unreserve that you will give him all needed information; then, as he encounters difficulties, he will resort for explanation where he knows he will receive satisfaction. When the little one questions, answer truthfully and carefully.

The following paragraph from the pen of an able physician is wisely suggestive:

“When we are little boys and girls, our first inquiries about our *whence* are answered by the authoritative dogma of the ‘silver spade;’ we were dug up with that implement. By degrees the fact comes forth. The public, however, remains for ages in the silver-spade condition of mind with regard to the science of

the fact; and the doctors foster it by telling us that the whole subject is a medical property. . . . There is nothing wrong in the knowing; and though the passions might be stimulated in the first moments by such information, yet in the second instance they will be calmed by it; and ceasing to be inflamed by the additional goad of curiosity and imagination, they will cool down under the hydropathic influence of science. Well-stated knowledge never did contribute to human inflammation; and we much question whether the whole theory of the silver spade be not a mistake; and whether children should not be told the truth from the first; that before desire and imagination are born, the young mind may receive in its cool innocency, a knowledge of the future objects of power and faculties which are to be subject afterward to such strong excitement."

Eminent Testimony.—The dangers of ignorance upon sexual topics are very ably set forth in the following article, which recently appeared in the *British Medical Journal*, the leading medical periodical of the age, having been called out by the exposures of the *Pall Mall Gazette*, elsewhere referred to in this volume:

"Recent painful disclosures have, among other results, raised an important question, which, in the present state of opinion, can be most readily discussed in the pages of a medical journal. We refer to the complete ignorance regarding the sexual organs and the sexual functions which is permitted, and, indeed, sedulously fostered, by the ordinary education received by boys and girls in this country. Not only does our school system provide no information on these topics which so vitally concern the happiness of every individual, but the slightest allusion to the subject is apt to

be rigorously prohibited, and perhaps branded as obscenity. The result is, that there is a great deal of ignorance on these questions, and a still greater amount of half knowledge, which is more dangerous than either total ignorance or the fullest information. We have the authority of Sir James Paget for the statement that some men grow up, and even marry, in complete sexual ignorance; and that, while this is rare in the male sex, it is extremely common among cultivated and refined women.

“The decent veil which we conspire to throw over everything concerned with the reproductive function, serves, beyond doubt, some useful ends, and we trust the English people will always be characterized by their delicacy of thought and expression in this matter. But we are convinced that this secrecy, this conspiracy of silence, has gone too far, and that it is productive of serious evils. We object, in the first place, to it as unnatural. That our educational methods and social practice should permit men, or more frequently women, to marry without knowing what marriage involves, is not merely unnatural, but may be the cause of much matrimonial unhappiness. Parents and schoolmasters act as if innocence in such matters could last for life, and as if knowledge were a crime.

“But a much more serious, because infinitely more common, evil is the objectionable mode in which sexual knowledge generally gets access to the mind. Instead of being conveyed in some plain and matter-of-fact manner, it is too often gained through the corrupting medium of lewd jest or obscene print. At the most emotional and plastic period of life, when new instincts are swelling up and causing great mental disquietude, we withhold from boys and girls the knowledge which

nature is instinctively trying to impart, and we leave them to grope their way in darkness or to seek illumination from some unhallowed source.

“Why do the young so often regard an obscene work or print with such fearful but such irresistible curiosity? Not from mere depravity, as we often assume, but because they are thus unconsciously seeking information which they have a right to possess, and which we are conscientiously bound to supply in some form which will enlighten the reason, without inflaming the imagination and exciting the passions. Sexual knowledge is not wrong; its tendency is not necessarily injurious; but our mistaken methods of secrecy have undoubtedly the most unfortunate effect of stimulating the imagination to the highest point. We know the baleful fascination of forbidden fruit, not because it is sweet or pleasant, but simply because it is forbidden. This is a notable trait in human nature; but in our attitude toward sexual questions, we have disregarded it, or rather acted in direct contravention of it. The sexual function is naturally powerful; but we enormously increase its attraction for the young by labeling it as forbidden fruit.

“It is usually easier to indicate a disease than to apply a suitable remedy, but we shall not conclude without venturing a few suggestions. First, let us glance at what is suggested in the very few books which touch upon the question. Many urge that parents should convey knowledge upon these questions to their children at the time of life when external signs and new sensations indicate that the sexual instinct is beginning to awake. But many, probably the majority of parents, are not well fitted to undertake such a duty. Our language is badly provided with the necessary terms, and the un-

trained parent, ignorant of the anatomical expression, would find it hard to convey the necessary information without incurring the suspicion and, in his own mind, the reproach of indelicacy.

“Some advise that the family medical attendant should act in *loco parentis* in this matter; but we are certain that such action would be highly disagreeable to the members of the profession. One suggestion alone seems to meet the case, but, fortunately, it meets it most thoroughly. Elementary anatomy and physiology should form an integral part of every education. We might begin by teaching boys and girls the bones and skeleton, the functions of the heart, stomach, etc., as in the following chapter, and then, when the suitable age arrives, the structure and functions of the sexual organs might be taken as the natural sequel of the previous portions of the course. In this way, the necessary knowledge would enter the mind naturally and simply, with no false shame on the one hand, and no fillip to the imagination on the other. We are confident that an immense reform would thus be easily and quietly effected, and that much evil and suffering would be averted. We should thus convey, in the most natural and unobjectionable form, knowledge which we have no right to withhold; and we should remove the unwholesome fascination which our present habit of secrecy imparts to sexual questions. Certain it is that the stealthy approaches of vice are favored by the existing system.

“It will often be found that there is a prevalent opinion that sexual immorality is to celibates a physical necessity, an attribute of manliness, and even a collateral or prevalent condition of health. This degrading error has been so vigorously denounced by the ablest of modern physiologists, that no one has any longer a

pretext for entertaining or promulgating it. It has been the source of much evil, however; and wherever such an opinion is met, it must be energetically denounced.

“There is an aspect of the question which cannot be overlooked, especially as recent revelations have thrown a lurid light upon it. It has been abundantly proved that young girls are often entrapped to their ruin in the most utter ignorance of sexual questions, and of the physical significance of the act to which they are enticed. This is surely a lamentable instance of propriety overreaching itself. Innocent ignorance is always attractive; but if the means of luring the innocent victim to her doom, it is surely more dangerous. How, then, is the girl, approaching sexual maturity, to be made acquainted with the solemn facts of the creative act, and guarded against associating them with the base impulses of passion? We commend this difficult question to the thoughtful consideration of our readers. In this respect, also, the mothers and the teachers have a very solemn duty; and it is opportune to ask how, when, where, and by whom it is best performed.”

The experience of hundreds in the circulation of the present work has proved beyond all chance for question the truth of the foregoing remarks, and often in a most striking manner. Scores of persons have written us, “I would give all I possess in this world could I have had a copy of ‘Plain Facts’ placed in my hands when I was a lad,” or, “Words cannot express the gratitude I would now feel had some kind friend imparted to me the valuable information which this book contains; it would have saved me a life of wretchedness.”

We have had the satisfaction of knowing, in numerous instances, that the virtue and happiness of whole families have been secured by the timely warnings of danger which parents have obtained from this work. We are glad to be able to feel that it is now thoroughly demonstrated that intelligent persons who have given this subject thought, universally approve of the objects of the work, and the manner of presenting the subject adopted in it. Those who at first question the propriety of discussing the subject so freely and thoroughly as is here done, lose their prejudice entirely upon giving the work a careful perusal. In numerous instances it has occurred that those who were most decided in their denunciations, have become the most zealous and efficient agents in its circulation, after becoming more fully acquainted with it.

THE BODY TEMPLE*

KINGS and millionaires have built costly and gorgeous palaces, and adorned them with rare and marvelous works of art; but not one of them has ever approached in beauty and grace of form, in symmetry and delicacy of structure, in the transcendent skill of its workmanship, that often much-neglected dwelling which we call the body. In it we see the highest product of that creative skill which framed the worlds and attuned the universe to that grand harmony, "the music of the spheres."

On the time-stained walls of an antiquated church in Rome, hangs a canvas, painted by an artist whose ashes have been moldering in the grave for centuries. Every year thousands of men and women from all Christendom make a pilgrimage to this shrine of art, and, as the monk draws aside the costly covering which protects it, they reverently speak the artist's name, and say, "That was his masterpiece."

The artist thus revered was but a man, and his work, though wonderful, is but the shadow of a human form. The artist himself was a work of art infinitely superior, as eternity is greater than a day. Man, the paragon of creation, is the Creator's masterpiece, the crowning work of the Divine Artist.

A gold watch, with its carved or polished case, is a beautiful object to look upon; but it is only when the case is opened, exposing to view the delicate wheels

* See Anatomical Chart in colors.

and levers by which the hours and minutes are accurately measured off, that we begin to appreciate the wonderful ingenuity and skill displayed in this useful mechanism. So it is with the human body. Its beautiful and symmetrical exterior excites our admiration; but it is only when we inspect in detail its intricate machinery, its various tissues, organs, and apparatuses, and witness their marvelous processes, that we begin to appreciate the infinite skill and wisdom of the Divine Artist who designed and executed this most marvelous of all created works.

Microscopic Wonders.—The human eye, when aided by all the other senses, is not able to discern the exceeding delicacy of form and structure which pervades the entire human form; and it is only when that adroit revealer of nature's secrets, the microscope, is brought to bear upon each little thread of tissue in the body, that its infinite grace and beauty of structure and marvelous delicacy of form and composition are discovered.

For ages, many of the noblest men have devoted their lives to the study of the "human form divine," bringing to their aid every appliance afforded by the whole range of art and science, and applying themselves with untiring energy and patience to the effort of compelling nature to divulge at least a few of the secrets enshrouded in the mystery of human life. Every fiber of the human body has been subjected to the most searching scrutiny of microscopes so powerful as to make the finest grain of sand equal in apparent size to an enormous rock. This mode of studying the body reveals it to us as a community of living, active individuals, which the scientist calls cells. These are gathered into groups called organs.

Each structure and organ has been named and carefully described; and to such a degree has knowledge on this subject accumulated that the work of a lifetime is required to become fully acquainted with the minute details of the body and its work. In this brief chapter we can only glance at a few of the leading characteristics of the body, and the curious processes by which human life and activity are sustained.

The Beginnings of Life.—One warm, sunny afternoon the writer was coasting in a little yacht among the mangrove-covered isles of Florida Keys. The helmsman had run our little ship into a sheltered bay, where scarcely a breath stirred the glistening waters, and while slowly floating with the tide, we used the opportunity to study life beneath the ocean wave.

One of our two sturdy seamen brings out a water telescope, by the aid of which, leaning over the vessel's side, we are able to look down through the crystal waters twenty, fifty, even a hundred feet, and see with wonderful distinctness the curious and luxuriant vegetable growths and strange and uncouth animal forms which in tropical climes inhabit the vast bottom of the briny deep. There are broad fields of branching, somber-colored sea-weeds, with great sea-crabs running out and in among them; all sorts of bivalves and univalves, half imbedded in the mud; lovely corals and madrepores, attached to fragments of rocks, or clinging to some marine plant; all kinds of sponges—red, green, yellow, black; queer little starfish, slowly crawling along over the rocks; and wonderful jelly-fish, floating with the tide.

A Live Sponge.—We thrust down a long pole, with a hook in the end, and seize one of those great yellow sponges. Hauling it up into the boat, we examine the

queer, vegetable-like animal. It seems to consist of a horny mesh-work covered with slime. We put a drop of this slime under a microscope, and find it to be alive. This, in fact, is the real sponge, to which the commonly known sponge acts simply as a mechanical support, or skeleton. This living slime represents life in one of its lowest forms. Its substance is homogeneous. It really has no structure, yet it feeds, breathes, feels, and possesses, in a primitive form, most of the characteristics of higher animals.

Men and Sponges.—Strange as it may appear, there is an affinity between the sponge, at the lower end of the scale of life, and man, who stands at the top. If we follow the life history of a human being back to the earliest moment of its existence, we find only a little speck of living jelly, substantially like the live portion of a sponge. This living bit of jelly has no nerves, yet it feels; has no lungs, yet it breathes; no stomach, yet it digests; is without hands, yet it works.

The sponge was once a mere little drop of slime, which grew, gathered material from the surrounding waters, and from this material built for itself a skeleton over which to extend, and upon which to live. So the human jelly-drop works and grows, developing and building cells, fibers, structures, and organs, till at last the human body, with all its wonderful details, is perfected. In this marvelous process of transformation, in which there seems to be ever present a guiding intelligence, taking food materials and arranging them according to a definite and wonderful plan, we have one of the most convincing arguments of the existence of a beneficent and all-wise Creator.

Two Hundred Bones.—The body, like a dwelling house, requires a framework for firmness and sym-

metry. This frame must be not only firm, but flexible, in order to enable us to use our bodies easily in the great variety of movements required of them. To meet this requirement, the skeleton is possessed of a large number of separate bones, two hundred in all, which are held together by bands, or ligaments, forming joints. In early infancy the bones are soft and flexible; but in adult life they become hard and rigid. In old age their composition is changed in such a way that they become brittle, and are easily broken.

The bones are not entirely matured until some years after the body ceases to grow in height, or about the age of twenty to twenty-five. During the years of development, the soft bones may be easily bent out of shape by bad positions in sleeping or sitting, or by improper clothing. It is in this way that curvatures of the spine, round shoulders, narrow waists, and other deformities are produced, illustrated elsewhere in this work.

Cultivated Deformities.—Some of the most conspicuous examples of deformities produced by artificial means, are the feet of fashionable Chinese women, which are converted into queer stumps by the operation of bandaging, which doubles the toes completely under the feet; the heads of certain tribes of North American Indians, which are flattened by the compression of a board upon the forehead, or elongated into the shape of a cone by the application of firm bandages; and the wasp-like waist of the fashionable civilized woman, whose perverted ideas of beauty lead her to the vain and foolish attempt to improve the masterpiece of the great Artist by distorting it into a form which, though symmetry in an insect, is deformity in

a human being. In another chapter we speak more fully upon this point.

This flexibility of the bony framework of the body in early life, clearly indicates the importance of training the body to a correct and symmetrical development during the years of childhood and youth, while it is developing and being molded into its permanent form. The subject of exercise and physical development will receive special attention in another chapter, which it is hoped the reader will carefully peruse.

Five Hundred Muscles.—Beefsteak or mutton-chop is a portion of the muscle of an ox or sheep. The lean meat of all animals is composed of muscular tissue, which also makes up the great bulk of the fleshy portion of our own bodies. A piece of lean meat that has been salted, after being boiled may be separated into bundles, each one of which may be divided into a large number of delicate threads. If one of these is placed under a microscope, it may be divided into fibers almost too small to be seen with the naked eye.

How a Muscle Works.—Each one of these minute fibers, several hundreds of which would be required to cover an inch in space, if laid side by side, possesses the power to contract and then to return again to its natural length. By the combined action of the thousands of these little living threads which constitute each muscle, these organs are enabled to do the work assigned them in the body, which is that of producing motion by contraction.

The total number of muscles in the body is about two hundred and fifty pair, which, with very few exceptions, are arranged symmetrically, each side of the body being provided with muscles exactly like those of the opposite side.

Uses of Muscles.—By means of the muscles that act upon the bones of the legs, we are enabled to walk, run, leap, etc. The muscles of the arms and hands enable us to work, write, play upon musical instruments, and engage in all sorts of manual pursuits. The muscles of the trunk sustain the body erect, and form the walls of cavities which contain the internal organs. Those of the chest are also useful in breathing, in which they act together with a remarkable muscle within the body, called the midriff, or diaphragm. By delicate little muscles, the eye is moved in various directions. Still more delicate muscles adjust the ear to various sounds. It is by the action of the muscles, also, that the face is able to assume such a vast variety of expressions. Anger, scorn, jealousy, grief, and joy are all pictured upon the face by varying movements of the little muscles which lie just underneath the skin.

Every movement of the body is the result of muscular action. Without muscles, a man would be as helpless as a plant or a tree, which spends its whole life just where its seed happened to take root in the soil. The heart, which by its incessant beating supplies each part of the body with life-giving blood, is simple a muscle, and even the blood-vessels, which convey the blood to the various portions of the body, are scarcely more than muscular tubes. It is by means of muscles, acting upon other organs, that we are able to speak, laugh, and sing, as well as move about.

The muscles also add to the beauty of the body, rounding out the form, covering the ugly protuberances of the bones, and giving to the human form that grace and symmetry which beautify it far above all other living forms. How the muscles may be devel-

oped, and how they become diseased when not properly exercised is considered elsewhere in this work.

A Live Pump.—Place your hand upon the left side of the chest, just above the lower border of the ribs. You feel something which goes thump, thump, thump. Get a friend to let you place your ear upon his chest at the same spot. You hear something saying lub-tup', lub-tup'. There is a live pump in there, the heart, which keeps working away all your life, from infancy to old age, making sixty to seventy strokes every minute, never stopping to rest even for five seconds, though sometimes it becomes tired and flags a little, and at other times gets excited and runs away at a frightful rate, sometimes so fast one can scarcely count it.

The heart, as already stated, is a hollow muscle. A man has a little more heart than a woman. His heart weighs about ten ounces, while a woman's heart weighs but eight. Roughly estimated, the heart may be said to be as large as the fist. A man with a big fist has a large heart to furnish the brawny arm with an abundance of blood. The heart of a whale is as large as a wash-tub, while that of some small creatures is microscopic in size.

The Two Hearts.—The heart has a partition through the middle, the longest way, which divides it into halves, each of which is again separated into two chambers. Each side of the heart may be considered as a distinct heart. In some lower animals, as a dugong, the two sides are connected only by a band of tissue. Some insects have three or four hearts. The cavities of the heart are connected with every part of the body by means of a set of tubes, which at the heart are as large as the thumb, but by subdivision become so minute in the tissues as to be invisible to the naked

eye. Some of these are so small that more than a hundred would be required to equal an ordinary pin in size.

Arteries and Veins.—There are two sets of these tubes, one, called arteries, communicating with the lower chambers of the heart; the other, the veins, communicating with the upper chambers of the heart. These two sets of tubes run side by side through the various parts of the body, finally joining at the small ends by means of very small tubes, the capillaries. Thus they become, virtually, a single set of tubes, which are large at the heart ends, and small in the remote middle.

The lower chambers of the heart pump the blood out into the various parts of the body through the arteries; while the upper chambers receive it back through the veins. The blood which leaves the left side of the heart returns through the veins to the right side of the heart, while the blood which leaves the right side of the heart after passing through the lungs, returns to the upper chamber of the left side. By means of openings guarded by valves, the blood is enabled to pass from the upper to the lower chamber on each side of the heart, but cannot pass from one side to the other, except by going the roundabout road of the arteries, capillaries and veins.

Six Quarts of Blood.—The arteries and veins of a body of average size contain about twelve pounds, or six quarts, of blood. If you wish to know something about this wonderful fluid, you must thrust a pin into the end of your finger, squeeze out a tiny drop, spread it upon a slip of glass, and put it under a microscope. Looking at it through the instrument, you will see that it is no longer red, but of a light amber color, and on

looking closely you will see that it is made up of a clear fluid in which are floating countless numbers of little round bodies, called blood corpuscles.

Queer Things in the Blood.—By far the larger number of the blood corpuscles are flat, or disk-shaped bodies, thinner in the middle than at the edge. They are so small that thirty-five hundred of them arranged in a row would extend only an inch. The separate corpuscles are yellow or amber colored; but when crowded together in great numbers, as they are found in the blood, the mass appears red, from which fact they are called red blood corpuscles. By looking very sharp, if the microscope is a good one, you will see here and there a corpuscle somewhat larger than the rest, and of a white or grayish color. This is called a white blood corpuscle. One of these is found to every six or seven hundred of the red.

The blood corpuscles are not inert bodies which float in the blood current, but are living creatures. Each one leads as independent and individual a life as the fishes that swim in the water, or the birds that fly in the air.

The life of a corpuscle is supposed to continue about six weeks. Several thousand die every second of our lives, their dead bodies being destroyed and removed from the blood by organs appointed for the purpose.

Traveling Tinkers.—Both kinds of corpuscles do very important work. The white corpuscles travel from point to point in the body, repairing diseased or injured parts. They are like traveling tinkers, who go about looking for umbrellas and tin pans to mend. The red blood corpuscles are devoted to the business of carrying oxygen, which they find in the lungs, and

transmitting it to every part of the body. Each corpuscle has the ability to carry a load of oxygen much larger than itself. It is only while the corpuscles are loaded with oxygen that the blood is red. It becomes a dark purple color after the oxygen has been removed. It is for this reason that the blood is red in the arteries and dark purple in the veins.

The colorless portion of the blood, called plasma, contains the various substances out of which the muscles, bones, and other tissues are formed. These substances are derived from the food which we eat and digest. This portion of the blood also contains various waste substances, which result from the wear and tear of the body, and are being carried to the several organs set apart for the business of removing them, and thus keeping the vital fluid pure.

How the Blood Circulates.—The business of the heart is to circulate the blood, which it does so rapidly that a quantity of blood equal to the whole amount in the body passes through the organ every half minute. The heart of a vigorous man pumps not less than three hundred barrels of blood daily, in doing which it exercises as much energy as would be required to lift one thousand stones, weighing one hundred pounds each, from the ground to the shoulder.

At each heart beat, a wave of blood starts from the heart, and travels to the most remote ends of the arteries. Where the arteries come near the surface, this wave can be felt, and is called the pulse. The pulse rate is usually about seventy beats per minute. It is somewhat more rapid in young children, and is increased by exercise.

The blood starts out from the lower chamber of the left side of the heart, from which it is propelled through

the arteries to the various parts of the body. Thence it is gathered up by the veins, and carried to the upper chamber on the right side of the heart. From this it passes to the lower chamber of the same side, whence it is forced through a large artery to the two lungs, through which it passes for purification. It is then carried by veins to the upper chamber of the left side of the heart, whence it passes to the lower chamber of the same side, from which it is again distributed to the various parts of the body. The blood thus makes two circuits before it gets back to its starting point, one from the lower left chamber of the heart to the upper right chamber, another from the lower right chamber to the upper left chamber.

A portion of the blood goes through two sets of veins before getting back to the heart. The blood from the stomach, spleen, and other abdominal organs is gathered up in a large vein, which distributes it through the liver by means of a second set of veins and capillaries. After passing through the liver, which produces some remarkable changes in it, another vein carries it to the large vein which gathers blood from the whole lower part of the body, and empties it into the right side of the heart. This is called the portal circulation.

How to Take Care of the Heart.—A vigorous heart is essential to a healthy and a long life. A man with a weak heart is as poorly fitted for the voyage of life as a ship would be to cross the Atlantic with a small or inefficient engine.

Every organ in the body depends upon the heart for its supply of blood, without which it cannot do its work. Without a sufficient supply of blood, the bones deteriorate, the muscles become weak, and every organ suffers.

Proper exercise strengthens the heart. If you count the pulse while lying down, you will find it to be about sixty. On sitting up, the beats increase to sixty-six or sixty-eight. On standing up, the pulse rate rises to seventy-four or seventy-five. On taking active exercise, as in running or jumping, the pulse may be quickened to one hundred beats per minute, or even more. The heart is a muscle, and proper exercise, by thus increasing its activity, may increase its vigor. Exercise, by increasing the activity of the heart, also secures a more rapid distribution of the blood, and thus quickens all the vital processes of the body.

Too violent exercise may injure the heart by overtaxing it, and may even cause rupture of one of the delicate ligaments by which its valves are controlled.

The effects of tobacco, alcohol, and all kinds of stimulants are particularly serious upon the heart, weakening it, at first temporarily and afterward permanently, by causing degeneration of its tissues into fat. A great share of the deaths from so-called heart disease may fairly be charged to alcohol and tobacco.

Bad Blood.—The blood may be poor in quality because of impurities gathered from the tissues and not removed with sufficient rapidity, or injurious substances which have been taken in with the food, or from indulgence in stimulants or narcotics. It may be impoverished by having an insufficient supply of the elements required to nourish the tissues. To keep the blood pure and of good quality, one must be careful to keep in good active operation the skin, lungs, liver, kidneys, and bowels,—channels through which its impurities are removed,—and must carefully avoid taking into the system substances which cannot be used and which must be removed. Of this class, alcohol,

tobacco, and the various stimulating condiments, such as mustard, pepper, pepper-sauce, etc., are among those most commonly used.

An examination of the blood after a sleepless night, or when an insufficiency of food has been taken, shows a very great decrease in the red blood corpuscles, which sufficiently emphasizes the necessity for an abundance of sleep and nutritious food. An eminent New York physician claims to be able to tell by examination of the blood whether a person has slept well the previous night, or whether he has been indulging in excesses of any sort.

If the blood is kept pure and well supplied with the elements necessary to build up the body, the organs of the body will be quite certain to remain in health.

Two Thousand Feet of Lungs.—Did you ever see a frog drink?—Very likely not. Let us go in search of some place where the croakers abound. Here we are, and there is a big fellow sitting on the bank. Now he goes, splash! into the water, and away down out of sight in the mud. Never mind, we will sit down and rest quietly; soon we shall see him coming up to the surface again to get a drink. There he comes now. As he gets almost to the surface of the water, he lets out of his mouth three or four big bubbles of air. He comes slowly to the top, and protrudes above the water the mere tip of his nose, in which we shall see, by looking closely, two little holes scarcely larger than a pin.

Drinking Air.—Now notice his broad throat. We will see that it moves up and down as though he were drinking. In fact, he is drinking, not water, but air. The frog lives in such damp places, he probably never gets dry, and so does not need to drink water; but air he must drink, or he dies.

If some cruel fellow should catch that frog and cut off his hind legs to eat, you might dissect his body, and in doing so you would find inside of it two good sized air-bags, connected with the frog's mouth by a little tube. Before the frog goes under water, he swallows air sufficient to fill these bags; then, after being under water awhile, he comes up to exchange it for a fresh supply.

We have in our bodies air-bags, called lungs, similar to those of the frog, only much more complicated in structure. A frog is obliged to swallow air because he has no ribs; but we are enabled, by the arrangement of the ribs forming the chest, to expand the lungs, and thus suck in the air through the mouth or nose. A frog only needs to exchange the air in its lungs once in ten or fifteen minutes, and may under some circumstances go without breathing for a much longer time. But our lungs require that the air which they contain should be changed eighteen or twenty times a minute when we are quiet, and twice as fast when we run or engage in any violent exercise.

The use of the lungs is to remove certain impurities from the blood. To facilitate this work, they are lined with a delicate membrane which, if spread out, would cover a surface of more than two thousand square feet, or about eighty square rods. Underneath this membrane, an amount of blood equal to the entire quantity contained in the body, passes every minute for purification, giving off certain poisonous elements, and taking up the life-giving oxygen, which it carries to all the tissues, thus giving them life and activity.

A Plant that Eats Flies.—Did you ever see a plant eat?—Probably not. Most plants eat in such a

quiet way that we do not observe them take their food. Plants usually take in most of their food through their roots. They also take in carbonic acid gas, a sort of gaseous food, through their leaves. There is, however, a queer plant which grows in North Carolina, the leaves of which actually eat flies. More than this: the plant not only eats flies, but it catches them. When a fly touches a leaf, it shuts up and holds the fly a prisoner. After about a week, the leaf opens, and, strange to say, the fly has disappeared. The leaf not only catches the fly, but afterward secretes a fluid which digests it, and after it is dissolved, it absorbs it. The fly has actually been eaten.

This curious behavior of the Venus Fly-Trap affords the simplest illustration of digestion.

Thirty Feet of Stomach.—A tiny creature that lives in the warm waters of the tropics, has within its body a little sac, which serves the triple purpose of heart, lungs, and stomach. In many of the lower orders of animal life, the heart and stomach are all one organ; but in man the three processes of blood-circulation, air-breathing, and food-digestion are carried on by three distinct organs. As commonly used, the term stomach includes all the organs employed in digesting food, of which the stomach proper is only one, and by no means the most important.

The digestive apparatus consists of a very crooked tube some thirty feet in length, which extends from the lips to the other extremity of the trunk. Along this tube are ranged various organs which have more or less to do with the process of digestion.

A Live Mill.—At the upper end of this tube are placed the teeth, which, with the jaws, constitute a mill, where the food is ground so as to enable the other

organs to act upon it with ease. Some animals, which are not supplied with teeth in their mouths, have excellent teeth in their stomachs, by which the food is masticated in a most thorough manner. When disposed to eat too fast, we should remember that our stomachs have no teeth; and, hence, if the food is ever chewed, it must be done before it is swallowed.

The tongue aids in the grinding process, by keeping the food between the teeth, and moving it from one side to the other.

Three pairs of glands, arranged on either side of the mouth, pour into it a clear liquid, the saliva, which is mixed with the food to soften and otherwise change it. A narrow tube leads from the back of the mouth to the stomach proper, situated just below the lower end of the breastbone.

The stomach is simply a dilated portion of the digestive tube, or as it is sometimes called, the alimentary canal. It holds about three pints. In its walls are curious little pockets, in which is formed the gastric juice. The lower end of the stomach joins the small intestines, which are folded up in the abdominal cavity, and measure about twenty-five feet.

A few inches below the stomach, a small opening is found in the small intestines, through which enter two very important liquids, the pancreatic juice and the bile. The first is formed by the pancreas, a hammer-shaped gland which lies just back of the stomach; the latter, by the liver, which lies at the right side of the stomach, partially overlapping it.

All along the small intestine are scattered minute little glands buried in the mucous membrane, which make another fluid, called the intestinal juice. At the lower right-hand corner of the abdominal cavity, the

small intestine widens out into the colon, or large intestine, which is about five feet in length, and completes the digestive apparatus.

Five Wonderful Fluids.—As we have already noted, there are several fluids concerned in the process of digestion, —the saliva, the gastric juice, the bile, the pancreatic juice, and the intestinal juice. These are all used to dissolve the food so it can be absorbed by, or taken into, the blood. Each fluid has its particular work to do in transforming some portion of the food into a substance different from what it was, and preparing it to be received into the blood and converted into tissue. Thus, the saliva acts upon the starch of the food, changing it to sugar. The gastric juice digests albumen. The bile digests fat, and aids in the absorption of other portions of food after being digested. The pancreatic juice digests starch, albumen, and fats, the three most important elements of food. The intestinal juice digests each of the kinds of food elements mentioned above, and also cane sugar. It is important to notice that cane sugar is digested only by the intestinal juice, which acts, not throughout the whole alimentary canal, but only in the intestinal portion of it.

Digestion of a Mouthful of Bread.—If we could see a morsel of bread undergoing digestion we should notice, first, that while it is being chewed, the saliva converts a small portion of the starch into sugar. After it is swallowed, the gastric juice begins its work, and digests the albuminous portion of the bread, known as gluten. Just after it passes out of the stomach into the intestine, the liver and gall bladder contract, and pour out a quantity of bile, which searches out any little portion of oil the bread may contain, or the but-

ter which may have been eaten with it, and converts this fatty matter into a creamy substance, which is readily absorbed and distributed throughout the body. The pancreatic juice next finds the digesting morsel, and completes the work begun by the saliva, the gastric juice, and the bile, doing the work of these three fluids much more thoroughly and efficiently than they are capable of doing it themselves. The intestinal juice acts upon any little portion of cane sugar which may have been taken with the food, and gives the finishing touches to the work which has been begun by the preceding digestive fluids.

Thus the mouthful of bread is completely digested. It is next absorbed by millions of hungry little mouths, which are ready to suck up the digested food into the blood-vessels, by which it is carried, first to the liver, and thence to the heart, from which it is distributed to the various parts of the body.

Three and One-Half Pounds of Liver.—Neatly tucked away under the lower ribs of the right side, is one of the most wonderful organs of the whole body, the liver. If you should put a little bit of its chocolate-colored tissue under a microscope, you would find it made up of thousands of little round cells, each of which is a busy little worker, devoted to the trade of bile-making. The whole structure of the liver is made up of these cells together with the vessels which convey blood through it, and the delicate system of sewers which collect the bile, when it is formed by the bile-making cells, and convey it into a large sac placed on its under surface, called the gall bladder. A small tube leads from the liver and gall bladder to the small intestine, into which it opens a few inches below the stomach. The weight of the entire organ is about three and

one-half pounds, being the largest of all the glands in the body.

The Business of Bile.—The bile is one of the most useful, and certainly the most remarkable, of all the fluids of the body. It is a golden yellow color in human beings and dogs. The bile, or gall, of an ox is green; and in certain diseases persons vomit bile of a green color, which has led to the supposition that human bile is green also. This is not correct, the green color of vomited bile being due to changes which take place in the stomach, where it comes in contact with the gastric juice. The bile has more uses than any other fluid in the body.

1. It aids digestion, helping to change the fats of our food into a creamy substance, called an emulsion, which can be easily absorbed.

2. The bile aids in all of the digestive processes which take place in the small intestine, by destroying the activity of the gastric juice, which is strongly acid, and, except for the neutralizing influence of the bile upon it, would prevent the action of the pancreatic and intestinal fluids. Bile also excites the intestines to contraction, by which the digesting food is moved along, and in some mysterious manner helps the mucous membrane to absorb the food after it has been digested.

3. It consists largely of waste substances which have been gathered from various parts of the body. When the liver does not do its work properly, these foul matters accumulate, and the person “feels blue.”

Liver Work.—But the liver does something more than make bile. As before stated, most of the blood which passes through the abdominal organs—the stomach, intestines, pancreas, and spleen—is gathered into

one large vein, which carries it to the liver, through which it is distributed. The object of this arrangement is to enable the liver to complete the process of digesting such elements of food as have been absorbed before the work was finished, and especially to remove from the blood deleterious substances which have been absorbed with the food.

One of the most important offices of the liver is to gather out of the blood and store up in itself, in the form of a kind of animal starch, the large amount of sugar which is sometimes eaten with our food, and is always formed in the process of digestion when starchy foods are eaten. If these were allowed to enter the general circulation at once, great mischief would be done to many organs of the body; and it is to prevent this that the liver separates the greater portion of it, and doles it out to the blood in small doses, in the intervals between our meals. It is readily apparent that if a person habitually eats more sugar than it is possible for the liver thus to take care of, great harm may be done to the liver, as it will be overtaxed in trying to do its duty to the entire body.

Another serious injury which results from the excessive use of sugar as connected with the liver, is this: When the liver fails to convert all of the saccharine matter brought to it with the digested food, the sugar passes on into the circulation in a form in which it cannot be used by the system. To prevent the serious damage which would otherwise result to other organs and tissues, the kidneys exert themselves in removing the surplus sugar, and thus is set up the disease known as diabetes. This is a malady so serious and so difficult of cure that it is certainly the part of wisdom to carefully avoid the causes by which it is produced.

There is really very small excuse for the use of sugar in its usual form, as nature gives us an abundance of sweet fruits.

The liver is a most sacrificing organ, not hesitating to remove from the blood poisonous substances, even retaining them in itself, instead of allowing them to circulate in the rest of the body. Hence it is that when a person dies in a drunken fit, the liver is found to contain more alcohol than any other part of the body. The same is true of mercury, arsenic, and other metallic poisons, in cases in which death has resulted from their use. Hence, also, follows the great mischief to the liver from the use of mustard, pepper, pepper-sauce, and all hot and irritating condiments. Notwithstanding the generous behavior of the liver, it is blamed for a vast number of human ailments for which it is not responsible. Take good care of your liver, and it will never tire of taking excellent care of you.

Twenty Square Feet of Skin.—Anatomists tell us that if the entire skin of the body were removed and spread out, it would cover an area of twenty feet, —considerable more territory than one would be likely to estimate.

Viewed by the unaided eye, this covering of the body is not particularly interesting. Viewed with the microscope, the skin is found to be a very complicated and wonderful structure. Its outer portion is composed of several layers of little flat scales, which overlap one another, and form a sort of horny protection for the more delicate parts beneath. Its lower portion contains the elements which constitute the true skin, and these consist, first, of a network of elastic fibers, which give to the skin its great distensibility. As the body develops, the skin is stretched to accommodate

itself to the growing form. The outer skin contains—besides this elastic network, and dispersed among its meshes—various nerves, which give to it sensibility to touch, and the power of discerning differences in temperature, and, most important of all, great numbers of little tubes, each a small fraction of an inch in length. The lower portion of each of these tubes is coiled deep down in the skin, while the upper part passes obliquely to the surface. These are sweat glands, of which, taken altogether, there are several million in the body.

The uses of the skin are—

1. Protection. It is a good non-conductor of heat, and so protects the sensitive tissues beneath from ordinary changes of temperature, and by its toughness shields them from harm which would otherwise result from contact with objects.

2. Respiration. The skin, like the lungs, is a breathing organ. Frogs can breathe with their skin so actively that one of them has been known to live for some days after its lungs had been removed. The human skin is less active as a breathing organ than that of the frog; but its action in this respect is quite too important to be safely ignored. It is through the interference with this breathing process that neglect of cleanliness of the skin results in harmful effects. To allow the skin to become covered with impurities is just as much a choking process as constriction of the neck or compression of the waist.

3. Excretion. The skin is an organ of excretion, carrying out of the body, through the sweat, a large amount of impurities. This is evidenced by the fact that persons who eat large quantities of salt observe that the perspiration has a very saline taste, and it is

also known by the offensive odor soon acquired by the sweat if not removed by bathing.

4. **Temperature.** The skin performs a very important work in regulating the bodily temperature. The temperature of the interior of the body is always about one hundred degrees, although the surrounding temperature may vary from seven degrees below, to three hundred degrees above. It is through the action of the sweat glands and the evaporation of moisture from the skin that the body is enabled to endure the high degrees of temperature to which it may be subjected, for short periods at least, without injury.

5. **Sensibility.** The skin is an organ of sense, giving us information concerning the form and consistence of objects, their temperature, and also the degree of pressure which they exert. Sensibility to pain also serves as a warning to protect other organs of the body from injury.

The Kidneys.—Imbedded in the tissues of the body, at the back of the abdominal cavity, and a little below the stomach, are placed two of the most important organs of the body, the kidneys. These, though very unlike the skin in appearance, are in some respects closely related to it.

The kidney is chiefly made up of little round cells, from each of which runs a delicate tube. The tubes run from the outside of the organ inward, joining together to form larger tubes as they approach the center, where they communicate with quite a large cavity, from which a large tube, called the ureter, leads to the bladder. The business of the cells and tubes is to separate from the blood a fluid containing various poisonous substances.

Three Pounds of Brains.— The brain of an average man weighs about three pounds. A woman's brain, like her body, weighs a little less than that of a man. If we examine a speck of brain substance under the microscope, we find it to be largely composed of curious living cells, some of which look very much like a tadpole with a long tail; others, like a spider with legs projecting on all sides. Each of these little cells, half a thousand of which would be required to make a row an inch long, is a living creature, and has its particular work to do. If we examine with sufficient care, we shall find that the tails, or fingers, possessed by the little creature while in its natural position in the brain, before it has been torn from its surroundings, are immensely long, running to all parts of the body. Some of these fingers are so small that a hundred million of them would be required to make a bundle as thick as the thumb. Thousands of these fibers gathered together form the nerves and greater part of the spinal cord, by means of which the brain is connected with all parts of the body.

When a pin is thrust into the end of the finger, it gives pain because in the brain are little cells which send out long, hair-like fibers that end in the skin covering the part where the pin is applied. The cells in the brain recognize the pain, and refer it to the finger. These curious little organisms are called nerve cells.

Twelve Hundred Million Nerve Cells are supposed to be in the brain and spinal cord. These wonderful cells control the whole body. All the other organs of the body may be considered as simply servants of the brain. The little cells send out their long fingers to the muscles, glands, lungs, heart, stomach, liver, and all the other organs, and through them send

impulses to these various organs, by which they are made to act. Thus, when we wish to move the hand, the cells in the brain which communicate with the muscles of the arm, send down an order to the muscles to contract, and do our bidding. The heart beats, the lungs breathe, the liver makes bile,—all in obedience to the commands received from the nerve cells which preside over them. The nerve cells are divided into classes, each of which has its particular work to do.

Queer Thinking.—The principal business of nerve cells is to think and feel. The nerve cells found in the spinal cord are chiefly of two classes. One class receives impressions brought through their fibers from the outside of the body. These impressions they communicate to another class of cells, which, through their branches, send out impulses to the parts from which the impressions came, or to other parts, causing them to act. For example, when the bottom of the foot is tickled, the limbs draw up in spite of us. It does the same thing if we are asleep, or if the limb is paralyzed so that we cannot control it by the will. This is a very simple kind of thinking, which is done by the nerve cells of the spinal cord. There is a special collection of nerve cells in the enlarged upper end of the spinal cord, called the medulla, which does a little higher grade of thinking. These cells regulate the activity of the heart, bowels, liver, and other internal organs. At the base of the brain a large collection of nerve matter constitutes what is called the little brain, which has for its important function the duty of regulating the action of those nerve cells that control the muscles, so that the muscular movements may be orderly and able to accomplish what is desired of them.

Arranged at the under part of the brain are found

nerve centers having charge of the organs by which we are able to see, hear, smell, taste, etc. When we see objects, it is because impressions are received by the eye, and are carried by nerves to the cells at the base of the brain which have charge of the sense of sight, and which are thereby made to act. Whatever causes these cells to act, will give us the impression of light, as illustrated by the effect of a blow upon the head, or a fall upon the ice, which causes us to see stars, by communicating a shock to the nerve cells that have charge of the sight.

Overtopping all the rest of the nervous system is to be found the great brain, which does the highest kind of thinking of which we are capable. It is with this part of the brain that we are enabled to reason. Here is also located the memory and all the various mental and moral faculties. This portion of the nervous system was designed to rule all the rest. It is the organ of mind and of will.

Brain and Mind.—The next question, “What is the mind?” we do not need to discuss, more than to observe that it is the result of the action of the brain, the highest kind of thinking done by nerve cells. How brain action results in thought, we cannot understand; but it is also quite as difficult for us to understand how brain action results in muscular action, or in the manifestation of force of any sort. That the brain is the organ of mind, and that mind is the result of its activity, is evidenced by a number of important facts:

1. When the brain is injured by disease or by accident, the mind is impaired or destroyed, though the rest of the body may remain in comparative health. When the brain ceases to act, as in sound sleep, consciousness and mind action also cease.

2. The amount of intelligence which an animal is able to exhibit, depends upon the size of the thinking portion of the brain in proportion to its body. Man is the most intelligent of all animals, simply because he has more cells capable of thinking than any other animal. There are animals which possess a larger brain than man, but none in which the thinking portion of the brain is so great, in proportion to the size of the body. It is also observed that men whose brains are largest in proportion to their body, other things being equal, possess the greatest intelligence. For example, a man who has a four-pound brain is more likely to be a philosopher, or to be distinguished for great mental powers, than a man whose brain has only the average weight of three pounds; while a man whose brain weighs but two pounds, is certain to be an idiot.

Our Eyes.—Nearly all animals possess certain nerves which are sensitive to light. Even the jelly-fish, which has hardly any nerves, and certainly has no eyes, seems happiest in the sunlight, and is disturbed whenever a cloud passes over the sun.

Did you ever see a leech,—one of those curious creatures which the doctor sometimes applies to draw away a little blood from an inflamed part? If you should examine one of these strange animals, you would find, close to the little opening which constitutes its mouth, a circular row of minute red spots. These are its eyes. By examining one of these red spots with a microscope, it is found to consist of a little dark pigment, or coloring matter, over which is spread a thin, transparent skin. Between the colored and the transparent layers is placed a very delicate membrane, which contains the nerves of sight. These nerves pass

from the eye-spots back into the creature's little brain, where they unite with certain cells which have charge of the sense of sight.

The leech has the simplest kind of a seeing apparatus. The human eye is made upon essentially the same plan. The eyeball, as the round globe of the eye is called, has a dark colored lining at its back part, and a transparent membrane in front.

Just inside of the delicate lining is stretched out the membrane which contains the nerves of sight. The space between this and the transparent membrane in front is filled up with transparent substances through which the light readily passes. In front, and just behind the transparent portion, is placed a little curtain with a hole in the center, which contracts and enlarges according to the intensity of the light, so as to protect the delicate nerves of sight from injury upon exposure to light which is too bright.

A snail's eyes are perched up on two long stems which most people call feelers. When he wants to look in different directions, he simply twists his eye stalks around; and when he is frightened, he pulls them in and tucks them away in two little pockets in his head. Our eyes are set back in deep, bony sockets so as to be protected all the time, and we are less troubled caring for them.

Our Ears.—The little barnacle which passes its life clinging to the slimy bottom of some old ship, has the simplest kind of an ear imaginable. The organ in this animal is a little sac filled with fluid, which hangs in a chamber communicating with the surface, and filled with sea water. In the walls of this sac are distributed the nerves of hearing, for which, in its vegetable-like life, it can have very little use.

The ear of a fish consists of a small sac, containing two or three chalky masses called ear bones, placed in a chamber adjacent to a sac containing the ear fluid and nerves of hearing. The fish's ear is entirely enclosed in a hollow in the skull. It hears by means of the vibration of the water, which is communicated to the bones of its head, thence to the ear bones, and then from these to the delicate sac from which the nerves of hearing convey the impression to the brain.

The human ear, consisting of like essentials, is much more complicated in its structure. There is, within a hidden recess in the skull, a curiously shaped sac filled with fluid, and containing a number of minute ear stones. This sac is connected by means of a chain of bones with a vibrating membrane, which closes the end of the canal connected with the external organ ordinarily known as the ear. Sounds are produced by vibrations in the ear. These vibrations are gathered by the external ear, and cause vibration of the membrane, which, from its striking resemblance to that of a drum, is called the drum membrane. This vibration is carried by the chain of bones across the cavity in which they are placed, termed the drum cavity, to the delicate sac, within which are found the ear stones and the nerves of hearing. The little ear stones dance up and down upon the ends of the nerves, and produce sensations which are carried from the ear to the brain. The vibrations produced are known as sound.

The Nose.—The nose, one of the most conspicuous features of the face, though one of the most neglected organs of the body, is useful as well as ornamental, and worthy of at least a moment's notice. The primary office of the nose is to receive air to supply the lungs. For this purpose it has two openings in the face, which

communicate with the large nasal cavity, partially divided into two compartments by the septum of the nose, and which communicate at its back part through a single opening to the mouth, and thence with the air passages leading to the lungs.

On either side of the nasal cavity, three scroll-shaped projections, ranged one above the other, are to be found. The mucons membrane covering the uppermost of these projections, together with that which lines the other portions of the roof of the nasal cavity, contains the nerves of smell, by means of which we are able to distinguish odors. In civilized human beings, this sense is by no means as acute as in the lower animals and in members of savage tribes. This is undoubtedly due to the neglect to cultivate this important sense. It may also be attributed, in part at least, to the very general prevalence of nasal catarrh, which often results in partial or complete destruction of the sense of smell.

How and What We Taste.—The nerves of taste are located in the tongue and the back part of the mouth. Substances must be dissolved, to be tasted. The tongue, as well as the skin, is an organ of touch. Indeed, it is much more sensitive to touch than the skin. Substances which have an acrid, saline, or astringent flavor, like mustard, pepper, salt, etc., we do not taste, but feel. Many other substances which have a pronounced odor, are smelled rather than tasted.

SEX IN LIVING FORMS

LIFE, in its great diversity of forms, has ever been a subject of the deepest interest to rational beings. Poets have sung of its joys and sorrows, its brilliant phantasies and harsh realities. Philosophers have spent their lives in vain attempts to solve its mysteries; and some have believed that life was nothing more than a stupendous farce, a delusion of the senses. Moralists have sought to impress men with the truth that "life is real," and teeming with grave responsibilities. Physiologists have busied themselves in observing the phenomena of life, and learning therefrom its laws. The subject is certainly an interesting one, and none could be more worthy of the most careful attention.

Living Beings.—Man possesses life in common with other beings almost infinite in number and variety. The hugest beast that roams the forest or plows the main is no more a living creature than the smallest insect or microscopic animalculum. The "big tree" of California, and the tiny blade of grass which waves at its foot, are alike imbued with life. All nature teems with life. The practiced eye detects multitudes of living forms at every glance.

Microscopic Life.—The universe of life presents the most marvelous manifestations of the infinite power and wisdom of the Creator to be found in all his works. The student of biology sees life in myriad forms which

are unnoticed by the casual observer. The microscope reveals worlds of life that were unknown before the discovery of this wonderful aid to human vision,—whole tribes of living organisms, each of which, though insignificant in size, possesses organs as perfect and as useful to it, in its sphere, as do animals of greater magnitude.

Under a powerful magnifying glass, as previously stated, a drop of water from a stagnant pool is found to be peopled with curious animated forms; slime from a damp rock, or a speck of green scum from the surface of a pond, presents a museum of living wonders. Through this instrument the student of nature learns that life in its lowest form is represented by a mere atom of living matter, an insignificant speck of trembling jelly, transparent and structureless, having no organs of locomotion, yet able to move in any direction; no nerves or organs of sense, yet possessing a high degree of sensibility; no mouth, teeth, nor organs of digestion, yet capable of taking food, growing, developing, producing other individuals like itself, becoming aged, infirm, and dying,—such is the life history of a living creature at the lower extreme of the scale of animated being.

As we rise higher in the scale, we find similar little atoms of life associated together in a single individual, each doing its proper share of the work necessary to maintain the life of the individual as a whole, yet retaining, at the same time, its own individual life.

As we ascend to still higher forms, we find this association of minute living creatures resulting in the production of forms of increasing complicity. As the structure of the individual becomes more complex, and

its functions more varied, the greater is the number of separate, yet associated, organisms required to do the work.

In man, at the very summit of the scale of animate existence, we find the most delicate and wonderfully intricate living mechanism of all. In him, as in lower, intermediate forms of life, the life of the individual is but a summary of the lives of all the numberless minute organisms of which his body is composed. The individual life is but the aggregate life of all the millions of distinct individuals which are associated together in the human organism.

Animals and Vegetables.—The first classification of living creatures separates them into two great kingdoms, animal and vegetable. Although it is very easy to define the general characteristics of each of these classes, it is impossible to fix upon any single peculiarity which will be applicable to every case. Most vegetable organisms remain stationary; while some possess organs of locomotion, and swim about in the water in a manner much resembling the movements of certain animals. Most vegetables obtain their nutriment from the earth and the air, while animals subsist on living matter. A few plants seem to take organic matter for food, some even catching and killing small insects.

It is found impossible to draw the precise line between animals and vegetables, for the reason just mentioned. The two kingdoms blend so intimately that in some cases it is impossible to tell whether a certain microscopic speck of life is an animal or a vegetable. But since these doubtful creatures are usually so minute that several millions of them can exist in a single drop of water, it is seldom of practical importance whether they are animal or vegetable, or sometimes

one and sometimes the other, as they have been supposed to be by some biologists.

Protoplasm.—All living creatures are *organized* beings. Most possess a structure and an organism more or less complicated; but some of the lowest forms are merely little masses of transparent, homogeneous jelly, known as protoplasm. Some of the smallest of these are so minute that one hundred millions of them could occupy the space of a cube one-thousandth of an inch on each side; yet each one runs its course of life as regularly as man himself, performing its proper functions even more perfectly, perhaps.

Life Force.—To every thinking mind the question often recurs, What makes the fragrant flower so different from the dead soil from which it grows? the trilling bird so vastly superior to the inert atmosphere in which it flies? What subtle power paints the rose, and tunes the merry songster's voice? To explain this mystery, philosophers of olden time supposed the existence of a certain peculiar force, which is called life, or vital force, or vitality.

This supposition does nothing more than furnish a name for a thing unknown, and the very existence of which may fairly be doubted. In fact, any attempt to find a place for such a force, to understand its origin, or harmonize its existence with that of other well-known forces, is unsuccessful.

REPRODUCTION

Nutrition and *reproduction* are the two great functions of life, being common, not only to all animals, but to both animals and plants, to all classes of living creatures. The object of the first is the development and maintenance of individual existence; the second has for its end the production of new individuals, or the preservation of the race. Nutrition is a purely selfish process; reproduction is purely unselfish in its object, though the human species, unlike humbler creatures, which while less intelligent, are far more true to nature, too often pervert its functions to the most grossly selfish ends.

Reproduction Common to All Living Things.—As before remarked, reproduction is a function common to all animals and to all plants. Every organized being has the power to reproduce itself, or to produce, or aid in producing, other individuals like itself. It is by means of this function that plants and animals increase or multiply.

When we consider the great diversity of characters illustrated in animal and vegetable life, and the infinite variety of conditions and circumstances under which organized creatures exist, it is not surprising that modes of reproduction should also present great diversity, both in general character and in detail. We shall find it interesting and instructive to consider some of the many different modes of reproduction, or generation, observed in different classes of living beings, previous to entering upon the specific study of reproduction in man. Before doing this, however, let us give brief attention to a theoretical form of generation, which cannot be called reproduction, known as—

Spontaneous Generation.—By this term is meant the supposed formation of living creatures directly from dead matter without the intervention of other living organisms. The theory is, in substance, an old one. The ancients supposed that the frogs and other small reptiles so abundant in the vicinity of slimy pools and stagnant marshes, were generated spontaneously from the mud and slime in which they lived. This theory was, of course, abandoned when the natural history of reptiles became known.

For several thousand years the belief was still held that maggots found in decaying meat were produced spontaneously; but it was discovered, centuries ago, that maggots are not formed if the flesh is protected from flies, and hence must be the larvæ of a species of this insect. A relic of the ancient belief in spontaneous generation is still found in the supposition that horse-hair snakes, so-called, are really formed from the hairs of horses. This belief is quite common, but science long ago exposed its falsity. It is now known that the horse-hair snake is a parasitic worm, which spends part of its existence in the stomach of a certain species of beetle. After beginning its independent existence, it frequents moist places, such as stagnant pools by the road-side, watering troughs, etc. When the water dries up, the horse-hair snake becomes dry and apparently lifeless, and shrivels up, so that it is not readily discovered. A new rain moistens the little creature, and brings it into active life again so suddenly that it seems like a new creation, or, according to the popular opinion, appears to be converted from a dead hair into a living snake.

Germs.—When the microscope was discovered, it revealed a whole new world of infinitesimal beings.

known as germs, or *bacteria*, which were at first supposed to be of spontaneous origin; but careful scientific investigation has shown that even these mere specks of life are not independent of parentage. First, M. Pasteur and, later, Professor Tyndall, with many other distinguished scientists, demonstrated this fact beyond all reasonable chance for question.

One fact which gave rise to the belief in the spontaneous origin of germs, is their remarkable vitality. These microscopic specks of life have been known to stand a temperature of ten degrees below zero, and considerably above the boiling point of water. A sufficiently high degree of heat, however, or long-continued boiling, was proved by M. Pasteur to be fatal to them, and by this means the doctrine of spontaneous generation was overthrown.

It is, then, an established law, that *every living organism originates with some previously existing living organism or organisms.*

Origin of Life.—The testimony of all nature, as almost universally admitted by scientific men, is that life originated through a creative act by the first great Cause, who gave to certain bodies the requisite arrangement or organization to enable them to perform certain functions, and delegated to them the power to transmit the same to other matter, and thus to perpetuate life. The Creator alone has the power to originate life. Man, with all his wisdom and attainments, cannot discover the secret of organization. He may become familiar with its phenomena, but he cannot unravel, further, the mystery of life. The organization of dead matter into living substance is carried on through the lower class of living or organized bodies, those known as vegetable organisms, or plants.

Simplest Form of Generation. — Deep down beneath the waters of the ocean, covering its bottom in certain localities, is found a curious slime, which, under the microscope, is seen to be composed of minute rounded masses of gelatinous matter, or protoplasm, mentioned in a previous chapter. By watching these little bodies intently for a few minutes, the observer will discover that each is a living creature, capable of moving, growing, and assuming a variety of shapes. Continued observation will reveal the fact that these little creatures multiply; and a more careful scrutiny will enable him to see *how* they increase. Each divides into two equal parts so nearly alike that they cannot be distinguished when apart. In this case, the process of generation is simply the production of two similar individuals from one.

Low Forms of Life. — A small quantity of slime taken from the surface of a stone near the bottom of an old well, or on the sea-side, when placed under the microscope, will sometimes be found to contain large numbers of small, round, living bodies. Careful watching will show that they also multiply by division; but before the division occurs, two cells unite to form one by a process called *conjugation*. Then, by the division of this cell, instead of only two cells, a large number of small cells are formed, each of which may be considered as a bud formed upon the body of the parent cell, and then separated from it, to become by growth an individual like its parent, and, like it, to produce its kind. In this case, we have new individuals formed by the union of two individuals which are to all appearance entirely similar in every particular.

Sex. — Rising higher in the scale of being, we find that, with rare exceptions, reproduction is the result of

the union of two dissimilar elements. These elements do not, in higher organisms, as in lower forms of life, constitute the individuals, but are produced by them; and being unlike, they are produced by special organs, each adapted to the formation of one kind of element. The two classes of organs usually exist in separate individuals, thus giving rise to distinctions of *sex*, an individual possessing organs which form one kind of element being called a male, and one possessing organs for the formation of the other kind of element, a female. The sexual differences between individuals of the same species are not, however, confined to the sexual organs. In most classes of plants and animals, other sexual differences are very marked. In some of the lower orders of animals, and in many species of plants, the male and female individuals are so much unlike that for a long time after they were well known, no sexual relation was discovered.

In some species of plants, as for example the pond scums, there is apparently no distinction of sex; and yet a union of two distinct individuals is necessary for fecundation; and there is reason to believe that these two individuals, though apparently in no way dissimilar, presenting under the microscope complete identity of appearance, are really sexually distinct, one being male and the other female.

Hermaphrodisism.—An individual possessing both male and female organs of reproduction, is called a *hermaphrodite*. Such a combination is very rare among higher animals; but it is by no means uncommon among plants and the lower forms of animal life. The snail, the oyster, the earthworm, the barnacle, and the common tapeworm are examples of true hermaphrodites. So-called human hermaphrodites are usually individu-

als in whom the sexual organs are abnormally developed, so that they resemble those of the opposite sex, though they really have but one sex, which can usually be determined with certainty. Only a very few cases have been observed in which both male and female organs were present.

There was recently living in Germany an individual who bears the name of a woman; but learned physicians have decided that the person is as much man as woman, having the organs of both sexes. What is still more curious, this person has the feelings of both sexes, having loved first a man, and afterward a woman. There have been observed, also, a very few instances of individuals in whom the sexual organs of neither sex were present. It thus appears that a person may be of both sexes, or of no sex at all.

Sex in Plants.—To one unacquainted with the mysteries of plant life and growth, the idea of attaching sexuality to plants seems very extraordinary; but the botanist recognizes the fact that the distinctions of sex are as clearly maintained in the vegetable as in the animal kingdom. The sexual organs of the higher orders of plants are flowers. That part of the flower which produces seeds, answers to the female; another part, which is incapable of forming seeds, answers to the male. The fertile and the sterile flowers are sometimes produced on separate plants. Very frequently, they are produced upon separate parts of the same plant, as in the oak, walnut, and many other forest trees and Indian corn. In the latter plant, so familiar to every one, the “tassel” contains the male flowers, and the part known as the “silk,” with the portion to which it is attached,—which becomes the ear,—the female, or fertile flowers. In a large number of species,

the male and female organs are combined in a single flower, making a true hermaphrodite.

Sex in Animals.—As previously remarked, individuals of opposite sex usually differ much more than in the character of their sexual organs. Among higher animals, the male is usually larger, stronger, and of coarser structure than the female. The same contrast is observed in their mental characters. With lower animals, especially insects, the opposite is often observed. The female spider is many times larger than the male. The male ant is small in size when compared with the female. Nevertheless, in all classes of animals, the difference in the structure and the functions of the sexual organs is the chief distinguishing characteristic. These differences are not so great, however, as they might at first appear. The male and female organs of reproduction in man and other animals, which seem so dissimilar, when studied in the light shed upon this subject by the science of embryology, are found to be wonderfully alike in structure, differing far more in appearance than in reality, and being little more than modifications of one general plan. Every organ to be found in the one sex has an analogue in the other which is complete in every particular, corresponding in function, in structure, and usually in position.

Other Sexual Differences.—In this country there is between three and four inches' difference in height, and about twenty pounds' difference in weight between the average man and the average woman, the average man being about five feet, eight inches in height, and weighing one hundred and forty-five pounds; while the average woman is five feet, four and one-half inches in height, and weighs one hundred and twenty-five pounds. The relation of the sexes in height and weight



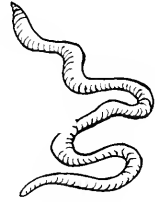
The Oak



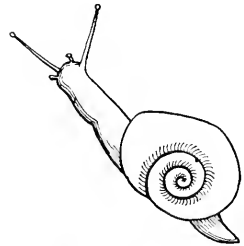
The Walnut.



Both Sexes in One Plant



Earth Worm



Snail



Barnacles.

Both Sexes in One Creature



varies in degree in different countries, but is never changed. The average height and weight of American men and women is considerably above that of the average human being.

Men and Women Differ in Form.—The differences in form are so marked that it is possible for the skilled anatomist to determine the sex of a human being who has been dead for ages, by an examination of the skeleton alone. In man, the shoulders are broad, the hips narrow, and the limbs nearly straight with the body. In woman, the shoulders are narrow and usually rounded, and set farther back, the collar-bone being longer and less curved, giving the chest greater prominence; while the hips are broad.

The consequence of these differences is that woman is generally less graceful and naturally less skilful in the use of the extremities than man, and hence less fitted for athletic sports and feats requiring great dexterity. A girl throws a stone awkwardly, less from want of practice than from a natural peculiarity of physical structure. A woman walks less gracefully than a man, owing to the greater relative breadth of her hips, requiring a motion of the body together with that of the limbs. In consequence of this peculiarity, a woman is less fitted for walking long distances.

The Male and the Female Brain.—But there are other important physical differences to which we must call attention. As previously stated, man possesses a larger brain than woman, but woman possibly makes up the deficiency in size by superior quality. The feminine brain differs from the masculine in other particulars so marked that one who has given the subject attention can determine with perfect ease the probable sex of the owner of almost any skull which might be

presented to him. This difference in the conformation of the skull is undoubtedly due to a difference in mental character, which, in turn, depends upon a difference in cerebral development.

There has been much discussion as to which sex possesses the stronger brain. The fact that the brain of the average woman weighs but forty-two ounces, while that of the average man weighs forty-nine ounces, has been stated as evidence that there is a corresponding difference in mental capacity. Those who advocate this theory seem to have lost sight of the fact that size alone is by no means a measure of power. The elephant possesses a much larger brain than the largest human brain ever weighed, and yet the intelligence of the elephant, remarkable as it is for a beast, is infinitely inferior to that of man. Quality as well as quantity must be taken into consideration, and it must be shown that the physical organization of man is finer in quality than that of woman, before the claim of superiority can be established. It is certainly reasonable to suppose that the female brain, as well as the female bones and muscles, is of a finer texture and more delicate organization, and hence is possessed of greater intelligence than the male brain of equal size.

But the most remarkable fact of all, and one which seems to have escaped the attention of those who have written upon this subject, is that the comparison of the male and female brains has been made without regard to the relative average sizes of male and female bodies. The average man is larger than the average woman; he has larger bones, larger muscles, and in all respects a much larger development; while the average woman possesses small bones and muscles, though having a larger proportion of adipose tissue. But the average

woman's brain, while smaller than that of the average man, is really larger in proportion to her body.

Thus it appears that in an argument based upon brain work irrespective of quality, woman has the advantage; and if it be granted that to this superior relative size of brain is added superior quality, the weight of argument predominates in favor of superior mental capacity in woman rather than in man.

From the author's standpoint, however, all these arguments are unnecessary. That the brain of the average woman differs in quality from the brain of the average man, is a fact too patent to require argument for its support. Each class of minds has its sphere, and is in its sphere superior. Men are undoubtedly best fitted for their sphere in life, and women for theirs; and yet it is undoubtedly true that among women there are to be found numerous exceptions, some seeming to be adapted for muscular rather than feminine pursuits, and others being vastly better fitted for some of the vocations in life which are monopolized by men to a great extent, than are some men.

Vital Organs of Man and Woman.—The anatomist also observes an interesting difference in the size of the various vital organs. For example, while a woman has a heart proportionally smaller than the same organ in man, she has a larger liver, larger kidneys, and larger bowels and spleen. Thus, while less fitted for severe physical exertion, she has superior digestive and excretory functions.

Woman Less Muscular, More Enduring.—This peculiarity of structure is perfectly harmonious with the fact which experience has established so often as to make the matter no longer a question, that woman is less fitted for severe muscular exertion than man,

but possesses in a superior degree the quality known as *endurance*. With a less robust frame, a more delicately organized constitution, she will endure for months what would kill a robust man in as many weeks. More perfect elimination of the wastes of the body secures a higher grade of vitality. On no other hypothesis could we account for the marvelous endurance of the feminine part of the civilized portion of the human race, ground down under the heel of fashion for ages, "stayed," "corseted," "laced," and thereby distorted and deformed in a manner that would be fatal to almost any member of the masculine sex.

A Pathological Difference.—Nearly all physiologists mention another particular in which woman differs materially from man; viz., in naturally employing, in respiration, chiefly the upper part of the lungs, while man breathes chiefly with the lower part of the lungs. For several years, we have carefully studied this question, and we have been unable to find any physiological or anatomical reason sufficient to account for this fact, if it be such.

Why a Woman Does Not Breathe Like a Man.—It is undoubtedly true that most women do breathe almost exclusively with the upper part of the chest; but whether this is a *natural* peculiarity, or an acquired, unnatural and depraved one, is a question which we are decidedly inclined to answer in harmony with the latter supposition, basing our conclusion on the following undeniable facts:

1. In childhood, and until about the age of puberty, respiration in the boy and the girl is exactly the same.
2. Although there is a change in the mode of respiration in most females, usually soon after the period of puberty, marked by increased intercostal respiration

and diminished abdominal or deep respiration, this change can be accounted for on other than physiological grounds.

3. We believe the cause of this modification of respiration is the change in dress which is usually made about that time. The young girl is now becoming a woman, and must acquire the art of lacing, wearing a corset, "stays," and sundry other contrivances which will aid in producing a "fine form," by distorting and destroying all natural grace and beauty in the "form divine."

4. We have met a number of ladies whose good fortune and good sense had delivered them from the distorting influence of corset-wearing and tight-lacing, and we have invariably observed that they are capable of as deep respiration as men, and practice it naturally.

We are thoroughly convinced that this so-called physiological difference between man and woman is really a pathological rather than a natural difference, and is due to the evils of fashionable dress, which we have exposed at some length in another work exclusively devoted to that subject.* In short, we believe that the only reason why women do not, under ordinary circumstances, breathe as do men, is simply *because they cannot breathe naturally.*

The Reproductive Elements.—As has been previously observed, in all except the very lowest forms of life, two elements are necessary to the production of a new individual, or a reproduction of the species, —a male element and a female element. The special organs by means of which these elements are produced, brought together, and developed into the new individual in a more or less perfect state, are termed *sexual organs*. As an introduction to the specific study of

the sexual organs in the human species, let us briefly consider the—

Sexual Organs of Plants.—Flowers are the sexual organs of plants. Nothing is more interesting in the natural world than the wonderful beauty, diversity, and perfect adaptability to various conditions and functions, which we see in the sexual parts of plants. An exceedingly interesting line of study, which has occupied the attention of many naturalists, is the wonderful perfection displayed in the adaptability of the male and female parts of plants to each other. Without burdening the reader with unnecessary technicalities of detail, we will briefly notice the principal parts of vegetable sexual organs as illustrated in flowers.

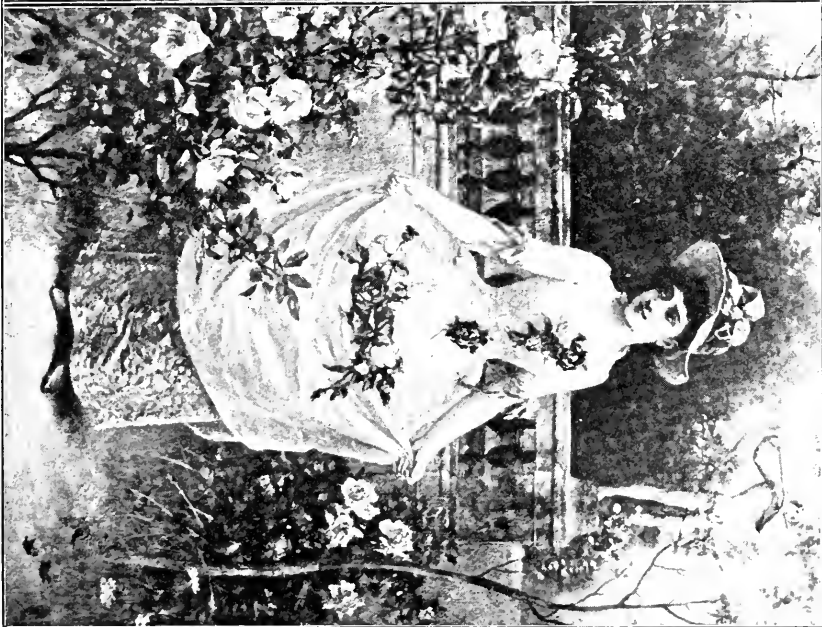
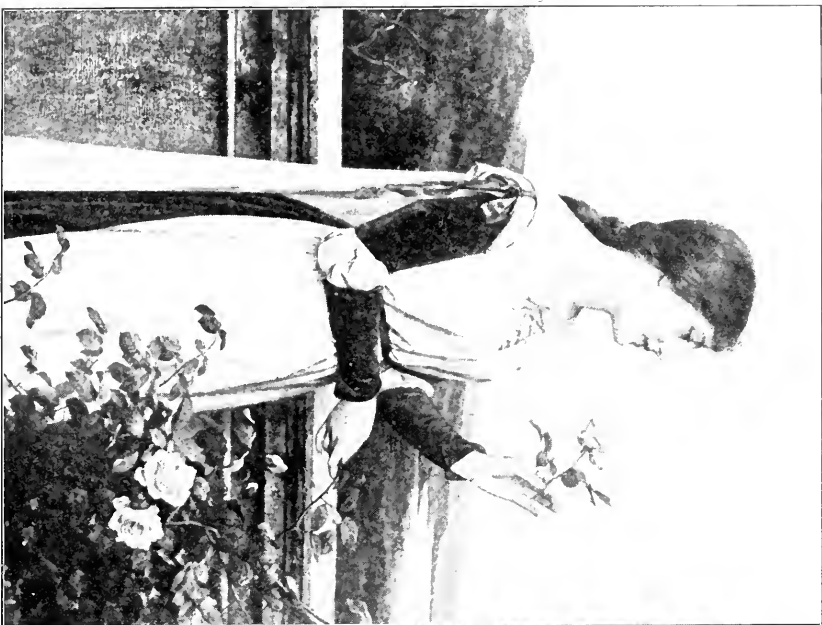
Complete flowers are made up of four parts, two of which, the *stamen* and *pistil*, are essential, while the other two, the *calyx* and *corolla*, are accessory.

The *calyx* is that part which surrounds the flower at its outer and lower part. It varies greatly in form and color, but is most frequently of a green or greenish color.

Just within the *calyx* is the *corolla*, which usually forms the most attractive, showy and beautiful part of the flower. The beautifully colored petals of the rose, geranium, dahlia and other similar flowers form their corollas.

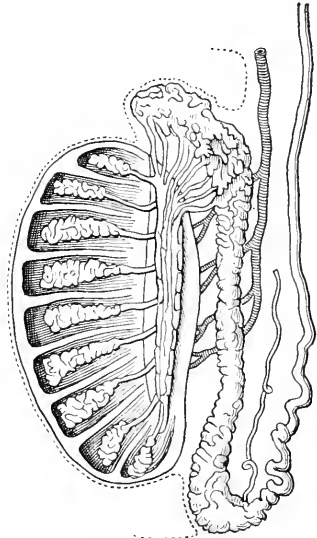
Vegetable Husbands.—Within the cup formed by the *calyx* and *corollas* are placed the *stamen* and *pistils* of the flower, the first being the male organs proper, and the second the female organs of the flower.

The *stamen* is composed of a stem, or filament, at the summit of which are placed two little sacs, called the *anther*, containing a fine, microscopic dust, the *pollen*, which contains the male reproductive element

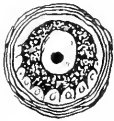




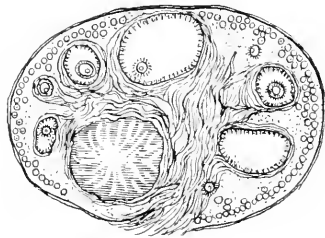
Spermatozoa .



*Male Sexual Gland
Vertical Section .*



Ova



*Female Sexual Gland
Transverse Section .*

of the flower. This part of the plant corresponds to the male organ of reproduction in animals. A stamen has been called, not inaptly, a vegetable husband. Some flowers have many stamens, or vegetable husbands, which reminds us of the custom in Thibet and some other Eastern countries which allows a woman to have several husbands.

Polygamous Flowers.—The great naturalist, Linnaeus, whose name was immortalized by his careful study and classification of organized life, made the number of stamens possessed by various flowers the basis of a systematic classification.

For example, a flower having but one stamen was classed as *monandria*, which means, literally, one husband; one having two stamens was classified as *dian-dria*; flowers having a large number of male organs were termed *polyandria*, or many husbands.

The Female Organs of Flowers.—The *pistil* occupies the very center of the flower. It produces and contains in a cell, the female element, termed the *ovule*. It is surmounted by the *style* and the *stigma*.

A series of plants in which the sexual organs are not visible to the eye are called *cryptogamia*, which means, literally, hidden marriages.

As we proceed to study the anatomy of the human sexual apparatus, we shall be constantly struck with the remarkable correspondence between animals and vegetables in the structure and functions of the sexual apparatus.

Sexual Organs of Animals.—The male reproductive element is called *spermatozoon*, or *zoosperm*. The female element is called an *ovum*, literally, an egg.

The Spermatozoon.—The male reproductive element of animals is formed by an organ called the *testis*,

or *testicle*, of which each male possesses two. They are elastic, glandular bodies, and are formed within the cavity of the abdomen, near the kidneys, but usually pass out of the abdominal cavity, and descend to their permanent position before birth. The opening in the abdominal wall is usually completely closed in a short time; but occasionally it remains open, giving rise to hernia, an accident in which a loop of intestine follows the testicle down into the scrotum, either completely or partially. In a few animals, as in the porcupine, the opening is never fully closed, and the testis remains in the cavity of the body most of the time, passing out only at certain periods. There are occasional cases of human beings in which the testes have never descended from their place in the abdominal cavity, giving the individuals the appearance of eunuchs.

When the testicles are thus retained, they are usually imperfectly developed, and consequently the person is likely to be sterile. This is not always the case, however, and hence it occurs that men who apparently have no testicles, become the fathers of children.

In the whale, the elephant, and the seal, the testicles remain permanently within the abdominal cavity, though in most animals they are supported outside the body in a sac, as in man.

The left testicle is sometimes a little smaller than the right, and commonly hangs a little lower. The testicles are connected with the urinary passage by means of two ducts, which terminate near the base of the bladder.

Spermatozoa.—A single spermatozoon somewhat resembles a tadpole in appearance, having, however, a much longer tail in proportion to the size of the body.

Human spermatozoa are about one-six-hundredth of an inch in length. Those of reptiles are very much larger. One of the remarkable features of these minute elements is their peculiar movements. While alive, the filamentous tail is in constant action in a manner strongly resembling the movements of the caudal appendage of a tadpole. This wonderful property led the earlier observers to believe that they were true animalcula. But they are not to be regarded as such, though one can scarcely make himself believe otherwise while watching their lively evolutions, and apparently volitional movements from one point to another.

Spermatozoa originate in the testis as cells, which are filled with granules. After a time, each granule acquires a long appendage, and then the cell has become converted into a bundle of small zoosperms. Development still continues, until finally the thin pellicle on the outside of the bundle is ruptured, thus liberating the spermatozoa, which speedily complete their full development. The spermatozoon is pure protoplasm, which is the basis of all life, and its power of spontaneous motion is due to this fact.

In man, the formation of spermatozoa continues with greater or less rapidity from puberty to old age, though at the two extremes of existence they are imperfectly developed. When not discharged from the body, they are said to be absorbed.

It is asserted by good authorities that the reproductive element in man is not sufficiently developed to be really fit for the reproduction of the species before the age of twenty-four or twenty-five. After the age of fifty, this element deteriorates in quality, and is again unfitted for vigorous procreation.

The fully developed zoosperms are suspended in a transparent, gelatinous fluid, which, mingled with the secretion of the prostate gland and other fluids which it meets during its expulsion from the body, constitutes the *semen*.

The Ovum.—The female element of generation, the *ovum*, is produced by an organ called the *ovary*, of which there are two in each individual. In size and form, the ovary closely resembles the testicle. Like the latter organ, also, it is formed within the body early in the process of development; but instead of passing outward and downward, as does the testicle, it remains within the abdominal cavity, suspended in place by ligaments. It is connected with a duct, which receives the ovum as it is discharged, and conveys it to the uterus.

The human ovum varies in size from one two hundred and fortieth to one one hundred and twentieth of an inch in diameter, and consists of a single cell.

Ovulation.—Ova are not formed in such large numbers as zoosperms. As a general rule, in the human female, a single ovum is developed and discharged once in about four weeks, during the period of sexual activity. This view is disputed by some physiologists, who claim that ovules are constantly being formed and thrown off, not only during that period of a woman's life during which child-bearing occurs, but prior and subsequent to the child-bearing period. The development of the ovaries is symmetrical in all the higher classes of animals, with the exception of birds, in whom the right ovary is usually atrophied or undeveloped, allowing room for the egg produced by this class of the animal kingdom.

Fecundation.—It is often asked, and the question has elicited some discussion, Which is the principal

reproductive element, the zoosperm or the ovum? The ancients supposed the male element to be the essential element, being simply nourished and developed by the female; but modern research in biological science does not sustain this view. Probably neither one enjoys special pre-eminence; for neither can undergo complete development without the other. In very rare cases, the ovum has been observed to undergo a certain amount of development of itself; but a perfect individual can be produced only by the union of the two kinds of elements,—a process known as *fecundation*.

The fact that the spermatozoa are swallowed up and lost in the ovule, would rather indicate that the spermatozoa are inferior in physiological importance to the ovule, and that their chief action is to stimulate the ovule to active growth and complete development.

The instant the union between the ovum and spermatozoa occurs, the life of a new individual begins. All the changes which result between that moment and the birth of the individual are those of development only. Indeed, the same existence continues from the instant of the union of the two elements, not only until birth, but through growth, the attainment of maturity, the decline of life, and even until death.

It is interesting to observe the different methods by which fecundation is effected, in both plants and animals; for this is a process common to both.

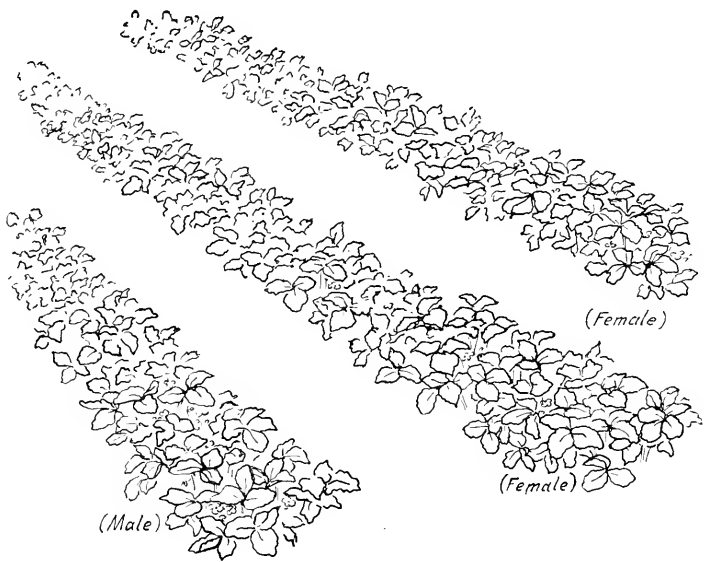
Fecundation in Flowers.—The great naturalist, Linnæus, was the first to explain the reproductive process in plants. He tells us that “the flower forms the theater of their amours; the calyx is to be considered as the nuptial bed; the corolla constitutes the curtains; the anthers are the testes; the pollen, the fecundating fluid; the stigma of the pistil, the external gen-

ital aperture; the style, the vagina, or the conductor of the prolific seed; the ovary of the plant, the womb; the reciprocal action of the stamens on the pistil, the accessory process of fecundation.

Thus marvelous is the analogy between the reproductive organs and their functions in plants and animals. Through this one vital process we may trace a close relation between all the forms of life, from the humblest plant, or even the mere specks of life which form the green scum upon a stagnant pool, to man, the masterpiece of creation, the highest of all animate creatures. In all the realm of nature there can be found no more remarkable evidence of the infinite skill and wisdom of the Creator of all things.

In many instances, the action of plants seems almost to be prompted by intelligence. At the proper moment, the corolla contracts in such a way as to bring the stamens nearer to the stigma, or in contact with it, so as to insure fecundation. In some aquatic plants, the flowers elevate themselves above the surface of the water while the process of fecundation is effected, submerging themselves again immediately afterward.

Other very curious changes occur in flowers of different species during the reproductive act. The stigma is observed to become moistened, and even to become distinctly odorous. Often, too, it becomes intensely congested with the juices of the plant, and sometimes even acquires an uncommon and most remarkable degree of contractility. This is the case with the stigma of the tulip and one variety of sensitive plant, and in these plants it is observed to occur not only after the application of the pollen to the stigma, but when excited by any other means of stimulation. The flowers of some plants, during and after fecundation, also show



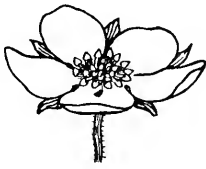
Strawberries.



Melon.



Willow.



(Male)

Strawberry



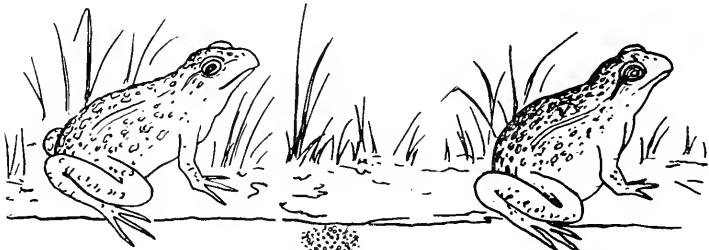
(Female)



"The Marriage Priests of Flowers "



Spawn



Eggs

an increase of heat, in some cases so marked as to be readily detected with the thermometer. This is said to be especially the case with the *arum* of Italy.

In some plants in which the pistil is longer than the stamens, thus elevating the stigma above the anthers, the female organ is often observed to bend over and depress itself, so as to come within reach of the anthers.

In most instances, the fecundation of flowers is chiefly effected through a purely mechanical process, though in these cases, also, we see a wonderful adaptation of parts to conditions.

Natural Adaptations.—When the male and female parts of flowers are situated on different plants, as in the case of the willow, the poplar, the melon vine, and many other species, the pollen of the male flower is wafted by the wind or a gentle breeze to the stigma of the female flower, which will usually be found at no very great distance, although fertilization may take place in this way at very considerable distances. Bees, moths, and many other species of insects serve a very important purpose in this work, transporting the fertilizing dust upon their wings, antennæ, sucking tubes and feet. Small birds, and even the humble snail, which would scarcely be credited with any useful function, are also very serviceable in the same direction. The part performed by insects in the reproductive process of many plants is so great that they have been very poetically termed “the marriage priests of flowers.”

Nature provides for thorough fecundation in these cases, by placing the plants which bear the male and the female flowers near each other. This fact accounts for the unproductiveness of certain varieties of strawberries, unless mixed with plants of some other vari-

ety, it being well known to nurserymen that some varieties produce the female parts of flowers almost exclusively.

Curious Modes of Fecundation in Animals.—The modes by which fecundation is effected in animals are still more various and wonderful than in plants. In some of the lower animals, as in most fish and reptiles, both elements are discharged from the bodies of the parents before coming in contact, there being no contact of the two individuals. In this class of animals the process is almost wholly analogous to fecundation in those plants in which the male and female flowers are on different plants or on different parts of the same plant. In the female fish, a larger number of ova are developed at a certain season of the year, known as the spawning season. Sometimes the number reaches many thousands. At the same time, the testicles of the male fish, which are contained within the abdominal cavity, become distended with developed zoosperms. When the female seeks a place to deposit her eggs, the male closely follows; and as she drops them upon the gravelly bottom, he discharges upon them the zoosperms, by which they are fecundated. According to the testimony of an eye-witness, the waters of the North Sea are in some places turbid with the eggs of codfish during the spawning season.

The process is analagous in some species of frogs. When the female is about to deposit her eggs, the male mounts upon her back, and rides about until the eggs are all deposited, discharging upon them the fertilizing spermatozoa as they are laid by the female.

The male frog is enabled to maintain its hold during the long period occupied by the female in laying eggs, by means of an extra development upon the first toe

of each forefoot, which occurs at this period. At the end of the breeding season, these temporary thumbs, being no longer needed, disappear.

In some species in which internal impregnation occurs, there is no contact between the species, but by some means not yet understood, the spermatozoa discharged by the male find their way into the internal passages of the female, where the ovules are impregnated.

In serpents, fecundation occurs by mere contact of the sexual organs. In snails, which have already been mentioned as hermaphrodite animals, each individual possessing in a perfectly developed state both male and female organs, internal fecundation occurs after a very curious fashion, thus described by the eminent naturalist, Prof. T. R. Jones, F. R. S., of London:

“The manner in which they copulate is not a little curious, their union being accompanied by preparatory blandishments of a very extraordinary kind, that to a spectator would seem rather like a combat between mortal foes than the tender advances of two lovers. After sundry caresses between the two parties, during which they exhibit an animation quite foreign to them at other times, one of the snails unfolds from the right side of its neck, where the generative orifice is situated, a wide sacculus, which, by becoming everted, displays a sharp, dagger-like spiculum, or dart, attached to its walls. Having bared this singular weapon, it endeavors, if possible, to strike it into some exposed part of the body of its paramour, who, on the other hand, uses every precaution to avoid the blow, by speedily retreating into its shell. But, at length, having received the love-inspiring wound, the smitten snail prepares to retaliate, and in turn uses every

effort to puncture its assailant in a similar manner. The darts are generally broken off in this encounter, and either fall to the ground, or remain fixed in the wounds which they have inflicted. After these preparatory stimulations, the snails proceed to more effective advances. The sac of the dart is withdrawn into the body, and another sacculus is by a like process protruded from the common generative aperture. Upon the last-named organ, two orifices are seen, one of which leads to the female generative system, while from the other a long and whip-like penis is slowly unfolded, being gradually everted like the finger of a glove, until it attains the length of an inch or more. Then each of the two snails impregnates its partner, and is itself impregnated at the same time."

In the oyster, another hermaphrodite, self-fecundation occurs. In the argonaut, a species of cuttle-fish, fecundation is effected in a most extraordinary manner. The male, which is smaller than the female, has upon the left side of its body a little sac, in which grows a coiled-up, worm-like arm covered with suckers. This arm is really a sac, which communicates with the testes, and contains spermatozoa. On reaching full development, and becoming filled with spermatozoa, this curious arm detaches itself from the body of the argonaut, and begins an independent life. Floating through the water, it by and by finds a female argonaut, with which it connects itself, and impregnates it with the spermatozoa transported from the male.

In the tapeworm, a parasitic creature which is found in the human digestive canal, a very curious form of fecundation has been noted. When liberated from the egg, it consists simply of a head with hooks, by which it attaches itself to the mucous membrane of the

intestines. From the head grows out a body, which shortly divides into segments, which gradually increase in number and size. Each section contains both male and female sexual organs, and is self-fecundating. After a time, the older segments become detached, and lead independent lives, until all the ovules they contain have been deposited. It has been established that more than twenty thousand eggs are produced by a single worm.

In higher orders of animals, fecundation takes place within the generative passages of the female by contact between the male and female organs. To effect this, there are necessitated certain accessory organs, the *penis* in the male and the *vagina* in the female.

Nothing in all the range of nature is more remarkable than the adaptation of the two varieties of sexual organs in each species. This necessary provision is both a powerful means of securing the perpetuation of the species, and an almost impassible barrier against amalgamation.

The act of union, or sexual congress, is called *coitus*, or *copulation*. It is accompanied by a peculiar nervous spasm, due to the excitement of special nerves principally located in the *penis* in the male, and the *clitoris* and *vagina* in the female. The nervous action referred to is more exhausting to the system than any other to which it is subject.

Union of the Ovum and Zoosperm.—The zoosperms not only come in contact with the ovum, but penetrate the thin membrane which incloses its contents, and enter its interior, where they disappear, becoming united with its substance. In the ova of certain fishes, small openings have been observed, through which the spermatozoa find entrance. Whether such openings

exist in human ova, is an undecided question; but it is probable that they do.

Curious Modes of Reproduction.—A peculiar kind of reproduction is observed in a variety of polyp, a curious animal which very much resembles a flower in appearance. It attaches itself to some solid object, and then, as it grows, sends out little protuberances resembling buds. Some of these separate and fall off, swimming about as separate animals. These never become like the parent polyp; but they lay eggs, which hatch, and become stationary polypi, like their grandparent, and in their turn throw off buds to form swimming polypi. In this case we have two kinds of generation combined, alternating with each other.

Parthenogenesis.—Plant-lice afford a curious illustration of a similar generation, known as *parthenogenesis*. Males and females unite, and produce eggs. The creatures produced by the hatching of eggs are neither males nor perfect females. They are *imperfect females*. They are all alike, so that no sexual union occurs. Instead of laying eggs, they produce live young like themselves, which appear to be developed from internal buds similar to the external buds of the polyp. After this method of reproduction has continued for nine generations, a few perfect individuals appear, and the first process is repeated. While this budding process has been going on, the original insect has continued laying; and so great is the rapidity of this form of reproduction that it has been estimated that even at the end of the fifth generation, a single insect may be the great great grandmother of nearly six billion young ones.

The common honey-bee affords another illustration like the last. A virgin queen sometimes lays eggs,

which always produce males, or drones. After union with a male, she lays eggs in the royal cells, and these become perfect females like herself. She also seems to have the power to lay, at will, unfecundated eggs, from which drones are produced.

An analogous mode of reproduction prevails among certain species of worms, which multiply by simple division of the body, one portion producing the head, and the other the tail. The individuals thus produced have no sex, and may be called neuters. They go on and on reproducing in this way for several generations, until finally a new individual is produced which is sexually complete and reproduction by means of eggs is again begun.

Human Beings Are Developed Buds.—It has been very aptly suggested by an eminent physiologist that the ovum and zoosperm may be correctly considered as internal buds. Thus it would appear that generation is universally a process of budding. A child is but a compound bud, an offshoot from its parents. This idea is not a mere fancy, but has a scientific basis. As all the exquisite details of the most beautiful flower are in essence contained within the tiny bud which first makes its appearance, so is the developed human being, the full-grown man or woman, virtually contained within the tiny cell called the ovum after it has been impregnated or fecundated by the zoosperms. In short, men and women are blossoms in a strictly scientific sense.

The process of fecundation in hermaphrodite animals is very peculiar. In some cases, as in the snail, the union of two individuals is usually necessary, though each possesses both kinds of organs. In other cases, as in the tapeworm, the oyster, and numerous other mollusks, a single individual has the power to fertilize its

own ova, thus being wholly independent. Human hermaphrodites are usually so deformed that fecundation is not effected, which is a fortunate safeguard against the multiplication of such monstrosities.

Complemental Males.—One species of barnacle was for some time quite a puzzle to the zoologist, as no male of the species could be found, hence no means by which the eggs produced by the egg-bearing, or female, animal could be fecundated. At last, Professor Darwin discovered, snugly hidden away in the corner of a little pocket in the female, the male animal, so unlike the female that it had never been suspected as having any relationship; but it proved, on examination by dissection, to be a fully developed male. In some varieties of this queer species, the female has been observed carrying in this little pocket two or three of these diminutive males.

Development.—After the union of the two elements, known as *fecundation*, or *conception*, if the conditions are favorable, development occurs; and the little germ is in due process of time developed into an individual which is an exact counterpart of its parents. During this developmental process, the embryonic being is variously treated by different classes of animals.

Unprotected Development.—Most fishes and reptiles discharge their ova before fecundation, or soon after, and pay no further attention to them. The fish deposits its eggs in a little hollow scooped out in the gravelly bed of a stream, or sows them broadcast upon the waters. The turtle buries its eggs in the sand, and leaves them to be hatched by the sun. The ostrich disposes of her eggs in the same way. Many other species of animals pay no regard to the protection of the germs

which are destined, if placed under favorable conditions, to become individuals like themselves.

Partial Protection of the Ovum.—There are some exceptions, however, to this general rule among fishes and reptiles. Even fishes manifest a degree of parental solicitude in certain cases. The male of a species of South American fish gathers up the eggs after fecundation has taken place, and carries them in his mouth until they are hatched. Another male fish carries the eggs of his mate in a little pouch upon the lower and posterior part of his body.

Certain species of frogs carry their eggs wound about their legs; others suspend them from the abdomen. Another variety carries its young upon its back. Professor Wyman describes a "swamp toad" which patiently takes the eggs of his mate, one by one, and fastens them upon her back, observing great regularity in arrangement. These several devices are evidently for the purpose of protecting, in some degree, the young individuals during the helpless stage of their existence.

The eggs of sharks, which are few in number, are each provided with a horny covering and four filamentous attachments resembling the tendrils of a grapevine, by which they become entangled among the seaweeds, and are thus protected.

The cuttlefish covers its eggs between the folds of its queerly shaped body.

Some species of fish gather their eggs together in masses, and surround them by a protective covering. A species of worm carries a whole colony of little ones upon its back. Even the starfish protects its eggs with its arms; and if they become scattered, gathers them up.

Development in the Higher Animals and Man.—

Higher animals are less prolific, and their development is a more complicated process; hence, their young need greater protection; and for this reason, the ova, instead of being discharged from the body of the female after fecundation, are retained.

Curious examples of internal development sometimes occur in animals which usually deposit eggs. Snakes have been known to produce both eggs and living young at the same time. At the annual meeting of the American Society for the Advancement of Science, at Detroit, Mich., in August, 1875, we had the pleasure of examining a specimen, exhibited by Professor Wilder, of a chick which had undergone a considerable degree of development within the ovary of the hen. It had a head, a rudimentary brain, and internal viscera, but no feathers nor limbs. It was, in fact, an egg hatched before it had been laid. The anomaly excited much interest at that time, and since, among biologists.

As we have seen that a suitable receptacle is sometimes provided outside of the body, so now a receptacle is needed, and is provided in the interior of the body of the female. This receptacle is called—

The Uterus.—This is a hollow, pear-shaped organ, located in the median line, just behind the bladder, between it and the rectum. It is supported in place by various ligaments, and by the juxtaposition of other organs. Its larger end is directed upward, and communicates upon each side with a very narrow tube, which is prolonged outward on either side until it nearly touches the ovary of the same side. Its lower and smaller end fills the internal extremity of the passage previously described as the vagina. When the ovum is matured, it escapes from the ovary into the

narrow tube referred to, called the *Fallopian tube*, and passes down into the cavity of the uterus. If fecundation does not occur, it is expelled or absorbed after six to twelve or fourteen days. If copulation occurs, however, zoosperms are brought into the cavity of the uterus, and, coming in contact with the ovum, fecundate it. This is *conception*. When the natural process is allowed to proceed, development occurs.

Gestation, or Pregnancy.—This is the term applied to the process last referred to. We shall not attempt to describe in detail this most wonderful and intricate of all living processes; but will sketch only the chief points, leaving the reader who would obtain a more complete knowledge of the subject, to consult any one of the numerous physiological and obstetrical works which deal with it in a very exhaustive manner.

As soon as the ovum is impregnated by the male element, it begins a process of symmetrical division. The first division produces two cells out of the single one which first existed. By the next division, four segments are produced; then eight, sixteen, etc. While this process is going on, the ovum becomes adherent to the internal wall of the uterus, and is soon enveloped by its mucous membrane, which grows up about it and incloses it.

The Primitive Trace.—When the process of segmentation has advanced to a certain point, the cells are aggregated together in a compact layer at the surface. Soon a straight line appears upon this layer, which is called the *primitive trace*. This delicate line becomes the basis for the spinal column; and upon and about it the whole individual is developed by an intricate process of folding, dividing, and reduplication of the layer of cells. One end of the line becomes the head, and

the other becomes the tail. Even man has a caudal appendage at an early stage of his existence. After a further lapse of time, little excrescences, buds, or "pads" appear in the proper positions to represent the arms and legs. After further development, the ends split up into fingers and toes, and by the continued development of the parts, perfect arms and legs are formed.

Simplicity of Early Structures.—The first structures formed are exceedingly simple in form. It is only by slow degrees that the great complicity which characterizes many organs is finally attained. For example, the heart is at first only a straight tube. By enlargement and the formation of longitudinal and transverse partitions, the fully developed organ is finally produced. The stomach and intestines are also at first but a simple straight tube. The stomach and large intestine are formed by dilatation; and by growth of the tube in length while the ends are confined, the small intestines are formed. The other internal organs are successively developed by similar processes.

The Stages of Growth.—At first, insignificant in size, a simple cell, the embryonic human being steadily increases in size, gradually approximating more and more closely to the human form, until, at the end of about nine calendar months, or ten lunar months, the new individual is prepared to enter the world, and begin a more independent course of life. The following condensation of a summary quoted by Dr. Austin Flint, Jr., will give an idea of the size of the developing being at different periods, and the rate of progress:

At the end of the third week, the embryo is a little less than one-fourth of an inch in length.

At the end of the seventh week, it is three-fourths of an inch long. The liver, lungs, and other internal organs are partially formed.

At the eighth week, it is about one inch in length. It begins to look some like a human being, but it is impossible to determine the sex.

At the third month, the embryo has attained the length of from two to two and one-half inches. Its weight is about one ounce.

At the end of the fourth month, the embryo is called a fetus. It is from four to five inches long, and weighs five ounces.

At the fifth month, the fetus is nearly a foot long, and weighs about half a pound.

At the sixth month, the average length of the fetus is about thirteen inches, and its weight one and a half to two pounds. If born, life could continue a few minutes.

At the seventh month, the fetus is from fourteen to fifteen inches long, and weighs from two to three pounds. It is now viable (may live if born).

At the eighth month, the length of the fetus is from fifteen to sixteen inches, and its weight from three to four pounds.

At the ninth month, the fetus is about seventeen inches long, and weighs from five to six pounds.

At birth, the infant weighs a little more than seven pounds, the usual range being from four to ten pounds, though these limits are sometimes exceeded.

Duration of Gestation.—The length of time required for the development of a human being is usually reckoned as about forty weeks. A more precise statement places it at about two hundred and seventy-eight days. This limit is often varied from. Cases have

occurred in which a much longer time has been required; and numberless cases are recorded in which human beings have been born several weeks before the expiration of the usual time, as stated. There is some uncertainty respecting the exact length of the period of gestation, which grows out of the difficulty of determining, in many cases, the exact time when conception took place.

In the kangaroo, though the period required for development is about the same as in the human female, uterine gestation continues for only thirty-nine days. At the end of this time, the infant kangaroo is transferred to a pouch provided under the hinder part of the body of the mother, which also contains the mammary glands. To the nipple of one of these, the lips of the young animal become attached, and by a curious rhythmical action of certain muscles, the paternal nourishment is regularly forced into the mouth of the little one. The eminent Professor Owen thus remarks concerning this remarkable mode of caring for the young:

“Thus aided and protected by modifications of structure, both in the system of the mother and in its own, designed with special reference to each other’s peculiar condition, and affording, therefore, the most irrefragible evidence of creative foresight, the feeble offspring continues to increase from sustenance derived exclusively from the mother, for a period of about eight months. The young kangaroo may then frequently be seen to protrude its head from the mouth of the pouch, and to crop the grass at the same time the mother is browsing. Having thus acquired additional strength, it quits the pouch, and hops at first with a feeble and vacillating gait, but continues to return to the pouch for occasional shelter and supplies of

food, until it has attained the weight of ten pounds. After this, it will occasionally insert its head for the purpose of sucking, notwithstanding another fetus may have been deposited in the pouch; for the latter attaches itself to a different nipple from the one which has previously been in use.”

Uterine Life.—The uterine life of the new individual begins with the impregnation of the ovum, which occurs the instant it is brought in contact with the zoosperms of the male. While in the uterus, the young life is supported wholly by the mother. She is obliged to provide not only for her own sustenance, but for the maintenance of her child. And she must not only eat for it, but breathe for it as well, since it requires a constant and adequate supply of oxygen before birth as much as afterward.

How the Unborn Infant Breathes.—Oxygen and nutriment are both supplied to it through the medium of an organ called the *placenta*, which is a spongy growth, composed almost entirely of blood-vessels, and is developed upon the inner wall of the uterus, at the point where the ovum attaches itself after fecundation. The growing fetus is connected with this vascular organ by means of a sort of cable, called the *umbilical cord*. The cord is almost entirely composed of blood-vessels, which convey the blood of the fetus to the placenta, and return it again. The fetal blood does not mix with that of the mother, but receives oxygen and nourishment from it by absorption through the thin walls which alone separate it from the mother’s blood.

The umbilical cord contains no nerves, as there is no nervous connection between the mother and the child. The only way in which the child can be influenced by the mother is through the medium of the

blood, to changes in which it is very susceptible, as we shall see more clearly hereafter.

The cord is attached to the body of the child at the point called the *navel*, being cut off at birth by the *accoucheur*. With the placenta, it is expelled soon after the birth of the child, and constitutes the shapeless mass familiarly known as the *after-birth*, by the retention of which the most serious trouble is occasionally caused.

Parturition, or Childbirth.—At the end of the period of development, the young being is forcibly expelled from the laboratory of nature in which it has been formed. In other words, it is born; and this process is termed *parturition*. Though at first thought such an act would seem an utter impossibility, yet it is a very admirable illustration of nature's adaptation of means to ends. During the months of gestation, while the uterus has been enlarging to accommodate its daily increasing contents, the generative passages have also been increasing in size, and becoming soft and distensible, so that a seeming impossibility is in due time accomplished without physical damage, though possibly not without intense suffering. However, it is a most gratifying fact that modern medical science may do much to mitigate the pains of childbirth. It is possible, by a proper course of preparation for the expected event, to greatly lessen the suffering usually undergone; and some ladies assert that they have thus avoided real pain altogether. Although the curse pronounced upon the feminine part of the race, in consequence of the sin of Eve, implies suffering in the parturient act, yet there is no doubt that the greater share of the daughters of Eve are, through the perverting and degenerating influences of wrong habits,

and especially of modern civilization, compelled to suffer many times more than their maternal ancestor. We have sufficient evidence of this in the fact that among barbarian women, who are generally less perverted physically than civilized women, childbirth is regarded with very little apprehension, since it occasions little pain or inconvenience. The same is true of many women among the lower laboring classes. In short, while it is true that more or less suffering must always accompany the parturient act, yet the excessive pain usually attendant upon the process is the result of causes which can in many cases be removed by proper management beforehand and at the time of confinement.

After being relieved of its contents, the uterus and other organs rapidly return to nearly their original size.

Changes in the Child at Birth.—In the system of the child a wonderful change occurs at the moment of its expulsion into the outer world. For the first time, its lungs are filled with air. For the first time, they receive the full tide of blood. The whole course of the circulation is changed, and an entirely new process begins. It is surprising in how short a space of time changes so marvelous can be wrought.

Nursing.—The process of development is not fully complete at birth. The young life is not yet prepared to support itself; hence, still further provision is necessary for it. It requires prepared food suited to its condition. This is provided by the *mammae*, or breasts, of the female, which are glands for secreting milk. The fully developed gland is peculiar to the female; but a few instances have been known in which it has been sufficiently developed to become functionally active in

men, as well as in young girls, though it is usually inactive even in women until near the close of gestation. It is a curious fact that the breasts of a new-born child occasionally contain milk.

The first product of the mammæ is not the proper milk secretion, but is a yellowish fluid, called *colostrum*. The true milk secretion begins two or three days after delivery.

The lacteal secretion is influenced in a very remarkable manner by the mental conditions of the mother. By sudden emotions of grief or anger, it has been known to undergo such changes as to produce in the child a fit of indigestion, vomiting, diarrhea, and even convulsions and death. Any medicine taken by the mother finds its way into the milk, and often affects the delicate system of the infant more than herself. This fact should be a warning to those nursing mothers who use stimulants. Cases are not uncommon in which delicate infants are kept in a state of intoxication for weeks by the use of alcoholic drinks by the mother. The popular notion that lager-beer, ale, wine, or alcohol in any other form, is in any degree necessary or beneficial to a nursing woman, is a great error, which cannot be too often noticed and condemned. Not only is the mother injured instead of being benefited by such a practice, but great injury, sometimes lifelong in its consequence, is inflicted upon the babe at the breast, who takes the intoxicating poison second hand, and is influenced in a fourfold degree because of its feebleness and great susceptibility.

ANATOMY OF THE REPRODUCTIVE ORGANS

Having now considered the functions and something of the structure of the principal organs of reproduction, we may obtain a more definite idea of the relation of the several organs of each class by a connected review of the anatomy of the parts.

Male Organs.—As previously stated, the external organs of generation in the male are the *penis* and the *testicles*, the latter being contained in a pouch, called the *scrotum*. The penis is the organ of urination as well as of copulation. Its structure is cellular, and it contains a vast number of minute coils of blood-vessels, which become turgid with blood under the influence of sexual excitement, producing distention and erection of the organ. A canal passes through its entire length, called the *urethra*, which conveys both the urine and the seminal fluid. The organ is protected by a loose covering of integument, which folds over the end. This fold is called the *foreskin*, or *prepuce*.

The fluid formed by each testicle is conveyed by the *vas deferens*, a curved tube about two feet in length, to the base of the bladder. Here the vas deferens joins with another duct, which communicates with an elongated pouch, the *vesicula seminalis*, lying close to the under side of the bladder. The single tube thus formed, the *ejaculatory duct*, conveys the seminal fluid to the urethra, from which it is discharged.

As the production of seminal fluid is more or less constant in man and some animals, while its discharge is intermittent, the vesiculæ seminales serve as reservoirs for the fluid, preserving it until required, or allowing it to undergo absorption. Some claim that

the zoosperms are matured in these organs. They always contain seminal fluid after the age of puberty. During coition, their contents are forcibly expelled by a spasmodic contraction of the muscles which surround them and the ducts leading from them.

The Prostate Gland.—Surrounding the ejaculatory ducts and their openings into the urethra at the base of the bladder, is the *prostate gland*, which produces a peculiar secretion that forms a considerable portion of the seminal fluid, being mingled with the secretion of the testes during its ejaculation. This gland sometimes becomes the seat of rather serious disease. In old age, it usually becomes slightly indurated, and often to such an extent as to seriously affect the health and comfort of the individual by interference with urination and by occasioning pain.

Anterior to this organ, in the urethra, is a curious little pouch, the *utricle*, which corresponds to the vagina and uterus in the female. Just in front of the prostate gland are two small bodies, known as *Cowper's glands*. They secrete a fluid which combines with the seminal secretion.

Female Organs.—The *ovaries*, *uterus* or *womb*, *Fallopian tubes*, and *vagina* have already been described in part. The external organs of the female are included in the term *vulva*, or *pudenda*. The most superficial parts are the *labia*, two thick folds of integument. Just within these two are thinner folds, the *labia minora*, or *nymphae*. These, together with the *clitoris*, situated just above, are extremely sensitive organs, being the chief seat of sexual sense in the female. At the lower part is the opening to the vagina, which in the virgin is usually partially guarded by a thin membrane, the *hymen*. This is not always a

reliable test of virginity, however, as commonly regarded, since it may be destroyed by disease or accident, and may exist even after the occurrence of pregnancy.

The vagina extends from the vulva to the lower end of the uterus, which it incloses, passing between the bladder and the rectum. The lower extremity of the uterus presents a small opening, which leads into its interior. Upon either side, at its upper and larger end, is a minute opening, the mouth of the Fallopian tube. The latter organs extend from the uterus outward nearly to the ovaries, toward which they present a number of small filaments, one of which is in contact with each ovary. These filaments, together with the interior of the tubes, are covered with a peculiar kind of cells, upon which are minute cilia, or hairs, in constant motion. Very curiously, they all move in the same direction, toward the cavity of the uterus. When an ovum escapes from the ovary in connection with menstruation, it is by these delicate hairs propelled along a filament of tissue to the Fallopian tube, and thence by the same means is conveyed to the uterus. It may come in contact with the zoosperms at any point between the ovary and the lower orifice of the uterus, and thus undergo fecundation.

Puberty.—For a certain period after birth, the sexual organs remain in a partially developed condition. This period varies in duration with different animals, in some cases being very brief, in others, comprising several years. Upon the attainment of a certain age, the individual becomes sexually perfect, and is then capable of the generative act. This period is called *puberty*.

In man, puberty commonly occurs between the ages

of ten and fifteen years, varying considerably in different climates. In this country, and in other countries of about the same latitude, puberty usually occurs at the age of fourteen or fourteen and one-half years in females, and a few months later in males. In cooler climates, as in Norway and Siberia, the change is delayed to the age of eighteen or nineteen years. In tropical climates it is hastened, occurring as early as nine or ten years. In warm climates it is no uncommon thing for a girl to be a mother at twelve; and it is stated that one of the wives of Mahomet was a mother at ten.

Other causes besides climate tend to hasten the occurrence of this change, as habits, temperament, constitutional tendency, education, and idiosyncrasy.

Causes Which Delay Puberty.—Habits of vigorous physical exercise tend to delay puberty. For this reason, together with others, country boys and girls generally mature later than those living in the city by several months, and even a year or two. Anything that tends to excite the emotions hastens puberty. The excitements of city life, parties, balls, theaters, even the competition of students in school, and the various causes of excitement to the nervous system which occur in city life, have a tendency to hasten the occurrence of the change which awakens the sexual activities of the system into life. Hence, these influences cannot but be considered prejudicial to the best interests of the individual, mentally, morally, and physically, since it is in every way desirable that a change which arouses the passions and gives to them greater intensity, should be delayed rather than hastened.

Influence of Diet on Puberty.—The dietary has a not unimportant influence in this respect. Stimulating

foods, such as pepper, vinegar, mustard, spices, and condiments generally, together with tea and coffee, and an excess of animal food, have a clearly appreciable influence in inducing the premature occurrence of puberty. On this account, if on no other, should these articles be prohibited to children and youth, or used very sparingly. Those who advocate the large use of meat by children and youth have not studied this matter closely in all its bearings. While it is true that children and growing youth require an abundance of the nitrogenous elements of food which are found abundantly in beefsteak, mutton, fish, and other varieties of animal food, it is also true that in taking these articles of food, they take, along with the nutrient elements, properties of a stimulating character, which exert a decidedly detrimental influence upon the susceptible systems of children and youth. At the same time, it is possible to obtain the same desirable nitrogenous elements in oatmeal, unbolted wheat flour, peas, beans, and other vegetable productions, which are wholly free from injurious properties. We are positive, from numerous observations on this subject, that a cool, unstimulating vegetable or farinaceous diet would deter the development of the sexual organism for several months, and perhaps for a year or two.

While it might not be in all cases desirable to do this, it would at least be wise to adopt such measures in cases in which the child is unavoidably exposed to influences which have a tendency to hasten the change.

A Caution.—It is important to add in this connection a word of caution against the adoption of a dietary too abstemious in character. It is necessary that an abundance of good, wholesome food, rich in the elements of nutrition, should be taken regularly. There

is no doubt that many young ladies have induced conditions of serious disease by actual starvation of the system. A young woman who attempts to live on strong tea or coffee, fine-flour bread, and sweet cake, is as certainly starving herself as though she were purposely attempting to commit suicide by starvation, and with as much certainty of the same result.

Brunettes Precocious.—It has been observed that in girls the occurrence of puberty is earlier in brunettes than in blondes; and in general, it makes its appearance earlier in persons of a nervous or nervo-bilious temperament than in persons of a lymphatic temperament or phlegmatic nature.

Certain nationalities and families are marked by the earlier occurrence of puberty than others. In Jews, the change is commonly a year or two in advance of other nationalities in this country. It also occurs somewhat sooner in negroes or creoles than in white persons, the African race seeming to retain something of the precocity occasioned by the tropical influence of its native clime.

Remarkable Precocity.—Cases occasionally occur in which puberty makes its appearance at the age of three or four years. Indeed, a case has been reported in this country in which a female child possessed at birth all the characteristics which are usually developed at puberty. In this case the regular periodical changes began at birth.

Premature Development Occasions Early Decay.—A fact which is of too great importance to be allowed to pass unnoticed, is that whatever occasions early or premature sexual development, also occasions premature decay. Females in whom puberty occurs at the age of ten or twelve, by the time their age is

doubled, are shriveled and wrinkled with age. At the time when they should be in their prime of health and beauty, they are prematurely old and broken. Those women who mature late, retain their beauty and their strength many years after their precocious sisters have become old, decrepit, and broken down. Thus, the matrons of thirty and forty years in colder climates are much more attractive in appearance than the maidens of sixteen; while quite the reverse is true in this and other countries where sexual development is unduly hastened.

Early Puberty a Cause for Anxiety.—The unnaturally early appearance of puberty is a just cause for apprehension, since it usually indicates an inherent weakness of the constitution. When there are reasons for fearing its occurrence, active measures should be taken to occasion delay if possible. We call especial attention to this point, since there are many who erroneously suppose the early occurrence of puberty to be a sign of superior vigor.

Changes Which Occur at Puberty.—The changes which occur in the two sexes at this period have been thus described—

“In both sexes, hair grows on the skin covering the *symphysis pubis*, around the sexual organs, and in the axillæ (armpits). In man, the chest and shoulders broaden, the larynx enlarges, and the voice becomes lower in pitch from the elongation of the vocal cords; hair grows upon the chin, upper lip, and cheeks, and often exists upon the general surface of the body more abundantly than in woman.” The sexual organs undergo enlargement, and are more frequently excited. The testicles first begin the secretion of the seminal fluid.

“In woman, the pelvis and abdomen enlarge, but the whole frame remains more slender, the muscles and joints less prominent, the limbs more rounded and tapering [than in the male]. Locally, both external and internal organs undergo a considerable and rapid enlargement. The mammae enlarge, the ovarian vesicles become dilated, and there is established a periodical discharge of one or more ova, accompanied, in most cases, by a sanguineous fluid from the cavity of the uterus.”

These changes, so varied and extraordinary, often occur within a very short space of time; and as they are liable to serious derangement, especially in the female, great care should be taken to secure for the individual the most favorable conditions until they are successfully effected. It is, however, a fact deserving of mention, that many of the ills which are developed at this particular period are quite as much the result of previous indiscretions and mismanagements as of any immediate cause. A few suggestions with regard to the proper treatment of individuals at this age may be in place:

1. Do not allow the boy or girl to be overworked, either mentally or physically. Great and important changes are occurring within the body, and nature should not be overtaxed.

2. Keep the mind occupied. While excessive labor should be avoided, idleness should be as carefully shunned. Some light, useful employment or harmless amusement—better some kind of work—should keep the mind fully occupied with wholesome subjects.

3. Abundant exercise out-of-doors is essential for both sexes. Sunshine and fresh air are as necessary to

the development of a human being as for the expanding of a flower bud.

4. Watch carefully the associations of the youth. This should be done at all times, but especially just at the critical period in question, when the general physical disturbances occurring in the system react upon the mind, and make it peculiarly susceptible to influences of every sort, especially those of an evil character.

5. None too much care can be exercised at this important epoch of human life, provided it is properly applied; but nothing could be more disastrous in its consequences than a weak solicitude which panders to every whim and gratifies every perverted appetite. Such care is a fatal error.

Menstruation. — The functional changes which occur in the female are much more marked than those of the male. As already intimated, the periodical development and discharge of an ovum by the female, which occurs after puberty, is accompanied by the discharge of a bloody fluid, which is known as the *flowers*, *menses*, or *catamenia*. The accompanying symptoms together are termed the process of *menstruation*, or *being unwell*. This usually occurs, in the human female, once in about four weeks. In special cases, the interval may be a week less or a week longer; or the variation may be even greater. Dalton describes the process as follows:

“When the expected period is about to come on, the female is affected by a certain degree of discomfort and lassitude, a sense of weight in the pelvis, and more or less disinclination to society. These symptoms are in some cases slightly pronounced, in others more troublesome. An unusual discharge of vaginal mucus then

begins to take place, which soon becomes yellowish or rusty brown in color, from the admixture of a certain proportion of blood; and by the second or third day, the discharge has the appearance of nearly pure blood. The unpleasant sensations which were at first manifest, then usually subside; and the discharge, after continuing for a certain period, begins to grow more scanty. Its color changes from a pure red to a brownish or rusty tinge, until it finally disappears altogether, and the female returns to her ordinary condition.”

The menstrual function continues active from puberty to about the forty-fifth year, or during the period of fertility. When it finally disappears, the woman is no longer capable of bearing children. The time of disappearance is termed the “change of life,” or *menopause*. Exceptional cases occur in which this period is greatly hastened, arriving as early as the thirty-fifth year, or even earlier. Instances have also been observed in which menstruation continued as late as the sixtieth year, and even later; but such cases are very rare; and if procreation occurs, the progeny is feeble and senile.

With rare exceptions, the function is suspended during pregnancy, and usually, also, during the period of nursing.

Nature of Menstruation.—There has been a great amount of speculation concerning the cause and nature of the menstrual process. No entirely satisfactory conclusions have been reached, however, except that it is usually accompanied by the maturation and expulsion from the ovary of an ovum, which is termed *ovulation*. But menstruation may occur without ovulation, and *vice versa*.

Menstruation is not peculiar to the human female, being represented in the higher animals by what is familiarly termed "the rut." This is not usually a bloody discharge, however, as in the human female, though such a discharge has been observed in the monkey.

It has been quite satisfactorily settled that the discharge of the ovum from the ovary generally takes place about the time of the cessation of the flow. Immediately after the discharge, the sexual desires of the female are more intense than at other times. This fact is particularly manifest in lower animals. The following remark by Professor Dalton is especially significant to those who care to appreciate its bearing:

"It is a remarkable fact, in this connection, that the female of these [domestic] animals will allow the approaches of the male only during and immediately after the œstrual period [rut]; that is, just when the egg is recently discharged, and ready for impregnation. At other times, when sexual intercourse would be necessarily fruitless, the instinct of the animal leads her to avoid it; and the concourse of the sexes is accordingly made to correspond in time with the maturity of the egg and its aptitude for fecundation."

The amount of fluid lost during the menstrual flow varies greatly with different individuals. It is estimated at from three ounces to half a pint. In cases of deranged function, it may be much greater than this. It is not all blood, however, a considerable portion being mucus. It is rather difficult to understand why the discharge of so considerable a quantity of blood is required. There is no benefit derived from a very copious discharge, as some suppose. Facts seem to indi-

cate that in general, those enjoy the best health who lose but small quantities of blood in this manner.

Some recent observations respecting the nature of menstruation, have unsettled the old theories respecting this function, and given rise to much discussion. The most plausible theory, and one which differs very materially from the old, is that of Lœwenthal. The views promulgated by this author are of so much interest that we take this opportunity of presenting them at some length in the following translation published in the *Detroit Lancet*:

1. Menstruation recurs periodically. It is marked by an individual periodicity. Any deviation from the ordinary rhythm (due to strong psychological influences, changes of the mode of life, etc.) will, in a short time after removal of the cause, return to the special normal periodicity.

2. The kind and duration of the flow is different in different women.

3. Anatomical and physiological changes take place in the mucous membrane of the uterus as follows:

(a) There is a thickening of the mucous membrane, which commences about ten days before the menstruation, and is analogous to decidual formation in the early stages of pregnancy.

(b) During the flow, disintegration of the outer layer of the mucous membrane takes place, which is completed in ten days.

(c) The swelling of the mucous membrane at first takes place especially in the outer layer, and affects the lymph vessels, which are dilated, and not the blood-vessels; the latter only enlarge at a later period, that is, just before the flow commences. *Congestion does not cause the thickening of the mucous membrane.*

(d) The increase in the thickness of the mucous membrane is confined to the body of the uterus; the cervix is not involved.

(e) The other sexual organs, and the system in general, are influenced more or less by the menstrual process. The ovaries (one or the other) increase in size, due to a ripe Graafian follicle ready to burst. This does not take place during the time that the membrane swells, but at the time of the flow of blood.

During the menstrual process we have infiltration and swelling for ten days, then hemorrhage for four to five days, and finally return to the normal, *restitutio ad integrum*, for four to five days, the whole process occupying about twenty days. The infiltration and swelling must, under all circumstances, be looked upon as the primary impulse, as the flow of blood can only take place after the former has existed for some time.

As the different theories do not explain the many phenomena of menstruation, especially the two factors,—that the congestion and hemorrhage cause the rupture of a Graafian follicle, or that the latter causes the hemorrhage,—we must conclude that a third factor plays an important part, and that this third factor is the product of ovulation,—the unimpregnated ovule.

The whole menstrual process might be considered as follows:

1. The Graafian follicle ruptures, and the ovule passes down into the uterus.

2. In the first appropriate fold of the uterine mucous membrane (generally near the mouth of the tube), the ovule is imbedded, and causes by its presence a swelling of the mucous membrane; that is, the menstrual decidua.

3. If the ovule becomes impregnated, the menstrual decidua is developed into the true decidua of pregnancy.

4. If in a certain time, which represents its vitality, the ovule is not impregnated, it dies, and thus causes congestion and disintegration of the menstrual decidua; that is, the menstrual flow.

5. The congestion reacts on the cause of its origin, the ovaries, and brings about a rupture of a follicle, which, in the meantime, has ripened. (This does not exclude any other cause which might bring about menstrual congestion, as a cause of a ruptured follicle.)

This view not only explains all contradiction, but also solves many doubtful questions in a satisfactory manner.

The basis of this view is:

1. That the unimpregnated ovule becomes imbedded.

2. That after this imbedding, and only then, it has a certain limited individual life power.

Many objections might be urged against this theory. Some authorities claim that impregnation always takes place at the ovary, and that extra-uterine pregnancy tends to prove this; but as extra-uterine pregnancy occurs once in ten thousand cases, the chances are ten thousand to one that impregnation does take place in the uterus.

The following conditions are necessary for the imbedding of the ovule at the next menstrual process:

1. The ovule must be perfectly ripe.

2. It must pass from the follicle at a time when it has the best chance to soon reach the uterus through the Fallopian tubes during menstruation.

3. The place of imbedding must be ready, and prepared to form the menstrual decidua.

If these conditions are not present, the next menstruation will be abnormal. To this category belongs amenorrhœa.

1. No ripe ovule is developed, or it is of diminished vitality, and consequently is not imbedded; or if imbedded, after a few hours or days it dies, and a real menstrual decidua has not been developed; consequently no hemorrhage takes place. If during the short time the ovule is in the uterus, spermatozoa should enter, pregnancy might take place, which explains those rare cases of pregnancy occurring during amenorrhœa. During lactation, the absence of or weak ovules would explain the absence of menstruation, and the occasional occurrence of pregnancy at this time.

2. If during menstruation, from some cause no ripe ovule is present, none can be imbedded, no menstrual decidua is formed, and the next menstrual does not appear. The menstrual congestion which aids the development of the Graafian follicle and ripening of the ovule being absent, the ovules are weak, do not become imbedded, or if they do, die in a short time. The amenorrhœa continues until a strong, healthy ovule is again imbedded, and then dies, causing the menstruation. This also explains why pregnancy can occur after long-continued amenorrhœa.

Cases occur where two or more causes are present to prevent imbedding of an ovule, and to cause amenorrhœa.

Anomalies of menstruation, such as profuse and irregularly recurring hemorrhages, can be readily explained, as they have no connection with menstruation at all, in fact, often occurring during amenorrhœa, and

are due to other diseases (tumors, ulcers, displacements, etc.).

The following points also go to prove the correctness of the view that the ovule becomes imbedded, etc.:

Many observers have recorded that young girls, some four weeks before the first appearance of menstruation, have all the nervous symptoms which are found later with every recurring menstruation. A ripe follicle has burst, the ovule becomes imbedded, and in four weeks causes the first menstruation.

Immediately after childbirth, ovulation and imbedding may take place, as is proved by the occurrence of pregnancy a few weeks after childbirth, and before the recurrence of menstruation. The irregularity of menstruation before the climacteric period, only proves the theory, as the ovule does not have the same vital power, and the thickening of the membrane often prevents rupture of a Graafian follicle.

The experiments of Lawson Tait have caused him to conclude that the anticipated climacteric period *always occurs* with certainty when *both tubes are removed*. This goes to prove the correctness of the Lœwenthal theory, as no ovule can get into the uterus, even if a third ovary exist, or some ovarian stroma remains behind, and consequently menstruation cannot occur.

The well-founded fact that impregnation is most liable to occur immediately after menstruation, also tends to prove the correctness of the theory, as the further removed from menstruation, the less vital power is possessed by the ovule, and pregnancy is not so liable to occur.

The theory of Lœwenthal leads him to conclude that menstruation is not physiological, but pathological, and

not necessary to health; that menstrual blood is normal blood, and does not contain any poisonous substance that must be eliminated from the system; that in amenorrhœa, emmenagogues are useless or harmful, as some constitutional disease (chlorosis, hysteria, etc.) causes amenorrhœa; but the latter causes no disease itself. Amenorrhœa simply indicates some disease of the system, and should be looked upon as a powerful *aid* to reinvigorate the body, not be *fought as a foe*. A woman is not healthy because she menstruates, but in spite of it. He does not want to stop all women from menstruating, but simply suggests a reform in the treatment of the disorders of menstruation. He reports cases of chronic invalids with pain and nervous disturbances after menstruation, which had been subjected to all kinds of treatment without benefit, until he lessened menstruation by quiet and hot water injections, with wonderful result. The cases all recovered, although he checked menstruation so much that only two drams of blood were lost.

The object is to diminish the hemorrhage as much as possible; it cannot be entirely stopped, as the decay of the menstrual decidua will always cause some bleeding, but this should be limited to a discharge of bloody mucus.

The above quotation embodies views which are certainly of great interest from a variety of standpoints, and it is to be hoped that they may be confirmed by further observations.

Extra-Uterine Pregnancy.—Sometimes the ovum becomes fecundated before reaching the uterus, and instead of passing onward into that organ as usual, remains in its position in the Fallopian tube or even on the surface of the ovary. Occasionally an ovum falls

into the cavity of the abdomen instead of passing into the tube. Even in this situation it may be fecundated. Impregnated ova thus left in abnormal positions undergo a greater or less degree of development. They commonly result in the death of the mother.

Twins.—The human female usually matures but one ovum at each menstrual period, the two ovaries acting alternately. Occasionally two ova are matured at once. If fecundation occurs, the result will be a development of two embryos at the same time. In rare cases, three or even four ova are matured at once, and by fecundation produce a corresponding number of embryos. As many as five children have been born alive at one birth, but have not lived more than a few minutes.

The occurrence of multiple pregnancies may be explained by the supposition that ova matured subsequent to the first fecundation are also fecundated.

In lower animals, the uterus is often divided into two long segments, which afford room for the development of a number of young at once. Some ancient writers make most absurd statements with regard to the fecundity of women. One declares that the simultaneous birth of seven or eight infants by the same mother was an ordinary occurrence with Egyptian women! Other statements still more extravagant are made by writers. For example: A traveler in the seventeenth century wrote that he saw, in the year 1630, in a church near The Hague, a tablet on which was an inscription stating that a certain noted countess gave birth at once, in the year 1276, to 365 infants, who were all baptized and christened, the males being all called John, and the females, Elizabeth. They all died on the day of their birth, with their mother, according to the

account, and were buried in the church, where the tablet was erected to their memory.

Superfetation.—It occasionally happens that a child is born of the same mother a few weeks or a few months subsequent to the previous childbirth, but not sufficiently long afterward to make it possible to consider the second child the result of a second period of gestation. These curious cases are accounted for by the supposition that superfetation may occasionally occur, that is, the second ovule may pass down into the womb, and become impregnated, some time after the development of the first has begun. This certainly must be a very unusual circumstance, but that it has occurred, is attested by testimony which cannot be doubted. In one case, reported by Dr. Janeway, surgeon in the late war, one of two infants born of a mulatto mother under these peculiar circumstances was a negro, while the other was nearly white,—a fact which offered the most indisputable evidence, not only of the distinct paternity of the two infants as to time, but also as to individuals.

Monsters.—Defects and abnormalities in the development of the embryo produce all degrees of deviation from the typical human form. Excessive development may result in an extra finger or toe, or in the production of some peculiar excrescence. Deficiency of development may produce all degrees of abnormality, from the simple hair-lip to the most frightful deficiency, as the absence of a limb, or even of a head. It is in this manner that those unfortunate individuals known as hermaphrodites are formed. An excessive development of some parts of the female generative organs gives them a great degree of similarity to the external organs of the male. A deficient development of the masculine organs renders them similar in appearance to

those of the female. Excessive development, shown in a peculiar manner, produces both kinds of organs in the same individuals in a state more or less complete.

Such curious cases as the Carolina twins and Chang and Eng were formerly supposed to be the result of the union of two separate individuals. It is now believed that they are developed from a single ovum. It has been observed that the primitive trace (described in a previous section) sometimes undergoes partial division longitudinally. If it splits a little at the anterior end, the individual will have a single body with two heads. If a partial division occurs at each end, the resulting being will possess two heads and two pairs of legs joined to a single body. More complete division produces a single trunk with two heads, two pairs of arms and two pairs of legs, as in the case of the Carolina twins. Still more complete division may result in the formation of two perfect individuals almost entirely independent of each other, physiologically, but united by a narrow band, as in the remarkable Siamese twins, Chang and Eng.

Strange Freaks of Development.—In a curious case reported not a great while ago, a partially developed infant was amputated from the cheek of a child some time after birth.

A few cases have been reported in which partially developed human beings have been found in various parts of the bodies of individuals, which were not produced by any reproductive process, as they have been found in individuals of both sexes. These remarkable cases are undoubtedly the result of the inclosure of one embryo within another.

The precise cause of these strange modifications of development is as yet, in a great degree, a mystery.

Hybrids.—It is a well-known law of biology that no progeny result from union of animals of different species. Different varieties of races of the same species may form a fertile union, the result of which is a cross between its two parents, possessing some of the qualities of each. Such a cross is called a *mongrel*. All the varieties of dogs are produced by crossing different races, and so are mongrels. The various mixed races of men, such as mulattoes and half-breeds, are also mongrels. The mule is the product of a union between the horse and the ass, and is a true hybrid. The offspring of hybrids are sterile, almost without exception; for the reason that they do not produce mature elements of generation. In the mule, the zoosperms are either entirely absent, or else very imperfectly developed; hence the fact that a colt having a mule for its sire is one of the rarest of curiosities, though a few instances have been reported. This is a wise law of nature to preserve the purity of species.

Law of Sex.—If there is a law by which the sex of the developing embryo is determined, it probably has not yet been discovered. The influence of the will, the predominant vitality of one or the other of the parents, and the period at which conception occurs, have all been supposed to be the determining cause. A German physician some time since advanced the theory that the two testicles and ovaries produce elements of different sexual character, the right testicle forming zoosperms capable of producing only males, and the right ovary producing ova with the same peculiarity. The left testicle and the left ovary he supposed to form the female elements. He claimed to have proved his theory by experiments upon animals. Even if true, this theory will not be made of practical importance. It is, in fact,

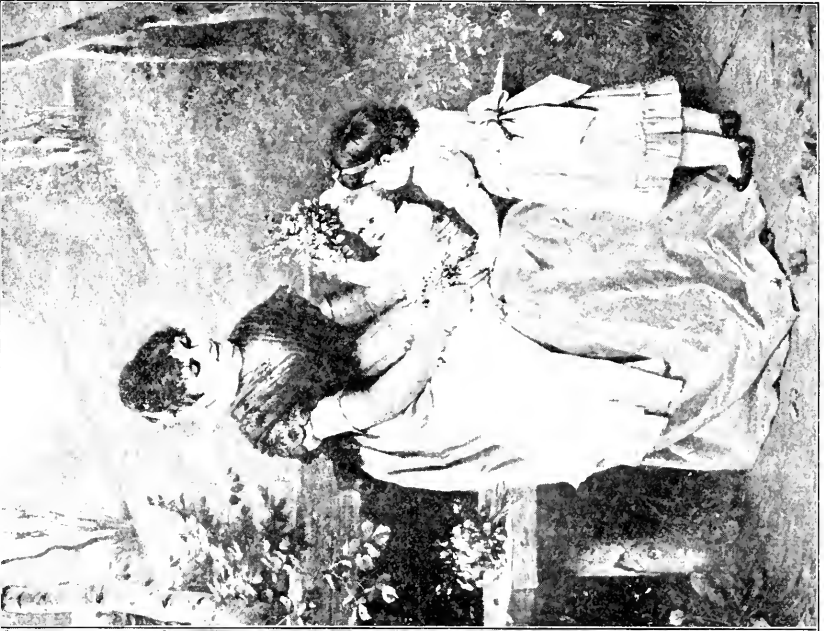
nothing more than a revival of an old theory held by physicians who flourished more than two thousand years ago.

Controlling Sex.—More recently another German physician has advanced the theory that the sex may be controlled at will by observing the time of fecundation. He asserts that when fecundation occurs shortly after menstruation, the result will be a female; but if impregnation occurs later in the month, and prior to the three or four days preceding the next menstrual period, a male will almost certainly be produced. This theory was proposed by Professor Thury, of the academy of Geneva, who claims to have thoroughly tested it in a great variety of ways, and always with an affirmative result.

Floss, an eminent European author, claims to show by a comparison of the statistics of male and female births in various countries, that sex depends largely upon the food supply, females being relatively most numerous when food is abundant, while males predominate during periods of scarcity of food. Some curious experiments were made a few years ago by a learned entomologist, in the feeding of the larva of insects, which seemed to indicate that those larva which received the most food developed into females, while those which had the least food developed into males. Facts well known to bee-keepers also indicate that an extra supply of food and better opportunities for development, is possibly the principal cause which gives origin to sexually perfect bees from larva which would otherwise produce ordinary workers.

The facts just given would seem to support the theory of Floss, but the equally eminent Dr. Preussen





maintains that males, and not females, are the result of a better food supply to the mother.

The persistent failure of the czar and czarina of Russia to provide a legitimate male heir to the throne, despite all scientific formulas, is a discouraging comment on any theory of absolute certainty.

Statistics collected in Germany show that when the mother is older than the father, the number of female births is considerably in excess. This is equally true when the father and mother are of the same age. When the father's age is in excess of that of the mother, the male births are in excess of the females, the proportion of cases increasing with the predominance of the father's age above that of the mother. This would seem to agree perfectly with the well-known fact that male births are usually slightly in excess of the female. This theory would be the natural result of the prevailing custom in society by which the age of the husband usually exceeds that of the wife.

Some poultry breeders claim that mating a cockerel with hens produces more female than male chickens; while mating a cock with pullets results in more males than females, conditions of constitutional vigor and local health being equal; otherwise, the results are uncertain.

Circumcision.—The fold of integument called the *prepuce*, which has been previously described, has upon its inner surface a large number of glands which produce a peculiar secretion. Under certain circumstances, and from inattention to personal cleanliness, this secretion may accumulate, and then often becomes the cause of irritation and serious disease. To prevent such disorders, and to insure cleanliness, the Jewish law required the removal of the prepuce, which

constituted the rite of circumcision. The same practice is followed by several modern nations dwelling in tropical climates; and it can scarcely be doubted that it is a very salutary one, and has contributed very materially to the maintenance of that proverbial national health for which the Jews are celebrated. Eminent physicians have expressed the opinion that the practice would be a salutary one for all men.

It is doubtful, however, whether as much harm as good does not result from circumcision, since it has been shown by extensive observation among the Jews that very great contraction of the meatus, or external orifice of the urethra, is exceedingly common among them, being undoubtedly the result of the prolonged irritation and subsequent cicatricial contraction resulting from circumcision in infancy.

The maintenance of scrupulous cleanliness, by daily cleansing, is an imperative duty.

In some countries, females are also circumcised by removal of the nymphæ. The object is the same as that of circumcision in the male. The same evils result from inattention to local cleanliness, and the same measure of prevention, daily cleansing, is necessitated by a similar secretion. Local cleanliness is neglected by both sexes. Daily washing should begin with infancy, and continue through life, and will prevent much disease.

Castration.—This operation consists in the removal of the testes of the male. It does not at once obliterate the sexual sense, especially if performed after puberty, but of course renders the individual impotent, or incapable of reproduction. Persons upon whom it has been performed are called eunuchs. It was a very common custom in ancient times, being

usually prompted by the jealousy of rulers, who allowed no males but eunuchs to associate with their wives and concubines. The effect upon the male is to render him effeminate in appearance and weak in mind. If performed before puberty, the growth of the beard is scanty, and the voice never acquires that deepness of tone natural to the masculine voice.

Spaying.—An analogous operation, termed *spaying*, is performed upon females, consisting in the removal of the ovaries; effects similar to those in the male, *sterility* without entire immediate loss of sexual sense, being the usual result. Spaying is much more frequently performed than castration, and is now employed as a means of relieving certain forms of intractable disease of the womb and ovaries. The credit of first employing this operation in cases of this kind is due to Dr. Battey, of Georgia. Castration is still practiced in some Eastern countries.

SEXUAL HYGIENE

JUST in proportion as the perpetuation of the race is more important than the existence of any single individual, the organs of reproduction may in a certain sense be said to rank higher than any other portions of the human frame, since to them is intrusted the important duty of performing that most marvelous of all vital processes, the production of human beings. That this high rank in the vital economy is recognized by nature, is shown by the fact that she has attached to the abuse of the generative function the most terrible penalties which can be inflicted upon a living being. The power of abuse seems to be almost exclusively confined to man; hence, we find him about the only one of all living creatures subject to the awful penalties of sexual transgression.

The *use* of the reproductive function is perhaps the highest purely physical act of which man is capable; its *abuse* is certainly one of the most grievous outrages against nature which it is possible for him to perpetrate. No observing person can doubt that the sexual relations of men and women determine in a great degree their happiness or misery in life. This subject, then, deserves due attention and careful consideration. It is of no use to scout it; for it will inevitably obtrude itself upon us, no matter how sedulously we attempt to avoid it. It can be rightly considered only with the most perfect candor, with the

mind unbiased by passion, and prayerfully anxious to know and *do* what is right.

In the following paragraphs of this section are considered some of the evils out of which grows much of the sexual suffering of men and women:

Sexual Precocity.—There are two periods in human life when the sexual instincts should be totally dormant; and they are so when nature is not perverted. The first is the period reaching from infancy to puberty. The second is the period reached in advanced age.

If raised strictly in accordance with natural law, children would have no sexual notions or feelings before the occurrence of puberty. No prurient speculation about sexual matters would enter their minds. Until that period, the reproductive system should lie dormant in its undeveloped state. No other feeling should be exhibited between the sexes than that brotherly and sisterly affection which is so admirable and becoming.

Fortunate, indeed, would it be for humanity if this natural state always existed; but it is a lamentable fact that it is rarely seen in modern homes. Not infrequently, evidences of sexual passion are manifested before the child has hardly learned to walk. It has been suggested that this precocity is nothing remarkable or unnatural, since it is often seen in little lambs and other young animals. To this it is only necessary to reply that the development of the sexual instincts perfectly corresponds with the longevity of the animal; if short-lived, like the sheep, only a short period intervenes between birth and the attainment of the sexual instinct and virility. If the animal is intended for long life, as is the case with man, these manifestations are

delayed until a much later period, or should be. Certain insects perform the sexual act as soon as they acquire their perfect form; but they perish as soon as the act is completed.

It is astonishing how ignorant and indifferent the majority of people are upon this subject. A friend related to us an incident which fairly illustrates the terrible apathy which prevails among parents. While teaching a country school, he learned that a large number of children, boys and girls, of ages varying from eight to twelve and fourteen years, were in the habit of collecting together in barns and other secluded places, and in a state of nudity imitating the "Black Crook," with all possible additional nastiness. Horrified at such a monstrous evil, he hastened to inform the parents of the corruption in their midst. Imagine his astonishment when he was met with an indifferent laugh, and the response, "Pooh! it's only natural; perfectly harmless; *just like little pigs!*"—as though pigs were models for human beings!

It is not pleasant to consider what must have been the moral status of parents who could hold such views; and it is no wonder that they should produce such children. Doubtless, they learned too late that those "natural" manifestations were the outgrowth of incipient vices, planted and fostered by themselves, which in later years destroyed shame, and gave loose rein to lust.

Often the manifestation of sexual precocity is less gross, but almost equally fraught with danger, nevertheless. Dr. Acton, a distinguished English surgeon, whom we shall frequently quote, makes the following excellent remarks upon this subject:

"Slight signs are sufficient to indicate when a boy

has this unfortunate tendency. He shows marked preferences. You will see him single out one girl, and evidently derive an unusual pleasure (for a boy) in her society. His *penchant* does not take the ordinary form of a boy's good nature, but little attentions that are generally reserved for a later period prove that his feeling is different and sadly premature. He may be apparently healthy, and fond of playing with other boys; still, there are slight, but ominous, indications of propensities fraught with danger to himself. His play with the girl is different from his play with his brothers. His kindness to her is a little too ardent. He follows her, he does not know why. He fondles her with a tenderness painfully suggestive of a vague dawning of passion. No one can find fault with him. He does nothing wrong. Parents and friends are delighted at his gentleness and politeness, and not a little amused at the early flirtation. If they were wise, they would rather feel profound anxiety; and he would be an unfaithful or unwise medical friend who did not, if an opportunity occurred, warn them that such a boy, unsuspecting and innocent as he is, ought to be carefully watched and removed from every influence calculated to foster his abnormal propensities.

“The premature development of the sexual inclination is not alone repugnant to all we associate with the term childhood, but is also fraught with danger to dawning manhood. On the judicious treatment of a case such as has been sketched, it probably depends whether the dangerous propensity shall be so kept in check as to preserve the boy's health and innocence, or whether one more shattered constitution and wounded conscience shall be added to the victims of sexual precocity and careless training. It ought not to be for-

gotten that in such cases a quasi-sexual power often accompanies these premature sexual inclinations. Few, perhaps, except medical men, know how early in life a mere infant may experience erections. Frequently, it may be noticed that a little child, on being taken out of bed in the morning, cannot make water at once. It would be well if it were recognized by parents and nurses that this often depends upon a more or less complete erection.”

We have been not more disgusted than shocked to see parents, whose intelligence ought to teach them better, not only winking at, but actually encouraging, these premature manifestations of passion in their children. They may yet learn, by bitter experience, the folly of their course, unless they make the discovery in time to avert the calamitous results which threaten the future of their children, by careful reformatory training.

It is important to inquire into the cause of this precocity. Said a father of our acquaintance, when remonstrated with for encouraging his infant son in a ridiculous flirtation, “I did just so when I was of his age.” In this case the cause was evident. The child was only acting out the disposition bequeathed him by his parent. How often do the secret follies of parents stand out in bold relief in their children. Such a legacy is nothing to be proud of.

We again quote from Dr. Acton some observations on the causes of this disorder,—for a grave disorder it is,—as follows:

“I should specify *hereditary* predisposition as by no means the least common. . . . I believe that, as in body and mind, so also in the passions, the sins of the father are frequently visited on the children. No man

or woman, I am sure, can have habitually indulged the sexual passions . . . without, at least, running the risk of finding that a disposition to follow a similar career has been inherited by the offspring. It is in this way only that we can explain the early and apparently almost irresistible propensity in generation after generation to indulge similar habits and feelings."

Various Causes of Sexual Precocity.—Another very powerful predisposing cause of sexual precocity will be alluded to under the head of "Marital Excesses." The irritation caused by worms in the rectum, by local irritation or uncleanness, or by irritation of the bladder, are exciting causes which are not infrequent. The latter cause is indicated by another symptom, the frequent wetting of the bed at night. Such a symptom doubly demands immediate attention.

The juvenile parties so common nowadays, where little ones of both sexes, of ages varying from four or five years to ten or twelve, with wonderful precocity and truthfulness, imitate the conduct of their elders at fashionable dinners, cannot be too much deprecated. Such associations of the sexes have a strong tendency to develop prematurely the distinctive peculiarities of the sexes. This is well evidenced by the fact that on such occasions one of the most common and popular entertainments is sham marriages. Parents greatly err in encouraging or allowing their children to engage in amusements of so dangerous a character. They are productive of no good, and are almost without exception productive of positive and serious injury.

Modern modes of life, improper clothing, the forcing system of cramming in schools, the immodest example of older persons, and especially the irritating, stimulating articles of diet which are daily set before

children, as well as older people, undoubtedly have a powerful influence in stimulating the development of the sexual passions. This subject is again referred to under the heading, "Chastity."

Obscene books and papers, lewd pictures, and evil communications are telling causes which will be further noticed elsewhere.

Senile Sensuality.—As with childhood, old age is a period in which the reproductive functions are quiescent, unless unnaturally stimulated. Sexual life begins with puberty, and, in the female, ends at about the age of forty-five years, at the period known as the *menopause*, or *turn of life*. At this period, according to the plainest indications of nature, all functional activity should cease. If this law is disregarded, disease, premature decay, possibly local degenerations, will be sure to result. Nature cannot be abused with impunity.

The generative power of the male is retained somewhat longer than that of the female, and by stimulation may be indulged at quite an advanced age, but only at the expense of shortening life, and running the risk of sudden death. Says Parise, "One of the most important pieces of information which a man in years can attain, is 'to learn to become old betimes,' if he wishes to attain old age. Cicero, we are told, was asked if he still indulged in the pleasures of love. 'Heaven forbid!' replied he; 'I have forsworn it as I would a savage and a furious master.'"

Some learned physicians place the proper limit of man's functional activity at fifty years, if he would not render himself guilty of shortening his days by sensuality. Other reasons for this course will appear hereafter.

Satyriasis.—When the passions have been indulged, and their diminishing vigor stimulated, a horrid disease, *satyriasis*, not infrequently seizes upon the imprudent individual, and drives him to the perpetration of the most loathsome crimes and excesses. Passions cultivated and encouraged by gratification through life, will thus sometimes assert a total supremacy in old age.

MARRIAGE

The scope and plan of this work will allow of but the briefest possible consideration of this subject, upon which volumes have been written, and much to no purpose, other than the multiplication of books. We shall devote no space to a consideration of the origin of the institution, its expediency, or varied relations, as these topics are foreign to the character of this work.

The first physiological question to be considered is concerning the proper age for marriage.

Time to Marry.—Physiology fixes with accuracy the earliest period at which marriage is admissible. This period is that at which the body attains complete development, which is not before twenty in the female, and twenty-four in the male. Even though the growth may be completed before these ages, ossification of the bones is not fully effected, so that development is incomplete.

Among most modern nations, the civil laws fixing the earliest date of marriage seem to have been made without any reference to physiology, or with the mistaken notion that puberty and nubility are identical. It is interesting to note the different ages established

by different nations for the entrance of the married state. The degenerating Romans fixed the ages of legal marriage at thirteen for females, and fifteen for males. The Grecian legislator, Lycurgus, placed the ages at seventeen for the female, and thirty-seven for the male. Plato fixed the ages at twenty and thirty years. In Prussia, the respective ages are fifteen and nineteen; in Austria, sixteen and twenty; in France, sixteen and eighteen, respectively.

Says Mayer, "In general, it may be established that the normal epoch for marriage is the twentieth year for women, and the twenty-fourth for men."

Application of the Law of Heredity.—A moment's consideration of the physiology of heredity will disclose a sufficient reason why marriage should be deferred until the development of the body is wholly complete. The matrimonial relation implies reproduction. Reproduction is effected through the union of the ovum with the zoosperm. These elements, as we have already seen, are complete representatives of the individuals producing them. The perfection of the new being, then, must be largely dependent on the integrity and perfection of the sexual elements. If the body is still incomplete, the reproductive elements must also be incomplete; and, in consequence, the progeny must be equally immature.

Early Marriage.—The preceding paragraph contains a sufficient reason for condemning early marriage; that is, marriage before the ages mentioned. It is probable that even the ages of twenty and twenty-four are too early for those persons whose development is uncommonly slow. But there are other cogent reasons for discountenancing early marriages, also drawn from the physiology of reproduction, to say

nothing of the many reasons which might be urged on other grounds.

1. During the development of the body, all its energies are required in perfecting the various tissues and organs. There is no material to be spared for any foreign purpose.

2. The reproductive act is the most exhaustive of all vital acts. Its effect upon an undeveloped person is to retard growth, weaken the constitution, and dwarf the intellect.

3. The effects upon the female are even worse than those upon the male; for, in addition to the exhaustion of nervous energy, she is compelled to endure the burdens and pains of child-bearing when utterly unprepared for such a task, to say nothing of her unfitness for the other duties of a mother. With so many girl-mothers in the land, is it any wonder that there are so many thousands of unfortunate individuals who never seem to get beyond childhood in their development? Many a man at forty years is as childish in mind, and as immature in judgment, as a well-developed lad of eighteen should be. They are like withered fruit plucked before it was ripe; they can never become like the mellow and luscious fruit allowed to mature properly. They are unalterably molded; and the saddest fact of all is that they will give to their children the same imperfections; and the children will transmit them to another generation, and so the evil will go on increasing, unless checked by extinction of the line.

Mutual Adaptation.—Another question of very great importance is that of the mutual adaptation of individuals. To this question we can devote but a very brief consideration, and that will be more of the nature

of criticism than of a set of formal rules for governing matrimonial alliances.

A Dangerous Doctrine.—A writer of some note, whose work on this and kindred subjects has had quite an extensive circulation, advocates with great emphasis the theory that parties contemplating marriage should in all cases select for partners, individuals as nearly like themselves as possible. Exact duplicates would, in his opinion, make the most perfect union attainable. To make his theory practicable, he is obliged to fall back upon phrenology; and directs that a man seeking a wife, or a woman seeking a husband, should obtain a phrenological chart of his head, and then send it around until a counterpart is found. If the circle of one's acquaintance is so fortunate as to contain no one cursed with the same propensities or idiosyncrasies as himself, the newspapers are to be brought into requisition as a medium of advertising.

If so strange a doctrine as this were advocated by an obscure individual in some secluded hamlet, or found only in the musty volumes of some forgotten author, it surely would be unworthy of notice; but coming as it does from a quite popular writer, and being coupled with a great amount of really valuable truth, it is sufficiently important to deserve refutation. A brief glance at the practical working of the theory will be a sufficient exposure of its falsity.

According to this rule, a man or woman of large combativeness should select a partner equally inclined to antagonism; then we should have — what? the elements of a happy, contented, harmonious life?—No; instead, either a speedy lawsuit for divorce, or a continual domestic broil, the nearest approach to a mundane purgatory possible. The selfish, close-fisted,

miserly money-catcher must marry a woman equally sordid and stingy. Then together they could hoard up—for moths and rust to destroy, or for interested relatives to quarrel over—their beloved greenbacks and their glittering dollars, each scrimping the other down to the finest point above starvation and freezing, and finally dying, to be forgotten by their fellowmen as soon as dead, and sent among the goats at the great Assizes. A shiftless spendthrift must choose for a helpmeet an equally slovenly, thriftless wife. A man with a crotchet should select a partner with the same morbid fancy. A man whose whole mental composition gravitates behind his ears, must find a mate with the same animal disposition. An individual whose mental organization is sadly unbalanced, is advised to seek for a wife a woman with the same deficiencies and abnormalities.

Any one can see at a glance the domestic disasters which such a plan of proceeding would entail. Men and women of unbalanced temperaments would become more unbalanced. An individual of erroneous tendencies, instead of having the constant check of the example and admonitions of a mate of opposite tendencies, would be, by constant example, hastened onward in his sinful ways. Thus, to all but a very small proportion of humanity, the married state would be one of infelicity and degeneration.

And what would be the progeny of such unions? The peculiarities and propensities of the parents, instead of being modified and perhaps obliterated in the children by corresponding differences in character, would be doubly exaggerated. The children of selfish parents would be thieves; those of spendthrifts, beggars; those of crotchety parents, monomaniacs; those

born of sensual parents, beastly debauchees. A few generations of such a degenerating process would either exterminate the race, or drive it back to Darwin's ancestral ape.

It must not be inferred from our strictures upon the theory mentioned, that we would advocate the opposite course, that is, the contraction of marriage by individuals of wholly dissimilar tastes, aims, and temperaments. Such alliances would doubtless be quite as wretched in their results as those of an opposite character. It is with this as with nearly all other subjects; the true course lies between the two extremes. Parties who are negotiating a life partnership should be careful to assure themselves that there exists a sufficient degree of congeniality of temperament to make such close and continued association agreeable.

Disparity of Age.—Both nature and custom seem to indicate that the husband should be a little older than the wife. Several reasons might be given for this, but we need not mention them. When, however, the difference of ages reaches such an extreme as thirty, forty, even fifty or more years, nature is abused, good taste is offended, and even morality is shocked. Ill-sorted alliances are disastrous to both parties, and scarcely more to one than the other.

Unions of an opposite character to those just considered, wherein a young man marries a woman much older than himself, are more rare than those of the other class. They are, perhaps, less deplorable in their physical effects, but still highly reprehensible. They are seldom prompted by pure motives, and can be productive of no good. Children resulting from such unions are notably weak, unbalanced, and sorry specimens of humanity.

A Domestic Purgatory.—We have scarcely referred to the domestic misery which may result from these disgraceful unions. If a young girl is brought home by a widower to preside over his grown-up daughters, each of whom is old enough to be her mother, all the elements are provided for such a domestic hell as could only be equaled by circumstances precisely similar. If children are born, neither father nor mother is fit to act the part of a parent to them. The father, by reason of his age, is fitful, uncertain, and childish; to-day too lenient, to-morrow too exacting. The mother is pettish, childish, indulgent, impatient, and as unskilled in government as unfit for motherhood. In the midst of all this misrule, the child grows up undisciplined, uncultivated, unsubdued,—a misery to his parents, a disgrace to his friends, a dishonor to himself.

“What shall I do with him? and what will he do with me?” was the question asked by a girl of eighteen whose parents were urging her to marry an old man; and every young woman would do well to propound the same question under similar circumstances.

Were we disposed to define more specifically the conditions necessary to secure the most harmonious matrimonial unions, it would be useless to do so; for unions of this sort never have been, and never will be—with rare exceptions—formed in accordance with a prescribed method, independent of any emotional bias. Nor is it probable that such a plan would result in remedying, in any appreciable degree, existing evils. It is a fact too patent to be ignored, that a very large share of the unhappiness in the world arises from ill-mated marriages; but it is also true that nearly the whole of this unhappiness might be averted if the par-

ties themselves would endeavor to lessen the differences between them by mutual approximation.

Courtship.—We cannot well avoid devoting a few paragraphs to a part of the subject so important as this, especially as it affords an opportunity for pointing out some evils too patent and too perilous to be ignored.

Courting, in the sense in which we use the word, is distinctly an American custom. The social laws of other civilized countries are such as to preclude the possibility of the almost unrestrained association of the sexes in youth which we see in this country. We do not offer this fact as an argument in favor of foreign social customs, by any means, although in this one particular they often present great advantages, since in the majority of instances other evils as great, or even greater, are encouraged. We mention the fact simply for the purpose of bringing into bold relief the evils of the characteristic American looseness in this particular.

Courtship in France.—A French matron would be horrified at the idea that a young man should ask her daughter to accompany him alone on an evening ride, to a lecture, concert, or other place of amusement, and much more, should he ask the privilege of sitting up all night in the parlor with the light turned down, after the rest of the family had retired. Among respectable people in France, such liberties are not tolerated; and a young man who should propose such a thing would be dismissed from the house instantly, and regarded as unfit for association with virtuous people. If a young man calls upon a young lady for the purpose of making her acquaintance, he sees both her and her mother, or an aunt, or older sister. He never sees her

alone. If he invites her to ride, or to accompany him to an entertainment of any sort, he must always invite her lady friend also; she goes along at any rate. There is afforded no chance for solitary moonlight strolls or rides, nor any other of the similar opportunities made so common by American courting customs.

We are no advocates of the formal modes of contracting matrimonial alliances common among many nations, and illustrations of which we find in all ages of the world. For example, among the ancient Assyrians it was a custom to sell wives to the highest bidder, at auction, the sums received for the handsomest ones being given to the less favored ones as a dowry, to secure a husband for every woman. The same custom prevailed in Babylon in ancient times, and has been practiced in modern times in Russia. At St. Petersburg, not many years ago, an annual sale of wives was held on Whit Sunday, after the same plan followed by the Assyrians.

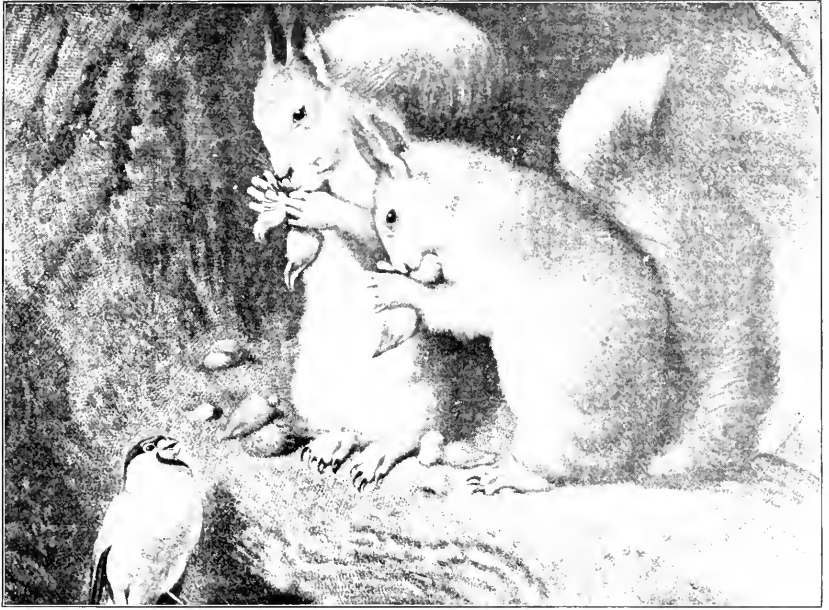
A Jewish Custom.—Among the early Jews it seems to have been the custom for parents to select wives for their sons. In the case of Isaac, this important matter was intrusted to an old and experienced servant, who was undoubtedly considered much more competent to select a wife for the young man than he was himself. The same custom has been handed down, even to the present time, among some Oriental nations. In many cases the parties are not allowed to see each other until after the wedding ceremony is completed. The Hungarians often betroth their children while they are yet in their cradles, as did the Mexicans and Brazilians of the last century. In some countries it has even been customary to betroth girls conditionally before they were born.

The primitive Moravians seem to have adhered to the ancient Jewish custom in some degree, though making the selection of a wife a matter of chance. The old people did all the courting there was done, which was not much. When a young man desired a wife, a helpmeet was selected for him by casting lots among the marriageable young ladies of the community, and the young man was obliged to abide by the decision, it being supposed that Providence controlled the selection. We are not prepared to say that the young man ran any greater risk of getting an uncongenial or undesirable life companion by this mode of selection than by the more modern modes in vogue among us.

As before remarked, we do not present these customs as illustrations of what might be considered a proper mode of conducting the preliminary steps of matrimonial alliances. On the contrary, we unhesitatingly pronounce them decidedly objectionable, on moral grounds, if not on others, and we can readily see that such unions must have been in many cases exceedingly unsatisfactory. Nevertheless, the loose customs which prevail in this country can scarcely be considered as an improvement.

Long Courtships.—Chiefly for the reasons presented in the preceding paragraphs, we are opposed to long courtships and long engagements. They are productive of no good, and are not infrequently the occasion of much evil. There may be circumstances which render a prolonged engagement necessary and advisable; but, in general, they are to be avoided.

On the other hand, hasty marriages are still more to be deprecated, especially when, as is too commonly the case, the probability is so great that passion is the actuating motive far more than true love. Marriage is



NATURE

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HUMAN NATURE

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"TILL DEATH DO US PART"



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LOYALTY

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a matter of most serious consequence, and deserving of the most careful deliberation. Too often, matrimony is entered upon without any more substantial assurance of happiness as the result than the individual has of securing a valuable prize who buys a ticket in a lottery scheme. In the majority of cases, young people learn more of each other's real character within two weeks after marriage than they discovered during many months of courting.

Advice about Getting Married.—To every young man and woman we say, Look well before you leap; consider well, carefully, and prayerfully. A reckless leap in the dark is a fearful risk, and will be far more likely to land you in a domestic purgatory than anywhere else. Do not be dazzled by a handsome face, an agreeable address, a brilliant or piquant manner. Choose modesty, simplicity, sincerity, morality,— qualities of heart and mind,— rather than exterior embellishments.

“It is folly,” suggests a friend, “to give advice on these subjects; for no one will follow advice on this point, no matter how sensible and reasonable he may be on all other subjects. The emotions carry the individual away, and the reason loses control.” This is too true, in nearly all cases. We believe in affection. The emotions have their part to act. We have no sympathy with the theories of those who will have all marriages made by rule. But reason must be allowed a voice in the matter; and although there may be a time when the overwhelming force of the emotions may relegate reason and judgment into the background, there has been a time previous when the judgment might have held control. Let every young person be most scrupulously careful how he allows emotional excite-

ment to gain the ascendancy. When reason is once stifled, the individual is in a most precarious situation. It is far better and easier to prevent the danger than to escape from it.

Flirtation.— We cannot find language sufficiently emphatic to express proper condemnation of one of the most popular forms of amusement indulged in at the present day in this country, under the guise of innocent association of the sexes. By the majority of people, flirtation is looked upon as harmless, some even considering it useful, claiming that the experience gained by such associations is valuable to young persons, by making them familiar with the customs of society and the ways of the world. We have not the slightest hesitation in pronouncing flirtation pernicious in the extreme. It exerts a malign influence alike upon the mental, the moral, and the physical constitution of those who indulge it. The young lady who has become infatuated with a passion for flirting, courting the society of young men simply for the pleasure derived from their attentions, is educating herself in a school which will totally unfit her for the enjoyment of domestic peace and happiness should she have all the conditions necessary for such enjoyment other than those which she herself must furnish. More than this, she is very likely laying the foundation for lifelong disease by the dissipation, late hours, late suppers, evening exposures, fashionable dressing, etc., the almost certain accompaniments of the vice we are considering. She is surely sacrificing a life of real, true happiness for the transient fascinations of unreal enjoyment, pernicious excitement.

It may be true, and undoubtedly is the case, that by far the greater share of the guilt of flirtation lies at

the door of the female sex ; but there do exist such detestable creatures as male flirts. In general, the male flirt is a much less worthy character than the young lady who makes a pastime of flirtation. He is something more than a flirt. In nine cases out of ten, he is a rake as well. His object in flirting is to gratify a mean propensity at the expense of those who are pure and unsophisticated. He is skilled in the arts of fascination and intrigue. Slowly he winds his coils about his victim, and before she is aware of his real character, she has lost her own. Such wretches ought to be punished in a purgatory by themselves, made seven times hotter than for ordinary criminals.

Society is full of these lecherous villains. They insinuate themselves into the drawing-rooms of the most respectable families ; they are always on hand at social gatherings of every sort. They haunt the ball-room, the theater, and even the church when they can forward their infamous plans by seeming to be pious. Not infrequently they are well supplied with a stock of pious cant, which they employ on occasion to make an impression. They are the sharks of society, and often seize in their voracious maws the fairest and brightest ornaments of a community. The male flirt is a monster. Every man ought to despise him ; and every woman ought to spurn him as a loathsome social leper.

Any young man who has been heartlessly jilted by a young woman upon whom he has placed his affections, should waste no time in regrets that his suit has been refused, but should consider himself in the highest degree fortunate that he has not been permitted to form a lifelong alliance with one who was utterly unworthy of the affections of any honest man. So also the young lady whose affections have been trifled with

by one of those heartless fops who consider the breaking of hearts an enjoyable pastime, should not regret her experience as a loss, but rather regard it as a fortunate deliverance from a life of wretchedness certain to result to any woman who places her happiness in the keeping of one of those shallow-brained and heartless individuals.

Youthful Flirtations.—Flirting is not confined to young men and women. The contagion extends to little boys and girls, whose heads ought to be as empty of all thoughts of sexual relations as the vacuum of an air-pump is of air. The intimate association of young boys and girls in our common schools, and, indeed, in the majority of educational institutions, gives abundant opportunity for the fostering of this kind of a spirit, so prejudicial to healthful mental and moral development. Every educator who is alive to the objects and interests of his profession, knows too well the baneful influence of these premature and pernicious tendencies. Many times has the teacher watched with a sad heart the withering of all his hopes for the intellectual progress of a naturally gifted scholar, by this blighting influence.

The most dangerous period for boys and girls exposed to temptations of this sort is that just following puberty, or between the ages of twelve and eighteen or twenty. This period, a prominent educator in one of our Western States once denominated, not inappropriately, "the agonizing period of human puppyhood." If this critical period is once safely passed, the individual is comparatively safe; but how many fail to pass through the ordeal unseared!

The most painful phase of this subject is the tacit—even, in many cases, active—encouragement, which too

many parents give their children in this very direction, seemingly in utter ignorance of the enormity of the evil which they are winking at or fostering. Parents need enlightenment on this subject, and ought to be aroused to the fact that it is one of the most momentous questions that can arise in the rearing and training of children.

Polygamy.—One hundred years ago the public discussion of the propriety or impropriety of a plurality of wives would have been impossible. Polygamy had not obtained a foothold as an institution in any civilized land. Being well known as not uncommon among certain heathenish and barbarous tribes, it was looked upon as a heathenish and debasing institution, the outgrowth of ignorance and gross sensuality, and a relic of a sensual age. Now, this is no longer true. Even in America, the most enlightened of all lands, where there are most ample facilities for culture, for moral and mental development, polygamy holds up its hideous head in defiance of all the laws of God and man. It is true that the perpetrators of this foul crime against humanity and Heaven have been driven by the indignation of outraged decency to seek a lurking place in the Western territories; yet the foul odors from this festering sore are daily becoming more and more putrescent, and in spite of the distance, are contaminating the already not overstrict morals in other localities.

A Defense of Polygamy.—We have read a treatise justifying and advocating polygamy, purporting to have been written by an evangelical clergyman. If so, he was evidently not willing to own his work, for his name is carefully excluded from the title page, and his publisher put under an oath of secrecy. The argu-

ments which he makes in favor of polygamy are chiefly the following:

1. That it is approved by the Bible.
2. That a robust man requires more than one woman to satisfy his sexual demands.
3. That there are more women than men; and since every woman has a right to have a husband, the only way all can be supplied is to allow several women, two or more, according to the capacity of the man, or as they can agree, to form a marriage partnership with one man.
4. That the great men of all ages have been polygamists in fact, if not by open profession.
5. That monogamy is a relic of the paganism of the ancient Greeks and Romans, with whom it originated.
6. That polygamy is the only proper and effective cure for the "social evil," and all its attendant vices and dire diseases.

Arguments of Polygamists Answered.—As the work referred to has had quite a circulation, bearing the imprint of a well-known Boston publisher, and has not received any answer that we are aware of, we deem it worth while to give these arguments at least a passing notice. We will consider them in the order in which they are stated above.

1. We deny most emphatically the assertion that polygamy is either taught or approved by the Bible. It was tolerated in a people who had long been in the darkness of Egyptian bondage, but never approved. Indeed, the inspired writers have evidently taken pains to give numerous examples of the evils growing out of that violation of the laws of God and nature. Mormon missionaries are spreading their deceptions everywhere with such zeal that we deem it not inap-

propriate to quote the following passages of Scripture in refutation of their so-called Bible authority for polygamy. They mistake erring example for moral precept: Gen. 2:22-24 reads, "And the rib which the Lord God had taken from man, made he *a woman*, and brought her unto the man. . . . Therefore shall a man leave his father and his mother, and shall cleave unto his *wife*: and they shall be one flesh." Christ repeats this law in Matt. 19:4-6. The decalogue, spoken by God himself, recognizes no change in this plan: "Thou shalt not covet thy neighbor's wife." Ex. 20:17. Lev. 18:18 reads, "Neither shalt thou take a wife to her sister (margin, 'one wife to another') to vex her." Paul, in 1 Tim. 3:2, 12, instructs the true church to follow the Creator's plan. A false church may be expected to ignore it: "A bishop must be blameless, the husband of one wife." Verse 2. "Let the deacons be the husbands of one wife." Verse 12. Eph. 5:33 reads. "Let *every one of you* in particular so love *his wife* even as himself." This ought to prevent the deception of the most ignorant.

2. The second argument is based upon the asserted fact that man naturally possesses stronger sexual demands than woman; that these demands are imperative; and that it is not only impossible, but in the highest degree injurious, to restrain them.

While it is true, as a fact affirmed by constant observation, that men have stronger passions than women, in general, and that many men demand of their wives a degree of sexual indulgence which is the cause of serious injury to them, and even impossible for them to grant without doing themselves the greatest wrong, it is by no means proved either that these demands

are imperative, that they are natural, or that they are not injurious to the man as well as the woman, much less beneficial to either. On the contrary, there is as great a weight of evidence as could be required that restraint, self-control, and moderation in the exercise of the sexual instinct, are in the highest degree beneficial to man, as well as to woman, and are necessary for his highest development.

3. While it is true there are a few more adult women than men, the difference is not sufficiently great to require the introduction of polygamy as a remedy for enforced celibacy. At any rate, this would be unnecessary until all bachelors had been provided with wives, when there would be found no necessity for further provision, since there are large numbers of women who are utterly unfit to marry, who would be injured by so doing, and would only serve to degenerate the race, besides making themselves more wretched than they already are.

Again, it is a well-known fact that more males than females are born, the preponderance of adult females being caused by a greater mortality among male children, together with the losses from accidents and war. By a correct observance of the laws of health, together with the abolition of wars, the disparity in relative numbers of the sexes would disappear. Indeed, it might happen that men would be in the preponderance.

Still again, it is only in a few very populous and long-settled communities that there are more women than men, as in the States of Massachusetts, Connecticut, and a few others of the Eastern States, and a few countries of Europe. In all newly settled countries, the reverse is true. The inquiry naturally arises, What shall be done under these circumstances? Shall a

woman be allowed more than one husband, as is actually the case in some countries? "Oh! no;" our polygamist replies, "a woman is not capable of loving more than one man, and is not even able to satisfy the sexual demands of a single husband; so, of course, a plurality of husbands is out of the question. A man is capable of loving any number of women, being differently constituted; and so the same rule does not apply."

The writer evidently confounds love with lust. He will grant unstinted indulgence to the lusts of man, but requires woman to be restrained, offering as an apology for such a manifestly unfair and unphilosophical discrimination, that "man is differently constituted from a woman sexually, requiring more active exercise of the sexual functions,"—a conclusion which could be warranted only by the selection, as a typical specimen of the male part of humanity, of a man with an abnormal development of the animal propensities.

A correct understanding and application of the laws of sexual hygiene would effectually sweep away every vestige of argument based on this foundation.

4. In proof of the propriety of polygamy, as well as of its necessity, the author referred to cites the well-known fact that Plato, Aristotle, Bacon, Alexander, Cæsar, Napoleon, Burns, Byron, Augustus, Webster, and numerous others of the noted men of all ages have been incontinent men. The fact that these men were guilty of crime does not in the least degree detract from the enormity of sin. It is equally true that many great men have been addicted to intemperance and other crimes. Alexander was a Sodomite as well as a lecherous rake. Does this fact afford any proof that those

crimes are virtues instead of vices? Such argument is hardly worthy of serious refutation, since it stultifies itself.

5. The fact that monogamy was practiced among the ancient Greeks and Romans, is in no way derogatory of it as an institution. Even if it could be shown that it originated with those nations, still this would in no way detract from its value or respectability. But monogamy did not originate with the Greeks, neither was it invented by the Romans, nor by any other nation. It originated with the great Originator of the human race. It is an institution which has come down to us, not from Greece or Rome, but from Paradise.

If it was so important that man should have more than one woman to supply his sexual demands, why was the Creator so short-sighted as to make but one Eve? It would have been as easy to remove two or three or half a dozen ribs from Adam's side as one; and as the whole world had yet to be populated, a plurality of wives would certainly have accelerated the process. Surely, if polygamy was ever required or excusable, it ought to have been allowed at the start.

Again, when Noah went into the ark, taking with him an assortment of all species of animals, he took some kinds by pairs and some by sevens, from which we might suspect, at least, that he observed the laws of nature respecting polygamous and monogamous animals. But he took only one wife for himself, and only one for each of his sons. Why not two or half a dozen instead? Polygamy would certainly have accelerated the repopulation of the earth most wonderfully; but Noah was monogamous. Likewise Abraham, the "friend of God," had but one wife when called to be the "father of the faithful;" and it is unjust to charge Jacob with a purpose of polygamy because of the

deception practiced by the sordid Laban. To say, in view of the facts, that monogamy originated with the paganism of ancient Greece and Rome, is almost blasphemy.

6. The argument that polygamy will cure the "social evil" is exactly equivalent to the argument that the removal of all restraint from the sale and manufacture of intoxicating drinks, thus making them cheap and common, is the best remedy for intemperance. An equally good argument might be made for the cure of theft, murder, and every other vice and crime, by a similar plan. Such reasoning is the veriest sophistry. None but a biased mind could produce such flimsy arguments.

But we forbear. We have already given this subject more attention than it is worthy of, though we have failed to characterize the vice of polygamy as it deserves. Our chief apology for noticing the subject is the fact that sensual men sometimes set up some of the same arguments as an apology for their vices.

Polyandry.—Perhaps we should add a word or two respecting this custom, which seems to be a still greater outrage against nature than that of polygamy, being the possession of a plurality of husbands by one woman. This practice is in vogue in several countries at the present time, being very common in Thibet, where it is not an unusual thing for a woman, in marrying the eldest of a family of brothers, to include in the contract all the other brothers as well. Polyandry was also common among the ancient Medes. Indeed, the Medes practiced both polygamy and polyandry. A man was not considered respectable unless he had at least seven wives; neither were women considered worthy of general esteem unless they had as many as

five husbands. In that country, the fact that a woman was already married was in no degree a barrier to subsequent marriages, even while the husband was living, and without the trouble of a divorce. Those who maintain the propriety of polygamy, would do well to consider the historic facts respecting the opposite practice. There appear to be as good grounds for believing one to have a basis in the human constitution as the other.

Divorce.— Another of the crying evils of the day, and one which menaces in a most alarming manner the most sacred interests of society, is the facility with which divorces may be obtained. In some States, the laws regulating divorce are so notoriously loose that scores and even hundreds of people visit the States referred to every year with no other object than to obtain a dissolution of the bonds of matrimony. The effect of this looseness in the laws is to encourage hasty, inconsiderate marriages, and to make escape from an uncongenial partner so easy that the obligation to cultivate forbearance, and to acquire mutual adaptation, which may not at first exist, is wholly overlooked.

The Bible rule for divorce, laid down by the great Teacher, is little regarded in these degenerate days. He made adultery the only legitimate cause for divorce; yet we now see married people breaking asunder their solemn marriage ties on the occurrence of the most trivial difficulties. If a couple become tired of each other, and desire a change, all they have to do is to forward the fee to a New York or Chicago lawyer, and they will receive back in a short time the legal papers duly signed, granting them the desired annulment of their vows.

Although countenanced by human laws, there can be no doubt that this shameless trifling with a divine institution is regarded by High Heaven as the vilest abomination. In no direction is there greater need of reformatory legislation than in this. The marriage contract should be recognized in our laws as one which cannot be made and broken so lightly as it now is. It should be annulled only for the most serious offenses. The contrary course, now pursued so frequently, is most detrimental to morals. Our divorce laws virtually offer a premium for unchastity.

Not infrequently we see, among the advertisements in the newspapers, notices like the following: "The undersigned is prepared to furnish divorces to parties desiring the same at moderate rates, in short time, and without publicity. — —."

The animus of these advertisements is fraud. The parties so engaged are the vilest scoundrels; and that they are allowed to continue to ply their nefarious vocation is a foul blot upon the enlightened civilization of a so-called Christian country. A publisher who will insert such a notice in his journal, would advertise a brothel if he dared. While there is so much interest in the suppression of obscene literature, would suggest that the proper authorities should likewise direct their attention to the suppression of unlawful divorces, and the proper punishment of the villains engaged in forwarding this nefarious business.

Who May Not Marry.— Many writers devote much space in laying down rules which are to be implicitly followed by those seeking life partners. We have attempted nothing of the sort, both from its impracticability, and from the fact that such rules are never followed; and if the attempt should be made to

follow the prescribed rules, we are not sure that more good than harm would be the result. Hence, we shall content ourselves with calling attention to a few facts of great importance respecting the conditions which imperatively forbid marriage, and which cannot be violated without the certain entailment of great suffering.

1. *Persons suffering with serious disease of a character communicable to others by contagion or by hereditary transmission.*

Many people wonder why it is that diseases are so much more numerous and varied in modern times than in the earlier ages of the race. There has been an evident increase of diseases within a few centuries. While there are, undoubtedly, numerous influencing causes, one which cannot be overlooked is the hereditary transmission of disease, which preserves those disorders already existing, and adds new ones which originate from new exciting causes. By this means, the human race is undoubtedly being weakened, human life shortened, and diseases multiplied. Compare the average age of human beings of the present day, less than forty years, with the longevity of the early members of the race, who lived more than as many score of years. Some mighty deteriorating influence has been at work; and we hazard nothing in the assertion that the marriage of diseased persons, and kindred violations of the laws of human hygiene, have been not unimportant factors in producing this most appalling diminution in the length of human life.

Among the diseases which are most certain to be transmitted, are pulmonary tuberculosis, or consumption, syphilis, cancer, leprosy, epilepsy and some other nervous disorders, some forms of skin disease, and

insanity. The list might be extended; but these are the most common. Persons suffering with these disorders have no right to marry, for at least four reasons:

(1) It is a sin against the offspring of such unions, who have a right to be born well, but are forced to come into the world with weakly constitutions, diseased frames, and the certainty of premature death. The children of consumptive and syphilitic parents rarely survive infancy. If they do, it is only to suffer later on, as they surely will, and perhaps to communicate the same destructive diseases to other human beings; but these diseases rarely extend beyond the third generation, the line becoming extinct. The most heart-rending spectacles we have ever met have been the children of parents suffering with the diseases mentioned. Their appearance is characteristic; no physician of experience can fail to detect the sins of a profligate parent in a syphilitic child. Every feature indicates the presence of a blighting curse.

There are those who assert that a man who has suffered with disease of the character last mentioned, may marry after the lapse of two or three years from the disappearance of the active symptoms of the malady. Such assertions we consider as most dangerous and pernicious. The individuals who make them are well acquainted with the fact that, of all diseases, this is the most difficult to eradicate when once the system has become thoroughly infected by it. Not only three years, but thirty, may elapse after active symptoms disappear; yet the disease may break out again in a new and still more serious and complicated form. It may even lie entirely dormant or latent in the system of the parent during his lifetime, but break out in all

its terrible destructiveness in his children. A man or woman who has once suffered with this fell disease, is contaminated for life; and it is a crime for such a one to entail upon innocent, unoffending human beings such a terrible legacy. Such a person has no right to marry; or if married, has no right to perpetuate the results of his sins in offspring. It is *never safe* to say to a man who has once been infected, You are cured. If a cure ever takes place, it is exceedingly rare.

A worn-out debauchee certainly has no right to marry. As a medical writer has remarked: "Marriage is not a hospital or an infirmary for the treatment of disease, or a reformatory institution for the moral leper. More intelligent and just public opinion will do away with such outrages."

(2) It is a crime against the race. One of the primary objects of marriage is reproduction. As members of the human race, it is the duty of parents to produce a high type of human beings, at least to do all in their power to produce healthy offspring. If they cannot do this, and are aware of the fact, they are guilty of abuse of the reproductive function in bringing sickly offspring into the world to suffer.

(3) It is injurious to the contracting parties themselves. If a person has a communicable disease, as syphilis, leprosy, and some bad forms of skin disease, the disease will certainly be communicated to the wife or husband, and so a double amount of suffering will be entailed. The dread disease, consumption, rightly called the scourge of civilization, is now well known to be communicable. A few years ago we were consulted by an old gentleman, a native of Canada, who was suffering with pulmonary disease. We inquired

respecting the history of the malady. Said he, "Doctor, it may seem strange, but I believe I *inherited* consumption from my wife, who died of consumption a few years ago." Excepting the wrong use of the term *inherit*, we were not prepared to dispute the old gentleman's ideas respecting the origin of his disease. Living for years in close association with his wife, who was slowly dying with disease of the lungs, it was quite possible for him to have received the disease from her. So many cases of this kind have been reported that it is now generally believed by medical men that consumption is communicable from one person to another by the reception into the system of the well person of the exhalations from the lungs of the person affected.

Physical Influence of Marriage.—Another point worthy of mention here is the well-known fact that the intimate association of married people modifies even the physical form of both. Almost every one has noticed how much alike in appearance married people often come to be who have lived many years together. This physical change undoubtedly extends farther than to the features only. The whole constitution is modified.

A remarkable illustration is found in the frequent observation that the children of a woman by a second husband often resemble in appearance the first husband much more than their own father. It has been observed that the children of a negro woman, by a husband of pure negro blood, are much lighter in color than usual, if she has had a child by a white man previously.

The same fact is observed in lower animals. In England, some years ago, a cross was effected between

a male zebra and several young mares. Not only the hybrid colts resulting from this union, but all the colts afterward foaled by the same mares, from other stallions, were striped like the zebra.

In view of these facts, it is probable that the system of the wife, at least, may be profoundly affected by constitutional weaknesses, as well as by other individual peculiarities possessed by her husband.

No person suffering with a contagious or infectious disease has any right to communicate the same to another. Indeed, it is the moral duty of every person so affected to do all in his power for the protection of others from the same cause of suffering.

2. *Persons having a marked hereditary tendency to disease must not marry those having a similar tendency.*

Every physician knows too well the powerful influence of hereditary causes in determining the length of human life. Persons, one or both of whose parents have died of consumption, are very likely to die of the same disease, and frequently at about the same age. The children of such parents are commonly feeble and puny, and die early, if they survive infancy. When both parents possess the consumptive tendency, the chance for life in the offspring is very poor indeed. The same may be said of those suffering with cancer, epilepsy, insanity, etc. Persons with a strong tendency to any one of the diseases mentioned, should in no case marry. If there is but a slight morbid tendency, marriage may be admissible, but only with a partner possessing robust health.

3. *Should cousins marry?*

Writers have devoted a good deal of attention to this subject, and we have been shown statistics, reports

of imbecile asylums, etc., for the purpose of proving that the marriage of cousins results in the production of idiots, and children defective in other ways; but the results of a more careful examination of the subject invalidate the views heretofore held, and it must be acknowledged that when both parties are healthy, there is no more liability of mental incompetency in the children of cousins than in the offspring of persons more remotely related. It must be added, however, that there are other reasons why the marriage of cousins is not to be generally recommended. Besides the fact that the feeling existing between cousins is often only that which is felt by brothers and sisters for each other, there is the still more important fact that on account of the blood relation, unions of this kind are more apt than others to bring together persons having similar morbid tendencies.

4. *Persons having serious congenital deformities should not marry.*

The reason for this rule is obvious. Persons suffering with serious congenital defects, as natural blindness, deafness, deformity of the limbs, or defective development of any part, will be more or less likely to transmit the same deformities or deficiencies to their children. There are, of course, cases of natural blindness, as well as of disability in other respects, to which this rule does not apply, the natural process of development not being seriously defective. It has even been observed that there is a slight tendency to the reproduction in the offspring of deformity which has been artificially produced in the parents, and has existed for a long time.

Many ancient nations observe this rule. Infants born cripples were strangled at birth or left to die. A

Spartan king was once required by his people to pay a heavy fine for taking a wife who was inferior in size.

5. *Criminals should not marry.*

It has been satisfactorily shown by thorough and scientific investigation that criminals often receive their evil proclivities from their parents. What are known as the criminal classes, which are responsible for the greater part of the crime committed, are constantly and greatly on the increase. There is no doubt but that inheritance is largely responsible for the continued increase of crime and criminals. A drunkard begets in his child a thirst for liquor, which is augmented by the mother's use of ale or lager during gestation and nursing, and the child enters the world with a natural taste for intoxicants.

A thief transmits to his offspring a secretive, dishonest, sneaking disposition; and the child comes into the world ticketed for the state prison by the nearest route. So with other evil tendencies. By legislation or by some other means, measures should be speedily adopted for the prevention of this increase of criminals, if there is any feasible plan which can be adopted. We offer no suggestion on this point, but it is one well worthy of the consideration of philanthropic statesmen.

6. *Persons who are greatly disproportionate in size should not marry.*

While good taste would suggest the propriety of this rule, there are important physiological reasons for its observance. While the lack of physical adaptitude may be the occasion of much suffering and unhappiness in such unions, especially on the part of the wife, being even productive of most serious local disease, and sometimes of sterility, it is in childbirth that the greatest risk and suffering is incurred. More might

be said on this point, but this is sufficient for those who are willing to profit by a useful hint.

7. *Persons between whom there is a great disparity of age should not marry.*

The reasons for this have already been given at length, and we will not repeat. In general, the husband should be older than the wife, from two to five years. The husband may often be ten or twelve years the senior of the wife; but when more than that, the union is not likely to be a profitable or happy one, if it is not absolutely productive of suffering and unhappiness. The ancient Greeks required that the husband should be twenty years older than the wife; but this custom was no more reasonable than that of another nation which required that only old and young should marry, so that the sobriety of the old might restrain the frivolity of the young.

8. *Persons who are extremely unlike in temperament should not marry.*

Persons who are so unlike in temperament and tastes as to have no mutual enjoyments, no congeniality of feeling, will be incompatible as husband and wife, and the union of such persons will be anything but felicitous. No definite rule can be laid down; but those seeking a companion for life would do well to bear this caution in mind, at the same time remembering that too great similarity of character, especially when there are prominent defects, is equally undesirable.

9. *Marriage between widely different races is unadvisable.*

While there is no moral precept directly involved in marriage between widely different nations, as between whites and blacks or Indians, experience shows that such marriages are not only not conducive to happi-

ness, but are detrimental to the offspring. It has been proved beyond room for question that mulattoes are not so long-lived as either blacks or whites.

10. *Persons who are unable to sustain themselves or a family should not marry.*

Both moral and social obligations—if the two obligations may exist independently—forbid marriage to a young man who is scarcely able to provide for himself, much less to support a wife and family. The theory advocated by some, that two can live almost as cheaply as one, so that a saving will be made by a union of two in marriage, is a most fallacious one. There may be occasional exceptions, but in general, young people who marry with this idea in their heads, find that they have reasoned not wisely. It will not be disputed that a married couple may live upon what is often spent foolishly by a young man; but a young man can be economical if he will; and if he does not learn economy before marriage, it is likely that he never will learn it.

The marriage of paupers, to beget pauper children and foist them upon the community for support, is an outrage against society. We believe it is not improper to speak out plainly upon this subject, and in no uncertain tone, notwithstanding the popular prejudice which cries, “Hush, be quiet; don’t interfere with individual rights, don’t disturb the peace of society,” whenever anything is said that has a bearing on a regard for propriety in matters relating to one of the most ancient, the most sacred, and the most abused of all divinely appointed human institutions. We have never been able to account for this strange averseness to the consideration of this phase of the matrimonial question, and the determined effort often made to ig-

nore it whenever it is broached. We purpose to speak out, notwithstanding the feeling referred to, since we believe this to be a crying evil; and we have no fears but that we shall have the hearty indorsement of every individual who can so far lay aside his prejudices as to allow his native common sense a fair chance to influence his judgment.

In the country of Iceland, a land which is scarcely more than semi-civilized, if a young man wishes to marry, the first thing to be considered is his pecuniary situation. Before he can take to himself a wife, he must appear before the proper authority, and present evidence that he is able to support a wife and family in addition to providing for himself. Even the barbarous natives of Patagonia show an equal degree of good sense, the chief of each tribe requiring that every young man who wishes to marry shall first prove himself competent to provide for a family, having attained the requisite degree of proficiency in hunting and fishing, and having possessed himself of at least two horses and the necessary equipments.

In this country,—a civilized, so-called Christian country, blessed with all the enlightenment of the nineteenth century,—what do we see? Instead of any regulation of the sort, there is the utmost indifference to such clearly important considerations. If young people profess to love each other, and wish to marry, no one of their friends thinks of asking, “How are they going to live after they are married? Has the young man a trade? Has the young lady been so educated as to be self-sustaining if necessary? Has the young man a home or the wherewithal to obtain one? Has he a good situation, with prospects of being able to support his wife comfortably and provide for a family?” These

or similar questions are sometimes asked, but little respect is paid to them by any one, least of all by the young people themselves, who ought to be most interested. The minister never inquires respecting the propriety of the wedding at which he is to officiate, and invokes the blessings of Heaven upon a union which, for ought he knows, may be the grossest violation of immutable laws Heaven-implanted in the constitution of the human race. The friends tender their congratulations and wishes of "much joy," when in three cases out of four the conditions are such that a preponderance of grief is an inevitable certainty, and "much joy" an utter impossibility.

There are exceptions to all general rules; but it is a fact of which almost any one may convince himself, that the majority of men and women do not rise much higher than the level reached at marriage. If a young man has no trade then, it is more than probable that he will never be master of one. If he has not fitted himself for a profession, he will most likely never attain to such a rank in society. He will, in all probability, be a common laborer, living "from hand to mouth," with nothing laid by for a rainy day.

A wag says that a young couple just married, and for the first time awakened to the full consciousness of the fact that they must provide for themselves or starve, held the following dialogue: *Husband*.—"Well, wife, what are we going to do? How shall we live?" *Wife*.—"Oh, my dear, we shall get along very well, I am sure; you love me, don't you?" *H.*—"Certainly, dear, but we cannot live on love." *W.*—"We can live on bread and water; so long as we have each other, it doesn't matter much what we have to eat." *H.*—"That's so, my dear; well, you furnish the bread, and

I will skirmish around after the water." This exact dialogue may never have taken place; but the circumstances which might have called it out have occurred thousands of times. How many times has a dependent woman, who had hastily married an improvident husband, awakened at the end of a short honeymoon to find that she had only a limber stick or a broken reed to lean upon, instead of a self-reliant, independent, self-sustaining man, able to provide for her the comforts of a home and to protect her from the rudeness and suffering of privation and want!

In our estimation, it is as much a sin for a man to assume the obligation of caring for a wife and family when he has no reasonable grounds for believing himself able to do so, as for a man to go in debt a few hundreds or thousands of dollars, and agree to pay the same when required, though perfectly well aware that he will probably be unable to do so. Hence we say again, with emphasis, The improvident should not marry; and we shall insist upon urging this truth, notwithstanding the fact that the very class of persons referred to are usually of all classes the most anxious to enter the matrimonial state at the earliest possible moment, and the most certain to bring into the world large families of children still more improvident than themselves.

11. *Do not marry a person whose moral character will not bear the closest scrutiny.*

By this we do not mean that absolute perfection should be required, as this would interdict marriage altogether; but we wish to warn every young man against marrying a young woman who treats lightly or contemptuously matters which should be treated with profound respect; who uses the name of the Deity

flippantly or rudely; who treats her parents disrespectfully; who never cares to talk of subjects of a spiritual nature; who is giddy, gay, dressy, thoughtless, fickle. Such a young woman will never make a loving, patient, faithful, helpful wife.

We wish also to warn every young woman against choosing for a husband a man who has a strong leaning toward infidelity; who does not believe in human responsibility; who makes a mock of religion; who is addicted to profanity; who is either grossly intemperate or given to moderate tipping, be it ever so little, so long as he does not believe in and practice total abstinence; who uses tobacco; who is a jockey, a fop, a loafer, a scheming dreamer, or a speculator; who is known to be unchaste, or who has led a licentious life.

The man who has no love for his Maker will be likely to have little for his wife and children. He who does not acknowledge his responsibility to a higher Power, will soon forget his obligation to the wife he has promised to love and cherish. The man who is not willing to sacrifice the gratification afforded by such pernicious habits as dram-drinking and tobacco-using to insure the comfort and happiness of his wife and children, is too selfish to make any woman a kind husband.

There is no greater error abroad than that held by not a few, that "a reformed rake makes the best husband." The man whose affections have been consumed in the fires of unhallowed lust, is incapable of giving a pure-minded woman the love that she expects and deserves. A person cannot pass through the fire unscathed. The scars burned into the character by the flames of concupiscence are as deep and lasting as those inflicted upon the body, and even more so. Only "in

the regeneration" will the marks and scars of the reformed reprobate be wholly effaced.

We willingly grant that there have been numerous instances in which noble women have, by years of patient effort, reformed their erring husbands, and restored them to the paths of virtue and sobriety from which they had wandered. We do not deny that it can be done again; but we do not hesitate to say that the experiment is a most perilous one for any woman to undertake, and one which not more than one woman in a hundred can bring to a successful termination. The hazard is terrible. Perhaps it is on this very account that many young women run the risk; but they rarely understand what they are doing. The woman who marries a drunkard, will, ten chances to one, die a heart-broken drunkard's wife, or follow her husband to a drunkard's grave. It is never safe for a woman to marry a man who has been for years a habitual drunkard, since he may relapse at any time; and the man who has only indulged moderately, should be thoroughly reformed and tested before the chances are taken "for better or for worse." Let him prove himself well first. A proposition to reform on condition of marriage should be dismissed with disdain. If a young man will not determine to do right because it is right, his motives are sordid; and the probability is very great that as soon as some stronger incentive appeals to his selfishness, he will forget his vows and promises and relapse into his former vices.

CONTINENCE

Continence differs from chastity in being entire restraint from sexual indulgence under all circumstances, while chastity is only restraint from unlawful indulgence. Many of the observations on the subject of "Chastity" apply with equal force to continence. The causes of incontinence are the same as those of unchastity. The same relation also exists between mental and physical continence as between mental and physical chastity.

The subject of continence evidently has a somewhat wider scope than that of chastity, as generally understood; but as we have considered the latter subject so fully, we shall devote less space to this, leaving the reader to make the application of such preceding remarks as reason may suggest to him are equally appropriate here.

Without stopping to consider the various circumstances under which absolute continence is expedient, or desirable, or morally required, we will proceed at once to examine the question, Is continence harmful?

Continence Not Injurious.—It has been claimed by many, even by physicians, and though with slight show of reason, that absolute continence, after full development of the organs of reproduction, could not be maintained without great detriment to health. It is needless to enumerate all the different arguments employed to support this position, since they are, with a few exceptions, too frivolous to deserve attention. We shall content ourselves chiefly with quotations from acknowledged authorities, by which we shall show that the popular notions upon this subject are wholly erro-

neous. Their general acceptance has been due, without doubt, to the strong natural bias in their favor. It is an easy matter to believe what agrees well with one's predilections. A bare surmise, on the side of prejudice, is more telling than the most powerful logic on the other side.

“We know that this opinion is held by men of the world, and that many physicians share it. This belief appears to us to be erroneous, without foundation, and easily refuted.*

The same writer claims “that no peculiar disease nor any abridgment of the duration of life can be ascribed to such continence.” He proves his position by appealing to statistics, and shows the fallacy of arguments in support of the contrary view. He further says:

“It is determined, in our opinion, that the commerce of the sexes has no necessities that cannot be restrained without peril.”

“A part has been assigned to *spermatic plethora* in the etiology of various mental affections. Among others, priapism has been attributed to it. In our opinion, this malady originates in a disturbance of the cerebral nerve power; but it is due much less to the retention of sperm than to its exaggerated loss; much less to virtuous abstinence than to moral depravity.”

There has evidently been a wide-spread deception upon this subject. “Health does not absolutely require that there should ever be an emission of semen, from puberty to death, though the individual live a hundred years; and the frequency of involuntary nocturnal emissions is an indubitable proof that the parts, at

* Mayer.

least, are suffering under a debility and morbid irritability utterly incompatible with the general welfare of the system.”

Contenance Does Not Produce Impotence.— It has been declared that strict continence would result in impotence. The falsity of this argument is clearly shown by the following observations:

“There exists no *greater error* than this, nor one more opposed to physiological truth. In the first place, I may state that I have, after many years’ experience, never seen a single instance of atrophy of the generative organs from this cause. I have, it is true, met the complaint; but in what class of cases does it occur? —It arises, in all instances, from the exactly opposite cause, abuse; the organs become worn out, and hence arises atrophy. Physiologically considered, it is not a fact that the power of secreting semen is annihilated in well-formed adults leading a healthy life, and yet remaining continent. No continent man need be deterred by this apocryphal fear of atrophy of the testes, from living a chaste life. It is a device of the unchaste, a lame excuse for their own incontinence, unfounded on any physiological law.” *

The eminent Dr. Joseph Hutchinson, of London, states emphatically that impotence is never the result of continence. It is unquestionably true, however, that serious injury may result from prolonged and ungratified sexual excitement, often greater than from frequent gratification in a normal way; nevertheless, this is no apology for incontinence, as the troublesome excitement is not a physiological condition, but is the result of a bad mental state, the mind being allowed to run upon sensual subjects, which is, beyond question, mentally and morally, as well as physically,

* Acton.

wrong. Sexual excitement arising from constipation of the bowels, or from any form of local disease, is a morbid condition which is aggravated rather than relieved by gratification. Hence a morbid desire for sexual gratification is under no circumstances an apology for indulgence.

A Hint from Lower Animals.—The truth of these statements has been amply confirmed by experiments upon animals, as well as by the experience of some of the most distinguished men, who have ever lived, among whom may be mentioned Sir Isaac Newton, Kant, Paschal, Fontenaille and Michael Angelo. These men never married, and lived continent lives. Some of them lived to a very great age, retaining to the last their wonderful abilities. In view of this fact, there is certainly no danger that any young man will suffer injury by the restraining of his passions within the limits of divine and natural law.

The complaint is made by those whose lives have been far otherwise than continent, that abstinence occasions suffering from which indulgence gives relief. The writer just referred to (Acton) further says that when such a patient consults a medical man, “he should be told—and the result would soon prove the correctness of the advice—that attention to diet, gymnastic exercise, and self-control will most effectually relieve the symptoms.”

Difficulty of Continence.—Some there are who urge that self-denial is difficult; that the natural promptings are imperious. From this they argue that it cannot but be right to gratify so strong a passion.

If rigid continence is maintained from the first, the struggle with the passions will not be nearly so severe as after they have once been allowed to gain the as-

cendency. On this point, the following remarks by Mayer are very just:

“At the outset, the sexual necessities are not so uncontrolled as is generally supposed, and they can be put down by the exercise of a little energetic will. There is, therefore, as it appears to us, as much injustice in accusing nature of disorders which are dependent upon the genital senses, badly directed, as there would be in attributing to it a sprain or a fracture accidentally produced.”

It would be just as reasonable to offer the appetite for liquor as an apology for its use, and a good evidence of the physiological necessity for alcoholic stimulants, as to argue that sexual indulgence is a physiological need for the individual, whereas no such necessity exists unless produced by erotic thoughts or other conditions within the individual's own control, or by morbid or diseased conditions which require medical treatment for their removal, and which will be aggravated, rather than alleviated, by the gratification of the desire for indulgence.

Internal Secretions.—Bouchard, the distinguished French physiologist, has shown that the character of all cells within the body of an animal, depends upon the influence of certain subtle substances in the fluids of the individual, which, although so small in amount that they have, until recently, evaded the closest scrutiny of the physiologist and the chemist, are nevertheless so potent in their influence upon the animal organism that they practically control every function, from the first step of nutrition in the digestion of the food, to the final process of assimilation in the conversion of food elements into tissue.

These peculiar substances, known as “internal secre-

tions," are formed by the suprarenal capsules of the kidney, the thyroid gland, the sexual glands, and other so-called ductless glands. It is known that the removal of the thyroid gland from the body of an animal will produce death by the development of a peculiar form of disease; but if an extract of thyroid gland, made by macerating the gland in water, is injected into the body of the animal from time to time, the injurious effects ordinarily resulting from the removal of the gland do not appear.

More recent experiments have shown that every tissue produces certain substances which, circulating in the blood, modify every other tissue, thus producing unity and harmony in the development of the various organs of the body, independent of the nervous system, thus explaining what has heretofore been one of the greatest mysteries of animal physiology.

The bearing of these discoveries upon sexual hygiene is very obvious and highly important. These investigations have shown that the sexual glands are useful, not only as a means of race-perpetuation, but for the physical well-being of the individual, through the vital stimulus exercised by them, through the influence of their peculiar secretion upon the processes of development and nutrition. In view of this fact, it is evident that, so far as the individual is concerned, physical benefit is to be looked for, not in the loss of the secretion of the sexual glands, but in its retention and appropriation. In other words, reproduction is accomplished at the sacrifice of individual interests, a law which prevails throughout the whole organic world, being, in some instances, so pronounced that the development of progeny is accomplished only through the death of one or both parents.

These discoveries afford a thoroughly satisfactory and scientific explanation of two facts which heretofore have rested solely upon the basis of observation and experience:

1. That continence is favorable to physical vigor.
2. That sexual intemperance is productive of exhaustion and debility to a most extraordinary degree.

The influence of the sexual glands upon development has been understood from very early ages. The influence of the removal of these glands in the equine or

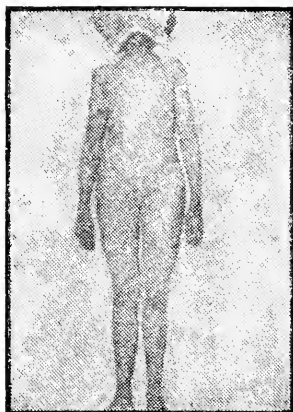


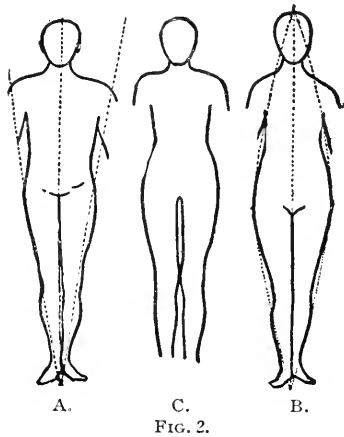
FIG. 1.

bovine race is well known. The proudly arched neck, the graceful roundness of trunk and limbs, and the magnificent courage and vigor of the stallion, are not found in the mutilated animal. The massive head and horns, the flashing eye, the terrible majesty of the bull, are never encountered in the castrated animal of the same species, the meek-eyed ox. The differences in size, appearance, and character which exist

between the horse and the stallion, between the ox and the bull, are purely the result of the loss of the magic influence of the secretion of the sexual glands, as a stimulus to development and a regulator of the nutritive processes.

The removal of the sexual glands before puberty, or the failure of their development from any cause, gives rise to similar differences in the human male. A few years ago we saw an interesting example of this fact. A young man between twenty and twenty-five

years of age presented himself for examination with reference to a condition which he supposed might be remedied by a surgical operation. On examination, we found no evidence whatever of the presence of the sexual glands in the usual location, and learned from the young man that he had been informed that the glands had remained in the abdomen, having failed to descend at the proper period before birth. Careful examination satisfied us that the glands were present in only a rudimentary state. On further investigation, we found that the young man presented many evidences of the lack of the influence of these glands upon development. His hips were broad and his thighs large, like those of a young woman, while his shoulders were narrow. The difference between the breadth of shoulders and hips was only half what it should be. The sternum was proportionately short, as in women. There



was an entire absence of beard and other external evidences of development, the external genital organs being infantile in appearance. Notwithstanding the feminine appearance presented by the young man in many respects, the legs and arms were long, as in men, and the case was evidently not of the mixed but of the neuter type. In Fig. 1 is a reproduction of a photograph of this young man. In Fig. 2 his outline (C) is placed, for comparison, between the outlines of a typical man (A) and a typical woman (B).

The loss of the influence of the sexual glands results in the production of an effeminate man, while the removal of these glands in a young woman who has not reached the age of puberty produces a mannish woman. It appears, then, that the influence of the sexual glands is to develop, in man, manly characteristics, or those special features which contribute to make up manhood; while the sexual glands of woman produce in her those qualities and characteristics which are especially womanly.

Within the last twenty years, in dealing professionally with some ten or twelve thousand cases of men who have been, in various ways and various degrees, transgressors of the law of chastity, we have particularly noted the frequency of effeminacy in appearance as a characteristic of those cases in which habits of sexual indulgence had been begun before puberty, and practiced to a considerable extent during the developmental period, showing that the excessive loss of the activity of the sexual glands in a normally developed person produces results analogous to those which follow the extirpation of the glands.

In view of these facts, we can readily understand why the acute observation of the trainers of the Greek athletes led them to require, as one of the conditions most essential to the development of the highest degree of physical vigor, absolute continence—not simply temperance, which is all that is expected by most trainers at the present time. The conditions of Greek society were certainly less favorable to purity and continence than are those of to-day; yet so great was the ambition of the Greek to win a prize in the Olympian games that he willingly exercised the great self-control necessary under the peculiar circumstances under

which he lived. Plato, in his "Laws," makes one of his characters say, "So then they, to obtain victory in wrestling and running, thus abstained; and shall our children be unable to persevere for a far nobler victory?"—a statement approved by the apostle Paul in 1 Cor. 9: 25-27, when he says, "Now they do it to obtain a corruptible crown; but we an incorruptible. . . . But I keep under my body and bring it into subjection."

The compensation sought by the Greek for the restraint of his animal propensities, was to become a stronger and more vigorous animal; and in this he was not disappointed, for Plato mentions a number of celebrated athletes, among others, Astylos and Diopompos, whose bodies were "much lustier" than others. Having practiced total continence during their training, they had much stronger and more vigorous bodies than others who had not subjected themselves to the same restraints.

The doctrine that continence is unfavorable to health, if true, supplies a very strong argument for the maintenance of a harlot class for the benefit of soldiers and sailors, who, for the most part, cannot marry. This doctrine is indeed the stronghold of the apologists for prostitution and of the advocates of laws regulating vice. The considerations already offered seem amply sufficient to show the fallacy of this doctrine; nevertheless, we offer a few additional items of evidence, including the testimony of a number of eminent physicians.

Dr. James Henderson, a physician in Shanghai, China, writing in refutation of the idea that continence is more difficult or dangerous in tropical countries than in temperate climates, on account of peculiar climatic conditions, says, "I have seen many suffer severely,

destroying their health, happiness, and life, by following the promptings of their unbridled passions. Need I say that I have never seen a man suffer from keeping himself pure?"

In the course of our own professional experience, we have never met with a single instance in which disease of any kind was present as the result of a pure or continent life. On the other hand, we have seen the most horrible results from the unlawful and unprofessional advice sometimes given by physicians to young men, suggesting unchastity as being essential for the relief of some physical weakness, though we have never met with a single case in which the slightest benefit had been derived from following such advice. Observations with reference to the character of those who give professional advice of this sort have long ago led us to the belief that, as a rule, only those who have themselves been impure to such an extent that they were bereft of their ability to judge properly of the influence of a pure and continent life, are capable of giving such unwise and immoral advice.

Acton, an eminent London physician, declares that the claim that disease results from continence "is a device of the unchaste, a lame excuse for their own incontinence, unfounded on any physiological law." The same writer adds: "The admitted fact that continence is frequently productive of distress, is often a struggle hard to be borne, still harder to be completely victorious in, is not to be at all regarded as an argument that it is an evil."

These statements are amply confirmed by common experience with animals, especially in Continental Europe, where the castration of working animals is practiced only to a very small extent. The experience

of many most distinguished men must also be quoted in confirmation of these statements. Among such men may be mentioned Sir Isaac Newton, Kant, Paschal, Michael Angelo, and St. Augustine, with many others of the early Catholic fathers who were among the ablest and most learned men of their time, and who led continent lives. The majority of these men lived to a very great age, retaining to the last their wonderful mental powers.

The exorbitant demands of the sexual appetite encountered among civilized people are not the result of a normal instinct, but are due to the incitements of an abnormally stimulating diet, the seductions of prurient literature and so-called art, and the temptations of impure associations.

The relation of diet to impurity is one which is far too little considered. Certain senses are given us to add to our pleasure, as well as for the practical, almost indispensable, use they are to us. For instance, the sense of sight is not only useful, but enables us to drink in beauty without stint, and receive no harm thereby. The same is true of music and other harmonies which may come to us through the sense of hearing. But the sense of taste was given us to distinguish between wholesome and unwholesome foods, and cannot be used for merely sensuous gratification without debasing it, and making of it a gross and harmful thing. An education which demands special enjoyment or pleasure through the sense of taste is wholly artificial; it brings us down to the animal plane, or below it, rather; for the instinct of the brute creation teaches it to eat to live.

There can be no doubt that unwholesome food, especially such stimulating articles as spices and other

condiments, and the excessive use of flesh food, pastry, and highly seasoned viands, is one of the most active causes of impurity in modern times. The early Romans, who fed upon the simple fruits of the earth, were as chaste in morals as abstemious in diet; but under the degrading influence of a luxurious and stimulating dietary, the Roman emperors developed a degree of moral turpitude that astonished and disgusted even the heathen world in which they lived. The great monarchies which once ruled the world became immoral and corrupt only when their citizens became wealthy, and adopted luxurious modes of life. Simplicity in diet, dress, and in all the habits of life is most conducive to virtue.

The same principle applies in relation to sexual gratification as to the gratification of the sense of taste. The sexual function is double in its purposes; first, the sexual organs are always active, even when not excited to such a degree as to obtrude their activity upon the consciousness, as they supply the body with a needed vital stimulus and regulator; secondly, they furnish the only means by which the physical life of the individual and the perpetuation of the race may be accomplished. In neither of these important functions is the personal gratification of the individual the primary consideration. The exercise of the sexual function with a purely selfish purpose would seem to be as much a debasement of the sacred function in which man approaches most nearly to the creative power of which he is the image, as is eating for the mere gratification of the palate a debasement and prostitution of the appetite and the sense of taste.

Evil association is often the avenue through which the father of lies and iniquity leads his victims down

to ruin. A moral contagion is abroad in the world. The troops of boys of all ages, from five to twenty, seen upon the streets of every city, sitting on the curbstones, loitering about the corners, gathering here and there in little knots from which the ears of passers-by may easily catch words and phrases which bring the blush to virtue's cheek, are evidence that parents are by no means generally awake to the danger which lies in evil companionship. Many boys, especially in the cities, are allowed after they reach the age of ten or twelve years, to select their own associates; and it is generally the case that the association most easily formed is with some foul-minded youth, who is only too anxious to impart to an innocent lad the evil knowledge which he has in like manner gained from some other boy-missionary of evil.

Growing up thus, with an abnormally developed sexual appetite, it is not strange that young men very readily imbibe current notions respecting the hygienic necessity for incontinence, and that they find in their own experience an apparent evidence of the correctness of this most pernicious doctrine. It is therefore highly important that a warning voice should be raised, and with no weak or uncertain sound, against this immoral and incontinent teaching. If the young man finds a continent life extraordinarily difficult or a cause of suffering, he should be informed that the apparent necessity is purely an artificial and an abnormal one, and is either the result of a sensuous imagination or of morbid conditions which require medical treatment, and which will be certain to be aggravated rather than alleviated by the gratification of the desires. The young man should be taught so to order his habits of life, his diet, his regimen, his exercise, that he may

be enabled to maintain self-mastery. Plato calls attention to the fact that the man who reaches a high degree of physical vigor as the result of severe training, finds the control of the sexual appetite a much less severe task than does the man who neglects muscular activity.

The value of a simple diet and active muscular exercise in subduing abnormal animal propensities, the writer has proved in hundreds of cases in which his prescription has been carried out by young men seeking relief from the thralldom of clamorous desires.

The purpose in this chapter has been to show from purely physiological considerations that unchastity can be, under no circumstances, either necessary or justifiable; that science and religion, the teaching of nature and of the decalogue, are in accord; that chastity, not incontinence, is the law of nature. The considerations which have been brought forward amply justify the assertion that continence is not only consistent with the highest health under all circumstances, but that it is one of the conditions essential to the attainment and maintenance of the highest degree of physical and mental vigor.

Helps to Continence.—As already indicated, and as every individual with strong passions, knows, the warfare with passion is a serious one if a person determines to lead a continent life. He needs the help of every aid that he can gain. Some of these may be named as follows:

The Will.—A firm determination must be formed to lead a life of purity; to quickly quench the first suggestions of impurity; to harbor no unchaste desire; to purge the mind of carnal thoughts; in short, to cleave fast to mental continence. Each triumph over vicious thoughts will strengthen virtue; each victory won will

make the next one easier. So strong a habit of continence may be formed that this alone will be a bulwark against vice.

Diet.—He who would keep in subjection his animal nature, must carefully guard the portal to his stomach. The blood is made of what is eaten. Irritating food will produce irritating blood. Stimulating foods or drinks will surely produce a corresponding quality of blood. Irritating, stimulating blood will irritate and stimulate the nervous system, and especially the delicate nerves of the reproductive system, as previously explained. Only the most simple and wholesome food should be eaten, and that only in such moderate quantities as are required to replenish the tissues. The custom of making the food pungent and stimulating with condiments, is the great, almost the sole, cause of gluttony. It is one of the greatest hindrances to virtue. Indeed, it may with truth be said that the devices of modern cookery are most powerful allies of unchastity and licentiousness. This subject is particularly deserving of careful, candid, and studious attention, and only needs such investigation to demonstrate its soundness.

Exercise.—Next to diet as an aid to continence, perhaps of equal importance with it, is exercise, both physical and mental. It is a trite proverb, the truth of which every one acknowledges, that “Satan finds some mischief still for idle hands to do,” and it is equally true that he always has an evil thought in readiness to instill into an unoccupied mind. A person who desires to be pure and continent in body and mind must flee idleness as he would the devil himself; for the latter is always ready to improve upon the advantages afforded by an idle moment, an hour given to reverie.

We have the strongest testimony from the most eminent physicians in regard to the efficacy of exercise in overcoming abnormal sexual desires. Mr. Acton relates the following statement made to him by a gentleman who has become distinguished in his profession:

“ ‘You may be surprised, Mr. Acton,’ said he, ‘by the statement I am about to make to you, that before my marriage I lived a perfectly continent life. During my university career, my passions were very strong, sometimes almost uncontrollable, but I have the satisfaction of thinking I mastered them; it was, however, by great efforts; I obliged myself to take violent physical exertion. I was the best oar of my year, and when I felt particularly strong sexual desire, I sallied out to take my exercise. I was victorious always, and I never committed fornication. You see in what vigorous health I am; it was exercise alone that saved me.’ ”

Says Carpenter, on the same subject, in a text-book for medical students, “Try the effect of close mental application to some of those ennobling pursuits to which your profession introduces you, in combination with vigorous bodily exercise, before you assert that the appetite is unrestrainable, and act upon that assertion.”

Walking, riding, rowing, and gymnastics are among the best modes of physical exercise for sedentary persons; but there is no better form of exercise than out-of-door work. The cultivation of small fruits, flowers, and other occupations of like character, really excel all other modes of physical exercise for one who can engage in them with real pleasure. Even though distasteful at first, they may become very attractive

and interesting if there is an honest, persevering desire to make them so.

The advantages of exercises of this kind are evident. (1) They are useful as well as healthful; while they call into action a very large number of muscles by the varied movements required, the expenditure of vital force is remunerated by the actual value of the products of the labor; so that no force is wasted. (2) The tillage of the soil and the dressing of vines and plants bring one in constant contact with nature in a manner that is elevating and refining, or at least affords the most favorable opportunities for the cultivation of nobility and purity of mind and elevated principles.

Exercise carried to such excess as to produce exhaustion is always injurious. The same is true of mental labor as of physical exercise. Plenty of sleep, and regular habits of retiring and rising, are important. Dozing is bad at any time; for it is a condition in which the will is nearly dormant, though consciousness still lingers, and the imagination is allowed to run wild, and often enough it will run where it ought not. Late study, or late hours spent in any manner, is a means of producing general nervous irritability, and sexual excitement through reflex influence.

The author has made these suggestions to a large number of young men who were suffering from the results of sexual excesses, and whose lives had been made wretched by the clamorings of artificially stimulated passions, and has frequently witnessed the best results. Not a little earnestness and moral courage were required on the part of the patient, however, to secure a rigid carrying out of the principles here laid down. The fascination of a passion long indulged is

likely to gain the mastery over any man who is not thoroughly in earnest to secure a physical as well as a mental and moral reform. But one who will engage earnestly and persistently in the effort will find himself uniformly successful in conquering the clamorings of a depraved instinct, and each effort will give him new courage, and add to his ability to win future victories.

Bathing.—A daily bath with cool or tepid water, followed by vigorous rubbing of the skin with a coarse towel and then with the dry hand, is a most valuable aid. The hour of first rising is generally the most convenient time. How to take different kinds of baths is explained in other works devoted to the subject.* General and local cleanliness are indispensable to general and local health.

Religion.—After availing himself of all other aids to continence, if he wishes to maintain purity of mind as well as physical chastity,—and one cannot exist long without the other,—the individual must seek that most powerful and helpful of all aids, Divine grace.

The struggling soul, beset with evil thoughts, will find in prayer a salvation which all his force of will, and dieting, and exercising will not, alone, insure him. Yet prayer alone will not avail; faith and works must always be associated. All that one can do to work out his own salvation, he must do; then he can safely trust in God to do the rest, even though the struggle seems almost a useless one; for when the soul has been long in bondage to concupiscence, the mind a hold of foul and lustful thoughts, a panorama of unchaste imagery, these hateful phantoms will even intrude themselves upon the sanctity of prayer, and make their victim mentally unchaste upon his knees. But Christ can save

* See "Rational Hydrotherapy," "Home Book of Modern Medicine," and other works by the author.

even such; and these degraded minds may yet be pure if, with the psalmist, they continue to cry with a true purpose and unwavering trust, "Create in me a clean heart, O God, and renew a right spirit within me." "Purge me with hyssop, and I shall be clean; wash me and I shall be whiter than snow."

At the first suggestion of an evil thought, send up a mental prayer to Him whose ear is always open. Prayer and impurity are as incompatible as oil and water. The pure thoughts that sincere prayer will bring, displace the evil promptings of excited passion. But the desire for aid must be sincere. Prayer will be of no avail while the mind is half consenting to the evil thought. The evil must be loathed, spurned, detested.

"He looketh upon men, and if any say, I have sinned and perverted that which was right, and it profited me not; He will deliver his soul from going into the pit, and his life shall see the light." Job 33: 27, 28.

It would seem almost unnecessary to suggest the impropriety of resorting to prayer alone when sexual excitability has arisen from a culpable neglect to remove the physical condition of local excitement by the means already mentioned. Such physical causes must be well looked after, or every attempt to reform will be fruitless. God requires of every individual to do for himself all that he is capable of doing; to employ every available means for alleviating his sufferings.

UNCHASTITY

“**T**HOU shalt not commit adultery.” “Whosoever looketh on a woman to lust after her hath committed adultery with her already in his heart.”

In these two scriptures, we have a complete definition of unchastity. The seventh commandment, with the Saviour's commentary upon it, places clearly before us the fact that chastity requires purity of thought as well as of outward acts. Impure thoughts and unchaste acts are alike violations of the seventh commandment. As we shall see, also, unchastity of the mind is a violation of nature's law as well as of moral law, and is visited with physical punishment commensurate to the transgression.

Mental Unchastity.—It is vain for a man to suppose himself chaste who allows his imagination to run riot amid scenes of amorous associations. The man whose lips delight in tales of licentiousness, whose eyes feast upon obscene pictures, who is ever ready to pervert the meaning of a harmless word or act into uncleanness, who finds delight in reading vivid portrayals of acts of lewdness,—such a one is not a virtuous man. Though he may never have committed an overt act of unchastity, if he cannot pass a handsome female in the street without, in imagination, approaching the secrets of her person, he is but one grade above the open libertine, and is as truly unchaste as the veriest debauchee.

Man may not see these mental adulteries, he may not perceive these filthy imaginings; but One sees and notes them. They leave their hideous scars upon the soul. They soil and mar the mind; and as the record of each day of life is photographed upon the books of heaven, they each appear in bold relief, in all their innate hideousness.

One turns with sadness from the thought that human "forms divine" have sunk so low. The standard of virtue is trailing in the dust. Men laugh at vice, and sneer at purity. The bawdy laugh, the ribald jest, the sensual glance, the obscene song, the filthy tale, salute the eyes and ears at every street corner, in the horse-car, on the railroad train, in the bar-room, the lecture hall, the workshop.

Foul thoughts, once allowed to enter the mind, stick like the leprosy. They corrode, contaminate, and infect like the pestilence; naught but Almighty power can deliver from the bondage of concupiscence a soul once infected by this foul blight, this mortal contagion.

Mental Uncleaness.—It is a wide-spread and deadly error that only outward acts are harmful; that only physical transgression of the laws of chastity will produce disease. We have seen all the effects of physical abuse resulting from mental sin alone.

"I have traced serious affections and very great suffering to this cause. The cases may occur at any period of life. We meet with them frequently among such as are usually called, or think themselves, continent young men. There are large classes of persons who seem to think that they may, without moral guilt, excite their own feelings or those of others by loose or libidinous conversation in society, provided such impure thoughts or acts are not followed by masturba-

tion or fornication. I have almost daily to tell such persons that physically, and in a sanitary point of view, they are ruining their constitutions. There are young men who almost pass their lives in making carnal acquaintances in the street, but stop just short of seducing girls; there are others who haunt the lower class of places of public amusement for the purpose of sexual excitement, and live, in fact, a thoroughly immoral life in all respects, except actually going home with prostitutes. When these men come to me, laboring under the various forms of impotence, they are surprised at my suggesting to them the possibility that the impairment of their powers is dependent upon these previous vicious habits.” *

“Those lascivious *day-dreams* and amorous reveries, in which young people, and especially the idle and the voluptuous and the sedentary and the nervous, are exceedingly apt to indulge, are often the source of general debility and effeminacy, disordered functions, premature disease, and even premature death, without the actual exercise of the genital organs! Indeed, this unchastity of thought, this adultery of the mind, is the beginning of immeasurable evil to the human family.” †

To multitudes of men and women amativeness, or sexual love, means lust. The word love has been lowered and debased until it might almost be considered practically synonymous with sensuality. The first step toward reform must be a recognition of a higher and purer relation than that which centers every thought upon the gratification of the animal in human nature. If one may judge from the facts which now and then come to the surface, it would appear that the opportunity for sensual gratification has come to be, in the world at large, the chief attraction between the sexes.

* Acton.

† Graham.

Filthy Dreamers.—This perversion of a natural instinct, and those sudden lapses from virtue which startle a small portion of the community, and afford a filthy kind of pleasure to the other part, are but the outgrowths of mental unchastity. “Filthy dreamers,” before they are aware, become filthy in action. The thoughts mold the brain, as certainly as the brain molds the thoughts. Rapidly down the current of sensuality is swept the individual who yields his imagination to the contemplation of lascivious themes. Before he knows his danger, he finds himself deep in the mire of concupiscence. He may preserve a fair exterior; but the deception cannot cleanse the slime from his putrid soul. How many a church member carries under a garb of piety a soul filled with abominations, no human scrutiny can tell. How many pulpits are filled by “whited sepulchers,” only the Judgment will disclose.

Unchaste Conversation.—“Out of the abundance of the heart the mouth speaketh.” “Every idle word that men shall speak, they shall give account thereof in the day of Judgment.” “By thy words thou shalt be condemned.” Matt. 12: 34, 36, 37. In these three brief sentences, Christ presents the whole moral aspect of the subject of this paragraph. To any one who will ponder well His weighty words, no further remark is necessary. Let filthy talkers but consider for a moment what a multitude of “idle,” unclean words are waiting for account in the final day; and then let them consider what a load of condemnation must roll upon their guilty souls when strict justice is meted out to every one before the bar of Omnipotence, and in the face of all the world—of all the universe.

The common habit among boys and young men of

relating filthy stories, indulging in foul jokes, making indecent allusions, is a most abominable sin. Such habits crush out pure thoughts; they annihilate respect for virtue; they make the mind a quagmire of obscenity; they lead to overt acts of lewdness.

But boys and youth are not alone in this. More often than otherwise, they learn from older ones the phraseology of vice. And if the sin is loathsome in such youthful transgressors, what detestable enormity must characterize it in the old!

Foul Gossip.—And women, too, are not without their share in this accursed thing, this ghost of vice, which haunts the sewing-circle and the parlor as well as the club-room.

Masculine purity loves to regard woman as chaste in mind as well as in body, to surround her with conceptions of purity and impregnable virtue; but the conclusion is irresistible that those who can gloat over others' lapses from virtue, and find delight in such questionable entertainments as the most recent case of seduction, or the newest scandal, have need to purify their hearts and re-enforce their waning chastity. Nevertheless, a writer says, and perhaps truly, that "the women comprise about all the real virtue there is in the world." Certainly, if women were one-half as impure as the masculine portion of humanity, the world would be vastly worse than it is.

Causes of Unchastity.—Early travelers among the North American Indians were struck with the almost entire absence of that abandonment to vice which might be expected in a race uninfluenced by the moral restraints of Christianity. When first discovered in their native wilds, they were free from both the vices and the consequent diseases of civilization. This fact

points unmistakably to the conclusion that there must be something in the refinements and perversions of civilized life which is unfavorable to chastity, notwithstanding all the restraints which religion and the conventionalisms of society impose. Can we find such influences?—Yes; they abound on every hand, and leave their blight in most unwelcome places, oft unsuspected, even, till the work of ruin is complete.

Libidinous Blood.—In no other direction are the effects of heredity to be more distinctly traced than in the transmission of sensual propensities. The children of libertines are likely to be rakes and prostitutes. History affords numerous examples in illustration of this fact. The daughter of Augustus was as unchaste as her father, and her daughter was as immoral as herself. The sons of David showed evident traces of their father's weakness. Witness the incest of Amnon, and the voluptuousness of Solomon, who had seven hundred wives and three hundred concubines. Solomon's son was likewise a noted polygamist, of whom the record says, "He desired many wives." His son's son manifested the same propensity in taking as many wives as the debilitated state of his kingdom enabled him to support. But perhaps we may be allowed to trace the origin of this libidinous propensity still farther back. A glance at the genealogy of David will show that he was descended from Judah through Pharez, who was the child of an incestuous union between Judah and his daughter-in-law.

Is it unreasonable to suppose that the abnormal passion which led David to commit the most heinous sin of his life in his adultery with Bath-sheba, and subsequently procuring the death of her husband, was really a hereditary propensity which had come down

to him through his ancestors, and which, under more favorable circumstances, was more fully developed in his sons? The trait may have been kept dormant by the active and simple habits of his early years, but asserted itself in full force under the fostering influence of royal idleness and luxury. In accordance with the known laws of heredity, such a tendency would be the legitimate result of such a combination of circumstances.

Early Causes.—The frequent custom of allowing children of the opposite sex to sleep together, even until eight or ten years of age, or longer, is a dangerous one. We have known of instances in which little boys of seven or eight have been allowed to sleep with girls of fourteen or sixteen, and in some cases most shameful lessons were taught, and by persons who would not be suspected of such impropriety.

The sexes should be carefully separated from each other, at least as early as three or four years of age, under all circumstances which could afford opportunity for observing the physical differences of the sexes, or in any way serve to excite those passions which at this tender age should be wholly dormant.

Diet vs. Chastity.—From earliest infancy to impotent old age, under the perverting influence of civilization, there is a constant antagonism between diet and purity. When old enough to take food in the ordinary way, the infant's tender organs of digestion are plied with highly seasoned viands, stimulating sauces, animal food, sweetmeats, and dainty tidbits in endless variety. Soon tea and coffee are added to the list. Salt, pepper, ginger, mustard, condiments of every sort, deteriorate his daily food.

Exciting stimulants and condiments weaken and irritate his nerves, and derange the circulation. Thus, indirectly, they affect the sexual system, which suffers through sympathy with the other organs. But a more direct injury is done. Flesh, condiments, eggs, tea, coffee, chocolate, and all stimulants have a powerful influence directly upon the reproductive organs. They increase the local supply of blood; and through nervous sympathy with the brain, the passions are aroused.

Overeating, eating between meals, hasty eating, eating indigestible articles of food, ices, late suppers, etc., react upon the sexual organs with the utmost certainty. Any disturbance of the digestive function deteriorates the quality of the blood. Poor blood, filled with crude, poorly digested food, is irritating to the nervous system, and especially to those extremely delicate nerves which govern the reproductive function. Irritation provokes congestion; congestion excites sexual desires; excited passions increase the local disturbance; and thus each reacts upon the other, ever increasing the injury and the liability to future damage.

When children are raised upon such articles, or upon food with which they are thoroughly mingled, what wonder that they occasionally "turn out bad"! How many mothers, while teaching their children the principles of virtue in the nursery, unwittingly stimulate their passions at the dinner table until vice becomes almost a physical necessity!

Thus these exciting causes continue their insidious work through youth and more mature years. Right under the eyes of fathers and mothers they work the ruin of their children, exciting such storms of passion as are absolutely uncontrollable.

Nothing tends so powerfully to keep the passions in abeyance as a simple diet, free from condiments, especially when coupled with a generous amount of exercise.

Tobacco and Vice.—Few are aware of the influence upon morals exerted by that filthy habit, tobacco-using. When acquired early, it excites the undeveloped organs, arouses the passions and in a few years converts the once chaste and pure youth into a veritable volcano of lust, belching out from its inner fires of passion, torrents of obscenity and the sulphurous fumes of lasciviousness. If long continued, the final effect of tobacco is emasculation; but this is only the necessary consequence of previous super-excitation. The lecherous day-dreams in which many smokers indulge are a species of fornication for which even a brute ought to blush, if such a crime were possible for a brute. The mental libertine does not confine himself to bagnios and women of the town. In the foulness of his imagination, he invades the sanctity of virtue wherever his erotic fancy leads him.

When a boy places the first cigar or quid of tobacco to his lips, he takes—if he has not previously done so—the first step in the road to infamy; and if he adds wine or beer, he takes a short cut to the degradation of his manhood by the loss of virtue.

We are aware that we have made a grave charge against tobacco, and we have not hesitated to state the naked truth; yet we do not think we have exaggerated, in the least, the pernicious influence of this foul drug. As much, or nearly as much, might be said against the use of liquor, on the same grounds.

Obscene Books.—Another potent enemy of virtue is the obscene literature which has flooded the land for

many years. Circulated by secret agencies, these books have found their way into the most secluded districts. Nearly every large school contains one of these emissaries of evil men and their satanic master. Some idea of the enormity and extent of this evil may be gained from the following quotations from a published letter of Mr. Anthony Comstock, who has been for some time employed by the Young Men's Christian Association in suppressing the traffic by arresting the publishers and destroying their goods:

"I have succeeded in unearthing this hydra-headed monster in part, as you will see by the following statement, which, in many respects, might be truthfully increased in quantity. These I have seized and destroyed:

"Obscene photographs, stereoscopic, and other pictures, more than one hundred and eighty-two thousand; obscene books and pamphlets, more than five tons; obscene letter-press in sheets, more than two tons; sheets of impure songs, catalogues, handbills, etc., more than twenty-one thousand; obscene microscopic watch and knife charms and finger rings, more than five thousand; obscene negative plates for printing photographs and stereoscopic views, about six hundred and twenty-five; obscene engraved steel and copper plates, three hundred and fifty; obscene lithographic stones destroyed, twenty; obscene wood-cut engravings, more than five hundred; stereotype plates for printing obscene books, more than five tons; obscene transparent playing-cards, nearly six thousand; obscene and immoral rubber articles, over thirty thousand; lead molds for manufacturing rubber goods, twelve sets, or more than seven hundred pounds; newspapers seized, about four thousand six hundred; letters from all parts of

the country ordering these goods, about fifteen thousand; names of dealers in account-books seized, about six thousand; lists of names in the hands of dealers, that are sold as merchandise to forward circulars or catalogues to, independent of letters and account-books seized, more than seven thousand.

“These abominations are disseminated by these men by first obtaining the names and addresses of scholars and students in our schools and colleges, and then forwarding circulars. They secure thousands of names in this way, either by sending for catalogues of schools, seminaries, and colleges, under a pretense of sending a child to school; or else by sending out a circular purporting to be getting up a directory of all the scholars and students in schools and colleges in the United States; or of taking the census of all the unmarried people, and offering to pay five cents per name for lists so sent. I need not say that the money is seldom or never sent, but I do say that these names, together with those that come in reply to advertisements, are sold to other parties; so that when a man desires to engage in this nefarious business, he has only to purchase a list of these names, and then your child, be it son or daughter, is liable to have thrust into its hands, all unknown to you, one of these devilish catalogues.

“Since the destruction of the stereotype plates of old books, secret circulars have been discovered of a notice to dealers that twelve new books are in course of preparation, and will soon be ready for delivery.”

Says Hon. C. L. Merriam, as quoted by a recent writer: “We find that the dealers in obscene literature have organized circulating libraries, which are under the charge of the most vicious boys in the schools, boys

chosen and paid by the venders, who circulate among the students, at ten cents a volume, any of the one hundred and forty-four obscene books heretofore published in New York City."

Largely through the influence of Mr. Comstock, laws have been enacted which promise to do much toward checking this extensive evil, or, at least, causing it to make itself less prominent. Our newspapers still abound with advertisements of various so-called medical works, "marriage guide," etc., which are fruits of the same "upas-tree" that Mr. Comstock has labored so faithfully to uproot.

Sentimental Literature.—It is a painful fact, however, that the total annihilation of every foul book which the law can reach will not effect the cure of this evil; for our modern literature is full of the same virus. It is necessarily presented in less grossly revolting forms, half concealed by beautiful imagery, or embellished by wit; but yet, there it is, and no law can reach it. The works of our standard authors in literature abound in lubricity. Popular novels have doubtless done more to arouse a prurient curiosity in the young, and to excite and foster passion and immorality, than even the obscene literature for the suppression of which such active measures have recently been taken. The more exquisitely painted the scenes of vice, the more dangerously enticing. Novel-reading has led thousands to lives of dissoluteness.

City and school libraries, circulating libraries, and even Sunday-school libraries, are full of books which, though they may contain good moral teaching, contain, as well, an element as incompatible with purity of morals as is light with midnight darkness. Writers for children and youth seem to think a tale of "courtship,

love, and matrimony” entirely indispensable as a medium for conveying their moral instruction.

“**Religious Novels.**”—Some of these “religious novels” are actually more pernicious than the fictions of well-known novelists who make no pretense to having religious instruction a particular object in view. Sunday-school libraries are not often wholly composed of this class of works; but any one who takes the trouble to examine the books of such a library will be able to select the most pernicious ones by the external appearance. The covers will be well worn, and the edges begrimed with dirt from such handling. Children soon tire of the shallow sameness which characterizes the “moral” parts of most of these books, and skim lightly over them, selecting and devouring with eagerness those portions which relate the silly narrative of some love adventure. This kind of literature arouses in children premature fancies and queries, and fosters a sentimentalism which too often occasions most unhappy results. Through their influence, young girls are often led to begin a life of shame long before their parents are aware that a thought of evil has ever entered their minds.

The following words from the pen of a forcible writer * present this matter in none too strong a light:

“You may tear your coat or break a vase, and repair them again; but the point where the rip or the fracture took place will always be evident. It takes less than an hour to do your heart a damage which no time can entirely repair. Look carefully over your child’s library; see what book it is that he reads after he has gone to bed, with the gas turned, upon the pillow. Do not always take it for granted that a book is good because it is a Sunday-school book. As far as possible,

* T. De Witt Talmage.

know *who* wrote it, who illustrated it, who published it, who sold it.

A Modern Plague.—“It seems that in the literature of the day, the ten plagues of Egypt have returned, and the frogs and lice have hopped and skipped over our parlor tables.

“Parents are delighted to have their children read, but they should be sure as to what they read. You do not have to walk a day or two in an infested district to get the cholera or typhoid fever; and one wave of moral unhealth will fever and blast the soul forever. Perhaps, knowing not what you did, you read a bad book. Do you not remember it altogether?—Yes; and perhaps you will never get over it. However strong and exalted your character, never read a bad book. By the time you get through the first chapter, you will see the drift. If you find the marks of the hoofs of the devil in the picture, or in the style, or in the plot, away with it.

“But there is more danger, I think, from many of the family papers, published once a week, in those stories of vice and shame, full of infamous suggestions, going as far as they can without exposing themselves to the clutch of the law. I name none of them; but say that on some fashionable tables there lie ‘family newspapers’ that are the very vomit of the pit.

“The way to ruin is cheap. It costs three dollars to go to Philadelphia; six dollars to Boston; thirty-three dollars to Savannah; but, by the purchase of a bad paper for ten cents, you may get a through ticket to hell, by express, with few stopping-places, and the final halting, like the tumbling of the lightning train down the draw-bridge at Norwalk—sudden, terrific, deathful, never to rise.”

Idleness.—This evil is usually combined with the preceding. To maintain purity, the mind must be occupied. If left without occupation, the vacuity is quickly filled with unchaste thoughts. Nothing can be worse for a child than to be reared in idleness. His morals will be certain to suffer. Incessant mental occupation is the only safeguard against unchastity. Those worthless fops who spend their lives in “killing time” by lounging about bar-rooms, loafing on street corners or strutting up and down the boulevard, are anything but chaste. Those equally worthless young women who waste their lives on sofas or in easy chairs, occupied only with some silly novel, or idling away life’s precious hours in reverie,—such creatures are seldom the models of purity one would wish to think them. If born with a natural propensity toward sin, such a life would soon engender a diseased, impure imagination, if nothing worse.

Dress and Sensuality.—There are two ways in which fashionable dress leads to unchastity; viz., (1) by its extravagance; (2) by its abuse of the body.

How does extravagance lead to unchastity?—By creating the temptation to sin. It affects not those gorgeously attired ladies who ride in fine carriages, and live in brown-stone fronts, who are surrounded with all the luxuries that wealth can purchase—fine apparel is no temptation to such. But to less favored, though not less worthy ones, these magnificent displays of millinery goods and fine trappings are most powerful temptations. The poor seamstress, who can earn by diligent toil hardly enough to pay her board bill, has no legitimate way by which to deck herself with the finery she admires. Plainly dressed as she must be if she remains honest and retains her virtue, she is



WATT DISCOVERING THE POWER OF STEAM 225-a



BEETHOVEN AT THE ORGAN



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CHASTE APPAREL



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FASHION AND FOLLY

scornfully ignored by her proud sisters. Everywhere she finds it a generally recognized fact that "dress makes the lady." On the street, no one steps aside to let her pass, no one stoops to regain for her the package that slips from her weary hands. Does she enter a crowded car? No one offers her a seat, though she is trembling with fatigue, while the showily dressed woman who follows her is accommodated at once. She marks the difference; she does not pause to count the cost, but barter away her self-respect to gain the respect, or deference, of strangers.

How Young Women Fall.—It has been authoritatively stated that there are, in our large cities, hundreds of young women who, being able to earn barely enough to buy food and fuel and pay the rent of a dismal attic, take the advice offered by their employers, "Get some gentleman friend to dress you for your company." Others spend all their small earnings to keep themselves "respectably" dressed, and share the board and lodgings of some young *roue* as heartless as incontinent. Persons unaccustomed to city life, and thousands of people in the very heart of our great metropolis, have no conception of the frightful prevalence of this kind of prostitution. Young women go to our large cities as pure as snow. They find no lucrative employment. Daily contact with vice obtunds their first abhorrence of it. Gradually it becomes familiar. A fancied life of ease presents allurements to a hard-worked sewing-girl. Fine clothes and comfortable lodgings increase the temptation. She yields, and barter her body for a home without the trouble of a marriage ceremony.

Wealthy women could do more to cure the "social evil" by adopting plain attire than all the civil author-

ities by passing license laws or regulating ordinances. Have not Christian women a duty here? Some years ago, a few ladies made a slight move in the right direction, as is indicated in the following paragraph; but we have not heard that their example has been followed:

“The lady members of the First Baptist Church, of ——, have agreed that they will dispense with all finery on Sunday, wearing no jewels but consistency, and hereafter appear at church in plain calico dresses.”

A more radical reform would have been an extension of the salutary measure to all other days of the week, as well as Sunday; though we see no reason for restricting the material of clothing to calico, which might, indeed, be rather insufficient for some seasons of the year.

Fashion and Vice.—Let us glance at another way in which dress lends its influence to vice, by obstructing the normal functions of the body. (1) Fashion requires a woman to compress her waist with bands or corsets. In consequence, the circulation of the blood toward the heart is obstructed. The venous blood is crowded back into the delicate organs of generation. Congestion ensues, and with it through reflex action, the unnatural excitement of the animal propensities. (2) The manner of wearing the clothing, suspending several heavy garments from the hips, increases the same difficulty by bringing too large a share of clothing where it is least needed, thus generating unnatural local heat. (3) The custom of clothing the feet and limbs so thinly that they are exposed to constant chilling, by still further unbalancing the circulation adds another element to increase the local mischief.

All these causes combined, operating almost constantly,— with others that might be mentioned,—produce permanent local congestion, with ovarian and uterine derangements. The latter affections have long been recognized as the chief pathological condition in hysteria, and especially in that peculiar form of disease known as *nymphomania*, under the excitement of which a young woman, naturally chaste and modest, may be impelled to the commission of the most wanton acts. The pernicious influence of fashionable dress in occasioning this disorder cannot be doubted.

Reform in Dress Needed.—The remedy for these evils, the only way to escape them, is reformation. The dress must be so adjusted to the body that every organ will be allowed free movement. No corset, band, belt, or other means of constriction, should impede the circulation. Garments should be suspended from the shoulders by means of a waist, or by proper suspenders. The limbs should be as warmly clad as any other portion of the body. How best to secure these requirements of health may be learned from several excellent works on dress reform, any of which can be readily obtained of the publishers of this work or their agents.

Fashionable Dissipation.—The influence of so important an agent for evil in this direction as fashionable dissipation cannot be ignored. By fashionable dissipation we mean that class of excesses in the indulgence in which certain classes, usually the more wealthy or aristocratic, pride themselves. Among this class of persons a man who is known to be a common drunkard would not be recognized; such a person would be carefully shunned; yet a total abstainer would be avoided with almost equal care, and would be regarded as a fanatic or an extremist, at least. With this class, wine-

drinking is considered necessary as a matter of propriety. Along with wine are taken a great variety of highly seasoned foods, spices, and condiments in profusion, with rich meats and all sorts of delicacies, rich desserts, etc., which can hardly be considered much less harmful than stimulants of a more generally recognized character.

These indulgences excite that part of the system which generally needs restraint rather than stimulation. A participant, an ex-governor, recently described to us a grand political dinner given in honor of a noted American citizen, which began at 5 P. M. and continued until nearly midnight, continuous courses of food, wines, etc., being served for nearly six hours. Similar scenes have been enacted in a score of our large cities for the same ostensible purpose. Knowing that public men are addicted to such gormandizing on numerous occasions, we do not wonder that so many of them are men of loose morals.

The Influence of Luxury.—The tendency of luxury is toward demoralization. Rome never became dissipated and corrupt until her citizens became wealthy, and adopted luxurious modes of living. Nothing is more conducive to sound morals than full occupation of the mind with useful labor. Fashionable idleness is a foe to virtue. The young man or the young woman who wastes the precious hours of life in listless dreaming, or in that sort of senseless twaddle which forms the bulk of the conversation in some circles, is in very great danger of demoralization. Many of the usages and customs of fashionable society seem to open the door to vice, and to insidiously, and at first unconsciously, lead the young and inexperienced away from the paths of purity and virtue. There is good evidence that the

amount of immorality among what are known as the higher classes, is every year increasing. Every now and then a scandal in high life comes to the surface; but the great mass of corruption is effectually hidden from the general public. Open profligacy is of course frowned upon in all respectable circles; and yet wealth and accomplishments will cover a multitude of sins.

This freedom allowed to the vile and vicious is one of the worst features of fashionable society. Such persons carry about them a moral atmosphere more deadly than the dreaded upas-tree.

Round Dances.—Whatever apologies may be offered for other forms of the dance as a means of exercise under certain restrictions, employed as a form of calisthenics, no such excuse can be framed in defense of “round dances,” especially of the waltz. In addition to the associated dissipation, late hours, fashionable dressing, midnight feasting, exposures through excessive exertions, improper dress, etc., it can be shown most clearly that dancing has a direct influence in stimulating the passions, and provoking unchaste desires, which too often lead to unchaste acts, and are in themselves violations of the requirements of strict morality, and productive of injury to both mind and body.

Said the renowned Petrarch, “The dance is the spur of lust,—a circle of which the devil himself is the center. Many women that use it have come dishonest home, most indifferent, none better.”

A Woman’s View of Dancing.—We quote the following from a letter written to a friend by a woman of great ability and strength of mind, of unblemished character and national reputation, and in response to his request for her opinion of the dance. The state-

ments made in this remarkable letter are so clear and convincing that every parent ought to read it:

“I will venture to lay bare a young girl’s heart and mind by giving my own experience in the days when I waltzed.

“In those days I cared little for polka or Varsovi-
enne, and still less for the old-fashioned ‘Money Musk’
or ‘Virginia Reel,’ and wondered what people could
find to admire in those ‘slow dances.’ But in the soft
floating of the waltz I found a strange pleasure, rather
difficult to intelligibly describe. The mere anticipa-
tion fluttered my pulse, and when my partner ap-
proached to claim my promised hand for the dance, I
felt my cheeks glow a little sometimes, and I could not
look him in the eyes with the same frank gayety as
heretofore.

“I am speaking openly and frankly, and when I
say that I did not understand what I felt, or what
were the real and greatest pleasures I derived from
this so-called dancing, I expect to be believed. But if
my cheeks grew red with uncomprehended pleasure
then, they grow pale with shame to-day when I think
of it all. It was the physical emotions engendered by
the contact of strong men that I was enamored of,—
not of the dance, nor even of the men themselves.

“Girls talk to each other. I was still a schoolgirl,
although mixing so much with the world. We talked
together. We read romances that fed our romantic
passions on seasoned food, and none but ourselves knew
what subjects we discussed. Had our parents heard
us, they would have considered us on the high road to
ruin.

“Yet we had been taught that it was right to dance;
our parents did it, our friends did it, and we were per-

mitted. I will say also that all the girls with whom I associated, with the exception of one, had much the same experience in dancing.

“Married now, with home and children around me, I can at least thank God for the experience which will assuredly be the means of preventing my little daughters from indulging in any such dangerous pleasure.

“I doubt if my experience will be of much service, but it is the candid truth, from a woman who, in the cause of all the young girls who may be contaminated, desires to show just to what extent a young mind may be defiled by the injurious effects of round dances. I have not hesitated to lay bare what are a young girl’s most secret thoughts, in the hope that people will stop and consider, at least, before handing their lilies of purity over to the arms of any one who may choose to blow the frosty breath of dishonor on their petals.”

Much more might be added on this important subject, would the limits of this work allow; but this must suffice. We beg the reader to consider carefully and prayerfully the facts presented before deciding that dancing is as harmless as many persons suppose.

Physical Causes of Unchastity.—Some of the physical causes of impurity in women have been previously referred to, since it is through physical injuries that unhealthful clothing exerts its influence. Too little is generally known of the intimate connection between physical and mental conditions. Doubtless, many vices originate in physical imperfections. Indeed, when the full bearing of physical influences upon the mind is allowed, it is difficult to avoid pleading extenuating circumstances in the cases of the greater share of transgressors of both moral and civil laws.

This principle is especially applicable to sexual relations.

In males, one of the most general physical causes of sexual excitement is *constipation*. The vesicula seminalis, in which the seminal fluid is stored, is situated, as will be remembered, at the base of the bladder. It thus has the bladder in front and the rectum behind. In constipation, the rectum becomes distended with feces—effete matter which should have been promptly evacuated, instead of being allowed to accumulate. This hardened mass presses upon the parts most intimately concerned in the sexual act, causing excessive local excitement. When this condition is chronic, as in habitual constipation, the unnatural excitement often leads to most serious results. One of these is the production of a horrible disease, *satyriasis*, the nature of which has been previously indicated.

Constipation in females has the same tendency, though the dangers are not quite so great. The irritation is sufficient, however, to lead to excitement of the passions.

Intestinal worms often produce the same result in children.

Local uncleanness is another very frequent cause which is often overlooked. The natural local secretions quickly become a source of great irritation if not removed by daily washing. Certain anatomical peculiarities sometimes exist in the male, which greatly aggravate this difficulty, and for which circumcision, or an equivalent operation, is the remedy.

Irritation of the bladder, producing incontinence of urine, is another enemy to chastity. It should receive prompt attention and treatment. In children, this irritability is indicated by wetting of the bed at night. In

cases of this kind, allow the child little drink in the latter portion of the day. See that the bladder is emptied just before he goes to bed. Wake him once or twice during the night, and have him urinate. Use all possible means to remove the cause of irritation by giving him plenty of out-of-door exercise and a very simple, though nutritious, diet. Avoid meat, eggs, and condiments.

Leucorrhœa is a cause as well as a result of unchastity in females. The discharge produces abnormal excitement, and attracts the attention of the individual to the parts, causing relief to be sought by rubbing, and thus still further excitement is provoked, and an evil practice begun.

Modern Modes of Life.—Aside from all the causes already enumerated, there are many other conditions and circumstances, the result of modern habits of living, that tend directly toward the excitement of sensuality. Superheated rooms, sedentary employments, the development of the mental and nervous organizations at the expense of the muscular, the cramming system in schools, too long confinement of school-children in a sitting position, the allowance of too great freedom between the sexes in the young, the demoralizing influence of many varieties of public amusement, balls, church fairs, and other like influences too numerous to mention, all tend in the one direction, that of abnormal excitation and precocious development of the sexual functions.

It is not an exaggeration to say that for one conforming to modern modes of living, eating, sleeping, and drinking, absolute chastity is next to an absolute impossibility. This would certainly be true without a special interposition of Providence; but Providence

never works miracles to obviate the results of voluntary sin.

Nervous Irritability.—One of the results of the fast life led by the majority of persons in civilized countries is the production of what has been denominated the *neurotic temperament*, a condition in which the nervous system is unduly active and excitable. This condition is always accompanied by a deficiency of nerve tone. This means that the nerve centers which control the various functions of the body are more excitable and less under control of the will and other dominating and governing centers than in health. The consequence of this condition is a tendency to irregularity in the activity of the various vital functions, especially an exaggeration of the activity of those functions which are particularly called out by the emotions and propensities. This depraved condition of the body constitutes a physical bias in the direction of vice and crime of all sorts. All the violent passions, such as irritability of temper and sensuality, are more readily excited to activity, and when in action, are more intense than in a healthy individual. This lowered nerve tone is also accompanied by a lowered mental tone, and a corresponding lowering of moral tone; so that while the propensities are unnaturally strong, the will by which they should be controlled is unusually weak. This state of things renders the individual an easy prey to vice, and particularly to that most overmastering of all the passions, sensuality. From this same morbid condition comes a growing tendency to the drink habit, and the ready acquirement of the use of tobacco and other narcotics, which in turn steadily increase the morbid condition referred to, and thus accelerate the tendency in the direction of sensuality and vice.

This tendency among civilized people is to be combated by having greater attention given to health culture; to the training of the muscles by thorough and systematic gymnastic exercise; to the connection of manual-labor and manual-training departments with our educational institutions; and to the encouragement of agricultural and other forms of muscular employment. The mind need not be trained less, but the body more. Indeed, a better kind of mental discipline would prove one of the most effective means of checking the development of this morbid tendency. Self-control and self-discipline should be cultivated from the earliest period in the education of every child.

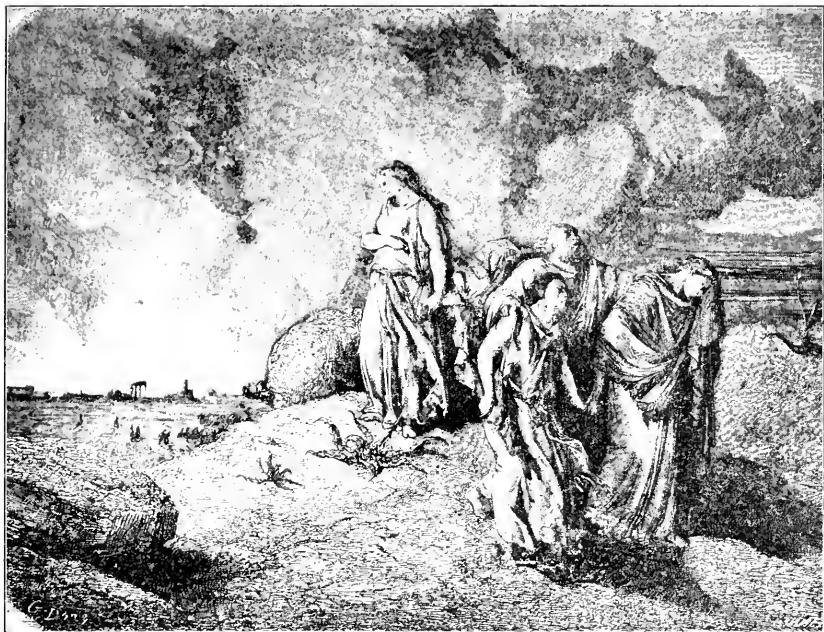
It is indisputable that sexual vices are far less prevalent among those barbarous tribes who live much in the open air and obtain their sustenance by such arduous means as hunting and the gathering of the meager products of the forest and the untilled soil, than among civilized people; and it is also a fact that among civilized people, sensuality is far more prevalent with the nervous, excitable classes—those who are inferiorly developed physically, and whose occupations are not laborious—than among the agricultural population, and other classes whose occupation calls for vigorous exercise of the muscles. The most effective method of antagonizing vice among these classes, is to improve their condition physically, and to give muscular employments to antidote the tendency in their constitutions by which they become dangerous to the moral health of the community.

THE SOCIAL EVIL

Illicit intercourse has been a common vice of humanity from the earliest period of history. At the present moment, it is a loathsome ulcer, eating at the heart of civilization; a malignant leprosy, which shows its hideous deformities amidst the fairest results of modern culture. Our large cities abound with dens of vice whose *habitués* shamelessly promenaded the most public streets, and flaunt their infamy in the face of every passer-by. In many large cities, especially in those of Continental Europe, these holds of vice are placed under the supervision of the law by the requirement that every keeper of a house of prostitution must pay a license; in other words, must buy the right to lead his fellowmen "down to the lowest depths of hell."

In small cities, as well as in large ones, in fact, from the great metropolis down to the country village, the haunts of vice are found. Every army is flanked by bands of courtesans. Wherever men go, loose women follow, penetrating even to the wildness of the miner's camp, far beyond the verge of civilization.

But brothels and traveling strumpets do not fully represent the vast extent of this monster evil. There is a class of immoral women—probably exceeding in numbers the grosser class just referred to—who consider themselves respectable, indeed, who are so considered by the public. Few are acquainted with their character. They live in elegant style and mingle in genteel society. Privately, they prosecute the most unbounded licentiousness, for the purpose of gain, or merely to gratify their lewdness. "Kept mistresses" are much more numerous than common prostitutes.



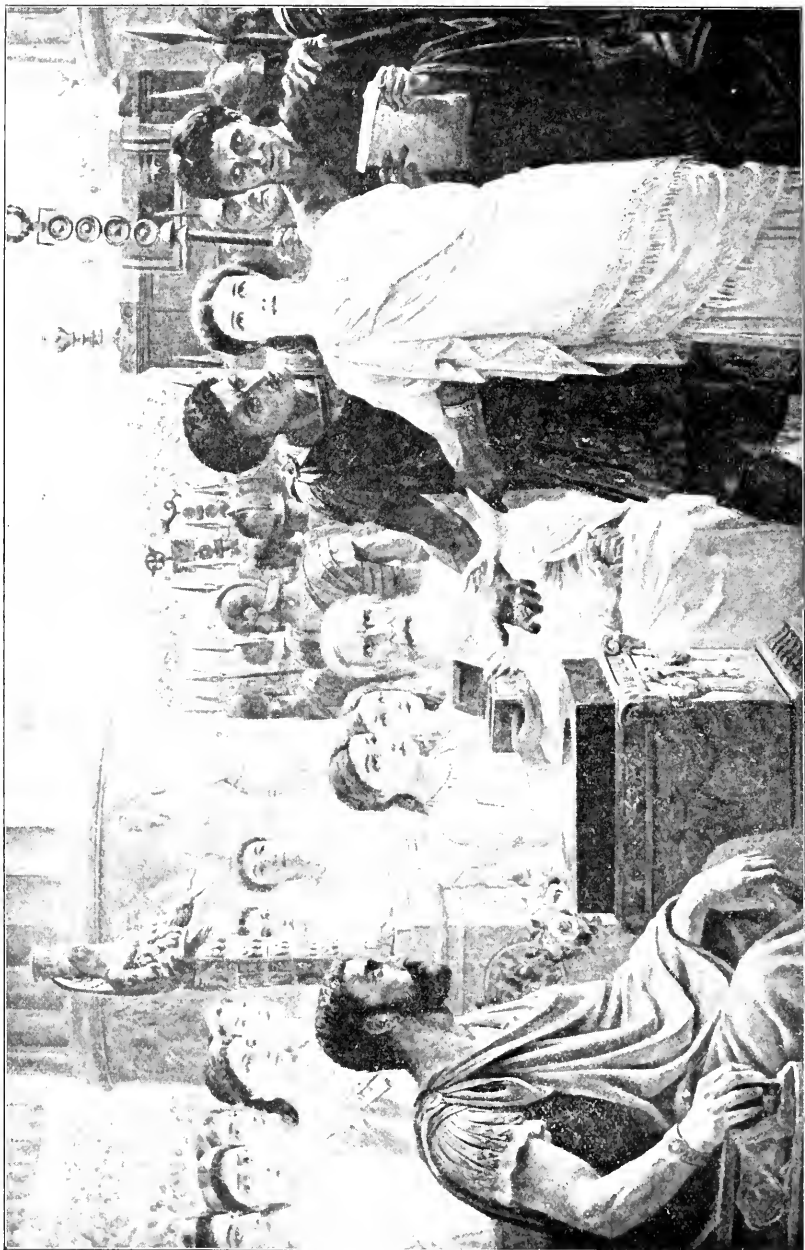
SODOM AND GOMORRAH

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POMPEII AND HERCULANEUM

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The numerous scandal and divorce suits which expose the infidelity of husbands and wives, are sufficient evidence that illicit commerce is not confined to the unmarried; but so many are the facilities for covering and preventing the results of sins of this description that it is impossible to form any just estimate of their frequency. The incontinence of husbands and the unchastity of wives will only appear in their enormity at that awful day when every one shall "stand before the judgment seat," and receive the penalty of his guilty deeds.

Unchastity in Ancient Times.—We would fain believe the present to be the most licentious age the world has ever known; that in the nineteenth century the climax of evil has been reached; that the libidinous blood of all ages has culminated to produce a race of men more carnal than all their predecessors. It is a sickening thought that any previous epoch could have been more vile than this; but history presents facts which disclose in ancient times periods when lust was even more uncontrolled than now; when vice was universal; and when virtue was a thing unknown.

From the Sacred Record, we may judge that before the flood a state of corruption prevailed which was even greater and more general than any that has ever since been reached; only eight persons were fit to survive the calamity which swept into eternity that lustful generation with their filthy deeds.

But men soon fell into vice again; for we find among the early Assyrians a total disregard of chastity. Their kings reveled in the grossest sensuality.

No excess of vice could surpass the licentiousness of the Ptolemies, who made of Alexandria a bagnio, and all Egypt a hotbed of vice. Herodotus relates that

“the pyramid of Cheops was built by the lovers of the daughter of this king; and that she never would have raised this monument to such a height except by multiplying her prostitutions.”

Tyre and Sidon, Media, Phœnicia, Syria, and all the Orient were sunk in sensuality. Fornication was made a part of their worship. Women carried through the streets of the cities the most obscene and revolting representations.

St. Augustine speaks of these religious debaucheries as still practiced in his day in Phœnicia. They were even continued until Constantine destroyed the temples in which they were practiced, in the fourth century.

Among the Greeks the same corruptions prevailed in the worship of Bacchus and Phallus, which was celebrated by processions of half-nude girls “performing lascivious dances with men disguised as satyrs.” In fact, as X. Bourgeois says, “Prostitution was in repute in Greece.”

The abandonment to lust was, if possible, still more complete in the times of the Roman emperors. Rome astonished the universe “by the boldness of its turpitudes, after having astonished it by the splendor of its triumphs.”

If this degraded voluptuousness had been confined to royalty, some respect might yet be entertained for the virtue of the ancients; but the foul infection was not restrained within such narrow bounds. It invaded whole empires, until they fell in pieces from very rotteness.

Though there may be less grossness in the sensuality of to-day, the moral turpitude of men may be even greater than that of ancient times. Enlightened Chris-

tianity has raised the standard of morality. Christ's commentary upon the seventh commandment requires a more vigorous chastity than ancient standards demanded. Consequently, a slight breach of chastity now requires as great a fall from virtue as a greater lapse in ages past, and must be attended with as severe a moral penalty.

State of Modern Society.—But we are not quite certain that the condition of modern society as regards chastity is much superior to that of periods of the world to which reference has been made. While on a tour through Europe, a few years ago, the author took some pains to gather facts upon this point from various authentic sources, and was amazed at the enormous prevalence of sexual crimes in the great and oldest centers of modern civilization. In Paris, the places of amusement and public resort are thronged with brazen courtesans, watching for victims.

In Naples, lasciviousness stalks abroad at all hours of the day and night. Women sell their souls for a few farthings, and the debauched people vie with one another in imitating the horrible obscenities and sexual sins of the Roman Sodom and Gomorrhæ—Pompeii and Herculaneum—and that with the terrible judgment which fell upon these dens of iniquity daily before their eyes, while just above them still towers the stern old Vesuvius, from whose fiery bowels were in olden times poured out the vials of Almighty wrath, and in which are still heard the mutterings of a day of wrath sure to come.

In London, the boasted "center of modern civilization," the number of women who are leading lives of shame and ignominy is sufficiently great to people a large city or a small province. In no city are the

signs of vice and ignorance more plainly seen than in the metropolis of the world.

It would be well for mothers to read carefully the following paragraph from the *Pall Mall Gazette* at the time of its exposure of vice in London:

“The Responsibility of Mothers.”—The ignorance of these girls is almost incredible. It is one of the greatest scandals of Protestant training that parents are allowed to keep their children in total ignorance of the simplest truths of physiology, without even a rudimentary conception of the nature of sexual morality. Catholic children are much better trained; and whatever may be the case in other countries, the chastity of Catholic girls is much greater than that of Protestants in the same social strata. Owing to the soul-and-body-destroying taciturnity of Protestant mothers, girls often arrive at the age of legal womanhood in total ignorance, and are turned loose to contend with all the wiles of the procuress and the temptations of the seducer without the most elementary acquaintance with the laws of their own existence. . . . The culpable refusal of mothers to explain to their daughters the realities and the dangers of their existence, contributes to fill the brothels of London.”

The committee, which included Cardinal Manning, Archbishop of Canterbury, and other eminent gentlemen, appointed to investigate the charges of the *Pall Mall Gazette*, reported as follows:

“After carefully sifting the evidence of witnesses, and the material before us, and without guaranteeing the accuracy of every particular, we are satisfied that, taken as a whole, the statements in the *Pall Mall Gazette* on this question are substantially true.”



MOTHER'S INFLUENCE

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GUARDING THE HOME

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Nor are those terrible practices confined to the Old World. Any one who is at all acquainted with the police records of our large cities must be fully aware of the fact that crimes approximately as enormous in extent, if not fully as great, are perpetrated constantly in New York and other great American cities. In an address presented at the eleventh annual meeting of the National Woman's Christian Temperance Union, held at Philadelphia, Miss Frances E. Willard, the president of that great organization, in dwelling upon the need of an active department for the suppression of the social evil, remarked as follows:

“The effect upon our minds of such unspeakable disclosures as those of the *Pall Mall Gazette*, and the horrible assurances given us by such authority as Dr. Elizabeth Blackwell, that we should uncap perdition in the same direction were the hidden life of our great cities known, has so stirred the heart of womanhood throughout this land, that we are, I trust, ready for an advance. Had we to-day the right woman in this place of unequalled need and opportunity, we could be instrumental in the passage of such laws as would punish the outrage of defenseless girls and women by making the repetition of such outrage an impossibility. Women only can induce lawmakers to furnish this most availing of all possible methods of protection to the physically weak. Men alone will never gain the courage thus to legislate against other men. Crimes against women seem to be upon the increase everywhere.

“It is a marvel not to be explained, that we go on the even tenor of our way, too delicate, too refined, too prudish to make any allusion to these awful facts, much less to take up arms against these awful crimes.

“We have been the victims of conventional cowardice too long. Let us signalize the second century of temperance reform by a fearless avowal of our purpose to take up the work of promoting social purity by the inculcation of right principles, and the serious demand for more equitable laws.”

Causes of the Social Evil.—We have seen how universal is the social evil, that it is a vice almost as old as man himself, which shows how deeply rooted in his perverted nature it has become. The inquiry arises, What are the causes of so monstrous a vice, so gross an outrage upon nature’s laws, so withering a blight upon the race? A vice that has become so great an evil, even in these enlightened times, as to defy the most skilful legislation, which openly displays its gaudy filthiness and mocks at virtue with a lecherous stare, must have its origin in causes too powerful to be ignored.

Man’s Lewdness.—It cannot be denied that men are in the greatest degree responsible for the social evil. The general principle holds true here as elsewhere, that the supply is regulated by the demand. If the patrons of prostitution should withdraw their support by a sudden acquisition of virtue, how soon would this vilest of traffics cease! The inmates of brothels would themselves become continent, if not virtuous, as the result of such a spasm of chastity in men.

Again, the ranks of fallen women, which are rapidly thinned by loathsome diseases and horrid deaths, are largely recruited from that class of unfortunates for whose fall faithless lovers or cunning, heartless libertines are chiefly responsible. The weak girl who, through too much trust, has been deceived and robbed of her dearest treasure, is disowned by relatives,

shunned by her acquaintances and turned out upon a cold world without money, without friends, without a character. What can she do? Respectable employment she cannot find; for rumor follows her. There seems to be but one door open, the one which she herself so unintentionally opened. In despair, she enters the "open road to hell," and to her first sad error adds a life of shame. Meanwhile, the villain who betrayed her maintains his standing in society, and plies his arts to win other victims. Is there not an unfair discrimination here? Should not the seducer be blackened with an infamy at least as deep as that which society casts upon the one betrayed?

Fashion.—The temptation of dress, fine clothing, costly jewelry, and all the extravagances in which rich ladies array themselves, is in many cases too powerful for the weakened virtue of poor seamstresses, operatives, and servant girls, who have seen so much of vice as to lose that instinctive loathing for it which they may have once experienced. Thinking to gain a life of ease, with means to gratify their love of show, they barter away their peace of mind for this world, all hope for the next, and only gain a little worthless tinsel, the scorn of their fellow creatures and a host of loathsome diseases.

Lack of Early Training.—It is needless to demonstrate a fact so well established as that the future character of an individual depends very largely upon his early training. If purity and modesty are taught from earliest infancy, the mind is fortified against the assaults of vice. If, instead, the child is allowed to grow up untrained, if the seeds of vice which are sure to fall sooner or later in the most carefully kept ground, are allowed to germinate, if the first buds of evil are

allowed to grow and unfold, instead of being promptly nipped, it must not be considered remarkable that in later years rank weeds of sin should flourish in the soul, and bear their hideous fruit in shameless lives.

Neglect to guard the avenues by which evil may approach the young mind, and to erect barriers against vice by careful instruction and a chaste example, leaves many innocent souls open to the assaults of evil, and an easy prey to lust. If children are allowed to get their training in the street, at the corner grocery, or hovering around saloons, they will be sure to develop a vigorous growth of the animal passions. The following extract is from the writings of one whose pen has been an inestimable blessing to American youth:

“Among the first lessons which boys learn of their fellows are impurities of language; and these are soon followed by impurities of thought. . . . When this is the training of boyhood, it is not strange that the predominating ideas among young men, in relation to the other sex, are too often those of impurity and sensuality. . . . We cannot be surprised, then, that the history of most young men is, that they yield to temptation in a greater or less degree and in different ways. With many, no doubt, the indulgence is transient, accidental, and does not become habitual. It does not get to be regarded as venial. It is never yielded to without remorse. The wish and the purpose are to resist; but the animal nature bears down the moral. Still, transgression is always followed by grief and penitence.

“With too many, however, it is to be feared it is not so. The mind has become debauched by dwelling on licentious images, and by indulgence in licentious conversation. There is no wish to resist. They are not overtaken by temptation; for they seek it. With

them the transgression becomes habitual, and the stain on the character is deep and lasting.”*

Poverty.— The pressing influence of poverty has been urged as one cause of prostitution. It cannot be denied that in many cases, in large cities, this may be the immediate occasion of the entrance of a young girl upon a life of shame; but it may still be insisted that there must have been, in such cases, a deficiency in previous training; for a young woman, educated with a proper regard for purity, would sooner sacrifice life itself than virtue. Again, poverty can be no excuse; for in every city there are made provisions for the relief of the needy poor, and none who are really worthy need suffer.

Ignorance.— Nothing fosters vice more than ignorance. Public prostitutes come almost entirely from the more ignorant classes, though there are, of course, many exceptions. Among the lowest classes, vice is seen in its grossest forms, and is carried to the greatest lengths. Intellectual and moral culture are antagonistic to sensuality. As a general rule, in proportion as the intellect is developed, the animal passions are brought into subjection.

Disease.— Various diseases which cause local irritation and congestion of the reproductive organs are the causes of unchastity in both sexes, as previously explained. It not infrequently happens that by constantly dwelling upon unchaste subjects until a condition of habitual congestion of the sexual organs is produced, young women become seized with a maniacal furor for libidinous commerce. This disease, known as *nymphomania*, has been the occasion of the fall of many young women of the better classes who had been bred in luxury and idleness, but were never taught the

* Ware.

lessons of purity and self-control. Constipation, piles, worms, pruritis of the genitals, and some other less common diseases of the urinary and genital systems, have been causes of sexual excitement which has resulted in moral degradation.

Results of Licentiousness.— Apparently as a safeguard to virtue, nature has appended to the sin of illicit sexual indulgence, as penalties, the most loathsome, deadly, and incurable diseases known to man. Some of these, as *gonorrhoea* and *chancroid*, are purely local diseases; and though they occasion the transgressor a vast amount of suffering, they may be cured and leave no trace of their presence except in the conscience of the individual. Such a result, however, is by no means the usual one. Most frequently, the injury done is more or less permanent; sometimes it amounts to loss of life or serious mutilation, as in cases we have seen. And one attack secures no immunity from subsequent ones, as a new disease may be contracted upon every exposure.

By far the worst form of venereal disease is *sypilis*, a malady which was formerly confounded with the two forms of disease mentioned, but from which it is essentially different. At first a very slight local lesion, of no more consequence—except from its significance—than a small boil, it rapidly infects the general system, poisoning the whole body, and liable forever after to develop itself in any one or more of its protean forms. The most loathsome sight upon which a human eye can rest is a victim of this disease who presents it well developed in its later stages. To describe them would be to place before our readers a picture too revolting for these pages. No pen can portray the woe-begone faces, the hopeless air, of these degraded suf-

ferers whose repentance has come, alas! too late. No words can convey an adequate idea of their sufferings. What remorse and useless regrets add to the misery of their wretched existence as they daily watch the progress of a malignant ulceration which is destroying their organs of speech, or burrowing deep into the recesses of the skull, penetrating even to the brain itself! Even the bones become rotten; foul running sores appear on different portions of the body, and may even cover it entirely. Perhaps the nose, or the tongue, or the lips, or an eye, or some other necessary organ, is lost. Still the miserable sufferer lingers on, life serving only to prolong the torture. To many of them, death would be a grateful release.

Thousands of Victims.— The venturesome youth need not attempt to calm his fears by thinking that these are only exceptional cases; for this is not the truth. In any city, one who has an experienced eye can scarcely walk a dozen blocks on busy streets without encountering the woeful effects of sexual transgression. Neither do these results come only from long-continued violations of the laws of chastity. The very first departure from virtue may occasion all the worst effects possible.

Effects of Vice Ineradicable.— Another fearful feature of this terrible disease is that when once it invades the system, its eradication may be impossible. No drug, no chemical, can antidote its virulent poison, or drive it from the system. Various means may smother it, possibly for a lifetime; but yet it is not cured, and the patient is never safe from a new outbreak. Professor Bumstead, an acknowledged authority on this subject, after observing the disease for many years, says that he never, after treatment, how-

ever prolonged, promises "immunity for the future." * Dr. Van Buren, professor of surgery at Bellevue Hospital Medical College, New York, bears the same testimony.

Professor Van Buren also says that he has seen the disease occur upon the lips of young ladies who were entirely virtuous, but who were engaged to men who had contracted the disease, and had communicated it to them in the act of kissing. Virtuous wives have not infrequently had their constitutions hopelessly ruined by contracting the disease from husbands who had themselves been inoculated either before or after marriage, by illicit intercourse. Several such unfortunate cases have fallen under our observation, and there is reason to believe that they are not infrequent.

The Only Hope.— The only hope for one who has contracted this disease is to lead a life of perfect continence ever after, and by a most careful life, by conforming strictly to the laws of health, by bathing and dieting, he may possibly avoid the horrid consequences of the later stages of the malady. Drugs certainly will not cure it.

The following strong testimony on this subject we quote from an admirable pamphlet by Prof. Fred. H. Gerrish, M. D.:

"The diseases dependent upon prostitution are appallingly frequent, a distinguished surgeon recently declaring that one person in twenty in the United States has syphilis,— a malady so ineradicable that a profound observer has remarked that 'a man who is once thus poisoned, will die a syphilitic, and in the day of Judgment he will be a syphilitic ghost.' Professor Gross says: 'What is called scrofula, struma, or tuberculosis, is, I have long been satisfied from careful

* "Venereal Disease."

observation of the sick and a profound study of the literature of the subject, in a great majority of cases, if not invariably, merely syphilis in its more remote stages.' Though there are doubtless many of us who believe that a not inconsiderable proportion of scrofulous and phthisical cases are clearly due to other causes than syphilis, we must admit that this statement contains a very large element of truth."

Hereditary Effects of Venereal Disease.—The transgressor is not the only sufferer. If he marries, his children, if they survive infancy, are likely, in later years, to show the effects of their father's sin, exhibiting the forms of the disease seen in its later stages. Scrofula, consumption, cancer, rickets, diseases of the brain and nerves, decay of the bones by caries or necrosis, and other diseases arise in this way.

But it generally happens that the child dies before birth, or lingers out a miserable existence of a few days or weeks thereafter. A most pitiable sight these little ones are. Their faces look as old as children of ten or twelve. Often their bodies become reduced before death to the most wretched skeletons. Their hollow, feeble cry sends a shudder of horror through the listener, and impresses indelibly the terrible consequences of sexual sin. Plenty of these scrawny infants may be seen in the lying-in hospitals.

No one can estimate how much of the excessive mortality of infants is owing to this cause.

In children who survive infancy, its blighting influence may be seen in the notched, deformed teeth, and other defects; and very often it will be found, upon looking into the mouth of the child, that the soft palate, and perhaps the hard palate as well, is in a state of ulceration. There is more than a suspicion that this

disease may be transmitted for several generations, perhaps remaining latent during the lifetime of one, and appearing in all its virulence in the next.

Origin of the Foul Disease.—Where or when the disease originated, is a mystery. It is said to have been introduced into France from Naples by French soldiers.

Read the following from a noted French physician:

“The father, as well as the mother, communicates the syphilitic virus to the children. These poor little beings are attacked sometimes at their birth; more often it is at the end of a month or two that these morbid symptoms appear.

“I recall the heart-rending anguish of a mother whom I assisted at her fifth confinement. She related to me her misfortune: ‘I have already brought into the world four children. Alas! they all died during the first months of their existence. A frightful eruption wasted them away, and killed them. Save me the one that is about to be born!’ cried she, in tears. The child that I delivered was sickly and puny. A few days after its birth, it had purulent ophthalmia; then, crusted and ulcerated pustules, a few at first, numerous afterward, covered the entire surface of the skin. Soon this miserable little being became as meager as a skeleton, hideous to the sight, and died. Having questioned the husband, he acknowledged to me that he had had syphilis.”*

Cure of the Social Evil.—With rare exceptions, the efforts of civil legislation have been directed toward controlling or modifying this vice, rather than extirpating it.

Among other devices adopted with a view to effect this, and to mitigate in some degree the resulting evils,

* Bourgeois.

the issuing of licenses for brothels has been practiced in several large cities. One of the conditions of the license makes it obligatory upon the keepers of houses of ill-repute and their inmates to submit to medical examination at stated intervals. By this means, it is expected to detect the cases of foul disease at the outset, and thus to protect others by placing the infected individuals under restraint and treatment. It will be seen that for many reasons such examinations could not be effective; but, even if they were, the propriety of this plan of dealing with the vice is exceedingly questionable, as will appear from the following considerations:

1. The moment that prostitution is placed under the protection of law by means of a license, it at once loses half its disrepute, and becomes respectable, as do gambling and liquor-selling under the same circumstances.

2. Why should so vile a crime as fornication be taken under legal protection more than stealing or the lowest forms of gambling! Is it not a lesser crime against human nature to rob a man of his money by theft or by deceit and trickery, than to snatch from him at one fell swoop his health, his virtue, and his peace of mind? Why not as well have laws to regulate burglary and assassination, allowing the perpetrators of those crimes to ply their chosen avocations with impunity under certain prescribed restrictions?

3. By the use of certain precautionary measures, the fears of many will be allayed, so that thousands whose fear of the consequences of sin would otherwise have kept them physically virtuous, at least, erroneously supposing that the cause for fear has been removed, will rush madly into a career of vice, and will learn only too late the folly of their course.

There is probably no country in which the provisions of this Contagious Disease Act have been so thoroughly carried out as in Germany; nevertheless, the commission appointed by the Society of Medicine, of Berlin, with Professor Virchow as president, recently reported as the result of an investigation, that both prostitution and venereal diseases were found to be rapidly increasing in Berlin. For example, the number of regular prostitutes, recognized as such by the police, was, in 1886, 3,006. The number had increased in 1891 to 4,364, an increase of almost fifty per cent. This represents, however, but a small proportion of the women actually engaged in prostitution, as 16,000 women are annually arrested for plying their vocation upon the streets in Berlin, and it is known that a great number of women lead lives of prostitution clandestinely; so the committee estimate the total number of prostitutes in Berlin at 40,000 to 50,000.

Some idea of the number of persons who are annually infected by venereal disease may be gained from the fact that the committee reported nearly 80,000 cases as having been treated at two hospitals alone, in Berlin, between 1880 and 1889. The fact was also mentioned by the committee, that a great number of cases were doubtless not included in this category. They quote the estimate of Blaschko, that one in every nine or ten of the male population of Berlin has been infected with syphilis.

A most convincing evidence of the utter inefficiency of the inspection service in preventing the spread of venereal diseases, was shown by the fact developed by the committee, that the naked eye inspection which has been universally relied upon, detects less than one in five of the cases of gonorrhœa, to say nothing of syphi-

lis. By making a bacteriological examination of each case, the proportion of prostitutes found to be suffering from gonorrhœa was increased from nine per cent to fifty per cent.

The conclusions drawn by the committee as to the proper action to be taken under the circumstances, seem to us quite absurd. Instead of recommending the abandonment of the unwise attempt to make vice safe, by enabling the criminal to escape the penalty which nature inflicts for the transgression of moral and natural law in relation to purity, they recommend a more rigid investigation, suggesting that the examination should be made twice a week instead of weekly, and that a bacteriological examination should be made in every case. They also recommend that special hospitals and dispensaries shall be provided for persons suffering from venereal disorders, where they may be treated at the public expense, and thus enabled to return as quickly as possible to their base and immoral business.

What a horrible spectacle is this to contemplate in the midst of our boasted civilization! A vast outfit of laboratories and hospitals, an army of physicians, nurses, pharmacists, clerks, etc., all devoting their lives to the fostering and encouraging of a business which depends wholly for its existence upon the violation of the laws of God and man! If the moral sense of society, especially of politicians,— and it is feared the same must also be said to a considerable extent of the medical profession,— were not blunted to a most astonishing degree, the only remedy which would be suggested for this gigantic evil would be its absolute prohibition and extermination by means of severe penalties and a faithful administration of the law. What can

be said of the inconsistency of which nearly every civilized community is guilty, shown in the maintenance of laws regulating prostitution and licentiousness a crime, while at the same time this deadly traffic is winked at and not infrequently protected and encouraged!

These facts are commended to the consideration of those who are anxious to introduce into this country laws for the regulation and inspection of prostitutes.

Race Deterioration.— The infection of one tenth of the entire male population of a great city like Berlin with so horrible a constitutional malady as syphilis, means race deterioration at a most terrific rate, and yet this estimate is probably none too large, for even a larger estimate has been made in relation to Vienna, Paris, and some other continental cities; and eminent specialists do not hesitate to place New York upon an even footing with Berlin. Dr. Sanger affirms that “nearly one half of the 40,000 female prostitutes in New York, admit that they are or have been sufferers from syphilis,” and, says Dr. Gross, “since the establishment of railroad travel it has penetrated every rural district.” We say “race deterioration,” for the reason that the evil consequences of vice are not to be studied alone in the vicious, but may be traced with equal distinctness in the progeny of the unchaste. Vice of every sort, but most of all, sexual vice, places an indelible mark upon its victims. The progeny of the impure are not only the subjects of special ailments which have been traced directly to the various specific infections communicable through unchastity, but they are also subject to general constitutional feebleness, weakness of will, lack of mental, moral, and physical stamina with little resistance to disease and a proneness to

structural degenerations of various sorts. Largely through the influence of impurity, a vast multitude of persons who might properly be termed "the disinherited," are to be found in our modern communities. This great mass of unfortunates is augmented annually by a numberless host of recruits.

Prevention the Only Cure.—Those who have once entered upon a career of sensuality, are generally so completely lost to all sense of purity and right that there is little chance for reforming them. They have no principle to which to appeal. The gratification of lust so degrades the soul and benumbs the higher sensibilities that a votary of voluptuousness is a most unpromising subject for reformatory efforts. The old adage that an ounce of prevention is worth a pound of cure is strikingly exemplified in this case. The remedy must be applied before the depths have been reached. It was well said by a celebrated physician to a young man beginning a life of vice, "You are entering upon a career from which you will never turn back."

Early Training.—The remedy, to be effective, must be applied early, the earlier the better. Lessons on chastity may be given in early infancy. The remedy may be applied even farther back than this; children must be virtuously generated.

Children should be early taught to reverence virtue, to abhor lust; and boys should be so trained that they will associate with the name of woman only pure, chaste, and noble thoughts. Few things are more deeply injurious to the character of woman, and more conducive to the production of foul imaginations in children, than the free discussion of such subjects as the latest scandal and like topics. The inquisitive minds

and lively imaginations of childhood penetrate the rotten mysteries of such foul subjects at a much earlier age than many persons imagine. The inquiring minds of children will be occupied in some way, and it is of the utmost importance that they should be early filled with thoughts that will lead them to noble and pure actions.

The White Cross Army.—This is the name of an association first organized in England in 1883 by the Bishop of Durham, Rt. Rev. J. B. Lightfoot, D. D., well known through his excellent commentaries on the New Testament. Some of the Y. M. C. A. Associations have undertaken to effect an organization of the same sort in this country. The object of the association is thus stated in its constitution: “The object of this Army shall be the promotion of purity among young men, the elevation of public opinion regarding the question of personal purity, and the maintenance of the same standard for men and women.”

All who join the organization are required to sign the following pledge:

“I promise by the help of God—

“1. To treat all women with respect, and endeavor to protect them from wrong and degradation.

“2. To endeavor to put down all indecent language and coarse jests.

“3. To maintain the law of purity as equally binding upon men and women.

“4. To endeavor to spread these principles among my companions, and to try to help my younger brothers.

“5. To use every possible means to fulfill the command, ‘Keep THYSELF pure.’”

At a meeting held for the purpose of organizing this association in New York City a few years ago,

remarks were made by the Rev. Dr. B. F. De Costa, elucidating the objects of the organization as follows:

“If a woman sins, you know what becomes of her. Is there any place for her except the street? If a man sins, where does he find his place? Does he not find it in the highest society and the best and purest homes, while the miserable victim of his lust is trodden underfoot? What are you going to do about that, young men? Are you going to tolerate a double standard! If there be manhood among you, I call upon you to treat woman as you would be treated yourself. If a woman falls, she falls forever. Her own sex disown her, and reduce her to despair. Though she reform, and rise to a true and pure life,—become as pure as Mary Magdalene, aye, as chaste as the icicles upon the temple of Diana,—her own sex refuse to receive her, and scarce allow her to come into their kitchens to scrub the floor. Now I say to you, young men, be pure on account of her. Whom do I mean? Mother? Sister? Yes, and another. Sometime there will be one whom you will regard with the tenderest love and affection as the personification of purity, beauty, and truth. You may not have found her yet, but you will find her. What do you desire her to think of you? If she loves you truly, you know she will consider you the epitome of goodness, honor, and truth. Will you not so live that when the time comes, you may go to her with a clean and pure heart, so that she may know that you are all her fancy paints you? God forbid that you should go to her and tell her a lie under whose cloud you must live for a lifetime.”

Branch associations of this organization should be formed in every town and city and village in the United States. Those who wish further information concern-

ing the most helpful literature on this and kindred topics, should address the publishers of "Plain Facts."

Teach Self-Control.—One important part of early training is the cultivation of self-control, and a habit of self-denial, whenever right demands it. Another most essential part of a child's moral training is the cultivation of right motives. To present a child no higher motives for doing right than the hope of securing some pleasant reward, or the fear of suffering some terrible punishment, is the surest way to make of him a supremely selfish man, with no higher aim than to secure good to himself, no matter what may become of other people. And if he can convince himself that the pleasure he will secure by the commission of a certain act will more than counterbalance the probable risk of suffering, he will not hesitate to commit it, leaving wholly out of consideration the question, Is it right, or noble, or pure? A love of right for its own sake is the only solid basis upon which to build a moral character. Children should not be taught to do right in order to avoid a whipping, or imprisonment in a dark closet,—a horrid kind of punishment sometimes resorted to,—or even to escape "the lake of fire and brimstone." Neither should they be constantly coaxed to right doing by promised rewards,—a new toy, a book, an excursion, or even the pleasures of a future life. All these incentives are selfish, and invariably narrow the character and belittle life when made the *chief* motives of action. But rather begin at the earliest possible moment to instill into the mind a love for right, and truth, and purity, and virtue, and an abhorrence for their contraries; then will he have a worthy principle by which to square his life; then will he be safe from the assaults of passion, of vice, of lust. A

mind so trained stands upon an eminence from which all evil men and devils combined cannot displace it, so long as it adheres to its noble principles.

Mental Culture.—The cultivation of the physical organization must not be neglected. Healthful mental discipline should receive equal attention. By healthful mental discipline is not meant that kind of superficial “cramming” and memorizing which constitute the training of the average school, but sound culture; a directing of the mind from facts to underlying principles; a development of the reasoning powers so as to bring the emotions and passions into subjection; the acquirement of the power to concentrate the mind, one of the best methods of cultivating self-control,—these are some of the objects and results of sound culture of the mind.

To supply the mind with food for pure thoughts, the child should be early inspired with a love for nature. The percepts should be trained, the child taught to observe closely and accurately. The study of the natural sciences is a most valuable means of elevating the mind above grossness and sensuality. To be successful in this direction, parents must cultivate a love for the same objects themselves. Take the little ones into the country, if they are not so fortunate as to live there, and in the midst of nature’s glories, point their impressible minds upward to the Author of all the surrounding loveliness. Gather flowers and leaves, and call attention to the peculiarities and special beauties of each, and thus arouse curiosity and cultivate habits of close observation and attention.

Early Associations.—As children grow older, watch their associations. Warn them of evil influences and evil practices. Make home so attractive that they

will enjoy it better than any other place. Cultivate music; its mellowing, harmonizing, refining influence is too great to be prudently withheld. Children naturally love music; and if they cannot hear it at home, they will go where they can hear it. Supply attractive books of natural history, travels, interesting and instructive biographies, and almost any other books but love-sick novels and sentimental religious story-books. Guard against bad books and bad associates as carefully as though they were deadly serpents; for they are, indeed, the artful emissaries of the "old serpent" himself. A taste once formed for reading light literature destroys the relish for solid reading; and usually the taste, once lost, is never regained. The fascination of bad companionship once formed around a person, is broken with the greatest difficulty. Hence the necessity of watching for the very beginnings of evil, and promptly checking them.

The mind should be thus fortified against the trifles and follies of fashionable life. It should be elevated into a sphere far above that occupied by those who pass their time in fashionable drawing-rooms in silly twaddle, with thrumming a piano, with listless day-dreaming or in the gratification of perverted tastes and depraved instincts in any other of the ways common to fashionable life.

SOLITARY VICE

If illicit commerce of the sexes is a heinous sin, self-pollution, or masturbation, is a crime doubly abominable. As a sin against nature, it has no parallel except in sodomy (see Gen. 19:5; Judges 19:22). It is the most dangerous of all sexual abuses because the most extensively practiced. The vice consists in an excitement of the genital organs produced otherwise than in the natural way. It is known by the terms, self-pollution, self-abuse, masturbation, onanism, manustupration, voluntary pollution, and solitary or secret vice. The vice is the more extensive because there are almost no bounds to its indulgence. Its frequent repetition fastens it upon the victim with a fascination almost irresistible. It may be begun in earliest infancy, and may continue through life.

Even though no warning may have been given, the transgressor seems to know, instinctively, that he is committing a great wrong, for he carefully hides his practice from observation. In solitude he pollutes himself, and with his own hand blights all his prospects for both this world and the next. Even after being solemnly warned, he will often continue this worse than beastly practice, deliberately forfeiting his right to health and happiness for a moment's mad sensuality.

Alarming Prevalence of the Vice.—The habit is by no means confined to boys; girls also indulge in it, though it is to be hoped, to a less fearful extent than boys, at least in this country. A Russian physician, quoted by an eminent medical professor in New York, states that the habit is universal among girls in Russia. It seems impossible that such a statement should be

credible; and yet we have not seen it contradicted. It is more than probable that the practice is far more nearly universal everywhere than even medical men are willing to admit. Many young men who have been addicted to the vice, have in their confessions, declared that they found it universal in the schools in which they learned the practice.

The extent to which the vice is practiced by an individual is in some cases appalling. Three or four repetitions of the act daily are not uncommon.

In a case which came under the author's care some time ago, that of a young woman, the vice had been practiced ten to fourteen times daily for weeks at a time. The patient had become a bed-ridden invalid, and was reduced to the most wretched condition physically and mentally; and it was only by the most earnest and persistent effort that she was rescued from the miserable state into which she had fallen.

Testimony of Eminent Authors.—Says a medical writer, "In my opinion, neither the plague, nor war, nor smallpox, nor similar diseases, have produced results so disastrous to humanity as the pernicious habit of Onanism; it is the destroying element of civilized societies, which is constantly in action, and gradually undermines the health of a nation."

"The sin of self-pollution, which is generally considered to be that of Onan, is one of the most destructive evils ever practiced by fallen man. In many respects it is several degrees worse than common whoredom, and has in its train more awful consequences, though practiced by numbers who would shudder at the thought of criminal connection with a prostitute."*

"However revolting to the feelings it may be to

* Dr. Adam Clarke.

enter upon such a subject, it cannot be passed over in silence without a great violation of duty. Unhappily, it has not been hitherto exhibited in the awful light in which it deserves to be shown. *The worst of it is that it is seldom suspected.* There are many pale faces and languid, nervous feelings attributed to other causes when all the mischief lies here.”*

We scarcely need add further evidence of the fearful extent of this evil, but will conclude with the following:

“The pernicious and debasing practice of masturbation is a more common and extensive evil with youth of both sexes than is usually supposed.” “A great number of the evils which come upon the youth at and after the age of puberty, arise from masturbation, persisted in, so as to waste the vital energies and enervate the physical and mental powers of man.” “Many of the weaknesses commonly attributed to growth and the changes in the habit by the important transformation from adolescence to manhood, are justly referable to this practice.”†

Not a Modern Vice.—That this vice is not entirely a modern one is proved by the fact that in many ancient writings directions are given for treating its effects. Even Moses seems to have recognized disorders of this class. Hippocrates and others devoted considerable attention to them.

Victims of All Ages.—The ages at which the habit may be practiced include almost the whole extent of human life. We have seen it in infants of only three or four years, and in old men scarcely less than sixty, in both extremes marked by the most unmistakable and lamentable consequences. Cases have been

* Sir W. C. Ellis.

† Boston *Medical and Surgical Journal*.

noted in which the practice was begun as early as two years of age. It is common among African boys at nine and ten years of age, according to Dr. Copland.

Unsuspected Wickedness.—Parents who have no suspicion of the evil, who think their children the embodiment of purity, will find by careful observation and inquiry,—though personal testimony cannot be relied upon,—that in many instances their supposed virtuous children are old in corruption. Such a revelation has brought dismay into many a family, in some cases only too late.

Not long since a case came under our care which well illustrates the apathy and blindness of parents with respect to this subject. The parents of a young man whose mind seemed to be somewhat disordered, sent word to us through a friend respecting his condition, asking advice. We suspected from the symptoms described the real cause of the disease, and urged prompt attention to the case. In a short time the young man was placed under our immediate care without encouragement of a cure, and we gave the case still closer study. The characteristic symptoms of disease from self-abuse were marked, but the father was positive that no influence of that kind could have been at work. He had watched his son narrowly from infancy, and did not believe it possible for him to have been guilty. In addition, the young man had long been remarkable for his piety, and he did not believe there could be any possibility of his being guilty of so gross a crime.

A short time sufficed, however, to secure the indisputable evidence of the fact by his being caught in the act by his nurse.

This young man was a sad example of what havoc is made with the “human form divine” by this debas-

ing vice. Once a bright boy, kind, affectionate, active, intelligent, the pride of a loving mother and the hope of a doting father, his mind had sunken to driveling idiocy. His vacant stare and expressionless countenance betokened almost complete imbecility. If allowed to do so, he would remain for hours in whatever position his last movement left him. If his hand was raised, it remained extended until placed in a position of rest by his attendant. Only with the utmost difficulty could he be made to rise in the morning, to eat, drink, or walk. Only by great efforts could he be aroused from his lethargy sufficiently to answer the most simple question. The instinctive demands of decency in regarding the calls of nature were not respected. In short, the distinguishing mental and moral characteristics of a human being were almost wholly obliterated, leaving but a physical semblance of humanity,—a mind completely wrecked, a body undergoing dissolution while yet alive, a blasted life, no hope for this world, no prospect for the next. In the insane asylums of the country may be seen hundreds of these poor victims in all stages of physical and mental demoralization.

Causes of the Habit.—It is needless to recapitulate all the causes of unchastity which have previously been quite fully dwelt upon, nearly all of which are predisposing or exciting causes of solitary as well as social vice. Sexual precocity, idleness, pernicious literature, abnormal sexual passions, exciting and irritating food, gluttony, sedentary employment, libidinous pictures, and many abnormal conditions of life are potent causes in exciting the vile practice; but by far the most frequent causes are evil associations, wicked or ignorant nurses, and local disease, or abnormality.

These latter we will consider more particularly, as they have not been so fully dwelt upon elsewhere.

Evil Associations.—A child may have been reared with the greatest care. From infancy he may have been carefully shielded from all pernicious influences, so that at the age of ten or twelve, when he is for the first time sent to school, he may be free from vice; but when he associates with his fellow students, he soon finds them practicing a habit new to him, and being unwarned, he speedily follows their filthy example, and quickly becomes fascinated with the vice. Thousands have taken their first lessons in this debasing habit at school. Teachers and scholars testify that it is often practiced even in school hours, almost under the teacher's eyes; but where the infection most quickly spreads is in the sleeping apartments, where more than one occupy the same bed, or where several sleep in the same room.

Nothing is more indispensable to purity of body and of morals than a private sleeping-room, and a single bed for each student. Such an arrangement would protect the youth from the reception of much evil, and would allow an opportunity for privacy which every young man or youth needs for his spiritual as well as physical benefit. Not the least benefit of the latter class is the opportunity for a thorough cleansing of the whole body every morning, which is almost as indispensable to purity of morals as to cleanliness of body. The same suggestion is fully as applicable to the sleeping arrangements of girls. The exceptional cases in which this plan would not be the best are very few indeed.

Corruption in Schools.—Says Dr. Acton, "I cannot venture to print the accounts patients have given

me of what they have seen or even been drawn into at schools. I would fain hope that such abominations are things of the past." The entrance of a single corrupt boy into a school which may have been previously pure,—though such schools must be extremely rare,—will speedily corrupt almost the entire membership. The evil infection spreads more rapidly than the contagion of smallpox or yellow fever, and it is scarcely less fatal.

This danger exists, not in public or city schools alone, but in the most select and private schools. A father who had kept his two sons under the care of a private governess for several years, and then placed them in a small school taught by a lady, and composed of a few small children from the most select families, was greatly astonished when informed by a physician that his sons showed symptoms of the effects of self-abuse. He was totally incredulous; but an investigation showed that they had already practiced the vile habit for several years, having learned it of an infantile schoolmate.

We were acquainted with one instance in which a primary school in a secluded and select community was nearly broken up by the introduction of this vile habit through a corrupt student. Many a watchful teacher has seen the light of growing intelligence suddenly dim and wane in the eye of his favorite student just when he was giving the most promise of developing unusual talents in literature, mathematics, or some one of the natural or physical sciences, and has been compelled to watch the devastating influence of this deadly upastree that often claims the best and fairest human flowers as its victims.

Wicked Nurses.—In those cases in which the habit

is acquired at a very early age, the work of evil is usually wrought by the nurse, perhaps through ignorance of the effects of the habit. Incredible as it seems, it is proved by numerous instances that it is not an uncommon habit for nurses to quiet small children by handling or titillating their genital organs. They find this a speedy means of quieting them, and resort to it regardless or ignorant of the consequences.

Professor Lusk, of Bellevue Hospital College, New York, related to his medical class in our hearing a case which came under his observation in which all the children in a large family had been taught the habit by a wicked nurse for the purpose of keeping them quiet after they were put to bed. The vileness that would lead a person to thus rob childhood of its innocence, and blast its prospects for this life and the next, is base enough for the commission of almost any crime. Indeed, the crime could hardly have been a worse one had the nurse referred to in the above case in cold blood cut the throats of those innocent children; perhaps it might have been better for the children.

If occasional bad associations will work an immense damage to the youthful character, what terrible injury may be wrought by an agent of sin, an instructor in vice, who is within the household, who presides in the nursery, and exerts a constant influence! No one can estimate it.

Acton remarks on this point: "I need hardly point out how very dangerous this is. There seems hardly any limit to the age at which a young child can be initiated into these abominations, or to the depth of degradation to which it may fall under such hideous teaching. Books treating of this subject are unfor-

tunately too full of accounts of the habits of such children.”

In not a few instances the “hired man” has been the means of communicating to innocent little boys the infamous knowledge which, fortunately, they had not acquired in babyhood. With no knowledge of the evil they are committing, they begin the work of physical damnation which makes a hell of life, and leads to endless death.

The “hired girl” is often an equally efficient agent for evil in the instruction of little girls in this debasing vice. Some time ago, the very intelligent parents of a bright family of children were awakened to the importance of this subject by the perusal of the first edition of this work, and upon investigation were horrified to find that their oldest child, a promising daughter of ten, was already a victim to the vile practice, having been initiated by a “hired girl.” After using in vain every means he could bring to bear upon the case, the father brought her to us, and with tears in his eyes gave his story. After telling of his unsuccessful attempts to effect a reform, he declared that he would far prefer to place his daughter in the grave than to see her grow up a wretched victim of this vice. We were most happy to be able, after a few weeks’ treatment, to restore her to her parents, as we hope, permanently reformed. Not a few such cases are constantly coming to the attention of physicians.

Are these lines perused by any one who has ever taught another this vice so vile, and so certainly followed by penalties so terrible,—penalties not upon the instigator but upon the hapless victim? Let such a person clothe himself in sackcloth and ashes, and do penance for the remainder of his life. The only way

in which he can hope to atone, even in some small degree, for such a heinous crime is by doing all in his power to warn those in danger against this sin.

Sending children very early to bed before they are weary, "to get them out of the way," or for punishment, is a grave error, as this may give rise to the vice. Confining children alone in a room by themselves is an equally reprehensible practice, as it favors the commission of the act, at least, and may afford a favorable opportunity for its discovery. Allowing children to form a habit of seeking solitude is an evil of the same nature.

Local Disease.—In the male, a tight or long foreskin is a frequent cause of the habit. The constant contact of the prepuce with the most sensitive part of the organ increases its sensibility. The secretion is retained and accumulates, often becoming hardened. In this manner, irritation is set up, which occasions uncomfortable feelings, and attracts the hands to the part. Owing to the great degree of excitement due to irritation, but a slight provocation is necessary to arouse voluptuous sensations, and then the terrible secret is revealed. The child readily discovers how to reproduce the same, and is not slow to commit a frequent repetition of the act; and thus the habit is formed.

An Illustrative Case.—A case in which the vice originated in this manner was recently under the author's observation. The patient was a man of considerable intellectual power and culture, but showed unmistakable signs of his early indiscretion. He stated that although he mingled quite freely with other boys of his age, he obtained no knowledge of the habit

from others. He often heard allusions which he did not understand, and of which he did not, fortunately, discover the meaning. But he was afflicted with congenital *phimosis*, the prepuce being so tight that retraction was impossible. This, together with a bladder irritation,—which occasioned nocturnal incontinence of urine,—constipation, and highly seasoned food, produced so much local irritation as to occasion frequent erections, and an increased secretion. He soon noticed that there was an accumulation of hardened secretion beneath the foreskin, and in attempting to remove this, he accidentally provoked voluptuous sensations. He speedily abandoned himself to the habit, often repeating it several times a day. Beginning at the age of twelve years, he continued it for three or four years.

Soon after acquiring the habit, he became aware of its tendencies, through reading books upon the subject; but he found himself so completely enslaved that reformation seemed impossible. One resolution to reform after another was formed, only to be speedily broken. His unwholesome diet, habitual constipation, and especially the unfortunate organic difficulty in his genital organs, produced an almost constant priapism, which was only relieved, and then but temporarily, by the act of pollution. His sedentary habits increased the difficulty to an extreme degree.

In the meantime, his constitution, naturally weak, was being gradually undermined. He suffered from constant headache, heart-burn, pains in the back and limbs, weakness and lassitude. Yet he attributed none of these ailments to the true cause. After the lapse of three or four years thus spent, and after repeated ineffectual attempts, by a powerful effort of the will, by

the aid of prayer, and by adopting a more wholesome diet, he succeeded in getting the mastery of his vice. But the local difficulties still continued in a great degree, and under particularly aggravated circumstances occasioned a relapse at long intervals. After a time the local difficulties grew less, and enabled him to gain a complete victory over the habit, though the result of previous sin still remained, for which he desired treatment.

This case will serve as a fair illustration of many of similar character, in which the child accidentally makes the discovery which leads him to work his own ruin.

Other Physical Causes.—Constipation, piles, irritable bladder, fissure of the anus, local uncleanness and pruritis of the genital organs, will produce the habit in both males and females in the manner described. Sleeping on feather beds increases the local congestion, and thus favors the exciting influences of all the above-named causes. It may, perhaps, itself be the exciting cause.

We once treated a patient who was affected with stone in the bladder, and who asserted that the constant irritation which he suffered in the end of the penis was only relieved by friction. This might readily be the cause of masturbation, though in this case the vice had been acquired many years before, and was still continued in spite of all efforts to reform.

Lying upon the back or upon the abdomen frequently leads to self-abuse, by provoking sexual excitement. Certain kinds of exercise, climbing in particular, have been attended by the same results. It is said that children sometimes experience genital excitement amounting to pleasure as the result of whipping.

The author has met only two cases of this sort. In one, a boy acquired the habit of masturbation through experiencing voluptuous sensations while climbing, the ultimate effect of which was an obstinate case of epilepsy. Another lad experienced a high degree of sexual excitement when spanked by his teacher; and in still another case, the excitement resulted from horseback-riding.

Influence of Stimulants.—The use of stimulants of any kind is a fruitful cause of the vice. The influence of tobacco is so strongly shown in this direction that it is doubtful if there can be found a boy who has attained the age of puberty, and has acquired the habit of using tobacco, who is not also addicted to this vile practice. Candies, spices, cinnamon, cloves, peppermint, and all strong essences powerfully excite the genital organs, and lead to the same result.

It should be further added that there is evidence that a powerful predisposition to this vice is transmitted to the children of those who have themselves been guilty of it.

Sexual Perversion.—Dr. Hammond remarks as follows upon this point:

“I am persuaded that a nervous constitution and excessive nervous susceptibility going on to debility, tend to induce the habit of ‘mental masturbation,’ as well as both natural and unnatural excess in sexual indulgence. The strong, the phlegmatic, the healthy, the well-balanced temperaments—those who live outdoors and work with the muscles more than with the mind—are not tormented with sexual desire to the same degree or in the same way as the hysterical, the sensitive, the nervous—those who live indoors and use mind much and muscle very little. Dr. Boteler, who

has had much experience as a physician among the North American Indians, tells me that Indian boys do not masturbate, and do not, as a rule, in most of the tribes, commit excesses in sexual indulgence prior to marriage; and it is quite safe to assume, reasoning deductively and inductively from a general knowledge of the nervous, from observation among savages and semi-savages, among the negroes, and among the strong, healthy farming population in all civilized countries, that those who live outdoors and have well-balanced constitutions of the old-fashioned sort, are not annoyed by sexual desire when they have no opportunities for gratification, nor to the same degree as the delicate, finely organized lads of our cities and of the higher civilization.”

Signs of Self-Abuse.—The net which this vice weaves around its victim is so strong, and its meshes are so elaborately interwoven with all his thoughts, his habits, and his very being, when it has been long indulged, that it is important to be able to detect it when first acquired, as it may then be much more easily overcome than at any subsequent period. It is often no easy matter to do this, as the victim will resort to all manner of cunning devices to hide his vice, and will not scruple to falsify concerning it, when questioned. To be able to accomplish this successfully requires a careful study, first, of the signs by which those who indulge in the practice may be known, and, secondly, of the habits of the individuals.

In considering the subject, it will be found that there are two classes of signs, as follows:

1. Those which may arouse suspicion; but any one of which, taken singly, would not be an evidence of the practice.

2. Those which may be regarded as positive. Several suspicious signs together may constitute a positive sign. Under these two heads, we will consider the signs of this vile habit.

It is well to bear in mind the fact that one or two suspicious signs are not evidence of the disease. It is likewise well to remember that the habit may be found where least looked for, and where one would have a right to expect perfect purity. Prejudice must be allowed no voice upon either side. A writer has said that every young person under puberty ought to be suspected of the disease. We can hardly indorse this remark in full, but it would be at least wise for every guardian of children to criticise most carefully their habits and to quickly detect the first indications of sinful practices. Parents must not think that *their* children, at least, are too good to engage in such sinful abuses. It is most probable that their children are very like those of their neighbors; and any amount of natural goodness is not a protection against this insidious vice when it presents itself as a harmless pleasure to the unwarned and ignorant child.

Suspicious Signs.—The following symptoms, occurring in the mental and physical character and habits of a child or young person, may well give rise to grave suspicions of evil, and should cause parents or guardians to be on the alert to root it out if possible:

1. *General debility*, coming upon a previously healthy child, marked by emaciation, weakness, an unnatural paleness, colorless lips and gums, and the general symptoms of exhaustion, when it cannot be traced to any other legitimate cause, as internal disease, worms, grief, overwork, poor air or poor food, and

when it is not speedily removed by change of air or appropriate remedial measures, may be safely attributed to solitary vice, no matter how far above natural suspicion the individual may be. Mistakes will be rare indeed when such a judgment is pronounced under the circumstances named.

2. *Early symptoms of consumption*, or what are supposed to be such, as cough and decrease in flesh, with short breathing and soreness of the lungs or muscles of the chest, are often solely the result of this vice. That such is the case may be considered pretty surely determined if physical examination of the lungs reveals no organic disease of those organs. But it should be remembered that solitary vice is one of the most frequent causes of early consumption. Several cases which strikingly prove this have fallen under our own observation.

3. *Premature and defective development* is a symptom closely allied to the two preceding. When it cannot be traced to such natural causes as overstudy, overwork, lack of exercise, and other influences of a similar nature, it should be charged to self-abuse. The early exercise of the genital organs hastens the attainment of puberty in many cases, especially when the habit is acquired early; but at the same time it saps the vital energies so that the system is unable to manifest that increased energy in growth and development which usually occurs at this period. In consequence, the body remains small, or does not attain that development which it otherwise would. The mind is dwarfed as well as the body. Sometimes the mind suffers more than the body in lack of development, and sometimes the reverse is true. This defective development is shown in the physical organization of males, in the failure of the

voice to increase in volume and depth of tone as it should, in deficient growth of the beard and in failure of the chest to become full and the shoulders broad. The mind and character show the dwarfing influence by failure to develop those qualities which especially distinguish a noble manhood. In the female, defective development is shown by menstrual derangements, by defective growth either in stature, or as shown in unnatural slimness, and in a failure to develop the graces and pleasing character which should distinguish early womanhood. Such signs deserve careful investigation; for they can only result from some powerfully blighting influence.

4. *Sudden change in disposition* is a sign which may well arouse suspicion. If a boy who has previously been cheerful, pleasant, dutiful, and gentle suddenly becomes morose, cross, peevish, irritable, and disobedient, be sure that some foul influence is at work with him. When a girl, naturally joyous, happy, confiding, and amiable, becomes unaccountably gloomy, sad, fretful, dissatisfied, and unconfiding, be certain that a blight of no insignificant character is resting upon her. Make a careful study of the habits of such children; and if there is no sudden illness to account for the change in their character, it need not require long deliberation to arrive at the true cause; for it will rarely be found to be anything other than solitary indulgence.

5. *Lassitude* is as unnatural for a child as for a young kitten. A healthy child will be active, playful, full of life and animal spirits. If a young child manifests indisposition to activity, a dislike for play, lifelessness, and languor, suspect his habits, if there is no other reasonable cause to which to attribute his unnatural want of childish sprightliness.

6. In connection with the preceding symptom will generally be found, instead of that natural brilliancy of expression in the eyes and countenance, an unnatural dullness and vacantness altogether foreign to childhood. This is a just ground for suspicion.

7. *Sleeplessness* is another symptom of significance. Sound sleep is natural for childhood; and if sleeplessness be not occasioned by dietetic errors, as eating indigestible food, eating between meals, or eating late suppers, it may justly be a cause for suspicion of evil habits.

8. *Failure of mental capacity* without apparent cause, should occasion suspicion of evil practices. When a child who has previously learned readily, mastered his lessons easily, and possessed a retentive memory, shows a manifest decline in these directions, fails to get his lessons, becomes stupid, forgetful, and inattentive, he has probably become the victim of a terrible vice, and is on the road to speedy mental as well as physical ruin. Watch him.

9. *Fickleness* is another evidence of the working of some deteriorating influence; for only a weak mind is fickle.

10. *Untrustworthiness* appearing in a child should attract attention to his habits. If he has suddenly become heedless, listless, and forgetful, so that he cannot be depended upon, though previously not so, lay the blame upon solitary indulgence. This vice has a wonderful influence in developing untruthfulness. A child previously honest will soon become an inveterate liar under its baneful influence.

11. *Love of solitude* is a very suspicious sign. Children are naturally sociable, almost without exception. They have a natural dread of being alone. When a

child habitually seeks seclusion without a sufficient cause, there are good grounds for suspecting him of sinful habits. The barn, the garret, the water-closet, and sometimes secluded places in the woods are favorite resorts of masturbators. They should be carefully followed and watched, unobserved.

12. *Bashfulness* is not infrequently dependent upon this cause. It would be far from right to say that every person who is excessively modest or timid is a masturbator; but there is a certain timorousness which seems to arise from a sense of shame or fear of discovery that many victims of this vice exhibit, and which may be distinguished from natural modesty by a little experience. One very common mode of manifestation of this timidity is the inability to look a superior, or any person who is esteemed pure, in the eye. If spoken to, instead of looking directly at the person to whom he addresses an answer, the masturbator looks to one side or lets his eyes fall upon the ground, seemingly conscious that the eye is a wonderful tell-tale of the secrets of the mind.

13. *Unnatural boldness*, in marked contrast with the preceding sign, is manifested by a certain class of victims. It can be as easily distinguished, however, as unnatural timidity. The individual seems to have not the slightest appreciation of propriety. He commits openly the most uncouth acts, if he does not manifest the most indecent unchastity of manner. When spoken to, he stares rudely at the person addressing him, often with a very unpleasant leer upon his countenance. In some few cases there seems to be a curious combination of conditions. While mentally fearful, timid, and hesitating, the individual finds himself, upon addressing a person, staring at him in the most ungainly manner.

He is conscious of his ill manners, but is powerless to control himself. This sign is one which could hardly be of use to any except a very close observer, however, as few can read upon the countenance the operations of the mind.

14. *Mock piety*—or perhaps we should more properly designate it as mistaken piety—is another peculiar manifestation of the effects of this vicious practice. The victim is observed to become transformed, by degrees, from a romping, laughing child, full of hilarity and frolic, to a sober and very sedate little ——— Christian, the friends think, and they are highly gratified with the piety of the child. Little do they suspect the real cause of the solemn face; not the slightest suspicion have they of the foul orgies practiced by the little sinner. By the aid of friends, he may soon add hypocrisy to his other crimes, and find in assumed devotion a ready pretense for seeking solitude. Parents will do well to investigate the origin of this kind of religion in their children.

15. *Easily frightened* children are abundant among young masturbators, though all easily frightened persons are not vicious. It is certain, however, that the vice greatly exaggerates natural fear, and creates an unnatural apprehensiveness. The victim's mind is constantly filled with vague forebodings of evil. He often looks behind him, looks into all the closets, peeps under the bed, and is constantly expressing fears of impending evil. Such movements are the result of a diseased imagination, and they may justly give rise to suspicion.

16. *Confusion of ideas* is another characteristic of the devotee of this artful vice. If he attempts to argue, his points are not clearly made. He may be superficially quick and acute, but is incapable of deep

thought or abstruse reasoning, and is often very dull of apprehension. Ideas are not presented in logical order, but seem to fall out promiscuously, and fairly represent the condition of a disordered brain. Attempts at joking are generally failures, as the jest is sure to be inappropriate or vulgar, and no one but himself sees any occasion for laughter, except at his stupidity. Such individuals are not scarce.

17. Boys in whom the habit has become well developed sometimes manifest a decided aversion to the society of girls; but this is not nearly so often the case as some authors seem to indicate. It would rather appear that the opposite is more often true. Girls usually show an increasing fondness for the society of boys, and are very prone to exhibit marked evidences of real wantonness.

18. *Round shoulders* and a stooping posture in sitting are characteristics of young masturbators of both sexes. Whenever a child seats himself, the head and shoulders droop forward, giving to the spine a curved appearance.

19. *Weak backs, pains in the limbs and stiffness of the joints*, in children, are familiar signs of the habit. To the first of these conditions is due the habitual stooping posture assumed by these children. The habit referred to is not the only cause of these conditions; but its causative occurrence is sufficiently frequent to give it no small importance as a suspicious indication.

20. *Paralysis* of the lower extremities, coming on without apparent cause, is not infrequently the result of solitary indulgence, even in very small children. We have seen several cases in which this condition was traced to the habit of masturbation, in children under six years of age.

21. The *gait* of a person addicted to this vice will usually betray him to one who has learned to distinguish the peculiarities which almost always mark the walk of such persons. In a child, a dragging, shuffling walk is to be suspected. Boys, in walking rapidly, show none of that elasticity which characterizes a natural gait, but walk as if they had been stiffened in the hips, and as though their legs were pegs attached to the body by hinges. The girl wriggles along in a style quite as characteristic, though more difficult to detect with certainty, as girls are often so "affected" in their walk. Unsteadiness of gait is an evidence seen in both sexes, especially in advanced cases.

22. *Bad positions* in bed are evidences which should be noticed. If a child lies constantly upon its abdomen, or is often found with its hands about the genitals, it may be at least considered in a fair way to acquire the habit, if it has not already done so.

23. *Lack of development of the breasts* in females, after puberty, is a common result of self-pollution. Still, it would be entirely unsafe to say that every female with small mammary glands had been addicted to this vice, especially at the present time, when a fair natural development is often destroyed by the constant pressure and heat of "pads." But this sign may well be given a due bearing.

24. *Capricious appetite* particularly characterizes children addicted to secret vice. At the commencement of the practice, they almost invariably manifest great voracity for food, gorging themselves in the most gluttonous manner. As the habit becomes fixed, digestion becomes impaired, and the appetite is sometimes almost wanting, and at other times almost unappeasable.

25. One very constant peculiarity of such children is their extreme fondness for unnatural, hurtful, and irritating foods. Nearly all are greatly attached to salt, pepper, spices, cinnamon, cloves, vinegar, mustard, horseradish, and similar articles, and use them in most inordinate quantities. A boy or girl who is constantly eating cloves or cinnamon or who will eat salt in quantities without other food, gives good occasion for suspicion.

26. *Eating clay, slate-pencils, plaster, chalk,* and other indigestible articles is a practice to which girls who abuse themselves are especially addicted. The habit sometimes becomes developed to such a wonderful extent that the victims almost rival the clay-eaters of the Amazon in gratifying their propensity.

27. Disgust for simple food is one of the traits which a victim of this vice is likely to possess. He seems to loathe any food which is not rendered hot and stimulating with spices and other condiments, and cannot be induced to eat it.

28. *The use of tobacco* is good presumptive evidence that a boy is also addicted to a practice still more filthy. Exceptions to this rule are very rare indeed, if they exist, which we somewhat doubt. The same influences which would lead a boy to the use of tobacco would also lead him to solitary vice, and each sin would serve to exaggerate the other.

29. *Unnatural paleness* and colorless lips, unless they can be otherwise accounted for, may be attributed to secret sin. The face is a great tell-tale against this class of sinners. Justice demands, however, that an individual should be given the benefit of a doubt so long as there is a chance for the production of these

symptoms by any other known cause, as overwork, mental anxiety, or dyspepsia.

30. *Acne, or pimples* on the face, is also among the suspicious signs, especially when it appears upon the forehead as well as upon other portions of the face. Occasional pimples upon the chin are very common in both sexes at puberty and for a few years afterward, but are without significance, except that the blood may be somewhat gross from unwholesome diet or lack of exercise.

31. *Biting the finger nails* is a practice very common in girls addicted to this vice. In such persons there will also be found, not infrequently, slight soreness or ulceration at the roots of the nails, and warts, one or more, upon one or both the first two fingers of the hand, usually the right.

32. The eyes often betray much. If, in addition to want of luster and natural brilliancy, they are sunken, present red edges, are somewhat sore, perhaps, and are surrounded by a dark ring, the patient, especially if a child, should be suspected and carefully watched. It should be observed, however, that dyspepsia, debility from any cause, and especially loss of sleep will produce some or all of these signs, and no one should be accused of the vice upon the evidence of these indications alone; neither could he be justly suspected so long as his symptoms could be accounted for by legitimate causes.

33. A habitually moist, cold hand is a suspicious circumstance in a young person who is not known to be suffering from some constitutional disease.

34. *Palpitation of the heart*, frequently occurring, denotes a condition of nervous disturbance which has

some powerful cause, and which may often be found to be the vice in question.

35. *Hysteria* in females may be regarded as a suspicious circumstance when frequently occurring on very slight occasions, and especially if there is no hereditary tendency to the disease.

36. *Chlorosis*, or *green sickness*, is very often caused by the unholy practice under consideration. It is very commonly attributed, when occurring in young women, to menstrual derangements; but it is only necessary to remember that these menstrual irregularities are in many cases the result of the same habit, as has been already pointed out.

37. *Epileptic fits* in children are not infrequently the result of vicious habits.

38. *Wetting the bed* is an evidence of irritation which may be connected with the practice; it should be looked after.

39. *Unchastity of speech* and fondness for obscene stories betray a condition of mind which does not often exist in youth who are not addicted to this vice.

As previously remarked, no single one of the above signs should be considered as conclusive evidence of the habit in any individual; but any one of them may and should arouse suspicion and watchfulness. If the habit really exists, but a short time will elapse before other signs will be noticed; and when several point in the same direction, the evidence may be considered nearly, if not quite, conclusive. But persistent watching will enable the positive signs to be detected sooner or later, and then there can no longer be doubt. It is, of course, necessary to give the individual no suspicion that he is being watched, as that would put

him so effectually on his guard as, possibly, to defy detection.

Positive Signs.—The absolutely positive signs of solitary vice are very few. Of course the most certainly positive of all is detection in the act. Sometimes this is difficult, with such consummate cunning do the devotees of the Moloch pursue their debasing practice. If a child is noticed to seek a certain secluded spot with considerable regularity, he should be carefully followed and secretly watched, for several days in succession, if need be. Many children pursue the practice at night after retiring. If the suspected one is observed to become very quickly quiet after retiring, and when looked at, appears to be asleep, the bedclothes should be quickly thrown off under some pretense. If, in the case of a boy, the penis is found in a state of erection, with the hands near the genitals, he may certainly be treated as a masturbator without any error. If he is found in a state of excitement, in connection with the other evidences, with a quickening circulation, as indicated by the pulse, or in a state of perspiration, his guilt is certain, even though he may pretend to be asleep; no doubt he has been addicted to the vice for a considerable time to have acquired so much cunning. If the same course is pursued with girls, under the same circumstances, the clitoris will be found congested, with the other genital organs, which will also be moist from increased secretion. Other conditions will be as nearly as possible the same as those in the boy.

Stains upon the nightshirt or sheets, occurring before puberty, are certain evidences of the vice in boys, as they are subject, before that time, to no discharge which will leave a stain resembling that from the sem-

inal fluid, except the rare one from piles. In the very young, these stains do not occur; but when the habit is acquired before puberty, a discharge resembling semen takes place before the ordinary period. Of course, the stains from urine will be easily distinguished from others. The frequent occurrence of such stains after puberty is a suspicious circumstance. A discharge in some respects similar may occur in girls.

Before puberty, the effect of the vice upon the genital organs is to cause an unnatural development, in both sexes, of the sensitive portions. When this is marked, it is pretty conclusive evidence of the vice. In girls, the vagina often becomes unnaturally enlarged, and leucorrhœa is often present. After puberty, the organs in males often diminish in size and become unnaturally lax and shrunken.

All these signs should be thoroughly mastered by those who have children under their care, and if not continually watching for them, which would be an unpleasant task, such should be on the alert to detect the signs at once when they appear, and then carefully seek for others until there is no longer any doubt about the case.

RESULTS OF SECRET VICE

The physician rarely meets more forlorn objects than the victims of prolonged self-abuse. These unfortunate beings he meets every day of his life, and listens so often to the same story of shameful abuse and retributive suffering, that he dreads to hear it repeated. In these cases, there is usually a horrid sameness—the same cause, the same inevitable results.

In most cases, the patient need not utter a word; for the physician can read in his countenance his whole history, as can most other people at all conversant with the subject.

In order to secure the greatest completeness consistent with necessary brevity, we will describe the effects observed in males and those in females under separate heads, noticing the symptoms of each morbid condition in connection with its description.

EFFECTS IN MALES.

We shall describe, first, the local effects, then the general effects, physical and mental.

Local Effects.—Excitement of the genital organs produces the most intense congestion. No other organs of the body are capable of such rapid and enormous engorgement. When the act is frequently repeated, this condition becomes permanent in some of the tissues, particularly in the mucous membrane lining the urethra. This same membrane continues into, and lines throughout, the bladder, kidneys, and all the urinary organs, together with the vesiculæ seminales, the ejaculatory ducts, the vasa deferentia, and the testes. In consequence of this continuity of tissue, any irritation affecting one part is liable to extend to another, or to all the rest. We mention this anatomical fact here as a help to the understanding of the different morbid conditions which will be noticed.

Urethral Irritation.—The chronic congestion of the urethra after a time becomes chronic irritability. The tissue is unusually sensitive, this condition being often indicated by a slight smarting in urination. It often extends throughout the whole length of the ure-

thra, and becomes so intense that the passage of a sound, which would occasion little if any sensation in a healthy organ, produces the most acute pain, as we have observed in numerous instances, even when the greatest care was used in the introduction of the instrument.

Shooting pains are often felt in the organ, due to this irritation. The pain is of a smarting character, and is in some cases most felt at the root, in others, at the head. It often darts from one point to another. Just before and just after urination the pain is most severe.

Stricture.—Long-continued irritation of the mucous membrane of the urethra produces, ultimately, inflammation and swelling of the same in some portion of its extent. This condition may become permanent, and then constitutes real stricture, a most serious disease. More often the swelling is but transient, being due to some unusual excess, and will subside. Sometimes, also, a temporary stricture is produced by spasmodic contraction of the muscular fibers surrounding the urethra, which is excited by the local irritation. This kind of stricture is often met in the treatment of spermatorrhea.

Enlarged Prostate.—This painful affection is a frequent result of the chronic irritation in the urethra, which the gland surrounds, the morbid action being communicated to it by its proximity. A diseased action is set up, which results in enlargement and hardening. It is felt as a hard body just anterior to the anus, and becomes by pressure the source of much additional mischief. Sometimes the disease progresses to dangerous ulceration. It is attended by heat, pres-

sure, and pain between the anus and the root of the penis.

Permanent enlargement of the prostate is a very serious matter, since it interferes with the proper discharge of urine from the bladder, which ultimately leads to disease of the bladder itself, and may result even in death. This condition is the result of other forms of sexual excess as well as self-abuse.

Urinary Diseases.—The same congestion and irritability extend to the bladder and thence to the kidneys, producing irritation and inflammation of those organs. Mucus is often formed in large quantities; sometimes much is retained in the bladder. Earthy matter is deposited, which becomes entangled in the mucus, and thus a concretion, or stone, is produced, occasioning much suffering, and perhaps death.

We saw, not long since, a case of this kind. The patient was nearly sixty years of age, and had practiced masturbation from childhood. In consequence of his vice, a chronic irritation of the urethra had been produced, which was followed by enlargement of the prostate, then by chronic irritation of the bladder, and the formation of stone. His sufferings were most excruciating whenever he attempted to urinate, which was only accomplished with the greatest difficulty and suffering.

One of the unpleasant results of irritation of the lining membrane of the bladder is inability to retain the urine long, which requires frequent urination, and often causes incontinence of urine.

Priapism.—This same morbid sensitiveness may produce priapism, or continuous and painful erection, one of the most “terrible and humiliating conditions,”

as Dr. Acton says, to which the human body is subject. The horrid desperation of patients suffering under this condition is almost inconceivable. It is fortunately rare in its most severe forms; but hundreds suffer from it to a most painful degree as one of the punishments of the transgression of nature's laws; and a most terrible punishment it is.

Piles, Prolapsus of Rectum, Etc.—As the result of the straining caused by stricture, piles, prolapsus of the rectum and fissure of the anus are not infrequently induced, as the following case observed at Charity Hospital, New York, illustrates:

The patient had a peculiar deformity of the genital organs, *hypospadias*, which prevented sexual intercourse, in consequence of which he gave himself up to the practice of self-abuse. He had become reduced to the most deplorable condition of both mind and body, and presented a most woe-begone countenance. In addition to his general ailments, he suffered from extreme prolapsus of the rectum and a most painful anal fissure. His condition was somewhat bettered by skilful surgical treatment.

Extension of Irritation.—Serious and painful as are the affections already noticed, those which arise from the extension of the congestion and irritation of the urethra to those other organs most intimately connected with the function of generation, are still more dreadful to themselves, and far more serious in their consequences. The irritation extends into the ejaculatory ducts, thence backward into the seminal vesicles and downward through the vasa deferentia to the testes. These organs become unnaturally excited, and their activity is increased. The testicles form an abnormal amount of spermatozoa; the seminal vesicles

secrete their peculiar fluid too freely. From these two sources combined the vesicles become loaded with seminal fluid, and this condition gives rise to a great increase of sexual excitement.

In cases of long standing, the irritation of the urethra at the openings of the ejaculatory ducts, a point just in front of the bladder, advances to inflammation and ulceration. Here is now established a permanent source of irritation, by which the morbid activity of the testes and seminal vesicles is kept up and continually increased. This condition is indicated by frequent twitching of the ejaculatory and compressor muscles in the perineum. It is also indicated by a burning sensation at the root of the penis after urination, which, in severe cases, amounts to very serious pain.

Atrophy, or Wasting of the Testes.—The first result of the irritation communicated to the testes, is, as already remarked, increased activity; but this is attended by swelling in some cases, more or less pain, tenderness, and after a time diminution in size.

This degenerative process likewise affects the seminal fluid, which becomes more or less deteriorated and incapable of producing healthy offspring, even while it retains the power of fecundating the ovum, which it also ultimately loses, if the disease is not checked by proper treatment, when the individual becomes hopelessly impotent,—a happy result for the race; for it prevents the possibility of his imparting to another being his debilitated constitution.

Varicocele.—This morbid condition consists in a varicose state of the spermatic veins. It is almost always found upon the left side, owing to an anatomical peculiarity of the spermatic vein of that side. It has been supposed to be a result of masturbation and its

effects, but is certainly caused otherwise in many cases. It is not infrequently found in these patients; but Professor Bartholomew contends that even in such cases we should "consider its presence, in general, as accidental." Atrophy of the left testicle is often produced by the pressure of the distended veins; but this does not certainly occasion impotence. It sometimes occurs simultaneously on both sides, and certainly greatly aggravates the effects of self-abuse, if it is not itself an effect of the vice.

Nocturnal Emissions.—Seminal emissions during sleep, usually accompanied by erotic dreams, are known as nocturnal pollutions or emissions, and are often called *spermatorrhea*, though there is some disagreement respecting the use of the latter term. Its most proper use is when applied to the entire group of symptoms which accompany involuntary seminal losses.

The masturbator knows nothing of this disease so long as he continues his vile practice; but when he resolves to reform, and ceases to defile himself voluntarily, he is astonished and disgusted to find that the same filthy pollutions occur during sleep without his voluntary participation. He now begins to see something of the ruin he has wrought. The same nightly loss continues, sometimes being repeated several times in a single night, to his infinite mortification and chagrin. He hopes the difficulty will subside of itself, but his hope is vain; unless properly treated, it will probably continue until the ruin which he voluntarily began is completed.

This disease is the result of sexual excesses of any kind; it is common in married men who have abused the marriage relation, when they are forced to tempo-

rary continence from any cause. It also occurs in those addicted to mental unchastity, though they may be physically continent. It is not probable that it would ever occur in a person who had been strictly continent, and had not allowed his mind to dwell upon libidinous imaginations.

Exciting Causes.—The exciting causes which serve to perpetuate this difficulty are chiefly two; viz., local irritation and lewd thoughts.

The first cause is usually chiefly located in the urethra, and especially at the mouths of the ejaculatory ducts. Distention of the seminal vesicles, with a superabundance of seminal fluid, also acts as a source of irritation. Constipation, worms, and piles have an irritating influence, which is often very seriously felt.

Unchaste thoughts act detrimentally in a twofold way. They first stimulate the activity of the testes, thus increasing the overloading of the seminal vesicles. Lascivious thoughts during wakefulness are the chief cause of lascivious dreams.

Emissions do not usually occur during the soundest sleep, but during that condition which may be characterized as dozing, which is most often indulged early in the morning after the soundest sleep is passed. This fact has an important bearing upon treatment, as will be seen hereafter.

At first, the emissions are always accompanied by dreams, the patient usually awaking immediately afterward; but after a time they take place without dreams and without awaking him, and are unaccompanied by sensation. This denotes an advanced stage of the complaint.

Certain circumstances greatly increase the fre-

quency of the emissions, and thus hasten the injury which they are certain to accomplish if not checked; as neglect to relieve the bladder and bowels at night, late suppers, stimulating foods and drinks, and anything that will excite the genital organs. Of all causes, amorous or erotic thoughts are the most powerful. Tea and coffee, spices and other condiments, and animal food have a special tendency in this direction. Certain positions in bed also serve as exciting or predisposing causes; as sleeping upon the back or the abdomen. Feather-beds and pillows and too warm covering in bed are also injurious for the same reason.

In frequency, emissions will vary in different persons, from an occasional one at long and irregular intervals, to two or three a week or several—as many as four in one case we have met—in a single night.

The immediate effect of an emission will depend upon the frequency of occurrence and the condition of the individual. If very infrequent, and occurring in a comparatively robust person, after the seminal vesicles have become distended with seminal fluid, the immediate effect of an emission may be a sensation of temporary relief. This circumstance has led certain persons to suppose that emissions are natural and beneficial. This point will receive attention shortly.

If the emissions are more frequent, or if they occur in a person of a naturally feeble constitution, the immediate effect is lassitude, languor, indisposition, and often inability to perform severe mental or physical labor, melancholy, amounting often to despair and even leading to suicide, and an exaggeration of local irritation, and of all the morbid conditions to be noticed under the head of “General Effects.” Headache, indigestion, weakness of the back and knees, disturbed circulation,

dimness of vision, and loss of appetite are only a few of these.

Are Occasional Emissions Necessary or Harmless?—That an individual may suffer for years an involuntary seminal loss as often as once a month without apparently suffering very great injury, seems to be a settled fact with physicians of extensive experience, and is well confirmed by observation; yet there are those who suffer severely from losses no more frequent than this. But when seminal losses occur more frequently than once a month, they will certainly ultimate in great injury, even though immediate ill effects are not noticed, as in exceptional cases they may not be. If argument is necessary to sustain this position, as it hardly seems to be, we would refer to the fact that seminal losses rarely occur in those who are, and always have been, continent both mentally and physically. They occur the most infrequently in those who most nearly approach the standard of perfect chastity; so that whenever they occur, they may be taken as evidence of ill-health or some form of sexual excess. This fact clearly shows that losses of this kind are not natural.

Emissions Not Necessary to Health.—If it be argued that an occasional emission is necessary to relieve the overloaded seminal vesicles, we reply, The same argument has been used as an apology for unchastity; but it is equally worthless in both instances. It might be as well argued that vomiting is a necessary physiological and healthful act, and should occur with regularity, because a person may so overload his stomach as to make the act necessary as a remedial measure. Vomiting is a diseased action, a pathological process, and is occasioned by a voluntary transgression of the

individual. Hence, it is as unnecessary as gluttony, and must be wasteful of vitality, even though rendered necessary under some circumstances. So with emissions. If a person allows his mind to dwell upon unchaste subjects, indulges in erotic dreams, and riots in mental lasciviousness, he may render an emission almost necessary as a remedial effort. Nevertheless, he will suffer from the loss of nervous energy just the same as though he had not, by his own concupiscence, rendered it in some degree necessary. And as it would have been infinitely better for him to have retained and digested food in his stomach instead of ejecting it,—provided it were wholesome food,—so it would have been better for him to have retained in his system the seminal fluid, which would have been disposed of by the system, and probably utilized to very great advantage in the repair of the tissues.

Eminent Testimony.—An eminent English physician, Dr. Milton, who has treated many thousands of cases of this disease, remarks in a work upon the subject as follows:

“Anything beyond one emission a month requires attention. I know this statement has been impugned, but I am quite prepared to abide by it. I did not put it forward till I considered I had quite sufficient evidence in my hands to justify me in doing so.”

“An opinion prevails, as most of my readers are aware, among medical men, that a few emissions in youth do good instead of harm. It is difficult to understand how an unnatural evacuation can do good, except in the case of unnatural congestion. I have, however, convinced myself that the principle is wrong. Lads never really feel better for emissions; they very often

feel decidedly worse. Occasionally they may fancy there is a sense of relief, but it is very much the same sort of relief that a drunkard feels from a dram. In early life, the stomach may be repeatedly overloaded with impunity; but I suppose few would contend that overloading was therefore good. The fact is that emissions are invariably more or less injurious; not always visibly so in youth, nor susceptible of being assessed as to the damage inflicted by any given number of them, but still contributing each in its turn, a mite toward the exhaustion and debility which the patient will one day complain of."

Diurnal Emissions.—As the disease progresses, the irritation and weakness of the organs become so great that an erection and emission occur upon the slightest sexual excitement. Mere proximity to a female, or the thought of one, will be sufficient to produce a pollution, attended by voluptuous sensations. But after a time the organs become so diseased and irritable that the slightest mechanical irritation, as friction of the clothing, the sitting posture, or riding horseback will produce a discharge which may or may not be attended by sensation of any kind. Frequently, a burning or more or less painful sensation occurs. After a time, erection no longer takes place. Even straining at stool will produce the discharge, or violent efforts to retain the feces when there is unnatural looseness.

The amount of the discharge may vary from a few drops to one or two drams, or even more. The character of the discharge is of considerable importance. When it occurs under the circumstances last described, viz., without erection or voluptuous sensations, it may be of a true seminal character, or it may contain no

spermatozoa. This point can be determined by the microscope alone. The discharge is the result of sexual excitement or irritation, nevertheless, and indicates a most deplorable condition of the genital organs. The patient is sometimes unnecessarily frightened by it, and often exaggerates the amount of the losses, and the symptoms arising from them. However, when a single nocturnal emission occasions such detrimental results, what must be the effect of repeated discharges occurring several times a day, or every time an individual relieves his bowels, urinates, or entertains an unvirtuous thought! If the losses were always seminal, the work of ruin would soon be complete; fortunately, those discharges which are the most frequent are only occasionally of a true seminal character. It is not so, however, as has been claimed by some writers, one at least, that they are never seminal, as we have proved by repeated microscopic examinations.

Causes of Diurnal Emissions.—The causes of these discharges are spasmodic action of the muscles involved in ejaculation, which is occasioned by local irritation, and pressure upon the seminal vesicles by the distended rectum or bladder. They denote a condition of debility and irritation which may well occasion grave alarm.

In occasional instances, the internal irritation reaches such a height that blood is discharged with the seminal fluid.

Spontaneous ejaculation as the result of a depraved state of mind is not infrequent in women who give themselves up to evil thoughts. The observations of the author will support the view that this form of disease is more frequent in women than in men. Women whose sexual organs have been weakened by abuse are

most likely to suffer in this way, as also from involuntary ejaeculation occurring at night.

Internal Emissions.—As the disease progresses, external discharges finally cease, in some cases, or partially so, and the individual is encouraged by that circumstance to think that he is recovering. He soon discovers his error, however, for he continues to droop, even though the discharges apparently cease altogether. This seems a mystery until some medical friend or a medical work calls his attention to the fact that the discharges now occur internally instead of externally, the seminal fluid passing back into the bladder, and being voided with the urine, a microscopic examination of which shows the presence of zoosperms.

An Important Caution.—It is necessary, however, to caution the reader not to pronounce every whitish sediment or flocculent matter found in the urine to be a seminal discharge, for the great majority are of a different character. They are most frequently simply mucus or phosphates from the bladder. Seminal fluid cannot be distinguished from mucus by any other than a careful microscopic examination. A microscope of good quality, and capable of magnifying at least one hundred and fifty diameters, is required, together with considerable skill in the operator. Quacks have done an immense amount of harm by frightening patients into the belief that they were suffering from discharges of this kind, when there was, in fact, nothing more than a copious deposit of phosphates, which is not at all infrequent in nervous people, especially after eating.

When the condition described does really exist, however, the patient cannot make too much haste to put himself under the care of a competent physician

for treatment. If there is even a reasonable suspicion that it may exist, he should have his urine carefully examined by one competent to criticise it intelligently.

Spermatorrhea.—By many authors, the term *spermatorrhea* is confined entirely to this stage of the disease. It is said that in many cases the forcible interruption of ejaculation has been the cause of this unfortunate condition. Such a proceeding is certainly very hazardous.

One more caution should be offered; viz., that the occasional presence of spermatozoa in the urine is not a proof of the existence of internal emissions, as a few zoosperms may be left in the urethra after a voluntary or nocturnal emission, and thus find their way into the urine as it is discharged from the bladder.

Impotence.—In the progress of the disease, a point is finally reached when the victim not only loses all desire for the natural exercise of the sexual function, but when such an act becomes impossible. This condition may have been reached even before all the preceding symptoms have been developed. Ultimately, it becomes impossible to longer practice the abominable vice itself, on account of the great degeneration and relaxation of the organs. The approach of this condition is indicated by increasing loss of erectile power, which is at first only temporary, but afterward becomes permanent. Still the involuntary discharges continue, and the victim sees himself gradually sinking lower and lower into the pit which his own hands have dug. The misery of his condition is unimaginable,—manhood lost, his body a wreck, and death staring him in the face.

This is a brief sketch of the local effects of the horrid vice of self-abuse. The description has not been

at all overdrawn. We have yet to consider the general effects, some of which have already been incidentally touched upon in describing nocturnal emissions, with their immediate results.

General Effects.—The many serious effects which follow the habit of self-abuse, in addition to those terrible local maladies already described, are the direct result of two causes in the male; viz.

1. Nervous exhaustion.
2. Loss of the seminal fluid.

There has been much discussion as to which one of these was the cause of the effects observed in these cases. Some have attributed all the evil to one cause, and some to the other. That the loss of semen is not the only cause, nor, perhaps, the chief source of injury, is proved by the fact that most deplorable effects of the vice are seen in children before puberty, and also in females, in whom no seminal discharge nor anything analogous to it occurs. In these cases, it is the nervous shock alone which works the evil.

Again, that the seminal fluid is the most highly vitalized of all the fluids of the body, and that its rapid production is at the expense of a most exhaustive effort on the part of the vital forces, is well attested by all physiologists.

The nervous shock accompanying the exercise of the sexual organs, either natural or unnatural, is the most profound to which the system is subject. The whole nervous system is called into activity; and the effects are occasionally so strongly felt upon a weakened organism that death results in the very act. The subsequent exhaustion is necessarily proportionate to the excitement.

It need not be surprising, then, that the effects of

the frequent operation of two such powerful influences combined should be so terrible as they are found to be.

General Debility.—Nervous exhaustion and the loss of the vivifying influence of the seminal fluid, produce extreme mental and physical debility, which increases as the habit is practiced, and is continued by involuntary emissions after the habit ceases. If the patient's habits are sedentary, and if he had a delicate constitution at the start, his progress toward the grave will be fearfully rapid, especially if the habit were acquired young, as it most frequently is by such boys, they being generally precocious. Extreme emaciation, sallow or blotched skin, sunken eyes, surrounded by a dark or blue color, general weakness, dullness, weak back, stupidity, laziness, or indisposition to activity of any kind, wandering and illy defined pains, obscure and often terrible sensations, pain in back and limbs, sleeplessness, and a train of morbid symptoms too long to mention in detail attend the sufferers.

Consumption.—It is well recognized by experienced medical men that this vice is one of the most frequent causes of consumption. At least, such would seem to be the declaration of experience, and the following statistical fact adds weight to the conclusion:

“Dr. Smith read a paper before a learned medical association a few years since, in which he pointed out the startling fact that in one thousand cases of consumption, five hundred and eighteen had suffered from some form of sexual abuse, and more than four hundred had been addicted to masturbation, or suffered from nocturnal emissions.”*

“Most of those who early become addicted to self-pollution are soon afterward the subjects, not merely of one or more of the ailments already noticed, but

* Acton.

also of enlargements of the lymphatic and other glands, ultimately of *tubercular deposits in the lungs* and other viscera, or of scrofulous disease of the vertebræ or bones, or of other structures, more especially of the joints."*

Many young men waste away and die of symptoms resembling consumption, which are solely the result of the loathsome practice of self-abuse. The real number of consumptives whose disease originates in this manner can never be known.

Dyspepsia.—Indigestion is frequently one of the first results. Nervous exhaustion is always felt by the stomach very promptly. When dyspepsia is once really established, it reacts upon the genital organs, increasing their irritability as well as that of all the rest of the nervous system. Now there is no end to the ills which may be suffered; for an impaired digestion lays the system open to the inroads of almost any and every malady.

Heart Disease.—Functional disease of the heart, indicated by excessive palpitation on the slightest exertion, is a very frequent symptom. Though it unfits the individual for labor, and causes him much suffering, he would be fortunate if he escaped with no disease of a more dangerous character.

Throat Affections.—There is no doubt that many of the affections of the throat in young men, and older ones, which pass under the name of "clergyman's sore throat," are the direct result of masturbation and emissions.

Dr. Acton cites several cases in proof of this, and quotes the following letter from a young clergyman:

"When I began the practice of masturbation, at the age of sixteen, I was in the habit of exercising my

* Copland.

voice regularly. The first part in which I felt the bad effects of that habit was in the organs of articulation. After the act, the voice wanted tone, and there was a disagreeable feeling about the throat which made speaking a source of no pleasure to me as it had been. By and by it became painful to speak after the act. This arose from a feeling as if a morbid matter was being secreted in the throat, so acrid that it sent tears to the eyes when speaking, and would have taken away the breath if not swallowed. This, however, passed away in a day or two after the act. In the course of years, when involuntary emissions began to impair the constitution, this condition became permanent. The throat always feels very delicate, and there is often such irritability in it, along with this feeling of the secretion of morbid matter, as to make it impossible to speak without swallowing at every second or third word. This is felt even in conversation, and there is a great disinclination to attempt to speak at all. In many instances, in which the throat has been supposed to give way from other causes, I have known this to be the real one. May it not be that the general irritation always produced by the habit referred to, shows itself also in this organ, and more fully in those who are required habitually to exercise it?"

Nervous Diseases.—There is no end to the nervous affections to which the sufferer from this vice is subjected. Headaches, neuralgias, symptoms resembling hysteria, sudden alternations of heat and cold, irregular flushing of the face, and many other affections, some of the more important of which we will mention in detail, are his constant companions.

Epilepsy.—This disease has been traced to the vile habit under consideration in so many cases that it is

now very certain that in many instances this is its origin. It is of frequent occurrence in those who have indulged in solitary vice or any other form of sexual excess. We have met a number of cases in which the disease was due to this cause.

Failure of Special Senses.—Dimness of vision, amaurosis, spots before the eyes, with other forms of ocular weakness, are common results of this vice. The same degeneration and premature failure occur in the organs of hearing. In fact, sensibility of all the senses becomes in some measure diminished in old cases.

Spinal Irritation.—Irritation of the spinal cord, with its resultant evils, is one of the most common of the nervous affections originating in this cause. Tenderness of the spine, numerous pains in the limbs, and spasmodic twitching of the muscles, are some of its results. Paralysis, partial or complete, of the lower limbs, and even of the whole body, is not a rare occurrence. We have seen a number of cases in which this was well marked. Two of the patients were small boys who began to excite the genital organs at a very early age. In one, the paralytic condition was complete when he was held erect. The head fell forward, the arms and limbs hung down helpless, the eyes rolled upward, and the saliva dribbled from his mouth. When lying flat upon his back, he had considerable control of his limbs. In this case, a condition of priapism seems to have existed almost from birth, owing to congenital phimosis. His condition was somewhat improved by circumcision.

In another case, in which phimosis also existed, there was paralysis of a few of the muscles of the leg, which produced clubfoot. Circumcision was also per-

formed in this case, and the child returned in a few weeks completely cured, without any other application, though it had previously been treated in a great variety of ways without success, all the usual remedies for clubfoot proving ineffectual. Both of these cases appeared in the clinic of Dr. Sayre at Bellevue Hospital, and were operated upon by him.

A few years ago, we observed several cases of spinal disease which could be traced to no origin but masturbation. Two patients were small boys, naturally quite intelligent. They manifested all the peculiarities of locomotor ataxia in older persons, walking with the characteristic gait. The disease was steadily progressing in spite of all attempts to stay it. An older brother had died of the same malady, paralysis extending over the whole body, and finally preventing deglutition, so that he really starved to death.

Insanity.—That solitary vice is one of the most common causes of insanity, is a fact too well established to need demonstration here. Every lunatic asylum furnishes numerous illustrations of the fact. “Authors are universally agreed, from Galen down to the present day, about the pernicious influence of this enervating indulgence, and its strong propensity to generate the very worst and most formidable kinds of insanity. It has frequently been known to occasion speedy and even instant insanity.”*

“Religious insanity,” so called, may justly be attributed to this cause in a great proportion of cases. The individual is conscience-smitten in view of his horrid sins, and a sense of his terrible condition—ruined for both worlds, he fears—goads him to despair, and his weakened intellect fails, reason is dethroned, and he becomes a hopeless lunatic. His friends, knowing

* Arnold.

nothing of the real cause of his mysterious confessions of terrible sin, think him overconscientious, and lay the blame of his insanity upon religion, when it is solely the result of his vicious habits, of which they are ignorant.

In other cases, the victim falls into a profound melancholy, from which nothing can divert him. He never laughs; does not even smile. He becomes more and more reserved and taciturn, and perhaps ends the scene by committing suicide. This crime is not at all uncommon with those who have gone the whole length of the evil road. They find their manhood gone, the vice in which they have so long delighted is no longer possible, and in desperation they put an end to the miserable life which nature might end in a few months if not thus violently superseded.

Idiocy.—If the practice is continued uninterruptedly from boyhood to manhood, imbecility and idiocy are the result. Demented individuals are met in no small numbers in hospitals and asylums, and out of them as well, who owe to this vice their awful condition. Plenty of the half-witted men one meets in the every-day walks of life have destroyed the better half of their understanding by this wretched practice.

A Victim's Mental Condition Pictured.—The mental condition of a victim of this vice cannot be better described than is done in the following paragraphs by one, himself a victim, though few of these unfortunate individuals would be able to produce so accurate and critical a portrait of themselves as is here drawn by M. Rosseau, as quoted by Mr. Acton:

“One might say that my heart and my mind do not belong to the same person. My feelings, quicker than

lightning, fill my soul; but instead of illuminating, they burn and dazzle me. I feel everything; I see nothing. I am excited, but stupid; I cannot think except in cold blood. The wonderful thing is that I have sound enough tact, penetration, even *finesse*, if people will wait for me. I make excellent impromptus at leisure; but at the moment I have nothing ready to say or do. I should converse brilliantly by post, as they say the Spaniards play at chess. When I read of a duke of Savoy who turned back after starting on his journey to say, 'In your teeth! you Paris shop-keeper!' I said, 'That is like me!'"

"But not only is it a labor to me to express, but also to receive, ideas. I have studied men, and I think I am a tolerably good observer; yet I can see nothing of what I do see. I can hardly say that I see anything except what I recall; I have no power of mind but in my recollection. Of all that is said, of all that is done, of all that passes in my presence, I feel nothing, I appreciate nothing. The external sign is all that strikes me. But after a while it all comes back to me."

EFFECTS IN WOMEN.

Local Effects.—The local diseases produced by the vice in females are, of course, of a different nature from those seen in males, on account of the difference in organization. They arise, however, in the same way, congestions at first temporary, ultimately becoming permanent, and resulting in irritation and various disorders.

Leucorrhœa.—The results of congestion first appear in the mucous membrane lining the vagina, which is also injured by mechanical irritation, and consists of a catarrhal discharge which enervates the system.

By degrees the discharge increases in quantity and virulence, extending backward until it reaches the sensitive womb.

Contact with the acrid, irritating secretions of the vagina produces soreness of the fingers at the roots of the nails, and also frequently causes warts upon the fingers. Hence the value of these signs, as previously mentioned.

Uterine Disease.—Congestion of the womb is also produced by the act of abuse; and as the habit is continued, it also becomes permanent. This congestion, together with the contact of the acrid vaginal discharge, finally produces superficial ulceration or abrasion upon the neck of the womb, together with other diseases.

Another result of congestion is all kinds of menstrual derangements after puberty, the occurrence of which epoch is hastened by the habit.

Prolapsus and various displacements are produced in addition to these menstrual irregularities. The most common forms of displacement resulting from self-abuse, are retroflexion and retroversion, which are usually accompanied by congestion and enlargement of the womb, catarrh of the lining membrane of the womb, and relaxation of the vagina. When these conditions are present in a young woman, together with the enlargement of the labia and clitoris, they may be looked upon as positive evidence of the existence of the habit. After a large experience in this class of cases, in which an opinion of the nature of the case has been based upon the symptoms named, the author has never found such an opinion erroneous.

Sterility.—Sterility, dependent on a total loss of sexual desire and inability to participate in the sexual

act, is another condition which is declared by medical authors to be most commonly due to previous habits of self-abuse. In consequence of overexcitement, the organs become relaxed, the natural tone is lost, and they become so much depleted that they are unable to respond to the natural stimulus, and the sexual act is not only not accompanied by sensation, but is even attended by disgust and a sense of extreme exhaustion. Among many cases of this sort which have come to the notice of the author, in only one or two has he been unable to trace the abnormal conditions to the practice of self-abuse in early life.

Atrophy of Mammæ.—Closely connected with other local results is the deficient development of the breasts when the vice is begun before or at puberty, and atrophy if it is begun or continued after development has occurred. As previously remarked, this is not the sole cause of small mammæ, but it is one of the great causes.

Pruritis, or Itching Genitals.—This is an affection not infrequent in these subjects. Continued congestion produces a terrible itching of the genitals, which increases until the individual is in a state of actual frenzy, and the disposition to manipulate the genitals becomes irresistible, and is indulged even in the presence of friends or strangers, and though the patient be at other times a young woman of exceptional modesty. In cases of this kind, marked hypertrophy of the organ of greatest sensibility has been observed, and in some cases amputation of this part has been found the only cure.

Nocturnal Ejaculation in Females.—A disorder analogous to nocturnal emissions in the male, occurs in females who have been addicted to this vice. An erotic

dream is accompanied by ejaculation, which is followed on the succeeding day by all the unpleasant symptoms of nervous irritability, headache, backache, etc., which are experienced by males subject to seminal losses.

General Effects.—The general effects in the female are much the same as those in the male. Although women suffer no seminal loss, they suffer the debilitating effects of leucorrhœa, which is in some degree injurious in the same manner as seminal losses in the male. But in females the greatest injury results from the nervous exhaustion which follows the unnatural excitement. Nervous diseases of every variety are developed. Emaciation and debility become more marked even than in the male, and the worst results are produced sooner, being hastened by the sedentary habits of these females. Insanity is more frequently developed than in males.

Spinal irritation is so frequent a result that a recent surgical author has said that “spinal irritation in girls and women is, in a majority of cases, due to self-abuse.*

A Common Cause of Hysteria.—This, too, is one of the most frequent causes of hysteria, chorea, and epilepsy among young women, though not often recognized.

A writer, quoted several times before in this work, remarks as follows:

“This is not a matter within the scope of general investigation; truth is not to be expected from its *habitués*; parents are deceived respecting it, believing rather what they wish than what they fear. Even the physician can but suspect, till time develops more fully by hysterias, epilepsies, spinal irritations, and a train of symptoms unmistakable even if the finally extorted

* Davis.

confession of the poor victim did not render the matter clear. Marriage does, indeed, often arrest this final catastrophe, and thus apparently shifts the responsibility upon other shoulders, and to the 'injurious effects of early marriages,' to the 'ills of maternity,' are ascribed the results of previous personal abuse.

"For statistics and further information on this all-important subject, we must refer the reader to the opinions of physicians who have the charge of our retreats for the insane, lunatic asylums, and the like; to the discriminating physicians of the families of the upper classes,—stimulated alike by food, drinks, scenes where ease is predominant, where indolence is the habit, and novel-reading is the occupation,—for further particulars on a subject here but barely alluded to."*

EFFECTS UPON OFFSPRING.

If sterility does not result, children are liable to be "delicate, puny, decrepit, or subject to various congenital maladies, especially of the nervous system, to idiocy from deficient development of the brain, to hydrocephalus, to epilepsy, convulsions, palsy. The scrofulous diathesis, tubercular and glandular maladies, diseases of the vertebræ and of the joints, softening of the central portions of the brain, and tuberculous formations in the membranes, palsy and convulsions, chorea, inflammations of the membranes or substance of the brain or spinal cord, and numerous other affections to which infants and children are liable, very commonly result from the practice of self-pollution by either of the parents previous to marriage. But the evil does not always stop at this epoch of existence; it often extends throughout the life of the offspring, or it appears only with puberty and mature age."

* Gardner.

Neglect Dangerous.—Too frequently, the victim of self-abuse, when he finds himself suffering from the first results of his sin, neglects to adopt any measures for the cure of the disease. Not understanding its inveterate character, he labors under the delusion that it will cure itself in time. This is a fatal mistake. The diseased conditions induced by this vice never improve themselves. Their constant tendency is to increase in virulence and inveteracy. The necessity of taking prompt measures for relief is too apparent to need especial emphasis.

TREATMENT FOR SELF-ABUSE, AND ITS EFFECTS

After having duly considered the causes and effects of this terrible evil, the question next in order for consideration is, How shall it be cured? When a person has, through ignorance or weakness, brought upon himself the terrible effects described, how shall he find relief from his ills, if restoration is possible? To the answer of these inquiries, most of the remaining pages of this work will be devoted. But before entering upon a description of methods of *cure*, a brief consideration of the subject of *prevention* of the habit will be in order.

PREVENTION OF SECRET VICE.

For the rising generation, those yet innocent of the evil practices so abundant in this age of sensuality, how the evil habit may be prevented is the most important of all questions connected with this subject.

This topic should be especially interesting to parents; for even those who are themselves sensual, have seen enough of the evils of such a life to wish that their children may remain pure. There are, indeed, rare exceptions to this rule; for we sometimes learn of parents who have deliberately led their own children into vice, as though they desired to make them share their shame and wretchedness.

Cultivate Chastity.— From earliest infancy, all those influences and agencies which cultivate chastity, should be brought into active exercise. These we need not repeat here, having previously dwelt upon them so fully. The reader is recommended to re-peruse the portion of the work devoted to this subject, in connection with the present section. If parents have themselves indulged in this vice, they should use special care that all the generative and gestative influences brought to bear upon their children are the purest possible, so that they may not inherit a predisposition to sin in this direction.

Special care should be exercised to avoid corrupt servants and associates. Every servant not known to be pure should be suspected until proof of innocence has been established. They should be especially instructed of the evil arising from manipulation of the genitals, even in infants, as they may do immense harm through simple ignorance.

Timely Warning.— But in spite of chaste surroundings and all other favorable circumstances, if the child is left in ignorance of his danger, he may yet fall a victim to the devices of servants or corrupt playmates, or may himself make a fatal discovery. Hence arises the duty of warning children of the evil before the habit has been formed. This is a duty that parents

seldom perform, even when they are not unaware of the danger. They in some way convince themselves that their children, at least, are pure, even if others are corrupt. It is often the most difficult thing in the world for parents to comprehend the fact that *their* children are not the best children in the world, perfect paragons of purity and innocence. There is an unaccountable and unreasonable delicacy on the part of parents about speaking of sexual subjects to their children. In consequence, their young, inquisitive minds are left wholly in ignorance, unless, perchance, they gain information from some vile source.

Objections are raised against talking to children or young persons about matters in any degree pertaining to the sexual organs or functions. Some of the more important of them are considered in the introduction to this work, and we need not repeat here.

Early Instruction.—The little one should be taught from earliest infancy to abstain from handling the genitals, being made to regard it as a very improper act. When the child becomes old enough to understand and reason, he may be further informed of the evil consequences; then, as he advances in years, the functions of the organs may be explained with sufficient fullness to satisfy his natural craving for knowledge.

If this course were pursued, how many might be saved from ruin! It is, of course, necessary that the parents shall themselves be acquainted with the true functions of the organs before they attempt to teach any one else, especially children. Many parents might receive benefit from being obliged to “study up;” for it is a lamentable fact, the ill effects of which are every day seen, that a great many people have spent a very large portion of their lives without ever ascertaining

the true function of the reproductive organs, though living in matrimony for many years. Some of the consequences of this ignorance have been portrayed in previous pages.

“Oh! why did not some kind friend tell me of the harm I was doing myself?” has been the exclamation of many an unfortunate sufferer from this vice. A warning voice should be raised to save those who are ignorantly working their own destruction. Parents, teachers, ministers, all who have access to the youth, should sound the note of alarm in their ears, that if possible they may be saved from the terrible thralldom pictured by a writer in the following lines:

A Dark Picture.—“The waters have gone over me. But, could I be heard out of the black depths, I would cry to all those who have set a foot in the perilous flood. Could the youth look into my desolation, and be made to understand what a dreary thing it is when a man shall feel himself going down a precipice with open eyes and passive will—to see his destruction and have no power to stop it, and yet to feel it all the way emanating from himself; to perceive all goodness emptied out of him, and yet not be able to forget a time when it was otherwise; to bear about with him the spectacle of his own self-ruin; could he feel the body of death out of which I cry hourly with feebler and feebler outcry to be delivered.”

CURATIVE TREATMENT OF THE EFFECTS OF SELF-ABUSE.

When the habit and its effects are of very short duration, a cure is very readily accomplished, especially in the cases of children and females, as in them the evils begun are not continued in the form of in-

voluntary pollutions. In cases of longer standing in males, the task is more difficult, but still the prospect of recovery is very favorable, provided the co-operation of the patient can be secured; without this, little can be done. But in these cases, the patient may as well be told at the outset that the task of undoing the evil work of years of sin is no easy matter. It can only be accomplished by determined effort, by steady perseverance in right doing, and in the application of necessary remedies. Those who have long practiced the vice, or long suffered severely from its effects, have received an injury which will inevitably be life-long to a greater or less extent in spite of all that can be done for them. Yet such need not despair, for they may receive inestimable benefit by the prevention of greater damage, which they are sure to suffer if the disease is allowed to go unchecked.

Cure of the Habit.—The preliminary step in treatment is always to cure the vice itself if it still exists. The methods adopted for this purpose must differ according to the age of the individual patient.

In children, especially those who have recently acquired the habit, it can be broken up by admonishing them of its sinfulness, and portraying in vivid colors its terrible results, if the child is old enough to comprehend such admonitions. In addition to faithful warnings, the attention of the child should be fully occupied by work, study, or pleasant recreation. He should not be left alone at any time lest he yield to temptation. Work is an excellent remedy; work that will really make him very tired, so that when he goes to bed he will have no disposition to defile himself. It is best to place such a child under the care of a faithful person of older years, whose special duty it shall be

to watch him night and day until the habit is thoroughly overcome.

In younger children, with whom moral considerations will have no particular weight, other devices may be used. Bandaging the parts has been practiced with success. Tying the hands is also successful in some cases; but this will not always succeed, for they will often contrive to continue the habit in other ways, as by working the limbs, or lying upon the abdomen. Covering the organs with a cage has been practiced with entire success. A remedy which is almost always successful in small boys is circumcision, especially when there is any degree of phimosis. The operation should be performed by a surgeon without administering an anesthetic, as the brief pain attending the operation will have a salutary effect upon the mind, especially if it be connected with the idea of punishment, as it may well be in some cases. The soreness which continues for several weeks interrupts the practice, and if it had not previously become too firmly fixed, it may be forgotten and not resumed. If any attempt is made to watch the child, he should be so carefully surrounded by vigilance that he cannot possibly transgress without detection. If he is only partially watched, he soon learns to elude observation, and thus the effect is only to make him cunning in his vice.

In adults or youth a different plan must be pursued. In these cases, moral considerations, and the inevitable consequences to health of body and mind, are the chief influences by which a reform is to be effected, if at all. These considerations may be urged with all possible eloquence and earnestness, but should not be exaggerated. The truth is terrible enough. If there are any special influences which may be brought

to bear upon a particular individual,— and there always will be something of this sort, owing to peculiarities of temperament or circumstances,—these should be promptly employed, and applied in such a manner as to secure for them their full bearing.

Through the courtesy of Dr. Archibald, Superintendent of the Iowa Asylum for Feeble-Minded Children, we have become acquainted with a method of treatment of this disorder which is applicable in refractory cases, and we have employed it with entire satisfaction. It consists in the application of one or more silver sutures in such a way as to prevent erection. The prepuce, or foreskin, is drawn forward over the glans, and the needle to which the wire is attached is passed through from one side to the other. After drawing the wire through, the ends are twisted together, and cut off close. It is now impossible for an erection to occur, and the slight irritation thus produced acts as a most powerful means of overcoming the disposition to resort to the practice.

In females, the author has found the application of pure carbolic acid to the clitoris an excellent means of allaying the abnormal excitement, and preventing the recurrence of the practice in those whose will-power has become so weakened that the patient is unable to exercise entire self-control.

The worse cases among young women are those in which the disease has advanced so far that erotic thoughts are attended by the same voluptuous sensations which accompany the practice. The author has met many cases of this sort in young women, who acknowledged that the sexual orgasm was thus produced, often several times daily. The application of carbolic acid in the manner described is also useful in these

cases in allaying the abnormal excitement, which is a frequent provocation of the practice of this form of mental masturbation.

But after all, the most must be done by the individual himself. All that others can do for him is to surround him with favoring circumstances, and arouse him to proper sense of his real condition and danger. If this can be thoroughly accomplished, there is much reason to hope; but if the individual has become so lost to all sense of purity, all aspirations toward purity, that he cannot be made to feel the need of reformation, his case is hopeless.

How May a Person Help Himself?—The following suggestions will be found useful in fighting the battle with vice and habit:

1. Begin by a resolution to reform, strengthened by the most solemn vows.

2. Resolve to reform *now*; not to-morrow or next week, but this very minute. Thousands have sunk to perdition while resolving to indulge "only this once."

3. Begin the work of reform by purging the mind. If a lewd thought enters the mind, dispel it at once. Cultivate a loathing for concupiscence. Never harbor such ideas for an instant; for they will surely lead to the overt act. If, perchance, the physical sin should not be committed, the thought itself is sin, and it leaves a physical as well as a moral scar almost as deep and hideous as that inflicted by the grosser crime.

4. As a help to purity of mind, whenever impure thoughts enter, immediately direct the mind upon the purest object with which you are acquainted. Flee from the special exciting cause, if there is one, and engage in some active labor or other exercise that will divert the mind into another channel.

5. Avoid solitude; for then it is that temptation comes, and you are most likely to fail. Avoid, equally, all other causes which may lead to the act.

6. Strictly comply with all the rules laid down for the cultivation of chastity and the maintenance of continence.

7. Above all, seek for grace and help from the Source of all spiritual strength in every time of temptation, relying upon the promise, "Seek, and ye shall find."

Hopeful Courage. — An individual who will earnestly set himself about the work of purifying his mind and redeeming his body, if he will conscientiously adopt, and perseveringly apply, the remedies pointed out, *may be sure of success.* There can be no possible chance for failure. Triumph is certain. Patience may be tried and faith tested, but unwavering trust in God and nature, and an executed determination to do all on his part, will bring to every such one certain recovery. There may be some scars left, a few traces of the injury wrought; but the deliverance will be none the less triumphant. Faith and perseverance will work wonders.

General Regimen and Treatment. — After long abuse of the sexual organs, and in many cases after a short course of sin, the whole system becomes deteriorated; digestion is impaired; the muscles are weakened; the circulation is unbalanced; the nerves are irritable, the brain—especially the back and lower portion of it—is congested; the skin is torpid; the bowels are inactive; and the general health is deranged in almost every particular. All these morbid conditions serve to keep up the very difficulty which has produced and is increasing them. Any curative effort, then, to

be effective, must be directed to these as well as to local conditions; and it is pretty certainly established that local remedies or applications alone will rarely accomplish any appreciable good, at least of a permanent character.

Mental and Moral Treatment.— The greatest impediment to recovery is usually found in the mind of the patient. His hopeless despair, melancholy, sullen apathy in many cases, want of energy, and fickleness of mind thwart all attempts that are made for him. In other cases, the want of will-power, or neglect to exercise the will in controlling the thoughts, completely counteracts all that can be done for him. He must be made to understand this well, and then all possible means must be employed to attract his attention from himself, from brooding over his ills. Occupy him, interest him, or teach him to occupy and interest himself. The enthusiastic study of some one of the natural sciences is a most excellent auxiliary in affecting this.

The thing of first importance is that the patient should obtain command of his thoughts; by this means he can do more for himself than all others can do for him. "But I cannot control my thoughts," says the patient. A young man said to me, "O doctor, you don't know how I feel. I despise myself; I hate myself; I often feel inclined to kill myself. My mind is always full of abominable images; my thoughts run away with me, and I cannot help myself." The tears ran down his face as he told of his slavery. He solemnly affirmed that he had never performed the act of self-pollution but once in his life; and yet for years he had been a constant sufferer from nocturnal emissions until his manhood was nearly lost, evidently the

result of the mental Onanism which he had practiced without imagining the possibility of harm.

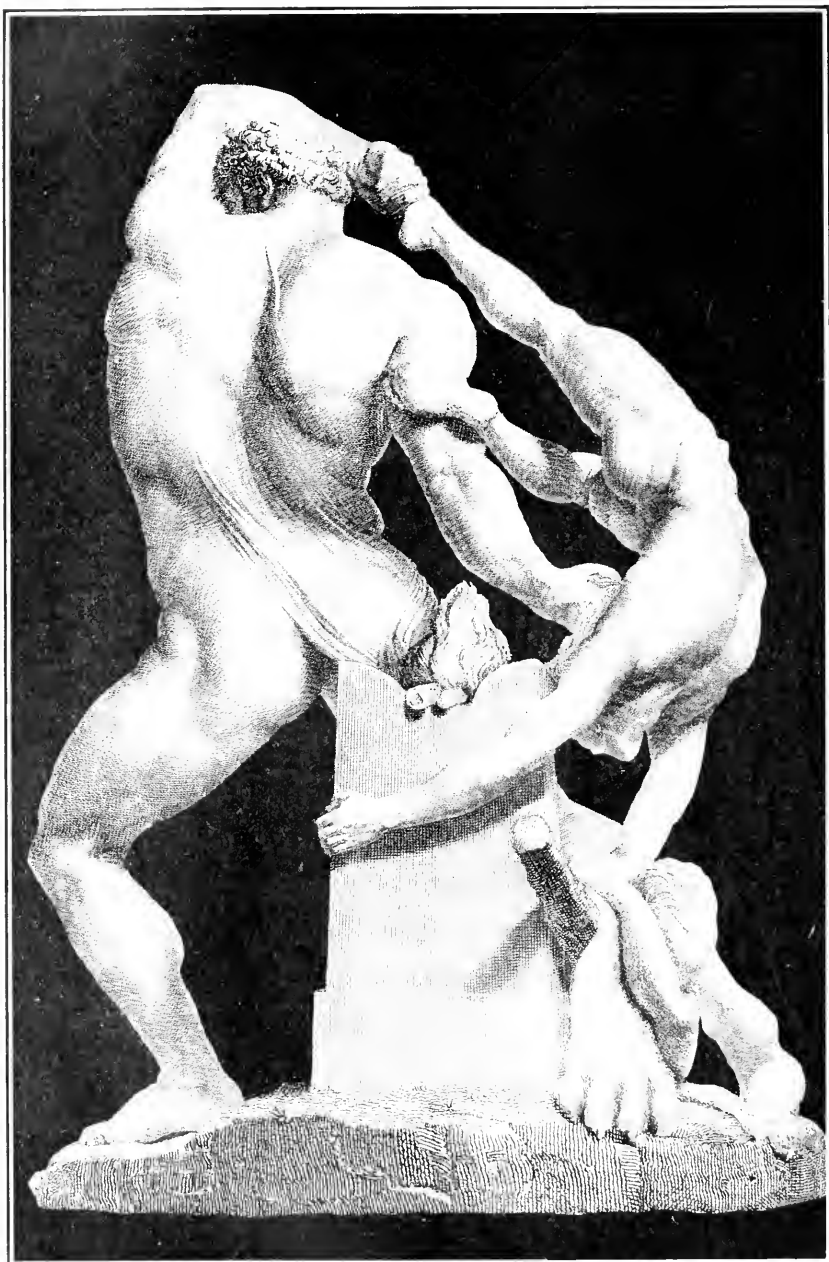
Control of the Thoughts. — But it is not true that control of the thoughts is impossible. Thoughts are the result of the action of the brain; and the action of the brain may be controlled as well as the movements of a voluntary muscle. It may be more difficult, especially when the resolution is weakened, as it is by this vice; but so long as there are left any remnants of will and reason, control is possible. To strengthen the will must be one of the objects of mental treatment, and exercise is the method by which it may be accomplished. The thing for a sufferer to say is not “I can’t” but “I can and I will control my thoughts.” Suggestions which will aid in accomplishing this have already been given under the heading, “Cure of the Habit.”

We cannot forbear to add a word further respecting the worth of religion in aiding these sufferers. If there is any living creature who needs the help of true religion, of faith in God, in Christ, and in the efficacy of prayer, it is one of these. If there is any poor mortal who cannot afford to be deprived of the aid of a sympathizing Saviour, it is one who has enervated his will, degraded his soul, and depraved his body by the vile habit of self-abuse. A compassionate Redeemer will succor even these defiled ones, if they truly “hunger and thirst” after purity, and if they set about the work of reforming themselves in good earnest, and with right motives.

Exercise. — Physical exercise is a most powerful aid to pure thoughts. When unchaste ideas intrude, engage at once in something which will demand energetic muscular exercise. Pursue the effort until fa-



HELP FOR THE FALLEN



tigued, if necessary, making all the while a powerful mental effort to control the mind. Of course, evil thoughts will not be expelled by thinking of them, but by displacing them by pure thoughts. Exercise aids this greatly.

Exercise is also essential to balance the circulation, and thus relieve congestion of internal organs. Sedentary persons especially need systematic exercise. No single form of exercise is so excellent as walking. Four of five miles a day are none too many to secure a proper amount of muscular exercise. Gymnastics, the "health-lift," "Indian clubs," "dumb-bells," rowing, and other forms of exercise are all good; but none of them should be carried to excess. Ball-playing is likely to be made a source of injury by exciting, in vigorous competition, too violent and spasmodic action.

Daily exercise should be taken to the extent of fatigue. It is better that those who are still strong enough should have some regular employment which will secure exercise. Those who prefer may secure exercise and recreation in the pursuit of some study that involves necessary physical exertion; as botany, geology, or entomology. The collection of natural-history specimens is one of the most pleasant diversions, and may be made very useful as well.

Pleasant companionship is essential to the best progress of these patients, especially in their walks, as much more exercise may be taken without an unpleasant sense of fatigue with a cheerful companion than when alone. Solitude should be avoided at all times as much as possible.

Diet.—So much has already been said upon the relation of diet to chastity and its influence upon the sexual organs, that it is unnecessary to add many re-

marks here. Nothing could be more untrue than the statement made by some authors that the nature of the diet is of no consequence.

The science of physiology teaches that our very thoughts are born of what we eat. A man that lives on pork, fine-flour bread, rich pies and cakes, and condiments, drinks tea and coffee, and uses tobacco, might as well try to fly as to be chaste in thought. He will accomplish wonders if he remains physically chaste; but to be mentally virtuous would be impossible for him without a miracle of grace.

One whose thoughts have been so long trained in the filthy ruts of vice that they run there automatically, and naturally gravitate downward—such a one must exercise especial care to secure the most simple, pure, and unstimulating diet.

The following precautions are necessary to be observed in relation to diet:

1. *Never overeat.* If too much food is taken at one meal, fast the next meal to give the system a chance to recover itself, and to serve as a barrier against future transgressions of the same kind. Gluttony is fatal to chastity; and overeating will be certain to cause emissions, with other evils, in one whose organs are weakened by abuse.

2. *Eat but twice a day,* or, if supper is eaten, let it be very light, and of the most simple food, as fruit, or fruit and bread. Nothing should be eaten within four or five hours of bedtime, and it is much better to eat nothing after three o'clock. The ancients ate but two meals a day; why should moderns eat three or four? If the stomach contains undigested food, the sleep will be disturbed, dreams will be more abundant, and emissions will be frequent. A most imperative rule of life

should be, "Never go to bed with a loaded stomach." The violation of this rule is the great cause of dreams and nightmares.

3. *Discard all stimulating food.* Under this head must be included spices, pepper, ginger, mustard, cinnamon, cloves, essences, all condiments, pickles, etc., together with flesh food in any but moderate quantities. It is hardly to be expected that all who have been accustomed to use these articles all their lives, will discard them wholly at once, nor, perhaps, that many will ever discard them entirely; but it would be better for them to do so, nevertheless.

4. *Stimulating drinks* should be abstained from with still greater strictness. Wine, beer, tea, and coffee should be taken under no circumstances. The influence of coffee in stimulating the genital organs is notorious. Chocolate should be discarded also. It is recommended by some who suppose it to be harmless, being ignorant of the fact that it contains a poison practically identical with that of tea and coffee.

Hot drinks of all kinds should be avoided.

Tobacco, another stimulant, although not a drink, should be totally abandoned at once.

5. In place of such articles as have been condemned, eat fruits, grains, milk, and vegetables. There is a rich variety of these kinds of food, and they are wholesome and unstimulating. Graham flour, oatmeal, and ripe fruit are the indispensables of a dietary for those who are suffering from sexual excesses.

Further remarks upon diet, with a few useful recipes for preparing healthful food, will be found in works devoted to the subject of diet.* The patient must carefully comply with all the rules of a healthy diet if he would be sure of recovery.

* "Science in the Kitchen," by Mrs. E. E. Kellogg;

Sleeping.—It is from emissions which happen during sleep that the great majority of sufferers complain; hence there is no little importance attaching to this subject. The following suggestions present in a very brief manner some of the more practical ideas connected with this part of the subject:

1. From seven to nine hours' sleep are required by all persons. The rule should be, Retire early, and sleep until rested. Early rising is not beneficial unless it has been preceded by abundant sleep.

2. Arise immediately upon waking in the morning, if it is after four o'clock. A second nap is generally unrefreshing, and is dangerous, for emissions most frequently occur at this time.

3. If insufficient sleep is taken at night, sleep a few minutes just before dinner. Half an hour's rest at this time is remarkably refreshing; and even fifteen minutes spent in sleep will be found very reviving. Do not sleep after dinner, as a pollution will be very likely to occur, and, as a rule, after-dinner naps are unrefreshing and productive of indigestion.

4. Never go to bed with the bowels loaded. The bladder should be emptied just before retiring. It is also a good plan to form the habit of rising once or twice during the night to urinate.

5. The position in sleeping is of some importance. Sleeping upon the back or upon the abdomen favors the occurrence of emissions; hence it is preferable to sleep on the side. If supper has been taken, the right side is preferable, as that position will favor the passage of food from the stomach into the intestines in undergoing digestion.

Various devices are employed, sometimes with advantage, to prevent the patient from turning upon his

back while asleep. The most simple is that recommended by Acton, and consists in tying a knot in the middle of a towel, and then fastening the towel about the body in such a way that the knot will come upon the small of the back. The unpleasant sensations arising from pressure of the knot, if the sleeper turn upon his back, will often serve as a complete preventive. Others fasten a piece of wood upon the back for a similar purpose. Still others practice tying one hand to the bedpost. None of these remedies can be wholly depended upon, but they may be tried in connection with other means of treatment.

6. Soft beds and pillows must be carefully avoided. Feather-beds should not be employed when possible to find a harder bed; the floor, with a single folded blanket beneath the sleeper, would be preferable. Soft pillows heat the head, as soft beds produce heat in other parts. A hair mattress, or a bed of corn husks, oat straw, or excelsior—covered with two or three blankets or a quilted cotton mattress—makes a very healthful and comfortable bed.

7. Too many covers should be avoided with equal care. The thinnest possible covering in summer, and the lightest consistent with comfort in winter, should be the rule. Sleeping too warm is a frequent exciting cause of nocturnal losses.

8. Thorough ventilation of the sleeping-room, both while occupied and during the daytime, must not be neglected. It should be located in a position to admit the sunshine during the morning hours. It is a good plan to keep in it a number of house plants, as they will help to purify the air, besides adding to its cheerfulness.

9. If wakeful at night, instead of lying in bed try-

ing to go to sleep, get up at once, open the bed, air the sheets, remove the night-clothing, and walk about the room for a few minutes, rubbing the body briskly with the bare hand at the same time. A tepid sponge bath, followed by a vigorous rubbing kept up until really tired, will conduce to sleep in many cases. Sometimes a change of bed, or pulling the bed to pieces and arranging it again, is just the thing needed to bring sleep.

10. One of the most effectual panaceas for certain varieties of sleeplessness is going to bed at peace with all the world, and with a conscience void of offense toward God as well as man.

Dreams.—This is a subject of much interest to those suffering from nocturnal pollutions, for these occurrences are almost always connected with dreams of a lascivious nature.

In perfectly natural sleep, there are no dreams; consciousness is entirely suspended. In the ordinary stage of dreaming, there is a peculiar sort of consciousness, many of the faculties of the mind being more or less active, while the power of volition is wholly dormant. Carpenter describes another stage of consciousness between that of ordinary dreaming and wakefulness, a condition "in which a dreamer has a consciousness that he is dreaming, being aware of the unreliability of the images which present themselves before the mind. He may even make a voluntary and successful effort to prolong them if agreeable, or to dissipate them if unpleasing, thus evincing a certain degree of that directing power, the entire want of which is characteristic of the true state of dreams."

Can Dreams Be Controlled?—Facts prove that they can be, and to a remarkable extent. Emissions most frequently occur in the state described by Dr.

Carpenter, in which a certain amount of control by the will is possible. This is the usual condition of the mind during morning naps; and if a person resolutely determines to combat unchaste thoughts whenever they come to him, whether asleep or awake, he will find it possible to control himself, not only during this semi-conscious state, but even during more profound sleep.

The following case related by an eminent London surgeon,* illustrates what may be done by strong resolution; the patient was an Italian gentleman of very great respectability.

“He had been inconvenienced five years before with frequent emissions, which totally unnerved him. He determined resolutely that the very instant the image of a woman or any libidinous idea presented itself to his imagination, *he would wake*; and to insure his doing so, dwelt in his thoughts on his resolution for a long time before going to sleep. The remedy, applied by a vigorous will, had the most happy results. The idea, the remembrance of its being a *danger*, and the determination to wake, closely united the evening before, were never dissociated, even in sleep, and he awoke in time; and this reiterated precaution, repeated during some evenings, absolutely cured the complaint.”

Several other cases of the same kind have been recorded. Doubtless the plan would be found successful in many cases when coupled with a proper regimen.

A still greater control is exerted over the thoughts during sleep by their character during hours of wakefulness. By controlling the mind during entire consciousness, it will also be controlled during unconsciousness or semi-consciousness.

Dr. Acton makes the following very appropriate remarks upon this subject:

* Acton.

“Patients will tell you that they *cannot* control their dreams. This is not true. Those who have studied the connection between thoughts during waking hours and dreams during sleep, know that they are closely connected. The *character* is the same sleeping or waking. It is not surprising that, if a man has allowed his thoughts during the day to rest upon libidinous subjects, he should find his mind at night full of lascivious dreams; the one is a consequence of the other, and the nocturnal pollution is a natural consequence, particularly when diurnal indulgence has produced an irritability of the generative organs. A will which in our waking hours we have not exercised in repressing sexual desire, will not, when we fall asleep, preserve us from carrying the sleeping echo of our waking thought farther than we dared to do in the daytime.”

Bathing.—Frequent bathing is indispensable to health under all circumstances; for patients of this class, it is especially necessary. A general bath should be taken every morning immediately upon rising. General *cold bathing* is not beneficial to every person, even in the morning, though some may tolerate it remarkably well, being of exceptionally hardy constitutions; but the advice to try “cold bathing,” often given to sufferers from seminal weakness, is very pernicious; for most of them have been reduced so low in vitality by their disease that they cannot endure such violent treatment.

Cool bathing is, however, to be recommended. The temperature of the water employed should be fifteen or twenty degrees below that of the body. The administration of water in the form of a hand or sponge bath in the morning on arising is an excellent tonic. The saline sponge bath, employing a tablespoonful of

salt to the quart of water, is somewhat more stimulating than the ordinary water bath.

Sun baths, electric baths, spray, plunge, and other forms of bath are of greatest value to those suffering from the effects of indiscretions. These are described, with additional observations concerning the temperature of baths, etc., in works devoted to this subject.

Improvement of General Health.—Patients suffering from emissions and other forms of seminal weakness are almost always dyspeptic, and most of them present other constitutional affections which require careful and thorough treatment according to the particular indications of the case. The wise physician will not neglect these if he desires to cure his patient, and make his recovery as complete as possible.

Prostitution as a Remedy.—Said a leading physician in New York to us, when interrogated as to his special treatment of spermatorrhea, “When a young man comes to me suffering from nocturnal emissions, I give him tonics and *send him to a woman.*” That this is not an unusual method of treatment, even among regular physicians, is a fact as true as it is deplorable. There are hundreds of young men whose morals have been ruined by such advice. Having been educated to virtuous habits, at least so far as illicit intercourse is concerned, they resist all temptations in this direction, even though their inclinations are very strong; but when advised by a physician to commit fornication as a remedial measure, they yield their virtue, far too readily sometimes, and begin a life of sin from which they might have been prevented. There are good grounds for believing that many young men purposely seek advice from physicians who they know are in the habit of prescribing this kind of a remedy.

Few know how commonly this course is recommended, and not by quacks, but by members of the regular profession. A friend informed the writer that he knew a case in which a country physician advised a young man of continent habits to go to a neighboring large city, and spend a year or so with prostitutes, which advice he followed. Of his subsequent history we know nothing; but it is very probable that, like most other young men who adopt this remedy, he soon contracted diseases which rendered his condition ten times worse than at first, without at all improving his former state. In pursuing this course, one form of emission is only substituted for another, at the best; but more than this, an involuntary result of disease is converted into a voluntary sin of the blackest character, a crime in which two participate, and which is not only an outrage upon nature, but against morality as well.

A final argument against this course is that it is not a remedy, and does not effect a cure of the evil, as will be shown by the following medical testimonies:

“The vexed question of connection is one which may be decided out of hand. . . . *It has no power of curing bad spermatorrhea*; it may cause a diminution in the number of emissions, but this is only a delusion; the semen is still thrown off; the frame still continues to be exhausted; the genital organs and nervous system generally are still harassed by the incessant tax; and the patient is all the while laying the foundation of impotence.” *

“In all solemn earnestness I protest against such false treatment. It is better for a youth to live a continent life.” “There is a terrible significance in the wise man’s words, ‘None that go to her return again, neither take they hold of the path of life.’” † This

* Milton.

† Acton.

hazardous and immoral mode of treatment is the result of the common opinion that emissions are necessary and natural, which we have previously shown to be false.

Marriage.— Another class of practitioners, with more apparent regard for morality, recommend matrimony as a sure panacea for all the ills of which the sufferers from self-abuse complain, with the possible exception of actual impotence. Against this course, several objections may be urged; we offer the following:

1. It is not a remedy, since, as in the case of illicit intercourse, “legalized prostitution” is only a substitution of one form of emission for another, the ill effects of which do not differ appreciably.

2. If it were a remedy, it would not be a justifiable one, for its use would necessitate an abuse of the marriage relation, as elsewhere shown.

3. As another reason why the remedy would not be a *proper*, even if a *good* one, it may well be asked, What right has a man to treat a wife as a vial of medicine? Well does Mr. Acton inquire, “What has the young girl, who is thus sacrificed to an egotistical calculation, done that she should be condemned to the existence that awaits her? Who has the right to regard her as a therapeutic agent, and to risk thus lightly her future prospects, her repose, and the happiness of the remainder of her life?”

In cases in which seminal emissions occur frequently, the most reliable writers upon this subject—Copland, Acton, Milton, and others—advise, with reference to marriage, “that the complaint should be removed before the married life is commenced.” Independent of the considerations already presented, the individual affected in this manner and contemplating

marriage, should carefully consider the possible and probable effects upon offspring, the legitimate result of marriage; these have been already described, and need not be recapitulated.

Local Treatment.—While it is true that general treatment alone is occasionally successful in curing the diseases under consideration, and that local treatment alone is very rarely efficient, it is also true that in many cases skilful local treatment is required to supplement the general remedies employed. While there has been a tendency on the part of the profession generally to depend wholly upon general treatment, on the part of a less numerous body of specialists there has been an opposite tendency, to depend wholly, or nearly so, upon local measures. Both extremes are evidently wrong.

The object of local treatment for the relief of emissions, especially, is to remove the local cause of irritation, which, as previously shown, is one of the most active exciting causes of seminal losses. To effect this, both internal and external applications are useful. We will now consider some of these agents.

SIMPLE METHODS OF TREATMENT.

No simple directions for treatment can render a person competent to dispense with the services of a physician, but there are some simple hygienic means which are remarkably effective in relieving many of the special morbid conditions which are referred to in this work. In the following pages we shall describe a few simple methods of employing water, one of the most important of all hygienic measures known.

The Cool Sitz Bath.—Place in an ordinary sitz bath tub (a common washtub may be used by propping up one side of it) a sufficient amount of water to make it about one-third to one-half full. The temperature should be 75° to 65° Fahrenheit. A higher temperature should be used at the beginning of the use of the bath, the temperature being lowered day by day until a temperature of sixty degrees may be readily tolerated. A foot bath should be prepared with hot water, temperature 102° to 106°.

Undressing, the patient bathes his head and neck with cold water, then places himself in the bath with the feet immersed in the hot foot bath. A woolen blanket is thrown over all in such a way as to cover the legs, including the foot bath. The duration of the bath may be ten to twenty minutes. The higher the temperature, the longer the duration should be; the lower the temperature, the shorter the duration. The hips and abdomen should be well rubbed by the patient during the bath, to prevent chilliness.

This is an excellent bath for the relief of chronic congestion of the pelvic organs and for hemorrhoids. It should not be employed in cases in which pain or tenderness is a marked symptom. It is useful in cases of diurnal losses, but it should be avoided in cases of frequent nocturnal losses with smarting or burning after urinating, and in cases of irritable bladder, painful prostate, and neuralgia of the ovaries or testicles. It is in general an excellent remedy for chronic pelvic congestions, so-called catarrh of the womb, leucorrhœa, uterine prolapse, relaxed abdominal muscles, varicocele, seminal weakness, and sexual neurasthenia.

The Hot Sitz Bath.—The preparation is the same as for the cool sitz bath except that hot water is used

of a temperature from 102° to 104° at the start. With the addition of the hot water, the temperature should be gradually increased until as hot as can be borne. The duration of the bath should be five to ten minutes. The head should be kept well cooled by a towel, wet with cold water and placed about the head, face, and neck. On rising from the bath, cold water should be dashed about the hips and other parts which have been reddened by the heat. Another excellent plan is to pour a pail of cold water over the chest and shoulders, allowing it to run into the bath, thus cooling the water, and continuing the bath for one or two minutes.

This bath is an excellent measure for relieving pelvic pain from any cause, especially neuralgic pain, pain in the bladder, ovarian pain, and neuralgia of the testicles, pain from rectal ulcer or from an inflamed prostate, and sciatic pain.

The Neutral Sitz Bath.—The general preparation is the same as for the cool sitz. The temperature of the water is 92° to 96°, and the duration ten minutes to one hour.

This is an excellent remedy in cases where there is an excessive irritability of the prostate, genital organs, bladder, or other pelvic organs. It relieves priapism and genital irritation, and is an excellent remedy in cases of nocturnal losses due to irritation.

The Cold Towel Rub.—The patient is undressed, and lies in bed wrapped in a woolen blanket. A towel is wrung out of cold water and spread quickly upon the chest and abdomen. The patient holds the upper end of the towel while the attendant makes rubbing movements over the towel from above downward, using the hands in alternation. As soon as the towel becomes warm it is removed and replaced by a dry

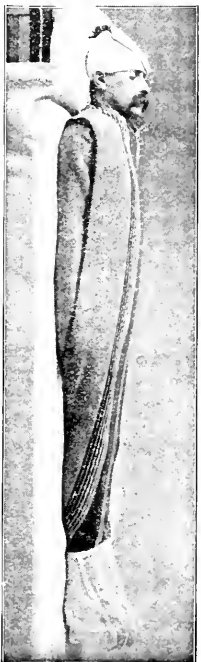
SCIENTIFIC WATER TREATMENT AT HOME



Wringing Pomentation Cloth.



Applying Pomentation.



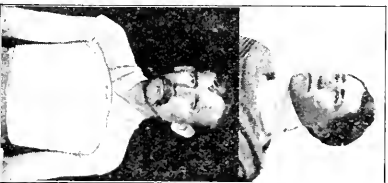
Hot Blanket Pack.



Hot Leg Bath.



Vapor or Hot Air Bath.



Throat and Chest Pack.



Abdominal Griddle.



Wet Sheet Rub.



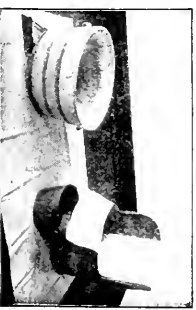
Shower Pack.



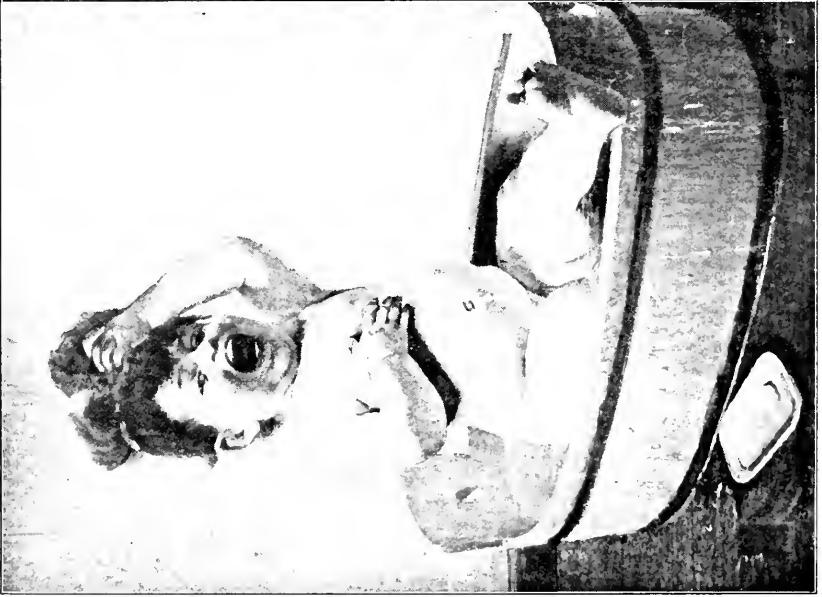
Cold (Wet) Towel Rub.



Cold (Wet) Mitten Friction.



Home Sitz Bath.



towel with which the parts are dried. The parts are then rubbed with the dry hand until well reddened. The towel is applied in a similar way, first to one arm and then to the other, then to the legs. The patient now turns over, and an application is made to the back and then to the back side of the legs. The head is cooled before the beginning of the bath, and care is taken to keep the patient well covered, with the exception of the part which is being rubbed.

The Morning Bath.—An excellent way to take a tonic morning bath is the following: Close the waste of the bath tub and open the cold-water faucet. Standing undressed beside the tub, bathe the face, neck, and chest with cold water for half a minute. By this time there will be two or three inches of water in the tub. Step into the tub, rub one foot with the other alternately, while counting twenty. Sit down in the tub, with the legs extended, so that the feet receive the cold water as it runs from the faucet. Bend forward and with the hands rub the legs from one end to the other very vigorously, while counting ten. Then dipping the hands in the water, rub the chest and sides while counting ten. Rub the legs again and then lie down in the water and rub the sides, crossing the arms in front of the body while counting ten. If not accustomed to cold bathing, it is best to rise immediately now and leave the bath. On leaving the bath, the bather should cover himself with a sheet, better a Turkish sheet, and quickly rub the whole surface of the body, so as to start a reaction. Continue rubbing hard with the sheet, or first with the sheet and then with a rough towel, until the whole surface of the body glows. Rub the back by means of a see-saw movement with a towel grasped at each end. Be sure to dry every part thoroughly. Dress

quickly and take a brisk walk for ten or fifteen minutes, or take some form of gymnastic exercise until reaction is well established.

If one becomes chilly after a cold bath, or has headache or cold hands or feet, the results are damaging rather than beneficial. There must be good reaction and a feeling of well-being. If not, the cold bath should not be taken.

If a bath tub is not available, a bath which is very beneficial may be taken with a washbowl and a towel. The towel should be wrung just dry enough so it will not drip, and the whole body should be gone over rapidly, and quickly dried.

Persons suffering from seminal weakness, sexual neurasthenia, or general debility from any cause, may take a cool (not cold) morning bath, and in some cases it may be taken two or three times a day. The room in which the bath is taken should be warm, and the body should always be warm before entering the bath. A cold bath should never be taken when there is a sensation of chilliness, when the body is exhausted, or when there is a great feeling of dread of contact with the cold water. Persons suffering from Bright's disease and from weak heart must avoid very cold general baths and especially prolonged cold baths. In such cases, the cold application should be made to small surfaces in succession, as an arm, leg, chest, or some other part, and each part should be rubbed until good reaction occurs before proceeding to another part.

The Evening Bath.—Cold baths are best taken in the early part of the day, for the reason that they are strongly tonic and exciting and sometimes produce wakefulness when taken at night. A bath taken to produce sleep should be at a temperature of 92 to 95

degrees, and should be prolonged until drowsiness occurs. At the close, the bath should be cooled very slightly, not more than five or ten degrees. Such a bath is called a neutral bath. Sometimes the patient may be allowed to fall asleep in the bath with advantage. This is one of the best known means of inducing sleep. A hot bath is depressing and weakening. Sweating baths and cleansing baths are generally best taken before retiring.

The Bladder Douche.—One of the best means of relieving bladder irritation and catarrh of the bladder, is the hot bladder douche. This is administered by means of a catheter and a fountain syringe. The instruction should be given by a trained nurse or by a physician. It is especially necessary to have proper instruction in regard to the care of the catheter, to avoid infection. The temperature of the water at the beginning of the douche should be about 102 degrees. Hot water should be gradually added to the douche during the application, until the temperature is as hot as can be borne and the surface well reddened. The higher the temperature, the better the effect in most cases.

This is also an excellent remedy as an application for the urethra in cases of gonorrhœa. In cases of this sort, the catheter should not, of course, be introduced into the bladder, the application being confined to the urethra. It is well to add salt or soda to the water, in the proportion of a teaspoonful to the pint.

The Spinal Douche.—This is an excellent remedy in cases of genital weakness. The patient, undressed, sits over the edge of the bath tub, while water is poured upon the lower part of the back from a pail or dipper held as high up as the attendant can reach. Hot water,

cold water, or alternations of hot water and cold water may be used. The alternate douche is the most stimulating; the hot douche is sedative, and is especially useful as a means of relieving pain. When the hot douche is employed, there should be a dash of cold water at the end. The cold douche is a powerful tonic. The patient may administer this to himself by means of a rubber tube attached to the water faucet.

Local Fomentations.—When great local irritation exists, with considerable pain and spasmodic muscular action, the application of hot fomentations to the perineum will be found the most effectual means of giving relief. The hot douche and hot sitz bath are useful under the same circumstances.

In some cases, alternate hot and cold applications are more effectual in allaying local irritation than hot fomentations alone.

Local Cold Bathing.—The genital organs should be daily bathed in cold water just before retiring. Simply dashing water upon the parts for two or three minutes is insufficient; more prolonged bathing is necessary. A short application of cold occasions a strong and sudden reaction, which increases local congestion; hence the bath should be continued until the sedative effect is fully produced, which will require at least fifteen minutes. The water must be cold; about 60° is the best temperature. Ice should be used to cool the water in warm weather. It should be applied thoroughly, being squeezed from a sponge upon the lower part of the abdomen, and allowed to run down.

The Enema.—The use of the enema is an important means of aiding recovery; but it has been much abused, and must be employed with caution. When the bowels are very costive, relieve them before re-

tiring by a copious injection of tepid water. The "fountain" or "siphon" syringe is the best instrument to employ.

Useful as is the syringe when needed, nothing could be much worse than becoming dependent upon it. The bowels must be made to act for themselves without such artificial assistance, by the use of proper food, especially graham flour and oatmeal, and the avoidance of hot drinks, milk, sugar, and other clogging and constipating articles; by wearing the abdominal bandage; by thorough kneading and percussion of the abdomen several times daily for five minutes at a time; by taking one or two glasses of cold water half an hour before breakfast every morning; and by plenty of muscular exercise daily. The enema should be used occasionally, however, rather than allow the bowels to continue costive, and to avoid severe straining at stool.

A small, cold enema taken just before retiring, and retained, will often do much to allay local irritation.

Electricity.—Probably no single agent will accomplish more than this remedy when skilfully applied. It needs to be carefully used, and cannot be trusted in the hands of those not acquainted with the physical properties of the remedy and scientific methods of applying it.

Internal Applications.—Complete and rapid success greatly depends upon skilful internal treatment, in a large number of cases. We are aware that there is considerable prejudice, in certain quarters, against internal treatment; but having had the opportunity of observing the effects of careful treatment applied in this way, and having put to the test of practical experience this method, we feel justified in recommending that which is approved on both theoretical and practical

grounds; for it is rational to suppose that proper treatment, applied directly to the seat of disease, must be at least equally efficacious with methods less direct.

As heretofore explained, in the more severe cases the urethra is found in a very irritable condition. It is hyper-sensitive, especially in that portion just in front of the bladder, where the ejaculatory ducts open into it. We have also seen how this condition is one of the chief exciting causes of emissions. The remedies described for allaying this irritation are all excellent and indispensable; but there is another method of great value. This consists in the passage of a suitable instrument, a sound or bougie of proper size, two or three times a week. By the aid of this means, the abnormal irritation will often diminish with magical rapidity. The passage of the instrument, of course, needs to be done with great delicacy, so as to avoid increasing the irritation; hence it should not be attempted by a novice. Lack of skill in catheterism is doubtless the reason why some have seemed to produce injury rather than benefit by this method of treatment.

Use of Electricity.—The use of electricity in connection with that of the sound, adds greatly to its utility. By means of the metallic instrument, also, electricity may be applied directly to the point of greatest irritation; and its soothing effect is sometimes really wonderful, as the following case will show:

The patient, a man of unusual physical development, was suffering from nocturnal emissions and diminished sexual power, the result of early indiscretions and marital excesses. One of his most unpleasant symptoms was severe pain in the portion of the urethra near the openings of the ejaculatory ducts. After he had been suffering more than usual for a few days, we

applied the faradic electric current in the manner indicated above, for about fifteen minutes. At the end of that time the pain was entirely removed, though considerable suffering had been caused by the passage of the instrument, so sensitive was the congested membrane. The pain did not return again for two or three weeks, though treatment was necessarily suspended on account of absence.

In another case, that of a young man, a student, at the beginning of treatment emissions occurred nightly, and sometimes as many as four in a single night, according to his statement, which we had no reason to doubt. Under the influence of these local applications, combined with other measures of treatment and a measurably correct regimen, the number of emissions was in a few weeks reduced to one in two or three weeks.

Numerous other cases nearly as remarkable might be detailed if it were necessary to do so. A very slight increase of irritation sometimes occurs at first, but this quickly subsides.

The galvanic as well as the faradic current is to be used under proper circumstances. The application of electricity to the nerve centers by means of central galvanization, and also general and local external faradization, are necessary methods to be employed in electrical treatment.

Circumcision.—In cases of phimosis, in which irritation is produced by retained secretions, division of the prepuce or circumcision is the proper remedy. These cases are not infrequent, but the exciting cause of much of the difficulty is often overlooked. The same remedy is often useful in cases of long prepuce.

When the glans penis is unusually tender and sensitive, this condition will generally be removed by the

daily washing with soap and water necessary for cleanliness. If this does not suffice, or if there are slight excoriations caused by acid secretions, apply, in addition, a weak solution of tannin in glycerine once a day.

Impotence.—Loss of sexual power arising from any form of sexual excess, should be treated on the same general plan laid down for the treatment of emissions and other weaknesses. Heat to the spine, and short, but frequent, local cold applications, are among the most useful remedies; but probably electricity, discreetly used, is by far the most valuable of all remedies. It should be applied both internally and externally.

The use of cantharides and other aphrodisiac remedies to stimulate the sexual organs is a most pernicious practice. The inevitable result is still greater weakness. They should never be used. On the contrary, everything of a stimulating character must be carefully avoided, even in diet.

Varicocele.—Patients suffering from this difficulty should wear a proper suspensory bag, as the continued pressure of the distended veins upon the testes, if unsupported, will ultimately cause degenerative changes and atrophy. In cases of varicocele in which the disorder is attended by pain, or marked degeneration of one or both testicles, or in which the disorder is an evident aggravation of nocturnal losses, an operation is usually required to effect a cure, though a proper suspensory bandage will often afford relief, if constantly worn. The operation for varicocele, when properly performed, is free from danger, and is effective in affording relief in this disorder. The author has found great satisfaction in the employment of antiseptic ligation of the veins, coupled in bad cases, by removal of

the redundant portion of scrotal tissue. This mode of operation has always been attended by most excellent results.

The wearing of a suspensory bag is also advisable for those whose testicles are unusually pendulous.

Treatment of the Disease in Women.—The treatment of the results of self-abuse in woman is a very much more complicated affair than it is in man, owing to the greater variety of local disorders induced thereby. The various forms of displacement require special methods of treatment, many of which cannot be readily undertaken at home. Many of the measures suggested for the treatment of males are, however, entirely applicable to this class of cases in women, and may be employed to very great advantage and with most excellent results. The sitz bath, hot sponging of the spine, hot and cold applications to the spine, and the saline sponge bath are all very useful measures.

Most important of all, however, is the *vaginal douche*. This method of treatment consists in the injection into the vagina by some form of syringe, particularly the fountain or syphon syringe, of hot water. The temperature should be 110° or 120°. In the employment of vaginal injections, too small a quantity is usually made use of. From three to five gallons should be used daily, and, as a rule, the temperature should be as hot as can be borne without discomfort. We know of no single method of treatment which is able to accomplish so much in these cases as the hot vaginal douche. It should be uniformly employed, and may be continued several months with advantage. It should be used as long as the leucorrhœal discharge is present, this being a symptom of local congestion, and one which is more readily relieved by this means than any other.

The addition of a little alum or some other form of astringent to the last portion of water employed, is in many cases advantageous. Alum or tannin may be used in proportion of one dram to the quart of water.

In cases of sexual apathy, or loss of ability to engage in the sexual act, the application of faradic electricity to the vagina by means of a proper electrode is of very great advantage. One electrode should be placed in the vagina, while the other, connected with the sponge, is passed over the lower portion of the spine, across the lower part of the abdomen, and along the inside of the thighs.

For directions for further treatment of these and like derangements, the reader is referred to other works by the author, in which the subject is fully treated.

Drugs, Rings, Etc.—If drugs, *per se*, will cure invalids of any class, they are certainly not satisfactory in this class of patients. The whole materia medica affords no root, herb, extract, or compound that alone will cure a person suffering from emissions. Thousands of unfortunates have been ruined by long-continued drugging. One physician will purge and salivate the patient. Another will dose him with phosphorus, quinine, or ergot. Another feeds him with iron. Another plies him with lupuline, camphor, and digitaline. Still another narcotizes him with opium, belladonna, and chloral. Purgatives and diuretics are given by another, and some will be found ready to empty the whole pharmacopœia into the poor sufferer's stomach if he can be made to open his mouth wide enough.

The way some of these unfortunate persons are blistered, and burned, and cauterized, and tortured in sundry other ways, is almost too horrible to think of;

yet they endure it, often willingly, thinking it but just punishment for their sins, and perhaps hoping to expiate them by this cruel penance. By these procedures, the emissions are sometimes temporarily checked; but the patient is not cured, nevertheless, and the malady soon returns.

The employment of rings, pessaries, and numerous other mechanical devices for preventing emissions, is entirely futile. No dependence can be placed upon them. Some of these contrivances are very ingenious, but they are all worthless, and time and money spent upon them are thrown away.

Quacks.—The victims of self-abuse fall an easy prey to the hordes of harpies, fiends in human shape, who are ready at every turn to make capital out of their misfortunes. From no class of persons do quacks and charlatans derive so rich a harvest as from these erring ones. It is not uncommon to find a man suffering from seminal weakness who has paid to sundry parties hundreds of dollars for “specifics” which they advertised as “sure cures.” We have seen and treated scores of these patients, but never yet met a single case that had received permanent benefit from patent medicines.

The newspapers are full of the advertisements of these heartless villains. They advertise under the guise of “clergymen,” charitable institutions, “cured invalids,” and similar pretenses. Usually they offer for sale some pill or mixture which will be a *sure cure*, in proof of which they cite the testimonials of numerous individuals who never lived, or, at least, never saw either them or their filthy compounds; or they promise to send free a recipe which will be a certain cure. Here is a specimen recipe which was sent by a “reverend” gentleman, who claims to be a returned missionary

from South America, and who is so intent on doing good that he charges nothing for his invaluable information:

Extract of Corrossa apimis,
 “ “ Selarmo umbelifera,
 Powdered Alkermes latifolia,
 Extract of Carsadoc herbalis.

This remarkable recipe is warranted to cure all the evils arising from self-abuse, without any attention to diet or inconvenience of any kind, to prevent consumption and insanity, and to cure venereal diseases. It is also declared to be a perfectly “*safe*” remedy for all female difficulties, which means that it will aid nefarious purposes.

Along with the recipe comes the suggestion that the druggist may not be able to furnish all the ingredients in a perfectly pure state, and so, for the accommodation of suffering humanity, this noble philanthropist has taken infinite pains to secure them direct from South America, and has put them up in neat little packages which he will send, postpaid, for the trifle of \$3.50, just one cent *less* than actual cost. Then he tells what purports to be the history of his own nastiness, with a generous spicing of pious cant, and closes with a benediction on all who have fallen into the same slough, and especially those who will send for his fabulous foreign weeds to help them out.*

A young man sees the advertisement of a book which will be sent free, postage paid, if he will only send his address. The title of the book being of some such character as “Manhood Regained” or “Nervous Debil-

* Since the above was written, this notorious quack has died, worth half a million dollars, gained by his deceitful practices, and the public have learned that the name under which he advertised was a fictitious one, and that he was neither a clergyman nor a missionary, as claimed

ity," he imagines it may suit his case, and sends his name. Return mail brings the book, which is a wretched jargon of confusing terms and appalling descriptions of the effects of self-abuse, with the most shameful exaggerations of the significance of the most trivial symptoms. The ignorant youth reads what he supposes to be a description of his own case, and is frightened nearly to death. He is most happily relieved, however, to find that the generous publishers of the book have a remedy which is just adapted to his case, but which is so precious that it cannot be afforded at less than \$50 for a sufficient quantity to effect a cure. He willingly parts with his hard-earned dollars, and gets, in return, some filthy mixture that did not cost a shilling.

Another trap set is called an "Anatomical Museum." The anatomical part of the exhibition consists chiefly of models and figures calculated to excite the passions to the highest pitch. At stated intervals, the proprietor, who is always a "doctor," and by preference a German, delivers lectures on the effects of masturbation, in which he resorts to every device to excite the fears and exaggerate the symptoms of his hearers, who are mostly young men and boys. Thus he prepares his victim, and when he once gets him within his clutches, he does not let him go until he has robbed him of his last dollar.

We might present almost any number of illustrations of the ways in which these human sharks pursue their villainy. If there were a dungeon deep, dark, and dismal enough for the punishment of such rascals, we should feel strongly inclined to petition to have them incarcerated in it. They defy all laws, civil as well as moral, and are cunning enough to keep outside

of prison bars; and thus they wax rich by robbery, and thrive by deceit. A terrible recompense awaits them at the final settlement, though they escape so easily now.

Closing Advice.—We cannot finish this chapter without a few closing words of advice to those who are suffering in any way from the results of sexual transgression. We are especially anxious to call attention to a few points of practical and vital interest to all who are suffering in the manner indicated.

1. Give the matter prompt attention. Do not delay to adopt curative measures under the delusive idea that the difficulty will disappear of itself. Thousands have procrastinated in this way until their constitutions have been so hopelessly undermined as to make treatment of little value. The intrinsic tendency of this disease is to continue to increase. It progresses only in one direction. It never “gets well of itself,” as some have imagined that it may do. Something must be done to effect a cure; and the longer treatment is delayed, the more difficult the case will become.

2. Begin the work of getting well with a fixed determination to persevere, and never to give over the struggle until success is attained, no matter how difficult may be the obstacles to be surmounted. Such an effort will rarely be unsuccessful. One of the greatest impediments to recovery from diseases of this class is the vacillating disposition of nearly all patients suffering from disorders of this character. Make up your mind what course of treatment to pursue, then adhere to it rigidly, until it has received a thorough trial. Do not despair if no very marked results are seen in a week, a month, or even a longer period. The best remedies are among those which operate the most slowly.

3. Avoid watching for symptoms. Ills are greatly exaggerated by dwelling upon them. One can easily imagine himself getting worse when he is really improving. Indeed, one can make himself sick by dwelling upon insignificant symptoms. Fix upon a course to pursue for recovery, firmly resolve to comply with every requirement necessary to insure success, and then let the mind be entirely at rest respecting the result.

4. Never consult a quack. The newspapers abound in lying advertisements of remedies for diseases of this character. Do not waste time and money in corresponding with the ignorant, unprincipled charlatans who make such false pretensions. Do not consult traveling doctors. Physicians of real merit have plenty of business at home. They are not obliged to go abroad in order to secure practice; persons who resort to this course are, without exception, pretentious quacks. Consult only some well-known and reliable physician in whom you have confidence. If your physician treats the matter lightly, and advises marriage as a means of cure, you will not judge him harshly if you decide that although he may be thoroughly competent to treat other diseases, he is ignorant of the nature and proper treatment of this. It is an unfortunate fact that there are many physicians who are not thoroughly acquainted with the nature of spermatorrhea and the proper mode of treating the disease; hence the importance of making a judicious selection in choosing a medical adviser. It is far better to consult your family physician than to trust yourself in the hands of some one whom you do not know, and especially one who makes great pretensions to knowledge.

5. Do not despair of ever recovering from the effects of past transgression, and plunge into greater

depths of sin. Persevering, skilful treatment will cure almost every case. Even the worst cases can be greatly benefited if the earnest co-operation of the patient can be secured. This is indispensable, and the patient should be so instructed at the outset of a course of treatment.

6. Every sufferer from sexual disease must make up his mind to live, during the remainder of his life, as closely in accordance with the laws of life and health as circumstances under his control will allow him to do. One who pursues this course, with a genuine regard for principle and a love for right, may confidently expect to receive the reward of obedience for his faithfulness. We would recommend such to obtain and study the best works upon hygiene, put in practice every new truth as soon as learned, and become missionaries of the saving truths of hygiene to others who are suffering from the same cause as themselves, or who may be in danger of falling into the same evil.

A CHAPTER FOR BOYS

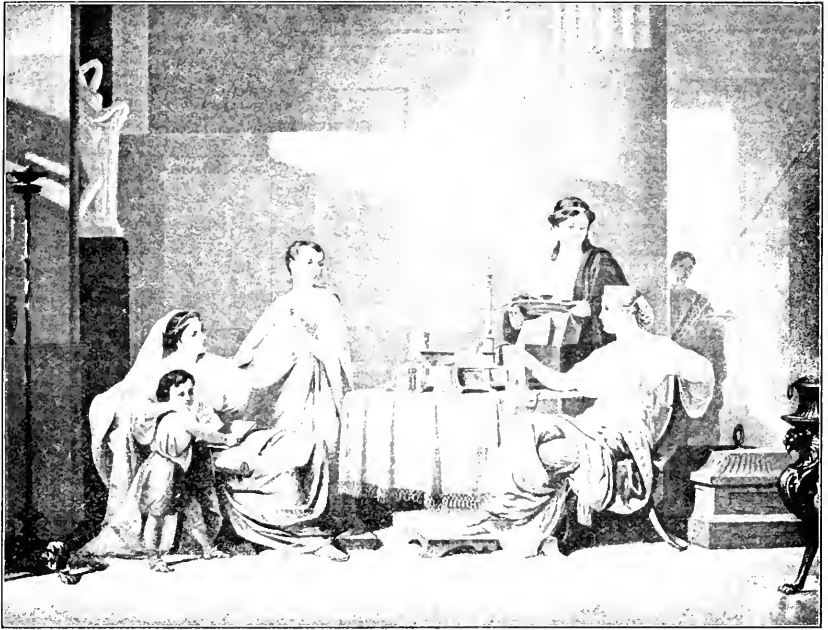
BOYS, this chapter is for you. It is written and printed expressly for you. The author does not care very much if a single page is not read by grown men, but is very solicitous that every boy shall read each line thoughtfully and carefully, weighing well the facts presented and the words of warning offered. You may find nothing to laugh at, nothing pleasing; but you will find something to think about, something worth pondering and remembering.

Genuine Boys.—Real boys are scarce nowadays. In the days of Methuselah, male human beings were still boys when nearly a century old; twenty-five years ago, boys were still such until well out of their "teens;" now, the interval between infancy and the age at which the boy becomes a young man is so brief that boyhood is almost a thing of the past. The happy period of care-free, joyous innocence which formerly intervened between childhood and early manhood is now almost unobservable. Boys grow old too fast. They learn to imitate the vices and the manners of their seniors before they reach their teens, and are impatient to be counted as men, no matter how great may be their deficiencies, their unfitness for the important duties and responsibilities of life. The consequence of this inordinate haste and impatience to be old is premature decay. Unfortunately, the general tendency of the boys of the rising generation is to copy

the vices of their elders, rather than the virtues of true manliness. A strong evidence of this fact, if there were no other, is the unnaturally old-looking faces which so many of our boys present. At the present time the average boy of twelve knows more of vice and sin than the youth of twenty of the past generation.

Human Mushrooms.—It is not so much for these human mushrooms, which may be not inaptly compared to toadstools which grow up in a single night and almost as speedily decay, that we write, but for the old-fashioned boys, the few such there may be; those who have not yet learned to love sin; those whose minds are still pure and uncontaminated; those who are not ashamed to be counted as boys, who are an ornament to boyhood and a delight to their parents. Those who have already begun a course of vice and wickedness we have little hope of reforming; but we are anxious to offer a few words of counsel and warning which may possibly help to save as brands plucked from a blazing fire, those whose moral sense is yet alive, who have quick and tender consciences, who aspire to be truly noble and good. We trust, however, that a few who may have already entered upon a course of sin will heed the warnings given, and reform before they have been wholly ruined by the terrible consequences of vice.

“What Are Boys For?”—This question was answered with exact truthfulness by a little boy, who, when contemptuously accosted by a man with the remark, “What are you good for?” replied, “Men are made of such as we.” Boys are the beginnings of men. They sustain the same relation to men that a small shrub does to a full-grown tree. They are still more like the small green apples which first appear when the blossoms drop from the branches, compared with



"THESE ARE MY JEWELS" (Cornelia and Her Sons) 367-a



HOME OF BACH THE MUSICIAN

367-b



the ripe, luscious fruit which in autumn bends the heavy-laden boughs almost to breaking. Often, like the young apples, boys are green; but this is only natural, and should be considered no disgrace to them. If they grow up naturally, they will ripen with age, like the fruit, developing at each successive stage of life additional attractions and estimable qualities.

Boys the Hope of the World.—The world's most valuable property is its boys. A nation which has poor, weakly, vicious boys will have still weaker, more vicious, and untrustworthy men. A country with noble, virtuous, vigorous boys is equally sure of having noble, pious, brave, and energetic men. Whatever debases, contaminates, or in any way injures the boys of a country, saps and undermines the very foundation of the nation's strength and greatness. Save the boys from vice and crime, give them good training, physically, mentally, and morally, and the prosperity of the nation is assured.

Man, the Masterpiece.—When a skilful artist perfects a work of art, a painting, a drawing, a statue, or some other work requiring great talent, and exceeding all his other efforts, it is called his masterpiece. So man is the noblest work of God, the masterpiece of the Almighty. Numerous anecdotes are told of the sagacity of dogs, horses, elephants, and other animals, of their intelligence as shown in their ingenious devices for overcoming obstacles, avoiding difficulties, etc. Our admiration and wonder are often excited by the scarcely less than human wisdom shown by these lowly brothers of the human race. We call them noble animals; but they are only noble brutes, at best. Compared with man, even in his most humble form, as seen in the wild savage that hunts and devours his prey like

a wild beast, a lion or a tiger, they are immeasurably inferior. And in his highest development, man—civilized, cultivated, Christianized, learned, generous, pious—certainly stands at the head of all created things.

Boys, do you love what is noble, what is pure, what is grand, what is good? You may each, if you will, become such yourselves. Let us consider for a moment—

How a Noble Character Is Formed.—Every human being forms his own character. Various traits and characteristics may be inherited from parents; but character is built up by each individual, and is good or bad as we ourselves decide. As a modern philosopher has said, “Our thoughts and our conduct are our own.” A noble character is formed by the development of good qualities and the suppression of bad ones. Real improvement is from within outward, and comes from an individual’s own efforts. A boy can form a noble, elevated, lovable character by cultivating good and pure thoughts, which will certainly actuate to only good and pure actions. By constant effort, evil tendencies which have been inherited may be overcome; good traits may be so developed as to overshadow the evil of an unfortunate nature. Thus all may form noble characters, no matter how adverse the circumstances under which they live, or the natural disadvantages with which they have to contend.

How a Noble Character Is Ruined.—A bad character is formed by the development of bad traits or evil propensities. In other words, sin is the cause of the demoralization of character, the debasing of the mind, the loss of nobility, of which we see so much around us in the world. When one yields to temptations to wrong-doing, either such as come from one’s own evil nature, or from evil associates or surround-

ings, he makes a blemish upon his character which years may not remove. An ugly scar will ever remain to mar his character.

Sin is the violation of some law. There are two kinds of sin: that which is a transgression of the moral law, and that which is a transgression of physical law. In one sense, all sin is transgression of moral law; for it is the moral duty of every one to obey every law which relates to his well-being. Both classes of sin are followed by penalties. If a person violates the laws of health, he is just as certain to suffer as though he tells a falsehood, steals, murders, or commits any other crime. Perfect obedience to all of nature's laws, including, of course, all moral laws, is necessary to perfect health and perfect nobility of character. The nature of these laws and the result of transgression will be understood after we have taken a hasty glance at—

A Wonderful Machine.—All the inventions and devices ever constructed by the human hand or conceived by the human mind, no matter how delicate, how intricate and complicated, are simple, childish toys compared with that most marvelously wrought mechanism, the human body. Its parts are far more delicate, and their mutual adjustments infinitely more accurate, than are those of the most perfect chronometer ever made.

In order to understand the structure of this wonderful machine, let us go back to the earliest period of its existence. At this time, we find it to be but a mere speck of matter, a single cell, a delicate little mass of jelly-like protoplasm so small that a hundred or two would not measure more than an inch if arranged in a row. Under proper circumstances, this little cell grows, expands, and finally subdivides into two,

through the operations of the protoplasm, or living matter, which chiefly composes it. The same activity occasions another subdivision, making four cells of the two. Still another division produces eight cells.

Thus the processes of growth and division continue until the one original cell has developed into hundreds, even thousands and millions, under the active working of the protoplasm, which is the chief component of the cells and the potent agent in their activities. Development and division still continue while a new process of folding is set up, layers of cells being formed, groups and subgroups being set off, which develop into special systems and organs, until by and by the whole complex organism which we call man is developed.

What the Microscope Reveals.—To enable us to comprehend more fully how “fearfully and wonderfully made” is the “human form divine,” let us examine with minute care, by the aid of a powerful microscope, one single part of the body, the blood. A prick of the finger secures a tiny drop of red blood, which we place upon a small slip of glass, and adjust under the microscope. The magical instrument presents to view a scene of such rare beauty as seldom meets the human eye. The red blood has faded out to a faint amber color, and the whole field is swarming with tiny creatures of the most delicate and symmetrical structure, which float about singly, or cling together in little groups. Here and there may be seen some which are a little larger than the others, though still so small that three thousand of them arranged in a row would extend but one inch, curious little round masses, so transparent as to be almost invisible. They are not very numerous, but scattered here and there about the field.

Presently we perceive that some are changing their form. A moment ago, the first one we inspected was as round as a watch crystal; now it has become elliptical in form. A few minutes later, we look again, and it has stretched itself out into a long filament like an angleworm. Presently, it begins to draw itself up into a round mass again; and in less time than is required to describe the action, it has assumed its original shape, but has changed its position. That is the way the little creature moves about. It makes itself into the shape of a worm, and crawls just as a worm does, by making one end fast, and drawing the rest of the body up.

But what does it move about for? Why may it not remain stationary? Shortly, we shall see, if we watch carefully. Even now the reason is evident. Reader, just peep over our shoulder a moment. Put your eye down to the eyepiece of our microscope. Do you see the little fellow? Look sharp, and you will. A few seconds ago it was round as a full moon. Now there is a little pocket in one side. The pocket is growing deeper and deeper. What is the object of such a curious procedure? Let us put on another eyepiece. Now we have magnified the object a million times. See how much larger it looks. Now look at the pocket. The mystery is solved. There is a little speck of food which the little creature wishes to get, and so he has made a pocket in which to put it.

The queerest part is yet to come, so we must watch patiently a moment more. Now the mouth of the pocket is closing up. Evidently, the little fellow is afraid he may lose the precious morsel, and so he is about to shut the pocket to prevent its escape. Now the opening is closed, and before we are aware of it the pocket

itself has disappeared, and there is the little particle inside.

This seems a marvelous process, but it is a peculiar way these little fellows have of taking their food. When they wish to eat, they make a mouth or a stomach on purpose for the occasion. If we wait a few moments, we shall see that the little particle so curiously swallowed has disappeared; it is now digested.

Thus we see, by studying the habits of these wonderful little creatures which live in the blood, that, although having no legs, wings, or other organs of locomotion, they move from place to place at will; having no hands, they feel; having no mouths, they eat; and though possessed of no stomach, they digest. They are born, develop, grow old and infirm, and die, just as larger creatures. Each has its own separate life, and its special duties to perform, just as have horses, oxen, dogs, and the human beings of whom they form a part.

Thus we learn that the blood is a stream, coursing through the various channels of the body, known as arteries and veins, carrying in each drop millions of creatures which live and grow in the limpid fluid like the fishes in our rivers, or like the birds in the air. These little creatures are known to science as blood corpuscles. Every part of the body is likewise composed of living creatures, which has each his special work to do. Those of the same class, or which have the same kind of labor to perform, are grouped together, just as glass-blowers, printers, and other persons of the same trade, are associated together in their work. All these groups of living beings, working together, make up that wonderful machine, the human body, the most important parts of which we will now proceed to study.

In order that an individual human being may live and develop, it is necessary that he should eat, drink, digest, and assimilate, and that he should be able to move about, to perceive; that is, to hear, see, feel, smell, taste, determine weight, and distinguish temperature, to think, and to express ideas in language. In order to keep his vital machinery in order, it is necessary that the body should also be able to repair injuries which may occur in consequence of wear or accident, and to remove worn-out material which would otherwise obstruct the working of the delicate machinery of which his body is constructed. Each of these functions requires special organs and apparatuses to carry on the work, as described in a previous chapter and illustrated by the colored chart. They may be more briefly reviewed as follows:

The Nutritive Apparatus.—This consists of organs for the purpose of taking in food or nourishment, digesting it, and distributing it throughout the body wherever it is needed. These are chiefly the mouth and teeth for receiving and chewing the food, the stomach and intestines for digesting and absorbing it, and the heart and blood vessels for distributing it to the body.

The Moving Apparatus.—For the purpose of producing motion, we have the muscles and the bones, by which the food is received, masticated, and swallowed, the blood circulated, the body moved about from place to place, and speech, expression, respiration, and many other important functions performed.

The Thinking and Feeling Apparatus.—The brain and nerves afford the means of thinking and feeling, also giving rise to all the activities of the body by the production of nerve force. To aid the brain and nerves, we have special organs provided, termed the

organs of special sense; as the eye for sight, the ear for hearing, the nose for the detection of odors, the tongue for tasting, the skin and the mucous membrane for the sense of touch.

The Purifying Apparatus.—Waste matter accumulates in the body so rapidly that it is necessary to have abundant and efficient means to remove the same, and prevent death by obstruction. This work is performed by the lungs, liver, kidneys, skin, and mucous membrane.

Each organ and tissue possesses the power to repair itself. Animal heat, which is also necessary to life, is not produced by any special set of organs, but results incidentally from the various other processes named.

The Reproductive Apparatus.—As there is a stomach for digestion, a brain for thinking, a pair of lungs for breathing, etc., so there are special organs for reproducing the species or producing new individuals. Unlike all the other organs of the body, they are intended for use only after full development of manhood has been attained; consequently, they are only partially developed in childhood, becoming perfected as the person becomes older, especially after about the age of fourteen to eighteen, when puberty occurs. The lungs, the stomach, the muscles, and other organs must be used constantly from the earliest period of infancy, and hence are developed sufficiently for efficient use at birth. The fact that the sexual or reproductive organs are only fully developed later on in life is sufficient evidence that they are intended for use only when the body has become fully matured and well developed.

The Downhill Road.—In every large city, and in small ones, too, even in little villages, we can scarcely step upon the street without being pained at meeting

little boys who have perhaps scarcely learned to speak distinctly, but whose faces show very plainly that they have already taken several steps down the steep hill-side of vice. All degrees of wickedness are pictured on the faces of a large proportion of the boys we meet loitering about the corners, loafing in hotels, groceries, and about bar-room doors. Everywhere we meet small faces upon which sin and vice are as clearly written as though the words were actually spelled out. Lying, swearing, smoking, petty stealing, and brazen impudence are among the vices which contaminate thousands and thousands of the boys who are by and by to become the *men* of this country, to constitute its legislators, its educators, its supporters, and its protectors. Is it possible that such boys can become good, useful, noble, trustworthy men? If the seeds of noxious weeds can be made to produce useful plants or beautiful flowers, or if a barren, worthless shrub can be made to bear luscious fruit, then may we expect to see these vicious boys grow up into virtuous, useful men.

But the vices mentioned are not the worst, whose traces we see stamped upon the faces of hundreds of boys, some of whom, too, would scorn to commit any one of the sins named. There is another vice, still more terrible, more blighting in its effects, a vice which defiles, diseases, and destroys the body; weakens, degrades, and finally dethrones the mind; debases and ruins the soul. It is to this vice that we wish especially to call attention. It is known as—

Self-Abuse.—Secret vice, masturbation, and self-pollution are other names applied to the same awful sin against nature and against God. We shall not explain here the exact nature of the sin, as very few boys

are so ignorant or so innocent as to be unacquainted with it. To this sin and its awful consequences we now wish to call the attention of all who may read these lines.

A Dreadful Sin.—The sin of self-pollution is one of the vilest, the basest, and the most degrading that a human being can commit. It is worse than beastly. Those who commit it place themselves far below the meanest brute that breathes. The most loathsome reptile, rolling in the slush and slime of its stagnant pool, would not demean itself thus. It is true that monkeys sometimes have the habit, but only when they have been taught it by vile men or boys. A boy who is thus guilty ought to be ashamed to look into the eyes of an honest dog. Such a boy naturally shuns the company of those who are pure and innocent. He cannot look with assurance into his mother's face. It is difficult for any one to catch his eye, even for a few seconds. He feels his guilt, and acts it out, thus making it known to every one. Let such a boy think how he must appear in the eyes of the Almighty. Let him only think of the angels, pure, innocent, and holy, who are eye-witnesses of his shameful practices. Is not the thought appalling? Would he dare commit such a sin in the presence of his father, his mother, or his sisters? How, then, will he dare to defile himself in the presence of Him from whose all-seeing eye nothing is hid?

The Bible utters the most solemn warnings against sexual sins. The inhabitants of Sodom and Gomorrah were destroyed by fire and brimstone for such transgressions. Onan was struck dead in the act of committing a vileness of this sort. For similar vices the wicked inhabitants of Palestine were destroyed, and their lands given to the Hebrews. For a single viola-

tion of the seventh commandment, one of the most notable Bible characters, David, suffered to the day of his death. Those who imagine that this sin is not a transgression of the seventh commandment may be assured that this most heinous, revolting, and unnatural vice is in every respect more pernicious, more debasing, and more immoral than what is generally considered as violation of the commandment which says, "Thou shalt not commit adultery," and is a most flagrant violation of the same commandment.

Those who imagine that they "have a right to do as they please with themselves," so long as no one else is immediately affected, must learn that we are not our own masters; we belong to our Creator, and are accountable to God, not only for the manner in which we treat our fellowmen, but for how we treat ourselves, for the manner in which we use the bodies which he has given us. The man who commits suicide, who takes his own life, is a murderer as much as he who kills a fellowman. So, also, he who pollutes himself in the manner we are considering violates the seventh commandment, although the crime is in both cases committed against himself. Think of this, ye youth who defile yourselves in secret, and seek to escape the punishment of sin. In heaven a faithful record of your vile commandment-breaking is kept, and you must meet it by and by. You are fixing your fate for eternity; and each daily act in some degree determines what it shall be. Are you a victim of this debasing vice? Stop, repent, reform, before you are forever ruined,—a mental, moral, and physical wreck.

Self-Murderers.—Of all the vices to which human beings are addicted, no other so rapidly undermines the constitution and so certainly makes a complete

wreck of an individual as this, especially when the habit is begun at an early age. It wastes the most precious part of the blood, uses up the vital forces, and finally leaves the poor victim a most utterly ruined and loathsome object. If a boy should be deprived of both hands and feet, and should lose his eyesight, he would still be infinitely better off than the boy who for years gives himself up to the gratification of lust in secret vice. For such a boy to become a strong, vigorous man is just as impossible as it would be to make a mammoth tree out of a worm-eaten bush. Such a man will necessarily be short-lived. He will always suffer from the effects of his folly, even though he marry. He may become incapable of having children; but if he have any, they will be quite certain to be puny, weak, scrofulous, consumptive, rickety, nervous, depraved in body and mind, or otherwise deprived of the happiness which grows out of the possession of "a sound mind in a sound body."

Let us notice a little more closely the terrible effects resulting from this most unnatural and abominable vice.

What Makes Boys Dwarfs?—How many times have we seen boys who were born with good constitutions, with force and stamina sufficient to develop them into large, vigorous men, become puny dwarfs. At the time when they ought to begin to grow and develop more rapidly than ever before, their growth is checked, and they cease to develop. They are, in fact, stunted, dwarfed, like a plant which has a cankerworm eating away at its roots. Indeed, there is a veritable cankerworm sapping their vitality, undermining their constitutions, and destroying their prospects for time and for eternity. Anxious friends may attribute the unhappy

change to overwork, overstudy, or some similar cause; but from a somewhat extended observation, we are thoroughly convinced that the very vice which we are considering is the viper which blights the prospects and poisons the existence of many of these promising boys.

A boy who gives himself up to the practice of secret vice at an early age, say as early as seven to ten years, is certain to make himself a wreck. Instead of having a healthy, vigorous body, with strong muscles and a hardy constitution, he will be weak, scrawny, sickly, always complaining, never well, and will never know anything about that joyous exuberance of life and animal spirits which the young antelope feels as he bounds over the plain, or the vigorous young colt as it frisks about its pasture, and which every youth ought to feel.

Scrawny, Hollow-Eyed Boys.—Boys ought to be fresh and vigorous as little lambs. They ought to be plump, rosy, bright-eyed, and sprightly. A boy who is pale, scrawny, hollow-eyed, dull, listless, has something wrong with him. Self-abuse makes thousands of such boys every year; and it is such boys that make vicious, shiftless, haggard, unhappy men. This horrible vice steals away the health and vitality which are needed to develop body and mind; and the lad who ought to make his mark in the world, who ought to become a distinguished statesman, orator, clergyman, physician, or author, becomes little more than a living animal, a mere shadow of what he ought to have been.

Old Boys.—Often have we felt sad when we have heard fond mothers speaking in glowing terms of the old ways of their sons, and glorying that they looked so much older than their years. In nine cases out of ten, these old-looking boys owe their appearance to

this vile habit; for it is exceedingly common, and its dreadful effects in shriveling and dwarfing and destroying the human form are too plainly perceptible to be mistaken. Oh, this dreadful curse! Why will so many of our bright, innocent boys pollute themselves with it?

What Makes Idiots?—Reader, have you ever seen an idiot? If you have, the hideous picture will never be dissipated from your memory. The vacant stare, the drooping, drooling mouth, the unsteady gait, the sensual look, the emptiness of mind,—all these you well remember. Did you ever stop to think how idiots are made? It is by this very vice that the ranks of these poor daft mortals are being recruited every day. Every visitor to an insane asylum sees scores of them; ruined in mind and body, only the semblance of a human being, bereft of sense, lower than a beast in many respects, a human being hopelessly lost to himself and to the world,—oh, most terrible thought!—yet once pure, intelligent, active, perhaps the hope of a fond mother, the pride of a doting father, and possibly possessed of natural ability to become greatly distinguished in some of the many noble and useful walks of life; now sunk below the brute through the degrading, destroying influence of a lustful gratification.

Boys, are you guilty of this terrible sin? have you even once in this way yielded to the tempter's voice? Stop, consider, think of the awful results, repent, confess to God, reform. Another step in that direction, and you may be lost, soul and body. You cannot dally with the tempter. You must escape now or never. Don't delay.

Young Dyspeptics.—There is, in our estimation, no other cause so active as this in occasioning the early

breaking down of the digestive organs of our American boys, if we leave out of the consideration the effects of bad food and worse cookery. A boy ten or twelve years of age ought to have a stomach capable of digesting anything not absolutely indigestible; but there are to-day thousands and thousands of boys of that age whose stomachs are so impaired as to be incapable of digesting any but the most simple food. The digestion being ruined, decay of the teeth soon follows. Hardly one boy in a dozen has perfectly sound teeth. With a bad stomach and bad teeth, a foundation for disease is laid which is sure to result in early decay of the whole body.

A Cause of Consumption.—In this awful vice do we find a cause, too, for the thousands of cases of consumption in young men. At the very time when they ought to be in their prime, they break down in health, and become helpless invalids for life, or speedily sink into an early grave.

Upon their tombstones might justly be graven, "Here lies a self-murderer." Providence is not to blame; nor is climate, weather, overwork, overstudy, or any other even seemingly plausible cause to be blamed. Their own sins have sunk them in mental, moral, and physical perdition. Such a victim literally dies by his own hand, a veritable suicide. Appalling thought! It is a grand thing to die for principles, a martyr to right and truth. One may die blameless who is the victim of some dire contagious malady which he could not avoid; even the poor, downcast misanthrope, whose hopes are blighted and whose sorrows multiplied, may possibly be in some degree excused for wishing to end his misery with his life; but the wretched being who sheds his life blood by the disgust-

ing maneuvers of self-pollution,—what can be said to extenuate *his* guilt? His is a double crime. He will perish, overwhelmed with his own vileness. Let him die, and return to the dust from which he sprang. Let him pass from the memory of his fellowmen.

The Race Ruined by Boys.—The human race is growing weaker year by year. The boys of to-day would be no match in physical strength for the hale, sturdy youths of a century ago, their great-grandparents. An immense amount of skilful training occasionally enables one to accomplish some wonderful feat of walking, rowing, or swimming; but we hear very little of remarkable feats of labor accomplished by our modern boys. Even the country boys of to-day cannot endure the hard work which their fathers did at the same age; and we doubt not that this growing physical weakness is one of the reasons why so large a share of the boys whose fathers are farmers, and who have been reared on farms, are unwilling to follow the occupation of their fathers for a livelihood. They are too weakly to do the work required in agricultural life, even by the aid of the numerous labor-saving inventions of the age.

What is undermining the health of the race, and sapping the constitutions of our American men? No doubt, much may be attributed to the unnatural refinements of civilization in several directions; but there can be no doubt that vice is the most active cause of all. Secret sin and its kindred vices ruin more constitutions every year than hard work, severe study, hunger, cold, privation, and disease combined.

Boys, the destiny of the race is in your hands. You can do more than all the doctors, all the scientists and most eminent political men in the world to secure the

prosperity and future greatness of the nation, by taking care of yourselves, by being pure, noble, true to yourselves and to the demands of high moral principle.

Cases Illustrating the Effects of Self-Abuse.

—The land is full of poor human wrecks who have dashed in pieces their hopes for this world, and too often for the next also, against this hideous rock which lies hidden in the pathway of every young man who starts out upon life's stormy voyage. Gladly would we cover them and all their dreadful deformities, with the mantle of charity from the gaze of their fellow-beings; but their number is so great that this could scarcely be done, and the lesson to be learned from their sad fate is such a grave one, and so needful for the good of the generation of young men who are just encountering the same dangers, that we cannot resist the promptings of duty to present a few examples of the effects of vice in men and boys that have fallen under our own observation. We have seen hundreds of cases of this sort; have treated many scores of persons for the effects of the terrible crime against which we are seeking to sound a warning, and the number of cases we might describe would fill a volume; but we will select only a very few.

Two Young Wrecks.—Charles and Oscar B—— were the sons of a farmer in a Western State, aged respectively ten and twelve years. They possessed well-formed heads, and once had beautiful faces, and were as bright and sprightly as any little boys of their age to be found anywhere. Their father was proud of them, and their fond mother took great pleasure in building bright hopes for her darling sons when they should attain maturity, and become competent to fill useful and honorable positions in the world. Living

in a rapidly growing Western community, they had every prospect of growing up to honorable usefulness, a comfort to their parents, a blessing to the world, and capable of enjoying life in the highest degree.

But suddenly certain manifestations appeared which gave rise to grave apprehensions on the part of the parents. It was observed that the elder of the little boys no longer played about with that nimbleness which he had formerly shown, but seemed slow and stiff in his movements. Sometimes, indeed, he would stagger a little when he walked. Soon, also, his speech became affected in some degree; he mumbled his words, and could not speak distinctly. In spite of all that could be done, the disease continued, increasing slowly in all its symptoms from week to week. Soon the hands, also, became affected, so that he could not feed himself. The mind now began to fail. The bright eyes became vacant and expressionless. Instead of the merry light which used to shine in them, there was a blank, idiotic stare.

Imagine the grief and anguish of the poor mother! No one but a mother who has been called to pass through a similar trial could know how to sympathize with such a one. Her darling son she saw daily becoming a prey to a strange, incurable malady, with no power even to stay the progress of the terrible disease.

But there was still greater grief in store for her. Within a year or two, the younger son began to show symptoms of the same character, and in spite of all that was done, rapidly sank into the same helpless state as his brother. As a last resort, the mother took her boys, and came a long journey to place them under our care. At that time they were both nearly helpless. Neither

could walk but a few steps. They reeled and staggered about like drunken men, falling down upon each other, and going through the most agonizing contortions in their attempts to work their way from one chair to another and thus about the room. Their heads were no longer erect, but drooped like wilted flowers. On their faces was a blank, imbecile expression, with few traces of their former intelligence left. The mouth was open, by the drooping of the lower jaw, and the saliva constantly dribbled upon the clothing. Altogether, the sight of them was a most appalling spectacle.

We at once set to work to discover the cause of this dreadful condition, believing that such an awful punishment must certainly be the result of some gross violation of nature's laws somewhere. The most careful scrutiny of the history of the parents of the unfortunate lads gave us no clue to anything of a hereditary character, both parents having come of good families, and having been always of sober, temperate habits. The father had used neither liquor nor tobacco in any form. The mother could give no light on the matter, and we were obliged to rest for the time being upon the conviction which fastened itself upon us that the cases before us were most marked illustrations of the results of self-abuse begun at a very early age. The mother thought it impossible that our suspicions could be correct, saying that she had watched her sons with jealous care from earliest infancy, and had seen no indications of any error of the sort. But we had not long to wait for confirmation of our view of the case, as they were soon caught in the act, to which it was found that they were greatly addicted, and the mystery was wholly solved.

Every possible remedy was used to check the terrible disease which was preying upon the unfortunate boys, but in vain. At times, the symptoms would be somewhat mitigated, and the most sanguine hopes of the fond, watching mother would be excited, but in vain. The improvement was always but temporary, and the poor sufferers would speedily relapse into the same dreadful condition again, and gradually grow worse. At last, the poor mother was obliged to give up all hope, in utter despair watching the daily advances of the awful malady which inch by inch destroyed the life, the humanity, the very mind and soul of her once promising sons. Sadly she took them back to her Western home, there to see them suffer, perhaps for years before death should kindly release them,—the terrible penalty of sin committed almost before they had arrived at years of responsibility.

How these mere infants learned the vice, we were never able to determine. We have no doubt that opportunities sufficient were presented them, as the parents seemed to have very little appreciation of danger from this source. Had greater vigilance been exercised, we doubt not that the discovery of the vice at the beginning would have resulted in the salvation of these two beautiful boys, who were sacrificed upon the altar of concupiscence. Two or three years after we first saw the cases, we heard from them, and though still alive, their condition was almost too horrible for description. Three or four similar cases have come to our knowledge.

Boys, are you guilty? Think of the fearful fate of these boys, once as joyous and healthy as you. When you are tempted to sin, think of the fearful picture of the effects of sin which they present. Have you ever

once dared to commit this awful sin? Stop, never dare to do the thing again. Take a solemn vow before God to be pure. Your fate may be as sad, your punishment as terrible. No one can tell what the results may be. Absolute purity is the only safe course.

A Prodigal Youth.—A. M., son of a gentleman of wealth in Ohio, early acquired the evil practice which has ruined so many bright lads. He was naturally an intelligent and prepossessing lad, and his father gave him as good an education as he could be induced to acquire, affording him most excellent opportunities for study and improvement. But the vile habit which had been acquired at an early age, speedily began its blighting influence. It destroyed his taste for study and culture. His mind dwelt upon low and vile subjects. He grew restless of home restraint and surroundings, and finally left the parental roof. Wandering from city to city, he grew rapidly worse, sinking into deeper depths of vice, until finally he became a base, besotted, wretched creature. Broken down in health by his sins, he could no longer enjoy even the most sensual pleasures; and with no taste for or capability of appreciating anything higher, he was most wretched indeed. The poor fellow then fell into the hands of quacks. His kind father sent him money in answer to his pitiful appeals for help, and he went anxiously from one to another of the wretched villains who promise relief to such sufferers, but only rob them of their money, and leave them worse than before.

At last, in total despair of everything else, the poor fellow came to us. He seemed quite broken-hearted and penitent for his sins, and really appeared desirous of leading a better life if he could only be made well

again. We faithfully pointed out to him the dreadful wickedness of his course, and the fact that a cure could only be effected by the most implicit obedience to all of nature's laws during his whole future life. Indeed, we were obliged to inform him of the sad fact that he could never be as well as before, that he must always suffer in consequence of his dreadful course of transgression. We gave him a most earnest exhortation to begin the work of reform where alone it could be effectual, by reforming his heart; and the tears which coursed down his sin-scarred cheeks seemed to indicate true penitence and a real desire to return to the paths of purity and peace.

Earnestly we labored for this young man, for months employing every means in our power to lift him from the slough of sin and vice upon the solid pathway of virtue and purity again. Gradually the hard lines on his face seemed to lessen in intensity. The traces of vice and crime seemed to be fading out by degrees. We began to entertain hopes of his ultimate recovery. But, alas! in an evil moment, through the influence of bad companions, he fell, and for some time we lost sight of him. A long time afterward we caught a glimpse of his bloated, sin-stained face, just as he was turning aside to avoid recognition. Where this poor human wreck is now leading his miserable existence we cannot say, but have no doubt he is haunting the dens of iniquity and sin in the cities, seeking to find a little momentary pleasure in the gratification of his appetites and passions. A hopeless wreck, with the lines of vice and crime drawn all over his tell-tale countenance, he dares not go home, for he fears to meet the reproachful glance of his mother and the scornful looks of his brothers and sisters.

We never saw a more thoroughly unhappy creature. He is fully conscious of his condition. He sees himself to be a wreck, in mind, in body, and knows that he is doomed to suffer still more in consequence of his vices. He has no hope for this world or the next. His mother gave him earnest, pious instructions, which he has never forgotten, though he has long tried to smother them. He now looks forward with terror to the fate which he well knows awaits all evil-doers, and shudders at the thought, but seems powerless to enter the only avenue which affords a chance of escape. He is so tormented with the pains and diseased conditions which he has brought upon himself by vice, that he often looks to self-destruction as a grateful means of escape; but then comes the awful foreboding of future punishment, and his hand is stayed. Ashamed to meet his friends, afraid to meet his Maker, he wanders about, an exile, an outcast, a hopeless wreck.

Young man, youth, have you taken the first step on this evil road? If so, take warning by the fate of this young man. At once "cease to do evil and learn to do well," before, like him, you lose the power to do right, before your will is paralyzed by sin so that when you desire to do right, to reform, your will and power to execute your good determinations fail to support your effort.

Barely Escaped.—L. R., of H——, a young man about twenty-five years of age, presented himself for treatment, a few years ago, for the consequences of self-abuse. Having been taught the habit by evil companions when just merging into manhood, he had indulged his passions without restraint for several years, not knowing the evil consequences until he began to suffer the effects of sin. Then, being warned by his

own experience, and by the fortunate thoughtfulness of an intelligent friend who surmised his condition and told him faithfully of the terrible results of the vile habit, he made a manly effort to reform, and claimed to have wholly broken the habit. To his great grief he found, however, that the years in which he had devoted himself to sin had wrought sad havoc in his system. In many ways his health was greatly deranged, and his once powerful constitution was broken down. The sexual organs themselves were greatly diseased, so much so that a serious and painful surgical operation was necessary. With shame and mortification he looked upon his past life, and saw what a hideous work of evil he had wrought. His vileness stood out before him in a vivid light, and he felt ashamed to meet the gaze of his fellows.

After performing the necessary surgical operation upon this poor unfortunate, we dealt faithfully with him, pointing out to him the way by which he might with proper effort in some degree redeem himself by a lifelong struggle against every form of impurity. He felt, and rightly, that the task was a most severe one. He well knew that the stamp of sin was on his countenance and in his mind. Thoughts long allowed to run upon vile subjects, forming filthy pictures in the imagination, are not easily brought back to the channel of purity and virtue. The mind that has learned to love to riot in impure dreams, does not readily acquire a love for the opposite. But he determined to make a brave and earnest effort, and we have every reason to believe that he has, in a measure at least, succeeded. But, if so, he has made a narrow escape. A few more years of sin, and his rescue would have been impossible; both mind and body would have

been sunk so deep in the mire of concupiscence that nothing but Almighty power could have saved him from utter destruction.

Thousands of boys and young men are to-day standing on the slippery brink of that awful precipice from which but very few are snatched away. Soon they will plunge headlong over into the abyss of debasement and corruption, from which they will never escape. Oh, that we had the power to reach each one of these unfortunate youths before it is too late, and to utter in their ears such warnings, to portray before them such pictures of the sure results of a course of sin, that they might be turned back to the paths of chastity and virtue before they have become such mental, moral, and physical wrecks as we every day encounter in the walks of life. But not one in a thousand can be reached having gone so far in sin. When they have ventured once, they can rarely be checked in their downward course until great harm has been wrought which will require the work of years to undo. The young man we have referred to made indeed a narrow escape, but no one can safely run such a risk. Even he must suffer all his life the consequences of a few years of sin.

A Lost Soul.—M. M., of ——, was the son of a mechanic in humble circumstances. He was an only child, and his parents spared no effort in their power to insure his becoming a good and useful man. Good school advantages were given him, and at a proper age he was taught a trade. He succeeded fairly, and their hopes of his becoming all that they could desire were great, when he suddenly began to manifest peculiar symptoms. He had attended a religious revival, and seemed much affected, professing religion and becoming a member of the church. To the exercises of

his mind on the subject of religion his friends attributed his peculiar actions, which soon became so strange as to excite grave fears that his mind was seriously affected. At times he was wild, showing such unmistakable evidences of insanity that even his poor mother, who was loth to believe the sad truth, was forced to admit that he was deranged.

After a few months a change came over him, which encouraged his friends to think that he was recovering. He became quiet and tractable, never manifesting the furious symptoms before observed. But the deception was only temporary; for it was soon evident that the change was simply the result of the progress of the disease, and denoted a failure of the mental powers and the approach of imbecility. In this condition was the young man when he came under our care. We felt strongly impressed from our first examination of the case that it was one of sexual abuse; but we were assured by his friends in the most emphatic manner that such was an impossibility. It was claimed that the most scrupulous care had been bestowed upon him, and that he had been so closely watched that it was impossible that he should have been guilty of so gross a vice. His friends were disposed to attribute his sad condition to excessive exercise of mind upon religious subjects.

Not satisfied with this view of the case, we set a close watch upon him, and within a week his nurse reported that he had detected him in the act of self-pollution, when he confessed the truth, not being yet so utterly devoid of sense as to have lost his appreciation of the sinfulness of the act. When discovered, he exclaimed, "I know I have made myself a fool," which was the exact truth.

At this time the once bright and intelligent youth had become so obtuse and stupid that he appeared almost senseless. His face wore an idiotic expression, and was rarely lighted up by a look of intelligence. It was only by the greatest exertion that he could be made to understand or to respond when spoken to. In whatever position he was placed, whether lying, sitting, or standing, no matter how constrained or painful, he would remain for hours, staring vacantly, as fixed and immovable as a statue. His countenance was blank and expressionless, except at rare intervals. His lips were always parted, and the saliva ran from the corners of his mouth down upon his clothing. The calls of nature were responded to involuntarily, constantly soiling his clothing and bedding in a most disgusting manner, and requiring the constant attention of a nurse to keep him in anything like a wholesome condition.

We did what we could to relieve this poor victim of unhallowed lust, but soon became convinced that no human arm could save from utter ruin this self-destroyed soul. At our suggestion the young man was removed, to be placed in an institution devoted to the care of imbeciles and lunatics. The last we heard of the poor fellow he was still sinking into lower depths of physical and mental degradation,—a soul utterly lost and ruined.

How many thousands of young men who might have been useful members of society,—lawyers, clergymen, statesmen, scientists,—have thus sunk into the foul depths of the quagmire of vice, to rise no more forever! Oh, awful fate! The human eye never rests upon a sadder sight than a ruined soul, a mind shattered and debased by vice.

The Results of One Transgression.—The following case is a good illustration of the fact that a long course of transgression is not necessary to occasion the most serious results. A young man from an Eastern State, who visited us for treatment, was suffering from the usual consequences of self-abuse; but he asserted in the most emphatic manner that he had never committed the act of self-pollution but once in his life. He had, however, after that one vile act, allowed his mind to run upon vile thoughts, giving loose rein to his imagination, and in consequence he found himself as bad off, suffering with the very same disorders, as those who had practiced the vice for some time.

Not the slightest dallying with sin is safe. The maintenance of perfect purity and chastity of body and mind is the only right and safe course. By a few months' treatment the young man recovered his health in a great measure, and, marrying an estimable young lady, settled down happily in life. Many tears of remorse and repentance did he shed over that one sinful act, and bitterly did he reproach the evil companion who taught him to sin; but he was fortunate enough to escape without suffering the worst effects of the sin, and is now living a reformed and happy life.

A Hospital Case.—One of the most wretched creatures we ever saw among the many sufferers from sexual excesses which we have met, was a man about thirty years of age whom we found in the large Charity Hospital on Blackwell's Island, New York City. In consequence of long indulgence in the soul-and-body-destroying habit, he had brought upon himself, not only the most serious and painful disease of the sexual organs themselves, but disease of the bladder and other

adjacent organs. He was under severe and painful treatment for a long time without benefit, and finally a surgical operation was performed, but with the result of affording only partial relief.

An Old Offender.—Never were we more astonished than at the depth of depravity revealed to us by the confessions of a patient from a distant country who was upward of sixty years of age, and was yet a victim of the vile habit to which he had become addicted when a youth. The stamp of vice was on his face, and was not hidden by the lines made by advancing age. The sufferings which this ancient sinner endured daily in consequence of his long course of sin were sometimes fearful to behold; and yet he continued the habit in spite of all warnings, advice, and every influence which could be brought to bear upon him. So long had he transgressed, he had lost his sense of shame, and his appreciation of the vileness of sin, and it was impossible to reform him by any means which could be brought to bear upon him. He left us still a sufferer, though somewhat relieved, and we have every reason to believe, as vile a sinner as ever. Undoubtedly, before this time his worthless life is ended, and he has gone down into a sinner's grave, hoary with vice,—a terrible end.

The Sad End of a Young Victim.—C. L., a young man residing in a large Southern city, was the youngest son of parents who, though in moderate circumstances, appreciated the value of education, and were anxious to give their children every advantage possible. With this end in view, the young man was sent to college, where he did well for a time, being naturally studious and intelligent; but after a brief period he began to drop behind his classes. He seemed

moody and obtuse. He could not complete his tasks, even by the most severe application. It seemed impossible for him to apply himself. The power of concentration appeared to be lost. Soon he was seized with fits of gloominess from which he did not seem to have power to free himself. His strength began to fail to such a degree that he could hardly drag himself to his meals, and at last he was almost confined to his room. He became greatly emaciated. The failure of his mental powers seemed to keep pace with the wasting of his body, so that it was soon evident that he must abandon all hope of pursuing his studies, for some time at least.

His case being brought to our notice, we gave him every attention possible, and spared no effort to rescue him from his condition. We readily perceived the cause of his troubles, but for a long time he did not acknowledge the truth. At last he confessed that he had sinned for years in the manner suspected, and was suffering the consequences. A knowledge of his guilt weighed upon him, and haunted him day and night. He promised to reform; but if he did, it was too late, for the wasting disease which had fastened upon him continued. At his mother's request he returned to his home, and a few weeks later we received the awful intelligence that he had ended his miserable life by blowing out his brains with a pistol. Thus tragically ended the career of this young man who, with the advantages afforded him, might have become a useful member of society. In total despair of this life or the next, he rashly ended his probation, and with his own hand finished the work of destruction which he himself had begun. No words can tell the grief of his stricken mother; but fortunately, she was spared the knowl-

edge of the whole truth, else would her sorrow have been too great to bear.

From Bad to Worse.—C. E., a young man from the West, was sent to us by his father with the request that we do what we could to save him. His father's letter intimated that the son had been a source of grief to him, but he hoped that he had repented of his prodigal course, and was really determined to reform. Though scarcely more than twenty years of age, the young man's face wore an aspect of hardness, from familiarity with vice, that we have rarely seen. He was reduced to a mere skeleton by the vice of which he made no secret, and was so weak that he could scarcely walk a rod. It seemed as if every organ in his body was diseased, and that he had so squandered his vital resources that he had no power to rally from his wretched condition, even should he carry out the determination to reform which he announced. However, we gave him the best counsel and advice within our power, and placed him under treatment. After a few weeks it was evident that nature was still willing to respond to his endeavors to reform, by vigorous efforts to restore him to a condition of comparative health. Thus he was snatched, as it appeared, from the very jaws of death. Under these circumstances it would seem that the most hardened criminal would reform, at least for a season, and lead a life of rectitude; but so utterly depraved was this poor wretch that no sooner did he find that he was not liable to die immediately than he at once began again his career of sin. By long indulgence his moral sense had become apparently obliterated. He seemed to be utterly without the restraint imposed by conscience. In less than a month he was detected in the crime of theft, having

stolen a watch from a fellow-patient. Upon his arrest, stimulated by the hope of in some degree mitigating his punishment, he confessed to having been carrying on a series of petty thieving for weeks before he was finally detected, having scores of stolen articles in possession. The last time we saw the wretched fellow he was being led away in irons to prison. We have since heard that he continues in his downward career, having served out his time in prison, and will undoubtedly end his life in a felon's cell, unless he is shrewd enough to escape his just deserts. Having lost all desire to do right, to be noble, pure, and good, all efforts to reform and restore him to the path of rectitude were fruitless. It was only the fear of impending death that caused him to pause for a few days in his criminal course.

Young man, take warning by this sad case; enter not the pathway of vice. Once entered upon, it is not easily left. A youth who once gives himself up to sin, rarely escapes from going headlong to destruction.

An Indignant Father.—A case came to our knowledge through a gentleman who brought his daughter to us for treatment for the effects of self-abuse, of a father who adopted a summary method of curing his son of the evil practice. Having discovered that the lad was a victim of the vile habit, and having done all in his power by punishment, threats, and representations of its terrible effects, but without inducing him to reform, the father, in a fit of desperation, seized the sinful boy, and with his own hand performed upon him the operation of castration as he would have done upon a colt. The boy recovered from the operation, and was of course effectually cured of his vile habit. The remedy was efficient, though not justifiable. Even

a father has no right thus to mutilate his own son, though we must confess that the lad's chances for becoming a useful man are fully as good as they would have been had he continued his course of sin.

Disgusted with Life.—T. A. was a young man of promise, the son of ambitious parents, proud-spirited, and without respect for religion. While still quite young, he enlisted in the service of the Government, and after a time rose to the position of an officer in the U. S. army. Having in boyhood acquired the habit of self-abuse, he had stimulated his passions without restraint, and was readily led still farther astray by the evil companions by whom he was surrounded. He indulged his passions in every way and on every occasion when he found opportunity, and speedily began to feel the effects of his vices. Before he was fully aware of his condition, he found himself being literally devoured by one of the vilest of all diseases.

The malady made rapid advances, and speedily reduced him to a condition of almost absolute helplessness. He was obliged to obtain a furlough; but his vital forces were so nearly exhausted that he did not rally, even under skilful treatment; and when his furlough expired, he was still in the same pitiable condition. Getting it extended for a time, he by accident came under our care, and by the aid of very thorough treatment he was in a measure improved, though the progress of the disease was simply stayed. When apprised of his real condition, he exhibited much agitation, walking nervously about his room, and finally exclaimed that he was utterly disgusted with life anyway, and after a few weeks or months more of suffering he should blow his brains out, and end his misery. He had no fears of death, he said; and we presume

that he could not imagine it possible that there was any greater suffering in store for him than he already endured.

We pitied the poor fellow from the bottom of our heart. He had natural qualities which ought to have made him distinguished. He might have risen high in the world of usefulness. Now he was compelled to look back upon a short life of squandered opportunities, a pathway stained with vice, memories of vile debaucheries which had wasted his youth and broken his constitution. Wretched was he, indeed. Notwithstanding his vileness, he was not lost to shame; for his greatest fear was that his friends might ascertain the real cause of his sufferings, to conceal which he was obliged to resort to all sorts of subterfuges. As soon as he was able to travel, he left us, with little hope for this world and none for the next; and we have heard nothing of him since.

Scores of similar cases we might recount in detail, but we have not the space in this volume. These will suffice to give the young reader an idea of the terrible results of this awful vice which are suffered by its victims. We have not dared to portray in these pages one-half the misery and wretchedness which we have seen as the results of self-abuse and the vices to which it leads. The picture is too terrible for young eyes to behold. We most sincerely hope that none of our readers will ever have to suffer as we have seen boys and young men languish in misery as the result of their own transgression of the laws of chastity. We devote the remaining pages of this chapter to the consideration of some of the causes of the vice, the avenues that lead to the awful sin which we are considering, to the terrible consequences which attend it.

Bad Company.—The influence of evil companionship is one of the most powerful agents for evil against which those who love purity, and are seeking to elevate and benefit their fellowmen, have to contend. A bad boy can do more harm in a community than can be counteracted by all the clergymen, Sabbath-school teachers, tract-distributers, and other Christian workers combined. An evil boy is a pest compared with which the cholera, smallpox, and even the plague, are nothing. The damage which would be done by a terrific hurricane sweeping with destructive force through a thickly settled district is insignificant compared with the evil work which may be accomplished by one vicious lad.

No community is free from these vipers, these agents of the arch-fiend. Every school, no matter how select, contains a greater or less number of these young moral lepers. Often they pursue their work unsuspected by the good and pure, who do not dream of the vileness pent up in the young brains which have not yet learned the multiplication table, and have scarcely learned to read. We have known instances in which a boy seven or eight years of age has implanted the venom of vice in the hearts and minds of half a score of pure-minded lads within a few days of his first association with them. This vice spreads like wild-fire. It is more "catching" than the most contagious disease, and more tenacious, when once implanted, than the leprosy.

Boys are easily influenced either for right or wrong, but especially for the wrong; hence it is the duty of parents to select good companions for their children, and it is the duty of children to avoid bad company as they would avoid carrion or the most loathsome

object. A boy with a matchbox in a powder magazine would be in no greater danger than in the company of most of the lads who attend our public schools and play upon the streets. It is astonishing how early children, especially boys, will sometimes learn the hideous, shameless tricks of vice which yearly lead thousands down to everlasting death. Often, children begin their course of sin while yet cradled in their mother's arms, thus early taught by some vile nurse. Boys that fight and swear, that play upon the streets and disobey their parents, may be wisely shunned as unfit for associates. In many instances, however, boys whose conduct is in other respects wholly faultless, sometimes indulge in vice, ignorant of its real nature and consequences.

At the first intimation of evil on the part of a companion, a boy who is yet pure should flee away as from a deadly serpent or a voracious beast. Do not let the desire to gratify morbid curiosity deter you from fleeing at once from the source of contamination. Under such circumstances, do not hesitate a moment to escape from danger. If an evil word is spoken, or an indecent act of any sort indulged in by a companion, cut the acquaintance of such a boy at once. Never allow yourself to be alone with him for a moment. On no account be induced to associate with him. He will as surely soil and besmear with sin your moral garments as would contact with the most filthy object imaginable stain your outer garments.

It were better for a boy never to see or associate with a lad of his own age than to run any risk of being corrupted before he is old enough to appreciate the terrible enormity of sin, and the awful consequences of transgression. It should be recollected, also, that not only young boys, but vicious youths and young

men are frequently the instructors in vice. It is unsafe to trust any but those who are known to be pure.

Bad Language.—We have often been astonished at the facility with which children acquire the language of vice. Often we have been amazed to hear little boys scarcely out of their cradles, lisping the most horrible oaths and the vilest epithets. The streets and alleys in our large cities, and in smaller ones also, in a less degree, are nurseries of vice, in which are reared the criminals that fill our jails, prisons, workhouses, schoolships, and houses of correction. Many a lad begins his criminal education by learning the language of vice and sin. At first he simply imitates the evil utterances of others; but soon he learns the full significance of the obscene and filthy language which he hears and repeats, and then he rapidly progresses in the downward road.

A boy that indulges in the use of foul language, will not long be chaste in acts. A safe rule to be followed by those who wish to grow up pure and unsullied by sin, untainted by vice, is that those who use bad language are persons to be avoided. Keep away from them. Even those who are well fortified against vice, who have been faithfully warned of its consequences and fully appreciate its dangers, cannot be safely trusted to associate with vile talkers. The use of bad language by old and young is an evil of great degree. It is too often ignored; too little is said about it; far too often it is regarded as of little consequence; and persons who are really not bad at heart, thoughtlessly encourage the evil by listening to and laughing at obscene and ribald jokes, and impure language which ought to make a virtuous man blush with shame to hear.

Boys, if you want to be pure, if you wish to be loved by a pure mother, an innocent sister, and when you are grown to manhood to be worthy of the confidence of a pure, virtuous wife, keep your lips pure; never let a vile word or an indecent allusion pass them. Never, under any circumstances, give utterance to language that you would blush to have your mother overhear. If you find yourself in the company of persons whose language will not bear this test, escape as soon as possible, for you are in danger; your sense of what is right and proper in speech is being vitiated; you are being damaged in many ways.

Bad Books.—A bad book is as bad as an evil companion. In some respects it is even worse than a living teacher of vice, since it may cling to an individual at all times. It may follow him to the secrecy of his bed-chamber, and there poison his mind with the venom of evil. The influence of bad books in making bad boys and men is little appreciated. Few are aware how much evil seed is being sown among the young everywhere through the medium of vile books. It is not only the wretched volumes of obscenity, of which so many thousands have been seized and destroyed by Mr. Comstock, that are included under the head of bad books, and which corrupt the morals of the young, and lead them to enter the road to infamy; but the evil literature which is sold in “dime and nickel novels,” and which constitutes the principal part of the contents of such papers as the *Police Gazette*, the *Police News*, and a large proportion of the sensational story books which flood the land, and too many of which find their way into town and circulating libraries, and even Sunday-school libraries, which are rarely selected with

the care that should be exercised in the selection of reading-matter for the young.

Bad books often find their way even where evil companions would not intrude, and undoubtedly effect a work of evil almost as great as is wrought by bad associations.

Look out, boys, for the tempter in this guise. If a companion offers you a book of a suspicious character, take it home to your father, your mother, or some reliable older friend, for examination. If it is handed to you with an air of secrecy, or if a promise to keep it hidden from others is required, have nothing to do with it. You might better place a coal of fire or a live viper in your bosom, than to allow yourself to read such a book. The thoughts that are implanted in the mind in youth will stick there through life, in spite of all efforts to dislodge them. Hundreds of men who have been thus injured when young, but have by some providence escaped a life of vice and shame, look back with most intense regret to the early days of childhood, and earnestly wish that the pictures then made in the mind by bad books might be effaced. Evil impressions thus formed, often torture the mind during a whole lifetime. In the most inopportune moments they will intrude themselves. When the individual desires to place his mind undividedly upon sacred and elevated themes, even at the most solemn moments of life, these lewd pictures will sometimes intrude themselves in spite of his efforts to avoid them. It is an awful thing to allow the mind to be thus contaminated; and many a man would give the world, if he possessed it, to be free from the horrible incubus of a defiled imagination.

Vile Pictures.—For leading boys astray, obscene

and lascivious pictures are influences which are too important to be unnoticed. Evil men, agents of the arch-fiend, have adopted all sorts of devices for putting into the hands of the boys and youth of the rising generation pictures calculated to excite the passions, to lead to vice. Thousands of these vile pictures are in circulation throughout the country, in spite of the worthy efforts of such philanthropists as Mr. Anthony Comstock and his co-laborers. In almost every large school there are boys who have a supply of these infamous designs, and act as agents in scattering the evil contagion among all who come under their influence.

Under the guise of art, the genius of some of our finest artists is turned to pandering to this base desire for sensuous gratification. The pictures which hang in many of our art galleries, that are visited by old and young of both sexes, often number in the list views which, to those whose thoughts are not well trained to rigid chastity, are productive of evil. A plea may be made for these paintings in the name of art; but we see no necessity for the development of art in this particular direction, when nature presents so many and such varied scenes of loveliness in landscapes, flowers, beautiful birds, and graceful animals, to say nothing of the human form protected by sufficient covering to satisfy the demands of modesty.

Many of the papers and magazines sold at our news-stands, and eagerly sought after by young men and boys, are better suited for the parlors of a house of ill-repute than for the eyes of pure-minded youth. A news-dealer who will distribute such vile sheets, ought to be dealt with as an educator in vice and crime, an agent of evil, and a recruiting officer for hell and perdition.

Evil Thoughts.—No one can succeed long in keeping himself from vicious acts whose thoughts dwell upon unchaste subjects. Only those who are pure in heart will be pure and chaste in action. The mind must be educated to love and dwell upon pure subjects in early life, as by this means only can the foundation be laid for that purity of character which alone will insure purity of life. When the mind once becomes contaminated with evil thoughts, it requires the work of years of earnest effort to purge it from uncleanness. Vile thoughts leave scars which even time will not always efface. They soil and deprave the soul, as vile acts degrade the body. God knows them, if no human being does; and if harbored and cherished, they will tell against the character in the day of Judgment as surely as will evil words and deeds.

Influence of Other Bad Habits.—Evil practices of any sort which lower the moral tone of an individual, which lessen his appreciation of and love for right and purity and true nobility of soul, encourage the development of vice. A boy who loves purity, who has a keen sense of what is true and right, can never become a vicious man. Profanity, falsehood, and deception of every sort, have a tendency in the direction of vice.

The use of highly seasoned food, of rich sauces, spices and condiments, sweetmeats, and in fact all kinds of stimulating foods, has an undoubted influence upon the sexual nature of boys, stimulating those organs into too early activity, and occasioning temptations to sin which otherwise would not occur. The use of mustard, pepper, pepper-sauce, spices, rich gravies, and all similar kinds of food, should be carefully avoided by young persons. They are not wholesome

for either old or young; but for the young they are absolutely dangerous.

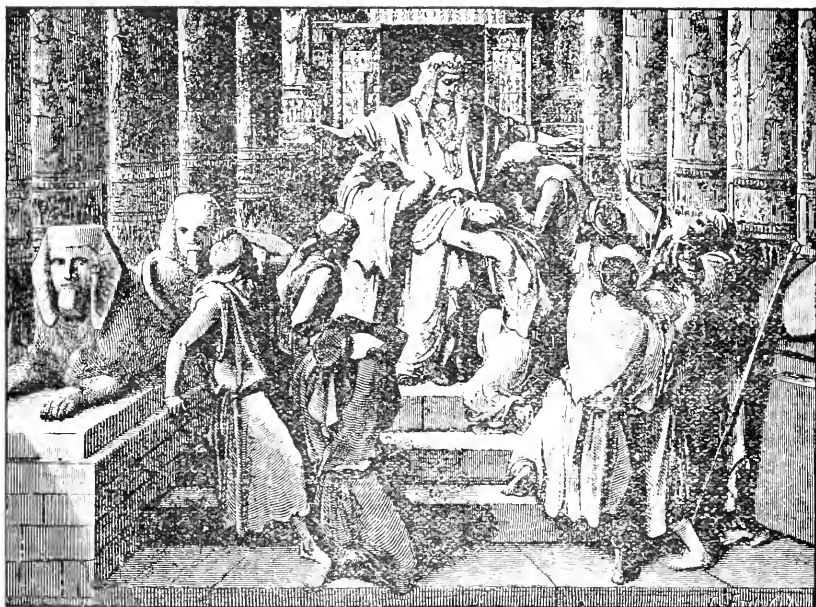
The use of beer, wine, hard cider, and tobacco, is especially damaging to boys on this account. These stimulants excite the passions, and produce a clamoring for sensual gratification which few boys or young men have the will-power or moral courage to resist. Tobacco is an especially detrimental agent. The early age at which boys now begin the use of tobacco may be one reason why the practice of secret vice is becoming so terribly common among boys and young men. We consider a boy or young man who uses tobacco liable to the commission of some vile act.

The use of tea and coffee by boys is also a practice which should be interdicted. All wise physicians forbid the use of these narcotic drinks, together with that of tobacco, and always with benefit to those who abstain. In France, the government made a law forbidding the use of tobacco by students in the public schools. In Germany, a still more stringent law was made, forbidding the use of tobacco by boys and young men. These laws were considered necessary on account of the serious injury which was evidently resulting from the use of the filthy weed to both the health and the morals of the young men of those countries. There is certainly an equal need for such a law in this country.

Closing Advice to Boys and Young Men.—One word more, and we must close this chapter, which we hope has been read with care by those for whom it is especially written. Let every boy who peruses these pages, remember that the facts here stated are true. Every word we have verified, and we have not written one-half that might be said upon this subject. Let the boy who is still pure, who has never defiled himself

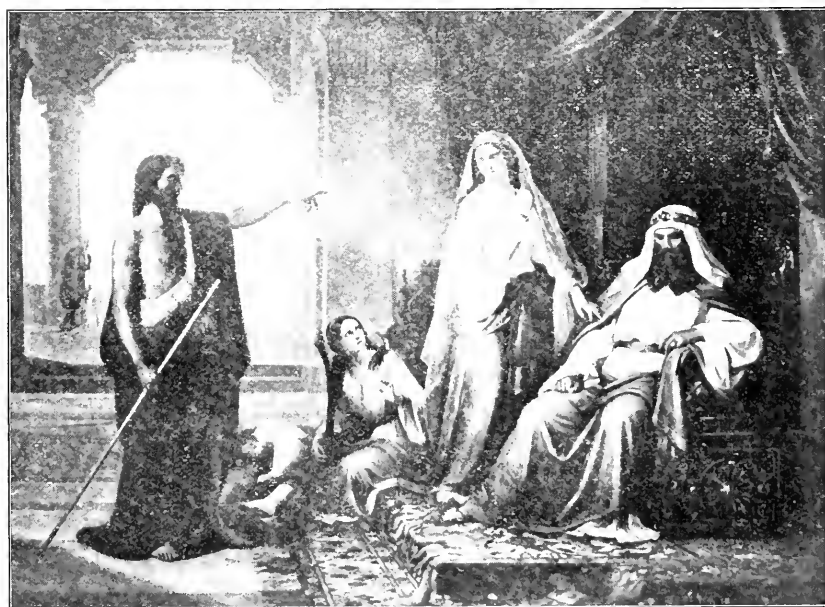


QUEEN LOUISE AND HER SONS



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with vice, firmly resolve that with the help of God he will maintain a pure and virtuous character. It is much easier to preserve purity than to get free from the taint of sin after having been once defiled. Let the boy who has already fallen into evil ways, who has been taught the vile practice, some of the consequences of which we have endeavored to describe, and who is already in the downward road,—let him resolve now to break the chain of sin, to reform at once, and to renounce his evil practice forever. The least hesitancy, the slightest dalliance with the demon vice, and the poor victim will be lost. Now, this moment, is the time to reform. Seek purity of mind and heart. Banish evil thoughts and shun evil companions; then with earnest prayer to God, wage a determined battle for purity and chastity until the victory is wholly won.

One of the greatest safeguards for a boy is implicit trust and confidence in his parents. Let him go to them with all his queries, instead of to some older boyish friend. If all boys would do this, an immense amount of evil would be prevented. When tempted to sin, think first of the vileness and wickedness of the act; think that God and pure angels behold every act, and even know every thought. Nothing is hid from their eyes. Think, then, of the awful results of this terrible sin, and fly from temptation as from a burning house. Send up a prayer to God to deliver you from temptation, and you will not fall. Every battle manfully and successfully fought, will add new strength to your resolution, and force to your character. Gaining such victories from day to day, you will grow up to be a pure, noble, useful man, the grandest work of God, and will live a happy, virtuous life yourself, and add to the happiness of those around you.

A CHAPTER FOR YOUNG MEN

AT about the age of fifteen years, the lad begins to assume the characteristics of the young man. The shoulders broaden, the voice deepens, a rapid growth in height and an increase in weight occurs, and slight symptoms of a beard make their appearance. The physiological changes which take place in the body at this time are of serious import, and exert a profound influence upon all parts of the body. The sexual functions, which have heretofore been wholly placid, provided the individual has been reared normally, now become more active, as indicated by the increased development of the organs. There is not, necessarily, however, any functional activity or excitement of the sexual system. If properly educated, and surrounded by the proper influences, a boy of this age will know nothing of the overwhelming excitements of the sexual functions; and for some years longer, these organs are by nature intended to remain passive, no natural demand for their use occurring until after the body has attained full maturity.

Unfortunately, however, the natural order of things is too frequently interfered with through the influence of evil companions, and the majority of boys become more or less contaminated morally long before this period. Fortunate, indeed, is the boy who at the attainment of puberty has acquired no form of sexual vice. The nature of these vices, and the manner in which they have been acquired, has been fully considered in

another chapter. The facts there stated, need not here be recapitulated.

It is important, however, to emphasize the fact that at this period the natural development of the sexual organs renders them peculiarly liable to excitement, and hence those who have up to this time been so fortunate as to escape the acquirement of any evil practice, are now liable to make the fatal discovery, which may be the means of causing their physical and moral ruin. Hence it is important for parents to set about their boys at this time the most careful safeguards, to warn them of the evils they are likely to encounter, and by good counsel to fortify them against the temptations they are sure to meet. It is also important for young men who are passing through this dangerous epoch of life to appreciate, as they are very apt not to do, the dangers which threaten them, and the importance of receiving and implicitly obeying the good counsel of parents and wise friends, which superior experience is capable of imparting.

Pure Manners.—One of the greatest safeguards against the dangers surrounding this critical period is that sensitiveness to grossness and vulgarity which is the result of the cultivation, from earliest childhood, of purity of manners. A boy who has been accustomed to indulge in vulgar, gross, obscene, or profane language is very likely to fall into evil practices; while a boy who has always cultivated gentlemanly manners, purity of speech, etc., will, on the other hand, be very unlikely to yield to the temptations which are thrown about him.

Irreligion.—The lad who scoffs at religion, who presumes to mock at piety, who has no interest in the Sabbath-school, and who attends church only when

compelled to do so, is in a fair way to become addicted to all sorts of iniquities. Probably there is not one in a hundred among boys of this class who does not become addicted to some form of vice. Religion is the best of all safeguards against these debasing vices, as well as all other forms of sin, and no young man can afford to begin his career in life without the aid to be afforded by genuine religion; and of all helps which can be obtained, religious influences, through the Sabbath-school, church, etc., are the greatest.

The growing disregard for religion among young men is one of the most characteristic features of the time, and this tendency accounts in part for the almost universal prevalence of sexual vices among young men of the present day.

Wrong Ideas about Women.—From what the author has learned through conversation with hundreds of young men who have been under his professional care, he is convinced that most of them entertain a very incorrect idea respecting young women. While there are undoubtedly many exceptions, it is certainly true that among the better class of refined and cultivated ladies, the sexual passions are comparatively dormant. The young man who allows his sexual passions to predominate his thoughts and to a large extent his conduct, is wholly in error in thinking the average woman is a creature after his own sort.

The author has met several instances in which he had every reason to believe that young women who had been led from the path of virtue had not been actuated by the desire for sexual gratification, but were led astray through a desire to please those who had won their affections.

There are, of course, plenty of young women whose

minds and manners have been corrupted by evil associations, and this class are undoubtedly responsible for the grossly incorrect estimate which most young men form of the character of young women; and these young women have undoubtedly led into vice many young men who otherwise might have escaped. Certainly, young men must not be charged with being the only emissaries of vice. A good many cases have come to the knowledge of the author in which "hired girls" of "loose morals" have led into evil ways boys just approaching manhood, who had previously been wholly ignorant of vice.

Sowing Wild Oats.—A vast deal of harm comes through the opinion prevalent in the world that a young man may "sow his wild oats" for a few months or a few years without doing himself very much harm, and without lessening his chances for success in life. The fact that hundreds of young men do run wild for awhile, going into all sorts of wickedness, frequenting the saloon and gambling table, and the lowest haunts of vice, and yet are received back into good society, if indeed they are not all the while recognized as "real good fellows," though unfortunately a little "fast," and placed on equal footing with those who have never gone astray, is no excuse for such a course. Indeed, there are plenty of women who express a decided preference for these fast young men, and consider a moderate degree of wickedness as quite an accomplishment, rather than a shame and a disgrace, as it should be to every intelligent and pure-minded woman.

The young man who imagines he can sow wild oats even for a brief period without suffering serious injury will find himself greatly mistaken if he makes the attempt. Let him consider before he begins this evil

course that a single act of sin may cost him a life of wretchedness, morally and physically. Every physician of experience has seen plenty of cases in which the first act of sexual indulgence was the means of the contraction of some horrible disease which resulted in the total blighting for life of all prospects for happiness.

The mental, moral, and physical scars accompanying a fast life, even though continued but a short time, are often ineradicable, and are carried by the patient through a life of bitter repentance.

Another fact for the benefit of those who think lightly on this subject: Steps taken in the direction of a sensual life are not easily retraced. The libertine, after he has once started in a career of vice, frequently forgets his resolutions to reform after a brief period of self-indulgence, and plunges deeper and deeper into vice, until all desire for reformation has been dissipated, or until the power to reform is at last totally paralyzed. No truer words were ever uttered than those of the wise man: "As for him that wanteth understanding, she saith to him: stolen waters are sweet, and bread eaten in secret is pleasant. But he knoweth not that the dead are there; and that her guests are in the depths of hell."

Getting Married.—The majority of young women expect, sooner or later, to marry. Many are in too much of a hurry to consummate the most important of all the acts of their lives, and rush into matrimony as though it were a matter of the most trifling consequence. Marriage is not regarded with that respect which the sacredness of this Heaven-born institution properly demands. The ease by which divorces can be obtained has undoubtedly contributed much to the hasty

manner in which this step is taken, and it is to be hoped that some means may be devised by which this growing evil may be checked.

We do not propose to offer a long homily on the subject of marriage, but have a few words of advice which may possibly be of service.

1. Be careful to prepare for marriage by making yourself worthy of a good, pure woman. Cultivate honesty, sincerity, and purity of thought and manners, and a generous variety of those graces and qualities which serve to make up a good and useful man.

2. Do not allow yourself to be captivated by fine clothes and a pretty face, or a piquant manner and an artful smile. All these qualities are superficial, and not correct guides to form an estimate of character. Seek real moral worth, real solidity of character, genuineness, sincerity, faithfulness, and simplicity. These are qualities which will form a firm, substantial basis for genuine affection.

3. Avoid a young woman devoted to fashion; who finds her chief enjoyment in balls, theaters, and fashionable dissipation. Young women of this class are in a state of ill health mentally and morally, and usually physically, and are utterly deficient in the qualities essential to the making of a good wife.

4. We may also suggest the importance of health, of physical and mental adaptation, of proper relation as regards age; but these are all points which will readily occur to the mind of any young man possessed of a fair share of good judgment and common sense, and need not be dwelt upon here.

The Young Husband.—After you have married a lady and pledged yourself in the most solemn manner to love, cherish, and protect her, see to it that you

never forget your marriage vow. Too many young men take a wife as they would buy a horse, or any other piece of property, and imagine that as soon as the ceremony is over, the young woman becomes their private property, and that they are at liberty to do what they please. Every husband should recollect that marriage gives him no proprietorship over his wife. Marriage is simply a contract between two individuals, who agree to work in harmony for each other's mutual advancement and interest. Each one solemnly pledges to protect the rights and regard the interests of the other.

Think of this, young man, and regulate your conduct accordingly. First of all, make up your mind that you will not make a beast of yourself. Too many young men behave themselves in such a beastly manner during the first week of their married life that they forfeit all right to the respect of their wives, and not infrequently a young woman who, previous to marriage, regarded her affianced as the embodiment of all that is good and pure and noble, has her mental and moral sensibilities so shocked by gross and brutal behavior as soon as the marriage ceremony has placed her in his power, that her love for him is totally exhausted, and often so effectively that it can never be resuscitated.

Bear this fact in mind, young man. Curb your passions. Control your propensities, and years hence you will look back upon your conduct with a satisfaction which will increase your self-respect, and as you reflect upon the matter, the wealth of a Rothschild would not purchase from you the satisfaction of thinking that you acted the part of a man, rather than that of a beast.

The brutal conduct of husbands, even on the first night of marriage, not infrequently entails upon their

wives a lifetime of suffering. Such individuals are quite unworthy the name of men. They are fit only to be classed with the rakes who violate defenseless virgins, and treat women as though they were made for no other purpose than the gratification of the beastly propensities of brutal men.

If you have a good wife, cherish her, behave yourself in such a way as to command her esteem and respect; and you may be sure she will be true to you, and the happiness she may bring to you will more than compensate for the pains you can take to cultivate her love and her respect. A great share of the infelicity of married people grows out of the fact that as soon as the honeymoon is past, and often immediately after the ceremony is over, they cease to act like men and women, and begin to conduct themselves like children. In consequence, they soon lose their respect for each other, and all sorts of disagreements and difficulties arise. Always conduct yourself in such a way that you will be sure not to lose the respect of your wife, and you will thereby gain in self-respect, and will also have the esteem and respect of your fellowmen.

A CHAPTER FOR OLD MEN

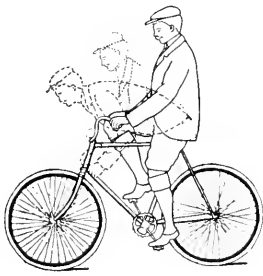
WHEN has a man reached that age at which he may be said to be an old man? There is a wonderful difference in individuals relative to the period at which symptoms of decline make their appearance, much being due to previous habits of life, as well as individual peculiarities and hereditary predisposition. It may be said, however, that the average man enters upon that portion of his life usually denominated as old age, at about the age of fifty years. At this period his physical powers begin to show evidence of decline. His reserve fund of vitality, which is considerably less than at an earlier age, may still be sufficient to enable his system to perform all the functions of life with regularity, but he is unable to endure hardships as in previous years, and suffers sensibly whenever any extreme demand is made upon his vitality.

He is a wise man who at this period of life, while his vital functions are still well performed, and the system subject to no special disease or debility, recognizes the fact that he is no longer young, and regulates himself accordingly. Such a man will lay down as his rule of life the greatest moderation in everything demanding vital expenditure, and will resolutely set his face against every form of unnecessary expenditure of vitality.

A Dangerous Waste.—As has been pointed out elsewhere in this work, the exercise of the sexual func-



“All time and money spent in training the body, pays a higher interest than any other investment.”—*Gladstone.*



Correct



Correct



Correct



Correct



Correct.

tion is accompanied by the most exhausting expenditure of nervous and vital energy of which the body is capable. Such expenditures are entirely unnecessary to the health of the body, and hence it is evident that at this period of life, when the vital forces should be in every way economized, such indulgences should be discontinued.

Physiology, on this account, prohibits the marriage of old men with young women and old women with young men. An old man who forms a union with a young girl scarce out of her teens, or even younger, can scarcely have any very elevated motive for his action, and he certainly exposes himself to the greatest risk of sudden death, while insuring his premature decay. A king once characterized such a course as "the pleasantest form of suicide." It is doubtless suicidal; but we suspect there are some phases of such an unnatural union which are not very enjoyable.

One reason of the great danger of such marriages to the old is the exhaustive effects of the sexual act. As previously noted, in some animals it causes immediate death. Dr. Acton makes the following pertinent remarks:

"So serious, indeed, is the paroxysm of the nervous system produced by the sexual spasm, that its immediate effect is not always unattended with danger, and men with weak hearts have died in the act. Every now and then we learn that men are found dead on the night of their wedding."

"However exceptional these cases are, they are warnings, and should serve to show that an act which *may* destroy the weak should not be tampered with, even by the strong."

"There are old men who marry young wives, and

who pay the penalty by becoming martyrs to paralysis, softening of the brain, and driveling idiocy.”

Dr. Gardner quotes the Abbe Maury as follows: “I hold as certain that after fifty years of age a man of sense ought to renounce the pleasures of love. Each time that he allows himself this gratification is *a pellet of earth thrown upon his coffin.*”

Dr. Gardner further says: “Alliances of this sort have taken place in every epoch of humanity, from the time of the patriarchs to the present day, alliances repugnant to nature, between men bordering on decrepitude and poor young girls, who are sacrificed by their parents for position, or who sell themselves for gold. There is in these monstrous alliances something which we know not how to brand sufficiently energetically, in considering the reciprocal relations of the pair thus wrongfully united, and the lot of children which may result from them. Let us admit, for an instant, that the marriage has been concluded with the full consent of the young girl, and that no external pressure has been exerted upon her will,—as is generally the rule,—it will none the less happen that reflection and experience will tardily bring regrets, and the sharper, as the evil will be without remedy; but if compulsion, or what is often the same thing, *persuasion*, had been employed to obtain the consent which the law demands, the result would have been more prompt and vehement. From this moment, the common life becomes odious to the unhappy victim, and *culpable hopes* will arise in her desolate heart, so heavy is the chain she carries. In fact, the love of the old man becomes ridiculous and horrid to her, and we cannot sufficiently sympathize with the unfortunate person whose duty (?) it is to submit to it. If we think of it an instant, we shall

perceive a repulsion such as is only inspired by the idea of incest. . . . So what do we oftenest observe? Either the woman violently breaks the cursed bands, or she resigns herself to them, and then seeks to fill up the void in her soul by adulterous amours. Such is the somber perspective of the sacrilegious unions which set at defiance the most respectable instincts, the most noble desires, and the most legitimate hopes. Such, too, are the terrible chastisements reserved for the thoughtlessness or foolish pride of these dissolute gray-beards, who prodigalize the last breath of their life in search of depraved voluptuousness."

The parents, the perpetrators of such an outrage against nature, are not the only sufferers. Look at the children which they bring into the world! Let Dr. Gardner speak again:

"Children, the issue of old men, are habitually marked by a serious and sad air spread over their countenances, which is manifestly very opposite to the infantile expression which so delights one in the little children of the same age engendered under other conditions. As they grow up, their features take on more and more the senile character, so much so that every one remarks it, and the world regards it as a natural thing. The old mothers pretend that it is an old head on young shoulders. They predict an early death to these children, and the event frequently justifies the horoscope. Our attention has for many years been fixed upon this point, and we can affirm that the greater part of the offspring of these connections are weak, torpid, lymphatic, if not scrofulous, and do not promise a long career."

In old age, the seminal fluid becomes greatly deteriorated. Even at the best, its component elements

could only represent decrepitude and infirmity, degeneration and senility. In view of such facts, says Dr. Acton:

“We are therefore forced to the conclusion that the children of old men have an inferior chance of life; and facts daily observed confirm our deductions. Look but at the progeny of such marriages; what is its value? As far as I have seen, it is the worst kind—spoilt childhood, feeble and precocious youth, extravagant manhood, early and premature death.”

Cicero on Old Age.—Cicero, in his essay on Old Age, makes the following remarks, bearing directly on this subject:

“Another charge against old age is that it deprives us of sensual gratifications. Happy effect, indeed, to be delivered from those snares which allure youth into some of the worst vices! ‘Reason,’ said Archytas, ‘is the noblest gift which God or nature has bestowed on man. Now nothing is so great an enemy to that divine endowment as the pleasures of sense; for neither temperance, nor any of the more exalted virtues, can find place in that breast which is under the dominion of voluptuous passions. Imagine yourself a man in the actual enjoyment of the highest gratifications mere animal nature is capable of receiving; there can be no doubt that during his continuance in that state, it would be utterly impossible for him to exert any one power of his rational faculties.’ The inference I draw from this is, that if the principles of reason and virtue have not proved sufficient to inspire us with proper contempt for mere sensual pleasures, we have cause to feel grateful to old age for at last weaning us from appetites it would ill become us to gratify; for voluptuous passions are bitter enemies to all the nobler faculties of the soul;

they hold no communion with the manly virtues, and they cast a mist before the eye of reason. The little relish which old age leaves for enjoyments merely sensual, instead of being a disparagement to that period of life, considerably enhances its value."

Says Parise, a distinguished French physician, in his work on old age:

"Love, at the decline of life, should take quite a moral character, freed from all its animal propensities. In the elderly man, it is paternal, conjugal, patriotic attachment, which, without being so energetic as the love experienced in youth, still warms old hearts and old age; and, believe me, these have their sweet privileges, as well as sometimes their bitter realities. These autumn roses are not without perfume; perhaps less intoxicating than that arising from first love, but presenting none of its dangers.

"Unfortunately, there are those who, either more infatuated, more helplessly drifting on the tide of passion, or more depraved, use all their endeavors to realize desires which it is no longer possible to satisfy, unless by a forced compliance of the organs. Not only has the energy, the superfluous vitality of early days, disappeared, but the organic power of reproduction is nearly obliterated. Is all over then? *Credat Judaeus, non ego*. It is now that Venus Impudica lavishes on her *used-up* votaries her appetizing stimulants to vice and debauchery. The imagination, polluted with impurities, seeks pleasure which reason and good sense repudiate. There are instances of debauched and shameless old age which, deficient in vital resources, strives to supply their place by fictitious excitement; a kind of brutish lasciviousness, that is ever the more cruelly punished by nature, from the fact that the immediately

ensuing debility is in direct proportion to the forced stimulation which has preceded it.

“Reduced to the pleasures of recollection, at once passionate and impotent, their sensuality may kill, but cannot satiate. There are such old libertines who are constantly seeking after the means of revivifying their withered, used-up organism, as if that were possible without imminent danger. The law of nature is without appeal. To submit to it is the result of good, sound judgment, and the reward is speedy. But submission is no invariable rule, and persons of prudence and chastity have but a faint conception of the devices to evade it, of the folly, caprice, luxury, immodesty, the monstrous lewdness and indescribable saturnalia of the senses which are the result. The surgeon alone knows from the confession of his patients, or surmises from his experience, to what a depth corruption will descend, and the evils which will follow, particularly in large capitals. One of the most common means of excitement employed by these senile Lovelaces is change, variety in the persons they pursue. What is more fatal to the *organism*? Extreme youth is sacrificed to these shameless old men. The full-blown charms of fine women no longer suffice; they address themselves to mere children, to the great scandal of our manners, and of all that these victims of debauchery hold dear and sacred. Nevertheless, let it be remarked, it is seldom, very seldom, that punishment comes *pede claudo*; old age, which disease changes every day into decrepitude—often sudden death, and death that lasts for years, a consequence of cruel infirmities—proves the justice of nature.”

A distinguished physician speaks upon this same subject as follows:

“When a young man, without any redeeming qualities, has run through a career of debauchery, when his adult age is but a new lease of similar associations, the necessity for additional excitement appears to goad him on. Fictitious desires increase, until it is impossible to say where shall be his acme of debauchery, or what devices may be invented by those in his pay ‘to minister to a mind diseased.’ This is particularly the case when such a pampered, ill-directed, unrestrained will is accompanied by unlimited wealth. For such a one, youth, innocence, and beauty soon cease to have attraction. Well has it been said of him, that ‘the beast has destroyed the man.’ Variety may for a time satisfy or stimulate his failing powers, but not for very long. Local stimulants are tried, and, after a short repetition, these also fail. As a last resource, unnatural excitement is brought to bear, and now public decency is forgotten, and we probably find that the first check to the lust of the opulent satyr is his finding himself the hero of some filthy police case,—then, maybe, a convict or a voluntary exile.

“As schoolboys, we may have been accustomed to laugh at the fables of the grotesque sylvan monsters of antiquity, ignorant of what hideous truths of human nature their half-animal forms were the symbols. Even after sad experience has enlarged our knowledge of the possibilities of vice, few of us, happily, have any idea of how completely these bestial forms of ancient art represent the condition of the satyrs who so notoriously affect the seclusion and the shade of the parks and gardens in modern cities. I question if a prison is the proper place for such debased individuals. As far as I have noticed their organization, I should say an uncontrolled giving way to the sexual passion has used

up a frame never very strong. A constant drain on the nervous power has produced an effect which renders its subject indifferent to consequences, provided his all-absorbing pursuit, namely, ministering to the excitement of his sexual passion, can be indulged in. Doubtless, in many instances, the brain has become affected, particularly when there exists a strong hereditary tendency to disease. This, together with deficiency of occupation, has caused many of these victims to their own feelings to make the pandering to their vile desires, and gratification of every sensuality their imagination can devise, the chief occupation of life. The medical man would hardly feel justified in certifying their fitness for a lunatic asylum, as in all other respects their conduct appears to be sane. Observing, as these persons do, all the other usual *convenances* of society, there is yet something about them which marks them as thralls of a debasing pursuit. It is an error, however, to suppose that they often suffer from venereal disease. Your old *debauches* know too well the parties they have to deal with, and every precaution is taken to avoid the consequences. They are living and suffering specters whom, as some clever writer has observed, 'Death seems to forget to strike, because he believes them already in the tomb.'

"It may, perhaps, be thought singular in my suggesting a moral based upon such vile practices as the above, but allusion to them may not be without benefit to those beginning life; and I would say, Let those persons take warning who with an active imagination once enter upon a career of vice, and dream that at a certain spot they can arrest their progress. It is an old tale, and often told, that, although the slope of criminality be easy and gradual, it is still *le premier*

pas qui coute; and he who launches himself on such a course will acquire, as he goes, velocity and force, *until at last he cannot be stayed.*”

From quite extensive observation, the author has no doubt that a large number of the inconveniences of advanced age, mental and physical, as well as numerous local difficulties, including bladder disorders and irritability of the prostate, etc., are frequently the result of sexual excesses, not only during middle life, but continued during advanced years. The following incident speaks for itself:

A Case in Point.—Some time ago a man of some prominence in the legal profession sought an interview with the author. An hour was fixed, and at the time appointed he presented himself at the office, and after a few preliminary remarks, made the following statement: “I have been a man of great physical vigor, and for many years have devoted myself with great earnestness to my profession, and with most satisfactory results. I have suffered very little from bodily infirmities of any sort, until a few years back. Some four or five years ago I began to experience discomfort in the region of what I supposed to be the neck of the bladder, requiring me to relieve the bladder very frequently, both during the daytime and in the night. I sought relief by various means, but unsuccessfully, and had come to the belief that I was suffering with some serious disease of the bladder or the prostate. Remedies addressed to these organs did no good. I obtained a copy of one of your works [an early edition of this work], and found out the cause of my troubles. I am now between fifty and sixty years of age. From mere force of habit, I had continued indulging myself sexually as in early life, never thinking of the possibility of

harm, just as I supposed most men did. While reading your work, I became convinced that this was the cause of my suffering, particularly as I at once recalled that my suffering was greatly aggravated by indulgences of this sort, and that when an absence from home for some time necessitated abstinence, most of the symptoms disappeared. I at once adopted the principle of total abstinence which you recommend to men of my age, and with most gratifying results. I had thought to employ your services as a physician, but find myself entirely well, and not in need of treatment.”

Other cases of the same sort might be recounted. Undoubtedly there are thousands of elderly men suffering in a similar way from the same cause.

A CHAPTER FOR GIRLS

WE have written this chapter especially for girls, and we sincerely hope that many will read it with an earnest desire to be benefited.

The subject of which we have to write is a delicate one, and one which we regret exceedingly needs to be written about. But experience as a physician has proved to us again and again that it is of the utmost importance that something be said, that words of warning should be addressed particularly to the girls and maidens just merging into womanhood, on a subject which vitally concerns not only their own future health and happiness, but the prosperity and destiny of the race. Probably no one can be better fitted to speak on this subject than the physician. A physician who has given careful attention to the health and the causes of ill-health of ladies, and who has had opportunities for observing the baneful influence exerted upon the bodies and minds of girls and young women by the evil practices of which it is our purpose here to speak, can better appreciate than can others the magnitude of the evil, and is better prepared to present the subject understandingly and authoritatively. Gladly would we shun the task long avoided, but which has been pressed upon us by the sense of the urgent need of which our professional experience has thoroughly convinced us. We cannot keep our lips closed when our eyes are witnesses to the fact that thousands of the fairest and best of our girls and maidens are being

beguiled into everlasting ruin by a soul-destroying vice which works unseen, and often so insidiously that its results are unperceived until the ruin is complete.

The nature of the subject necessitates that we should speak plainly, though delicately, and we shall endeavor to make our language comprehensible by any one old enough to be benefited by the perusal of this chapter. We desire that all who read these pages may receive lasting benefit by so doing. The subject is one upon which every girl ought to be informed, and to which she should give serious attention, so as to become intelligent concerning the evils and dangers to which girls are exposed from this source.

Girlhood.—Nothing is so suggestive of innocence and purity as the simple beauty of girlhood when seen in its natural freshness, though too seldom, nowadays, is it possible to find in our young girls the natural grace and healthy beauty which were common among the little maidens of a quarter of a century ago. The ruddy cheeks, bright eyes, and red lips, which are indicative of a high degree of healthy vigor, are not so often seen to-day as formerly among the small girls in our public schools, and passing to and fro upon the streets. The pale cheeks, languid eyes, and almost colorless lips which we more often see, indicate weakly constitutions and delicate health, and prophesy a short and suffering life to many. Various causes are at work to produce this unfortunate decline; and while we hope that in the larger share of cases, bad diet, improper clothing, confinement in poorly ventilated rooms with too little exercise, and similar causes, are the active agents, we are obliged to recognize the fact that there is in far too many cases another cause, the very mention of

which makes us blush with shame that its existence should be possible.

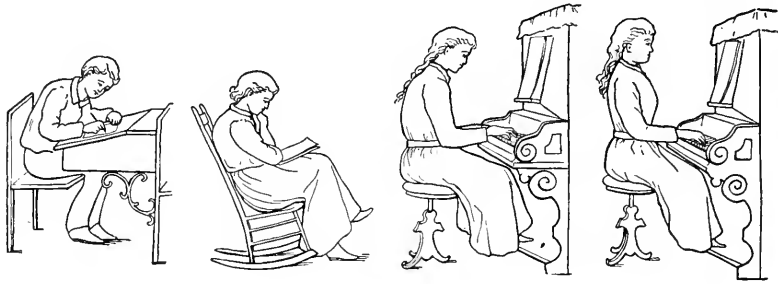
Real girls are like the opening buds of beautiful flowers. The beauty and fragrance of the full-blossomed rose scarcely exceeds the delicate loveliness of the swelling bud which shows between the sections of its bursting calyx the crimson petals tightly folded beneath. So the true girl possesses in her sphere as high a degree of attractive beauty as she can hope to attain in after years, though of a different character. But genuine girls are scarce. Really natural little girls are almost as scarce as real boys. Too many girls begin at a very early age to attempt to imitate the pride and vanity manifested by older girls and young ladies. It is by many supposed that to be ladylike should be the height of the ambition of girls as soon as they are old enough to be taught concerning propriety of behavior, which is understood to mean that they must appear as unnatural as possible in attempting to act like grown-up ladies. Many mothers who wish their daughters to be models of perfection, but whose ideas of perfect deportment are exceedingly superficial in character, dress up their little daughters in fine clothing, beautiful to look at, but very far from what is required for health and comfort, and then continually admonish the little ones that they must keep very quiet and "act like little ladies." Such a course is a most pernicious one. It fosters pride and vanity, and inculcates an entirely wrong idea of what is ladylike, what is true to nature as a girl. Such artificial training is damaging alike to mind and body; and it induces a condition of mind and of the physical system which is very conducive to the encouragement of dangerous tendencies.

How to Develop Beauty and Loveliness.— All little girls want to be beautiful. Girls in general care much more for their appearance than do boys. They have finer tastes, and greater love for whatever is lovely and beautiful. It is a natural desire, and should be encouraged. A pure, innocent, beautiful little girl is the most lovely of all God's creatures. All are not equally beautiful, however, and cannot be; but all may be beautiful to a degree that will render them attractive. Let all little girls who want to be pretty, handsome, or good-looking, give attention, and we will tell them how. Those who are homely should listen especially, for all may become good-looking, though all cannot become remarkably beautiful. First of all, it is necessary that the girl who wishes to be handsome, to be admired, should be good. She must learn to love what is right and true. She must be pure in mind and act. She must be simple in her manners, modest in her deportment, and kind in her ways.

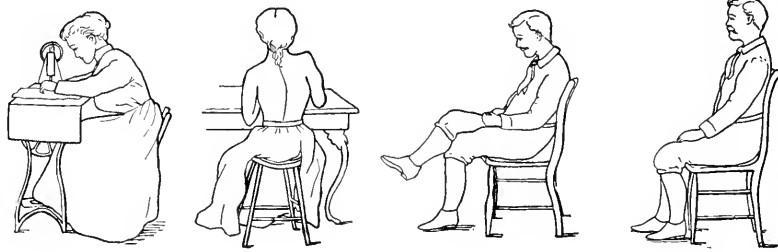
Second in importance, though scarcely so, is the necessity of health. No girl can long be beautiful without health; and no girl who enjoys perfect health can be really ugly in appearance. A healthy countenance is always attractive. Disease wastes the rounded features, bleaches out the roses from the cheeks and the vermilion from the lips. It destroys the luster of the eye and the elasticity of the step. Health is essential to beauty. In fact, if we consider goodness as a state of moral health, then health is the one great requisite of beauty.

Health is attained and preserved by the observance of those natural laws which the Creator has appointed for the government of our bodies. The structure of these bodies we may do well to study for a few moments.

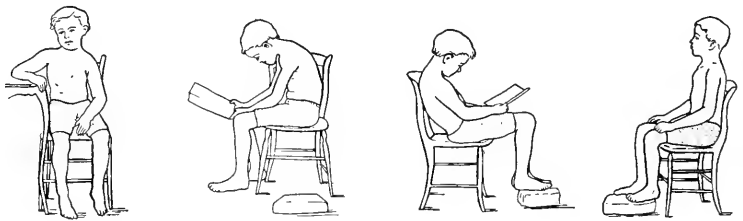




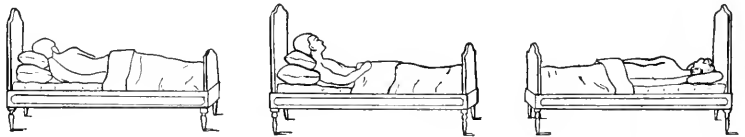
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The Human Form Divine.—Go with us to one of the large cities, and we will show you one of the most marvelous pieces of mechanism ever invented, a triumph of ingenuity, skill, and patient, persevering labor for many years. This wonderful device is a clock which will run more than one hundred years. It is so constructed that it indicates not only the time of day, the day of the month and year, itself making all the necessary changes for leap year, but shows the motions of the earth around the sun, together with the movements and positions of all the other planets, and many other marvelous things. When it strikes at the end of each hour, groups of figures go through a variety of curious movements most closely resembling the appearance and actions of human beings.

The maker of this remarkable clock well deserves the almost endless praise which he receives for his skill and patience; for his work is certainly wonderful; but the great clock, with its curious and complicated mechanism, is a coarse and bungling affair when compared with the human body. The clock doubtless contains thousands of delicate wheels and springs, and is constructed with all the skill imaginable; and yet the structure of the human body is infinitely more delicate. The clock has no intelligence; but a human being can hear, see, feel, taste, touch, and think. The clock does only what its maker designed to have it do, and can do nothing else. The human machine is a living mechanism; it can control its own movements, can do as it will, within certain limits. But more curious still, the human machine has the power to mend itself, so that when it needs repairs it is not necessary to send it to a shop for the purpose, but all that is required is to give nature an opportunity, and the system repairs itself.

A Wonderful Process.—We have not space here to mention all the wonderful structures of this human machine, briefly described in the chapter entitled, “The Body Temple;” but must notice particularly one of its most marvelous features, a provision by which other human beings, living machines like itself, are produced. All living creatures possess this power. A single potato placed in the ground becomes a dozen or more, by a process of multiplying. A little seed planted in the earth grows up to be a plant, produces flowers, and from the flowers come other seeds,—not one, but often a great many, sometimes hundreds from a single seed. Insects, fishes, birds, and all other animals, thus multiply. So do human beings, and in a similar manner. The organs by which this most marvelous process is carried on in plants and animals, including also human beings, are called sexual organs. Flowers are the sexual organs of plants.

Human Buds.—A curious animal which lives near the seashore, in shallow water, attached to a rock like a water plant, puts out little buds, which grow awhile and then drop off, and after a time become large individuals like the parent, each in turn producing buds like the one from which it grew. Human beings are formed by a similar process. Human buds are formed by an organ for the purpose possessed only by the female sex, and these, under proper circumstances, develop into infant human beings. The process, though so simply stated, is a marvelously complicated one, which cannot be fully explained here; indeed, it is one of the mysteries which is beyond the power of human wisdom fully to explain.

The production of these human buds is one of the most important and sacred duties of woman. It is

through this means that she becomes a mother, which is one of the grandest and noblest functions of womanhood. It is the motherly instinct that causes little girls to show such a fondness for dolls,—a perfectly natural feeling, which may be encouraged to a moderate degree without injury.

How Beauty Is Marred.—As already remarked, mental, moral, and physical health are the requisites for true beauty, and to secure these, obedience to all the laws of health is required. The most beautiful face is soon marred when disease begins its ravages in the body. The most beautiful character is as speedily spoiled by the touch of moral disease, or sin. The face is a mirror of the mind, the character; and a mind full of evil, impure thoughts, is certain to show itself in the face in spite of the rosy cheeks and dimples, ruby lips and bewitching smiles. The character is written on the face as plainly as the face can be pictured by an artist on canvas.

To be more explicit, the girl who disregards the laws of health, who eats bad food, eats at all hours or at unseasonable hours, sits up late at night, attends fashionable parties, and indulges in the usual means of dissipation there afforded, dancing, wine, rich suppers, etc., who carefully follows the fashions in her dress, lacing her waist to attain the fashionable degree of slenderness, wearing thin, narrow-toed gaiters with French heels, and insufficiently clothing the limbs in cold weather, and who in like manner neglects to comply with the requirements of health in other important particulars, may be certain that sooner or later, at no distant day, she will become as unattractive and homely as she can wish not to be. Girls and young ladies who eat largely of fat meat, rich cakes and pies, confection-

ery, ice-cream, and other dietetic abominations, cannot avoid becoming sallow and hollow-eyed. The cheeks, though plump and rosy, will certainly lose their freshness, and become hollow and thin. Chalk and rouge will not hide the defect; for everybody will discover the fraud, and will of course know the reason why it is practiced.

A Beauty-Destroying Vice.—But by far the worst enemy of beauty and health of body, mind, and soul, we have not yet mentioned. It is a sin concerning which we would gladly keep silence; but we cannot see so many of our most beautiful and promising girls and young ladies annually being ruined, often for this world and the next alike, without uttering the word of warning needed.

As before remarked, the function of maternity, which is the object of the sexual system in woman, when rightly exercised, is the most sacred and elevated office which a woman can perform for the world. The woman who is a true mother, has an opportunity of doing for the race more than all other human agencies combined. The mother's influence is the controlling influence in the world. The mother molds the character of her children. She can make of their plastic minds almost what she will if she is herself prepared for the work. On the other hand, misuse or abuse of the sexual organism is visited in girls and women, as in boys and men, with the most fearful penalties. Nothing will sooner deprive a girl or young lady of the maidenly grace and freshness with which nature blesses woman in her early years, than secret vice.

We have the greatest difficulty in making ourself believe that it is possible for beings, designed by nature to be pure and innocent, in all respects free from im-

purity of any sort, to become so depraved by sin as to be willing to devote themselves to so vile and filthy a practice. Yet the frequency with which cases have come under our observation, which clearly indicate the alarming prevalence of the practice, even among girls and young women who would naturally be least suspected, compels us to recognize the fact. The testimony of many eminent physicians whose opportunities for observation have been very extensive, shows that the evil is enormously greater than people generally are aware. Instructors of the youth, of large experience, assert the same. Nor is the evil greater in America than in some other countries. One writer declares that the vice is almost universal among the girls of Russia, which may be due to the low condition in which the women of that country are kept.

Terrible Effects of Secret Vice.—The awful effects of this sin against God and nature become speedily visible in those who are guilty of it. The experienced eye needs no confession on the part of the victim to read the whole story of sinful indulgence and consequent disease. The vice stamps its insignia upon the countenance; it shows itself in the walk, in the changed disposition, and the loss of healthy vigor. It is not only impossible for a victim of this sinful practice to hide from the all-seeing eye of God the vileness perpetrated in secret, but it is also useless to attempt to hide from human eyes the awful truth.

Headache, sideache, backache, pains in the chest, and wandering pains in various parts of the body,—these are but a few of the painful ailments from which girls who are guilty of this sin suffer. Tenderness of the spine, which causes great solicitude on the part of parents and physicians, who fear that serious dis-

ease is threatening the life of a loved daughter, not infrequently originates in this way. Much of the hysteria which renders wretched the lives of thousands of young ladies and the fond friends who are obliged to care for and attend them, arises from sexual transgression of the kind of which we are speaking. The blanched cheeks, hollow, expressionless eyes, and rough, pimply skins of many schoolgirls, are due to this cause alone. We do not mean by this to intimate that every girl who has pimples upon her face is guilty of secret vice; but this sin is undoubtedly a very frequent cause of the unpleasant eruption which so often appears upon the foreheads of both sexes. It would be very unjust, however, to charge a person with the sin unless on further evidence than that of an eruption on the face.

The inability to study, to apply the mind in any way except when stimulated by something of a very exciting character, is in a large proportion of cases due to the practice of which we are writing. Often enough the effects which are attributed to overstudy, are properly due to this debasing habit. We have little faith in the great outcry made in certain quarters about the damaging effects of study upon the health of young ladies. A far less worthy cause is in many cases the true one, to which is attributable the decline in health at a critical period when all the vital forces of the system are necessarily called into action to establish a new function.

Hundreds of girls break down in health just as they are entering womanhood. At from twelve to eighteen years of age the change naturally occurs which transforms the girl into a woman by the development of functions previously latent. This critical period is one through which every girl in health ought to pass with

scarcely any noticeable disturbance; and if, during the previous years of life, the laws of health were observed, seldom would there be any unusual degree of suffering at this time. Those who have been before this period addicted to the vile habit of which we are writing, will almost invariably show at this time evidences of the injury which has been wrought. The unnatural excitement of the organs before the period of puberty lays the foundation for lifelong disease. When that critical epoch arrives, the organs are found in a state of congestion often bordering on inflammation. The increased congestion which naturally occurs at this time in many cases, is sufficient to excite most serious disease.

Here is the beginning of a great many of the special diseases which are the bane and shame of the sex. Displacements of various sorts, congestions, neuralgia of the ovaries, leucorrhœa, or whites, and a great variety of kindred maladies, are almost certain to make their appearance at this period or soon after in those who have been guilty of self-abuse. If the evil influences already at work are augmented by tight-lacing, insufficient protection of the extremities, hanging heavy skirts upon the hips, and fashionable dissipation generally, the worst results are sure to follow, and the individual is elected to be a subject for the doctors during a good portion of her life.

A talented writer some time since contributed to a popular magazine an article entitled "The Little Health of Women," which contained many excellent hints respecting the influences at work to undermine the health and destroy the constitutions of American women; but he did not even hint at this potent cause, which we firmly believe is responsible for a far greater share

of the local disease and general poor health of girls, young women, and married ladies, than has been generally recognized. These are startling statements, but we are prepared to substantiate them.

Remote Effects.—Not all the effects of vice appear in girlhood, nor even during early life. Frequently it is not until the girl is grown up to be a wife and mother that she begins to appreciate fully the harm that has been wrought. At this time, when new demands are made upon the sexual organism, when its proper duties are to be performed, there is a sudden failure; new weaknesses and diseases make their appearance, new pains and sufferings are felt, which no woman will suffer who has not in some way seriously transgressed the laws of health. In not a few instances is discovered the fact that the individual is wholly unfitted for the duties of maternity. Often, indeed, maternity is impossible, the injury resulting from the sins committed being so great as to render the diseased organism incapable of the functions required.

In the great majority of cases, these peculiar difficulties, morbid conditions, and incapacities are attributed to overwork, overstudy, "taking cold," "getting the feet wet," or some other cause wholly inadequate to account for the diseased conditions present, although in many instances it may be true that some such unfortunate circumstance may be the means of precipitating the effects of previous sin upon organs already relaxed, debilitated, and thus prepared readily to take on disease.

Causes Which Lead Girls Astray.—The predisposing causes of sexual vice have already been dwelt upon so fully in this volume that we shall devote little

space to the subject here. We may, however, mention a few of the special causes which seem to be most active in leading to the formation of evil habits among girls.

Vicious Companions.—Girls are remarkably susceptible to influence by those of their own age. A vicious girl who makes herself agreeable to those with whom she associates, can exert more influence over many of her companions than can any number of older persons. Even a mother rarely has the influence over her daughter that is maintained by the girl whom she holds as her bosom friend. The close friendships which are formed between girls of the same age are often highly detrimental in character. Each makes a confidant of the other, and thus becomes estranged from the only one competent to give counsel and advice, and the one who of all others is worthy of a young girl's confidence,—her mother.

From these unfortunate alliances often arise most deplorable evils. Vicious companions not infrequently sow the seeds of evil habits far and wide, contaminating all who come within their influence.

Whom to Avoid.—A girl will always do well to avoid a companion who is vain, idle, silly, or frivolous. Girls who have these evil characteristics are very likely to have others also which are worse. A girl who is rude in her manners, careless in her habits, irreverent and disobedient to parents and teachers, is always an unsafe companion. No matter how pretty, witty, stylish, or aristocratic she may be, she should be shunned. Her influence will be withering, debasing, wherever felt. A girl may be gay and thoughtless without being vicious; but the chances are ten to one that she will become sinful unless she changes her ways.

Sentimental Books.—The majority of girls love to read, but, unfortunately, the kind of literature of which they are often fond is not of a character which will elevate, refine, or in any way benefit them. Story-books, romances, love tales, and religious novels constitute the chief part of the reading-matter which American young ladies greedily devour. We have known young ladies still in their teens who had read whole libraries of the most exciting novels.

The taste for novel-reading is like that for liquor or opium. It is never satiated. It grows with gratification. A confirmed novel-reader is almost as difficult to reform as a confirmed inebriate or opium-eater. The influence upon the mind is most damaging and pernicious. It not only destroys the love for solid, useful reading, but excites the emotions, and in many cases keeps the passions in a perfect fever of excitement. The confessions of young women who were to all appearance the most circumspect in every particular, and incapable of vile thoughts, have convinced us that this evil is more prevalent than many, even of those who are quite well informed, would be willing to admit.

By reading of this kind, many are led to resort to self-abuse for the gratification of passions which overstimulation has made almost uncontrollable. Some have thus been induced to sin who had never been injured by other influences, but discovered the fatal secret themselves. Mothers cannot be too careful of the character of the books which their daughters read. Every book, magazine, and paper should be carefully scrutinized, unless its character is already well known, before it is allowed to be read. In our opinion, some of the literature which passes as standard, and is often

found on parlor center-tables and in family and school libraries, such as Chaucer's poems and other writings of a kindred character, is unfit for perusal by inexperienced and unsophisticated young ladies. Some of this literature is actually too vile for any one to read, and if written to-day by any poet of note, would cause his works to be committed to the stove and rag-bag in spite of his reputation.

Various Causes.—Bad diet, the use of stimulating and exciting articles of food, late suppers, confectionery, and dainties,—all these have a very powerful influence in the wrong direction, by exciting functions which ought to be kept as nearly latent as possible. The use of tea and coffee by young ladies cannot be too strongly condemned. Improper dress, by causing local congestion, often predisposes to secret vice by occasioning local excitement. Probably a greater cause than any of those last mentioned is too great familiarity with the opposite sex. The silly letters which girls sometimes receive from the boys and young men of their acquaintance, and which they encourage by letters of a similar character, must be condemned in the most thorough manner. Upon receiving such a letter, a pure-minded girl will consider herself insulted. The childish flirtations in which boys and girls sometimes indulge, often lead to evils of a most revolting character.

Modesty Woman's Safeguard.—True modesty and maidenly reserve are the best guardians of virtue. The girl who is truly modest, who encourages and allows no improper advances, need have no fear of annoyance from this source. She is equally safe from temptation to sin which may come to her in secret, when no human eye can behold. Maidenly modesty is one

of the best qualities which any young lady can possess. A young woman who lacks modesty, who manifests boldness of manner and carelessness in deportment, is not only liable to have her virtue assailed by designing and unscrupulous men, but is herself likely to fall before the temptation to indulge in secret sin, which is certain to present itself in some way sooner or later.

This invaluable protection of modesty is speedily lost by the girl who abandons herself to secret vice. The chances are very great, also, that by degrees her respect and love for virtue and chastity will diminish until she is open to temptations to indulge in less secret sin; and thus she travels down the road of vice until she finds herself at last an inmate of a brothel or an outcast wanderer, rejected by friends, and lost to virtue, purity, and all that a true woman holds most dear.

A Few Sad Cases.—We do not believe it right to harrow the feelings of those who have sinned and suffered, rehearsing sad cases when no good can be accomplished by such accounts, but we deem it just that those who are not yet entangled in the meshes of vice should have an opportunity of knowing the actual results of sin, and profiting by the sad experience of others. It is for this purpose that we mention a few cases which have come under our observation, taking care to avoid what might lead to identification, as the facts we shall use were, many of them, received in strict confidence from those who were glad to unburden their hearts to some one, but had never dared to do so, even to their friends.

A Pitiful Case.—Several years ago we received a letter from a young woman describing her case as

that of an individual who had early become addicted to secret vice, and had continued the vile habit until that time, when she was about thirty-two years of age. In spite of the most solemn vows to reform, she still continued the habit, and had become reduced to such a miserable condition that she would almost rather die than live. She sent with her letter photographs representing herself at twenty, and also when she wrote, so that we might see the contrast. It was indeed appalling to see the changes sin had wrought. Her face, once fair and comely, had become actually haggard with vice. Purity, innocence, grace, and modesty were no longer visible there. The hard lines of sin had obliterated every trace of beauty, and produced a most repulsive countenance. Though greatly depraved and shattered by sin and consequent disease in body and mind, she still had some desire to be cured, if possible, and made a most pitiful appeal for help to escape from her loathsome condition. We gave her the best counsel we could under the circumstances, and did all in our power to rescue her from her living death; but whether in any degree successful we cannot tell, as we have never heard from the poor creature since.

We have often wished that we might show those two pictures to every girl who has been tempted to sin in this way, to all who have ever yielded to this awful vice. The terrible contrast would certainly produce an impression which no words can do. We sent them back to their wretched original, however, by her request, and so cannot show the actual pictures; but when any who read these lines are tempted thus to sin, we beg of them to think of these two pictures, and by forming a vivid image of them in the mind, drive away the disposition to do wrong.

A Mind Dethroned.—A young lady who had received every advantage which could be given her by indulgent parents, and who naturally possessed most excellent talents, being a fine musician, and naturally so bright and witty as to be the life of every company in which she moved, suddenly began to show strange symptoms of mental unsoundness. She would sometimes be seized with fits of violence, during which it was with great difficulty that she could be controlled. Several times she threatened the lives of her nurses, and even on one occasion attempted to execute her threat, the person's life being saved by mere accident. Everything was done for her that could be done, but the mania increased to such a degree of violence that she was sent to an asylum for the insane. Here she remained for months before she became sufficiently tractable to be taken to her home and cared for by friends. Too close application to study was the cause at first assigned for her mental disorder; but a careful investigation of the case revealed the fact that the terrible sin which has ruined the minds of so many promising young men and brilliant young women, was the cause that led to the sad result in this case also. The punishment of sin, especially of sexual sin, is indeed terrible; but the sin is a fearful one, and the penalty must be equal to the enormity of the crime. Not all young women who indulge thus will become insane, but any one who transgresses in this way *may* be thus punished. There is no safety but in absolute purity.

A Penitent Victim.—A young woman who had been ill for years, and whose physicians had sought in vain to cure her various ailments, until her parents almost despaired of her ever being anything but a helpless invalid, came to us for treatment, resolved upon

making a last effort for help. She had grown up in utter ignorance of the laws of health, and of the results of the vice of which we are writing; and having been early taught the sin, she had indulged it for a number of years with the result of producing a most terribly diseased condition of the sexual organs, which had baffled the skill of all the physicians who had attended her, none of whom had ever been made acquainted with the true cause of the difficulties.

When apprised of the real facts in the case, that she alone was responsible for the sad condition into which she had fallen, her eyes were opened to see the wickedness and vileness of her course. She bitterly bemoaned her past life, and heartily repented of her sins. Of the sincerity of her repentance she gave evidence in the earnest efforts which she put forth to help herself. She spared no pains to do well all required on her part, and was soon rewarded by feeling that her diseases were being removed, and health was returning. Still she was constantly reminded of her former sins. When the will was off its guard during sleep, the mind, long indulged in sin, would revert to the old channels, and riot in vileness. Unchaste dreams often made her dread to sleep, as she awoke from these unconscious lapses enervated, weak, and prostrated as though she had actually transgressed. But though often thus almost disheartened, she continued the struggle against evil, and was finally rewarded by gaining a perfect victory over her mind, sleeping as well as waking, and recovering her health sufficiently to enable her to enjoy life, and make herself very useful.

Not a few similar cases have come under our observation; and it seems to us that the pain, anguish, and remorse suffered by these poor victims, ought to

be a warning to those who have never entered the sinful road. What a terrible thing it is for a pure and lovely being, designed by God to fulfill a high, holy, and sacred mission in the world, to become a victim to such a filthy vice! No girl of sense would in her right mind raise her hand to dash in pieces a beautiful vase, to destroy a lovely painting, or a beautiful piece of statuary. A girl who would do such a thing would be considered insane, and a fit subject for a mad-house. Yet is not the human body, a girl's own beautiful, symmetrical form, infinitely better, more valuable and more sacred, than any object produced by human art? There can be but one answer. How, then, is it possible for her thus to defile and destroy herself? Is it not a fearful thing, a terrible vice?

A Ruined Girl.—One of the most remarkable cases of disease resulting from self-abuse which ever came under our observation was that of a young lady from a distant Western State whose adopted parents, after consulting many different physicians for a peculiar disease of the breast, placed her under our care. We found her a good-looking young woman about seventeen years of age, rather pale, and considerably emaciated, very nervous and hysterical, and suffering with severe pain in the left breast, which was swollen to nearly double the natural size, hot, tense, pulsating, and extremely tender to the touch. Occasionally she would experience paroxysms in which she apparently suffered extremely, being sometimes semi-conscious, and scarcely breathing for hours. We suspected the cause of these peculiar manifestations at the outset, but every suggestion of the possibility of the suspected cause was met with a stout denial and a very deceptive pretense of innocent ignorance on the subject. All

treatment was unavailing to check the disease. Though sometimes the symptoms seemed to be controlled, a speedy relapse occurred, so that no progress toward a cure was made. Finally, our conviction that the first impression respecting the case was correct became so strong that we hesitated no longer to treat it as such. By most vigilant observation we detected evidences of the soul-corrupting vice which we considered unmistakable, and then the young woman who had pretended such profound ignorance of this sin, confessed to an extent of wickedness which was appalling. Every paroxysm was traced to an unusual excess of sinful indulgence. So hardened was she by her evil practices that she seemed to feel no remorse, and only promised to reform when threatened with exposure to her parents unless she immediately ceased the vile practice. In less than ten days the mysterious symptoms which had puzzled many physicians, disappeared altogether. The swollen, tender breast was no larger than the other, and was so entirely restored that she was able to strike it a full blow without pain.

So great was the depravity of this girl, however, that she had no notion of making a permanent reform. She even boasted of her wickedness to a companion, and announced her intention to continue the practice. We sent her home, and apprised her parents of the full facts in the case, for which we received their deepest gratitude, though their hearts were nearly broken with grief at the sad revelation made to them. Notwithstanding their most earnest efforts in her behalf, the wretched girl continued her downward career, and a year or two after, we learned that she had sunk to the very lowest depths of shame.

Once this wretched, disgraced creature was an ac-

tive, pure, innocent little girl. Her father lavished upon her numerous presents, and spent hundreds of dollars to obtain her recovery to health. Yet through this awful vice she was ruined utterly, and rendered so wholly perverse and bad that she had no desire to be better, no disposition to reform. God only knows what will be her sad end. May none who read these lines ever follow in her footsteps.

The Danger of Boarding-Schools.—Some years ago a young lady came under our medical care who had suffered for some time from a serious nervous difficulty which had baffled the skill of all the physicians who had treated her case, and which occasioned her a great amount of suffering, making it necessary that she should be confined to her bed most of the time, the disease being aggravated by exercise, and the patient having been much weakened by its long continuance.

All the remedies usually successful in such cases were employed with little or no effect, and we were feeling somewhat perplexed, when the young lady sent for us one day, and as we entered the room she burst into tears, and acknowledged that she had been addicted to the habit of self-abuse, and that she was still suffering from involuntary excitement during sleep. Having been placed in a boarding-school when quite young, she had there learned the vile habit, and had practiced it without knowing anything of the ill effects or really appreciating its sinfulness. When she learned, some years after, that the habit was a most pernicious vice, and of a character to bring destruction to both soul and body, she endeavored to free herself from its shackles; but she found herself too securely bound for escape. It seemed, indeed, an utter

impossibility. Her thoughts had long been allowed to run in sentimental channels, and now they would do so in spite of the most earnest efforts to the contrary, during her waking hours; and in sleep while the will power was not active, the imagination would run riot uncontrolled, leaving her, upon awaking, exhausted, enervated, and almost desperate with chagrin. Knowing that she was daily suffering for her transgressions, she was filled with remorse and regret, and would have given all to undo the past; but, alas! she could not, and could only suffer with patience until relief could be secured. Her love for sentimental literature occasioned another battle for her to fight; for she could scarcely resist the temptation daily offered her to while away some of the weary hours with such stories of love and sentiment as she had been accustomed to enjoy. But she fought the battle earnestly, and finally succeeded in conquering the evil tendencies of her mind, both while awake and when asleep; and from that time she began to make slow progress toward recovery. The last we saw of her she was doing well, and hoped in time to arrive at a very comfortable state of health.

A Desperate Case.—A little girl about ten years of age was brought to us by her father, who came with his daughter to have her broken of the vile habit of self-abuse into which she had fallen, having been taught it by a German servant girl. Having read an early copy of this work, the father had speedily detected the habit, and had adopted every measure that he could devise to break his child of the destructive vice which she had acquired, but in vain. After applying various other measures without success, it finally became necessary to resort to a surgical operation, by which it is hoped that she was permanently cured, as we have

heard nothing to the contrary since, and as the remedy seemed to be effectual. It was a severe remedy, and may seem a harsh one, but every other means utterly failed, and the father insisted upon the performance of the operation as a trial. This little girl, naturally truthful and honest, had, through the influence of this blighting vice, been made crafty and deceptive. She would tell the most astonishing falsehoods to free herself from the charge of guilt, or to avoid punishment. Her father felt so deeply upon the subject, and was so thoroughly awake to the consequences of the sin, that he declared he would take his daughter away into the wilderness, and leave her to die, if need be, rather than allow her to grow up to womanhood with this vile blight upon her, and run the risk of her contaminating with the same vice his other, younger children. He felt so deeply that the tears coursed down his cheeks as he talked, and we were most happy to be of service to him in aiding his daughter to overcome the fascinating vice. She seemed willing to try to help herself, but was unable to break the bonds of sin without the extraordinary measures adopted.

We might continue this rehearsal of cases to an almost indefinite length, but we must bring this chapter to a close. Those described are only a few examples of the many we are constantly meeting. None have been overdrawn; for the sake of delicacy, much has been omitted which the exposure of the whole truth would have required us to present. We sincerely hope that these examples may be a warning to those who have never marred their purity of character by an unchaste act. To those who may have sinned in this manner, let these words come with double force and meaning. Do you value life, health, beauty, honor,

virtue, purity? Then, for the sake of all these, abandon the evil practice at once. Do not hesitate for a moment to decide, and do not turn back after deciding to reform.

A Last Word.—Girls, as one who has only your best interests in view, and who would do you good, we beg of you to give heed to that which we have been presenting before you. It is of no frivolous character. It is one of the most important subjects to which your attention can be called. Only those who are utterly ignorant of the dangers which surround them in the world, or who are already hardened in sin, will treat this matter lightly or scornfully. If you are still pure, and possess a character unsoiled by sin, thank God that you have been preserved until now, and humbly petition him to enable you to remain as pure and unsullied as you now are. Cultivate all the heavenly graces. Make your mother your confidant in all your perplexities and trials. Go to her for information on all subjects upon which you find yourself ignorant. Let no foreign influence beguile away your confidence from her who is most worthy of your love and respect, and who is best prepared to instruct you on all subjects, no matter how delicate. Trust in God for help to resist evil under every guise. Flee from temptation under whatever form it may appear. Thus may you escape the suffering, the sorrow, and the remorse which are endured sooner or later by all who enter the road of sin, no matter how short a time they may travel therein.

To those who have already fallen, who have been led astray, either ignorantly or through weakness in yielding to temptation, we will say, Turn from your evil way at once. Misery, sorrow, anguish, and everlasting ruin stare you in the face. Perdition is before you. You need not think to escape the punishment that

others suffer, for there is no way of escape. The penalty will surely come. Make haste to return to the paths of purity before it is too late to mend the past. It may take years of pure and upright living to repair the evil already done; but do not hesitate to begin at once. With the help of God, resolve to become pure again. God can cleanse you from all unrighteousness. He can enable you to chase from your mind and heart every impure thought and unclean desire. Through his grace you can successfully battle with temptation, and redeem the black record of the past.

TO BOYS AND GIRLS

We have a few words to say to boys and girls together. You are to become the men and women of the next generation, when your fathers and mothers have retired from active life. Twenty years from to-day the world will be just what the present boys and girls shall make it. Boys who are chaste, honest, obedient, and industrious, will become noble and useful men, husbands, and fathers. Girls who are pure, innocent, and dutiful, will become honored and lovely women, wives, and mothers.

Boys and girls are placed in families together, and thus are evidently designed by nature to associate together, to obtain their education and preparation for life together. When secluded wholly from each other's society, both suffer a loss. But while this is true, it is also true that certain evils may and often do grow out of the early association of the two sexes, so serious in character that many wise and good men and women have felt that the sexes should be reared and educated

apart as much as possible. But these evils are the result of too intimate and improper associations of boys and girls. Associations of this sort must be most sedulously avoided. Boys and girls who are in school together must be extremely careful to avoid too close associations. On all occasions a modest reserve should be maintained in the deportment of the young of both sexes toward each other. Too early intimacies often lead to hasty marriages, before either party is prepared to enter into the married state, and before the judgment has been sufficiently developed to make either capable of selecting a suitable partner for life. These facts are usually learned when it is too late for the information to be of any value.

Parents and teachers are especially responsible for guarding these early associations, and giving timely warning when needed. The youth should always be ready to take advice on this subject, for with their inexperience, they cannot know their wants so well as do their elders. Nothing is more disgusting to persons of sound sense than youthful flirtations. Those who are so misguided as to encourage these indiscretions in young people do an immense amount of injury to the very ones whom they ought to be prepared to benefit by wise counsel. We have seen promising young people made wretched for life through the influence of one of these mischief-makers, being most unhappily mated, and repenting too late of a hasty marriage for which they were utterly unprepared.

Young persons often labor under the erroneous impression that in order to be agreeable they must talk "small talk;" this literally means, "silly twaddle," which disgusts everybody, and yet which all seek to imitate. Whenever the two sexes meet in society or

elsewhere, as at all other times, the conversation should be turned upon subjects of real interest, which admit of the exercise of sound sense and will be a means of culture. Such associations do not result in injury to any one, and may be the means of much profit; but nothing is more execrable than the frivolous, silly, often absolutely senseless observations which make up the great bulk of the conversation of young people in fashionable society.

A most ready means of disclosing the superficial character of the minds of a large share of the young persons who move in fashionable circles is to introduce some topic requiring depth of thought and sound judgment. Such a subject will usually produce either an instant lull in the conversation, or a display of ignorance which cannot fail to reveal the shallowness of the speaker's intellect. It is this superficial class of minds that most easily fall victims to a sickly sentimentalism, which readily leads to digressions from the pathway of rigid virtue.

A boy who has the elements of true manliness in him will carry a gentlemanly bearing wherever he goes. In all his deportment, and especially in his conduct toward the opposite sex, he will act the gentleman; and the boy whose gentility is genuine will manifest the same kind of deference toward his mother and sisters as toward other ladies and girls. So also the young lady who is a lady at heart will never allow herself to forget the rules of propriety, whether she is in the company of her father and brothers, or that of other gentlemen.

All the rules of etiquette are worth little compared with the one simple rule which is applicable to both sexes and all ages,—“Have the heart right, and then

act natural." One so governed will not go very far astray under any circumstances; but it is of the greatest importance that the heart be right. To make it such is, indeed, the great business of life.

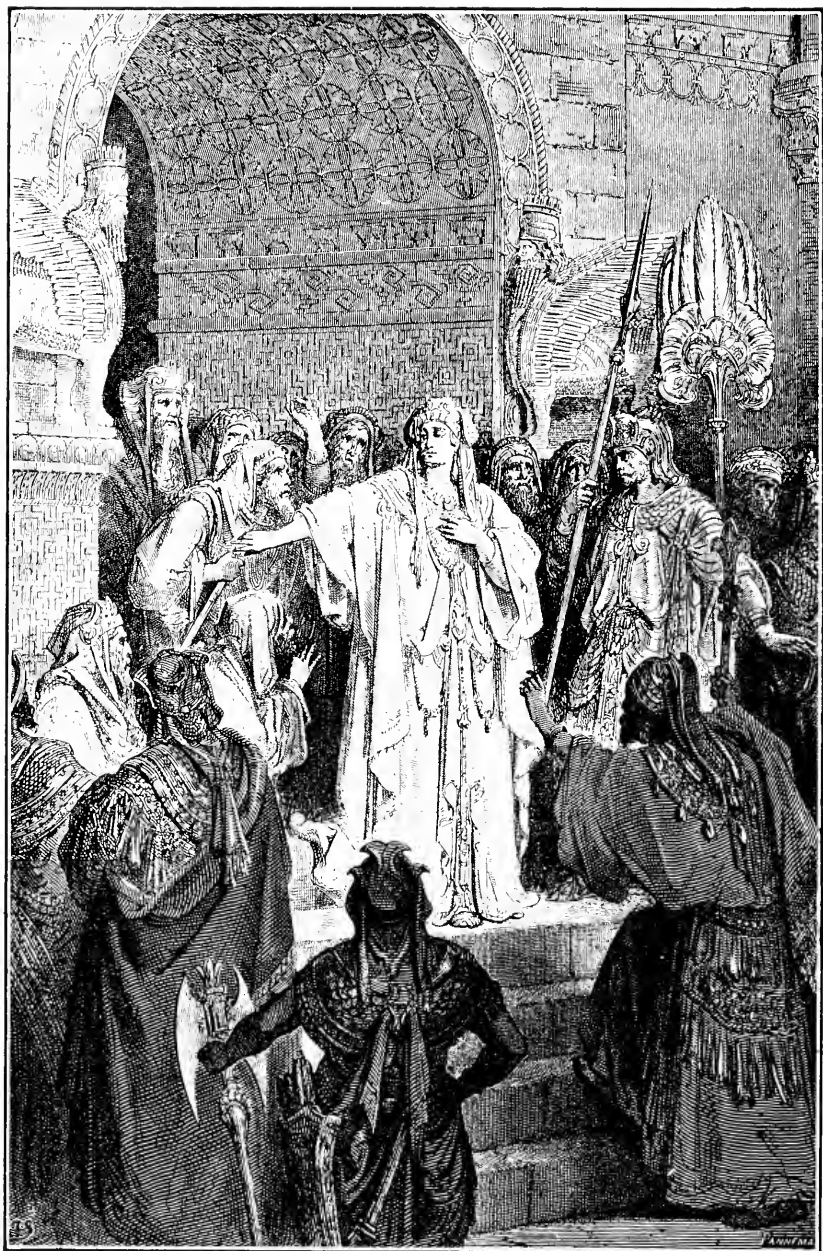
“BLESSED ARE THE PURE IN HEART.”

A CHAPTER FOR YOUNG WOMEN

THE young women of a generation become the mothers of the next, and it is of vital importance that the individuals to be born into the world come with vigorous constitutions, free from the sad entailments of hereditary disease, and prepared to grow up into vigorous, noble, useful men and women. In order that this shall be the case, it is necessary that our young women become intelligent respecting those functions of the body which are specially liable to become deranged, and which are to be instrumental in bringing other beings into life.

At the period of puberty, the girl passes, within a few months, from girlhood to young womanhood. New vital processes are set up within her body; new functions are assumed. It is the duty of every mother to explain to her daughter, in advance, the import of these new processes, and to give her such information as will enable her to so care for herself at this critical period as to prevent the great amount of unnecessary suffering which grows out of the neglect arising from ignorance upon this subject. The failure of mothers to do their duty in this respect, and, more than this, the lamentable ignorance of the mothers themselves, furnish ample reasons for the preparation of this special chapter in which to impart the information needed, and to make such suggestions as, if carefully followed, will save a vast amount of suffering and wretched uselessness, or years of invalidism.





Symptoms of Puberty.—As the period of puberty approaches, the whole system seems to take on an increased activity. The growth becomes more rapid; the hips begin to broaden, the abdomen to enlarge; the breasts increase in size; and by degrees the various changes in the functions of the body, noted elsewhere as occurring at puberty, make their appearance. The nervous system is also more or less affected. Girls at this age are apt to be somewhat irritable and nervous, and in many cases the first symptoms of a sentimental disposition make their appearance.

Hygiene of Puberty.—The too early appearance of puberty should be looked upon as a misfortune, as it predicts, in the great majority of cases, premature decay. Hence, if indications of the approach of puberty appear at too early an age, such measures should be adopted as will have the effect to delay the approaching change. The most important of these are abundant exercise in the open air, and plenty of muscular work, though not of an exhausting character, a simple diet of fruits, grains, and milk, with abstinence from flesh food, and all excesses which tend to exhaust the nervous system.

In case the indications are that puberty is delayed beyond the proper time for its appearance, special attention should be given to the girl's general health. It is probable that there is some disturbance of nutrition which prevents the appearance of the menstrual function at the proper period. Whatever the cause is, it should be carefully sought out and corrected. We have frequently succeeded in bringing about the desired results in these cases by a few weeks' treatment by electricity, massage, and systematic exercise in a gymnasium, with proper regulation of the diet.

These means are almost uniformly successful in such cases.

A Critical Period.—As the first occurrence of menstruation is a very critical period in the life of a female, and as each recurrence of the function renders her especially susceptible to morbid influences, and liable to serious derangements, a few hints respecting the proper care of an individual at these periods may be acceptable.

Important Hints.—1. Avoid taking cold. To do this, it is necessary to avoid exposure; not that a person must be constantly confined in a warm room, for such a course would be the surest way in which to increase the susceptibility to cold. Nothing will disturb the menstrual process more quickly than a sudden chilling of the body when in a state of perspiration, or, after confinement in a warm room, exposure to cold air without sufficient protection. A daily bath and daily exercise in the open air are the best known means of preventing colds.

2. Intense mental excitement, also severe physical labor, are to be sedulously avoided during this period. At the time of its first occurrence, special care should be observed in this direction. Intense study, a fit of anger, sudden grief, or even great merriment, will sometimes arrest the process prematurely. The feeling of *malaise* which usually accompanies the discharge, is by nature intended as a warning that rest and quiet are required; and the hint should be followed. Every endeavor should be made to keep the individual comfortable, calm, and cheerful. Feelings of apprehension arising from a continual watching of symptoms, are very depressing, and should be avoided by occupying the mind in some agreeable manner not demanding severe effort, either mental or physical.

There is no doubt that many young women have permanently injured their constitutions while at school by excessive mental taxation during the catamenial period, to which they were prompted by ambition to excel, or were compelled by the "cramming" system too generally pursued in our schools, and particularly in young ladies' seminaries. It is not to be supposed, however, that the moderate amount of sound study required by a correct system of teaching would be injurious to a healthy young woman at any time, and we have no doubt that a very large share of the injury which has been attributed to overstudy during the catamenia has been induced by other causes, such as improper dress, exposure to taking cold, keeping late hours, and improper diet.

If there is any class of persons deserving of pity, it is that large class of girls and young women who are in every large city employed as clerks, seamstresses, flower-makers, and in other taxing and confining occupations. In order to keep their situations, they are required to be on hand daily, being allowed no opportunity for rest at the menstrual period. In many cases, too, they are compelled to remain upon their feet all day behind a counter, or at a work table, even at periods when a recumbent position is actually demanded by nature. There should be less delicacy in relation to this subject on the part of young women, and more consideration on the part of employers. Here is a field for philanthropic effort which is well worthy the best efforts of any person of influence who will engage in it.

Custom of Indian Women.—The ease with which Indian women perform the parturient act is proverbial. They suffer scarcely at all from the pains of childbirth; and without doubt one reason of this is the preservation

of their sexual health by rest during the menstrual period. At those seasons they invariably absent themselves from the lodge, and enjoy absolute rest. We may readily suppose, from the nature of some of the Mosaic laws, that a custom somewhat similar prevailed among the ancient Hebrew women. If the hardy women of the forest are benefited by rest, certainly our more delicate civilized women may be thus benefited. All need a degree of rest; with some it should be absolute.

Criminal Carelessness.—The reckless manner in which some young women treat themselves at the menstrual period, is quite appalling to one who is acquainted with the painful and inveterate character of the evils which arise from such abuse. It is no uncommon thing for young ladies to attend balls, visit skating-rinks, and otherwise expose themselves to influences in every way the best calculated to do them the most harm at this particular period, observing not the slightest precaution. Such recklessness is really criminal; and the sad consequences of physical transgression are sure to follow. A young lady who allows herself to get wet or chilled, just prior to or during menstruation, runs the risk of imposing upon herself lifelong injury. Mothers should look carefully after their daughters at these periods, and impress upon them the importance of special care.

3. A third hint, which is applicable to both sexes and at all times, is the necessity of attending promptly to the demands of nature for the relief of bowels and bladder. Schoolgirls are often very negligent in this respect; and we have seen the most distressing cases of disease entirely attributable to this disregard of the promptings of nature. Obstinate constipation and chronic irritation of the bladder are common effects.

When constipation results, purgatives in the shape of pills, salts, or "pleasant purgative pellets," are resorted to with the certain effect of producing only temporary relief, and permanent damage.

To escape these evil consequences, (1) establish a regular habit of relieving the bowels daily at a certain hour; (2) discard laxative and cathartic drugs of every kind; (3) to aid in securing a regular movement of the bowels, make a liberal use of oatmeal, wheatmeal, fruit, and vegetables, avoiding fine-flour bread, sweetmeats, and condiments; (4) take daily exercise, as much as possible short of fatigue; if necessarily confined indoors, counteract the constipating influence of sedentary habits by kneading and percussing the bowels with the hands several minutes each day; (5) never resist the calls of nature a single moment, if possible to respond to them. In such cases, as in numerous others, "delay is dangerous." Ladies who desire a sweet breath—and what lady does not?—should remember that retained feces is one of the most frequent causes of foul breath. The foul odors which ought to pass out through the bowels, find their way into the blood, and escape at the lungs. A medical man whose sense of smell is delicate soon learns to know a constipated person by his breath. As one says, "What is more offensive than the breath of a costive child?"

A Doctor's Advice.—Boerhaave, a famous Dutch physician, left to his heirs an elegantly bound volume in which, he claimed, were written all the secrets of the science of physic. After his death, the wonderful book was opened, when it was found to contain only the following sentence:

"Keep the head cool, the feet warm, and the bowels open."

An old Scotch physician once gave the following advice to Sir Astley Cooper for the preservation of health:

“Keep in the fear of the Lord, and your bowels open.”

4. Perhaps nothing tends more directly to the production of menstrual derangements, as well as uterine diseases of every sort, than fashionable modes of dress. We have not space here to give the subject the attention it deserves. It is considered in the next chapter, and more fully in works devoted to the subject of dress exclusively. Some of the most glaring evils are,—

(1) Unequal distribution of clothing. The trunk, especially the abdomen and pelvis, is covered with numerous layers of clothing, an extra amount being caused by the overlapping of the upper and lower garments. Very frequently, the amount of clothing upon these, the most vital parts, is excessive. At the same time, the limbs are sometimes almost in a state of nudity. A single cotton garment, or at most one of thin flannel, is the only protection to the limbs beneath the skirts, which often serve no better purpose than to collect cold air and retain it in contact with the limbs. A thin stocking is the only protection for the ankles, and a thin shoe is the only additional covering afforded the feet. Under such circumstances, it is no wonder that a woman catches cold if she only steps out-of-doors on a chilly or damp day.

(2) Another glaring fault is the manner of suspending the skirts. Instead of being fastened to a waist, or suspended so as to give them support from the shoulders, they are hung upon the hips, being drawn tight at the waist to secure support. By this means the organs of the pelvis are pressed down out of place,

the uterus becomes congested, and painful menstrual derangements ensue.

(3) Tight-lacing, or compressing the waist with a corset, is a barbarous practice which produces the same results as the one last mentioned. Reform in all these particulars is an imperative necessity for every woman who desires to secure or retain sexual health.

It is of the greatest importance that careful attention should be given to the proper establishment of the menstrual function at the outset of a woman's life of sexual activity. The first two years will be quite likely to have a deciding influence respecting her health during her whole future life. If a girl can get through the first two years after puberty without acquiring any serious uterine or ovarian disease, she will stand a fair chance of enjoying a good degree of sexual health during the balance of her life. The foundation of a great share of the many thousands of cases of uterine disease is laid during this period.

At this early period the daughter is usually too young to appreciate the importance of observing slight deviations from the standard of health, even if she were sufficiently informed to be able to recognize them; hence it is a duty which no mother should neglect, to inquire into the exact frequency of the periods, the amount and character of the discharge, and other points necessary to ascertain whether or not there is any deviation from the natural condition of health. If there is pain, it is a certain evidence of something seriously wrong. If there is irregularity in any particular, it is a matter well deserving serious attention.

Other Perils.—After passing through the dangers incident to the establishment of the menstrual function, the young lady encounters dangers of a no less perilous

character. Having become a young lady, she must now, according to the custom of the world, begin to enter society. Here she meets all sorts of influences, some good and some bad. At least, this is true of society in most civilized communities. The young lady very soon discovers that if she is to take equal rank with her associates, she must adopt their manners and customs, to a large extent at least.

Unfortunately, the social customs in this country are strangely prepared for a powerful tendency in the direction of evil. These influences soon begin to tell upon the character of a young woman who has not been fortified against them with intelligent care and correct early training, and even these are not always proof against the contaminating influences with which they come in contact. Often enough has the writer met cases in which young girls of only fifteen or sixteen years have been permitted to enter the exciting whirlpool of social life, and imitating the example of their elders, have accepted the attentions of young men of whose history they knew nothing, and of whose characters they were in no way competent to judge.

Moonlight rides, long evening walks, associations at parties, picnics, etc., give sly privileges, at first apparently accidental, but gradually becoming more audacious, until finally, within a few short weeks or months, the cloak of modesty with which the young girl's maidenhood had been protected was torn in tatters, and she lacks but little, if anything, of having taken all the steps necessary to lead a woman outside the pale of virgin purity. Thousands of girls, thus early thrown into society, without experience in the world, with immature minds, warm-hearted and unsuspecting, are annually led down the road to ruin through the oppor-

tunities afforded by our lax social manners. The careful mother will restrain her daughters from exposure to any of the temptations of fashionable society until they have attained sufficient age and understanding, and until their principles have become so thoroughly established that they cannot be so easily led astray.

“Fast Girls.”—Some young women, like a certain class of young men, imagine that there is something particularly smart in being fast. A walk, a ride, or a waltz with some fast young man, perhaps a notorious rake, is an adventure which has a peculiar fascination. They delight in those escapades and adventures which startle old-fashioned people who still have some sense of propriety. What is the consequence? These young women soon find their moral sense so blunted, that, before they are aware of it, they are led to the commission of acts which, but a short time before, they would have regarded with the greatest horror. In an unguarded moment the fatal step is taken, and modesty, purity, and honor, all that a woman holds most sacred, are sacrificed, and they are rapidly swept away into the maelstrom of vice.

Improper Liberties.—The first step usually taken by the young woman on the downward road is the allowance of little liberties on the part of young men. Advances may be very slight at first, perhaps only a significant pressure of the hand, or the arm placed about the waist, or some similar impropriety. By degrees, increased liberties are taken, until the grossest breaches of immodesty are permitted. We are not overstating when we say that we have met many young women who have been led into wrong-doing, who have confessed that this was the beginning of their downward course.

Every young woman should resent the first appearance of attentions of the sort referred to. There is no other safe point at which the line may be drawn. Indeed, we are of the opinion that the freedom with which mothers allow strangers to handle their children, caressing and fondling them, has a decided influence to break down the barriers of modesty, and to pervert the instincts so as to prepare them for the evils to which we have called attention, in later years.

Getting a Husband.—The women who are willing to “live and die as old maids” are very rare exceptions among the sex. The average woman looks upon the spinster as having the most wretched and undesirable lot possible; and yet it is unquestionably true that the average “old maid” is vastly happier in her lot and more useful to the world than quite a large proportion of wives. Certainly there is a vast deal of useful work which can be better accomplished by those who can give it their undivided attention, than by those whose minds and energies are necessarily devoted to husband, children, and domestic cares. We doubt not that the world would be vastly better off if there were a much larger number of useful old maids and a less number of helpless, good-for-nothing, sickly wives. Nevertheless, the average woman expects to marry sometime, and it may be worth while to devote a little space to the consideration of what sort of a man a husband ought to be. In another chapter the characteristics of persons of both sexes who ought not to marry at all have been pointed out. A man possessing any of the defects named is not fit to be the husband of any woman worthy of a good husband. To the suggestions elsewhere made, we add the following:

1. Be sure that the man whom you accept as a hus-

band is worth marrying. There are a great many excellent men in the world, but probably by far the great majority of husbands are not worth marrying. Some years ago we were stopping for a few weeks at a fashionable boarding-house in Boston. As we were preparing to leave, the young woman in charge of the dining-room, having learned of our connection with a medical institution in the West, desired us to apply for a position in it for her. As we had been greatly pleased with her efficient management of the work she had in charge, we were strongly inclined to endeavor to make arrangements to employ her services, and offered her, by way of encouragement, some remark to that effect, to which she replied, "I suppose I ought to state to you that I have an incumbrance."

"What sort of an incumbrance?"

"Why, don't you understand? I have a husband."

We found that she was indeed incumbered by a good-for-nothing husband, which fact prevented our engaging her services; and undoubtedly the same incumbrance has been directly in the way of her getting on in the world ever since.

There are plenty of women in the world who are capable of great service to society in various callings, who are handicapped in the most effectual manner by incumbrances of the same sort. If you have an ambition to do anything in the world, or to be anything more than a plodding character in the tide of human life, see to it that the man whom you are to marry is one who is competent to aid you in the attainment of nobility and usefulness, instead of being an "incumbrance" and a hindrance.

2. Make yourself worthy of a good husband. Study the arts of housekeeping and home-making. Give more

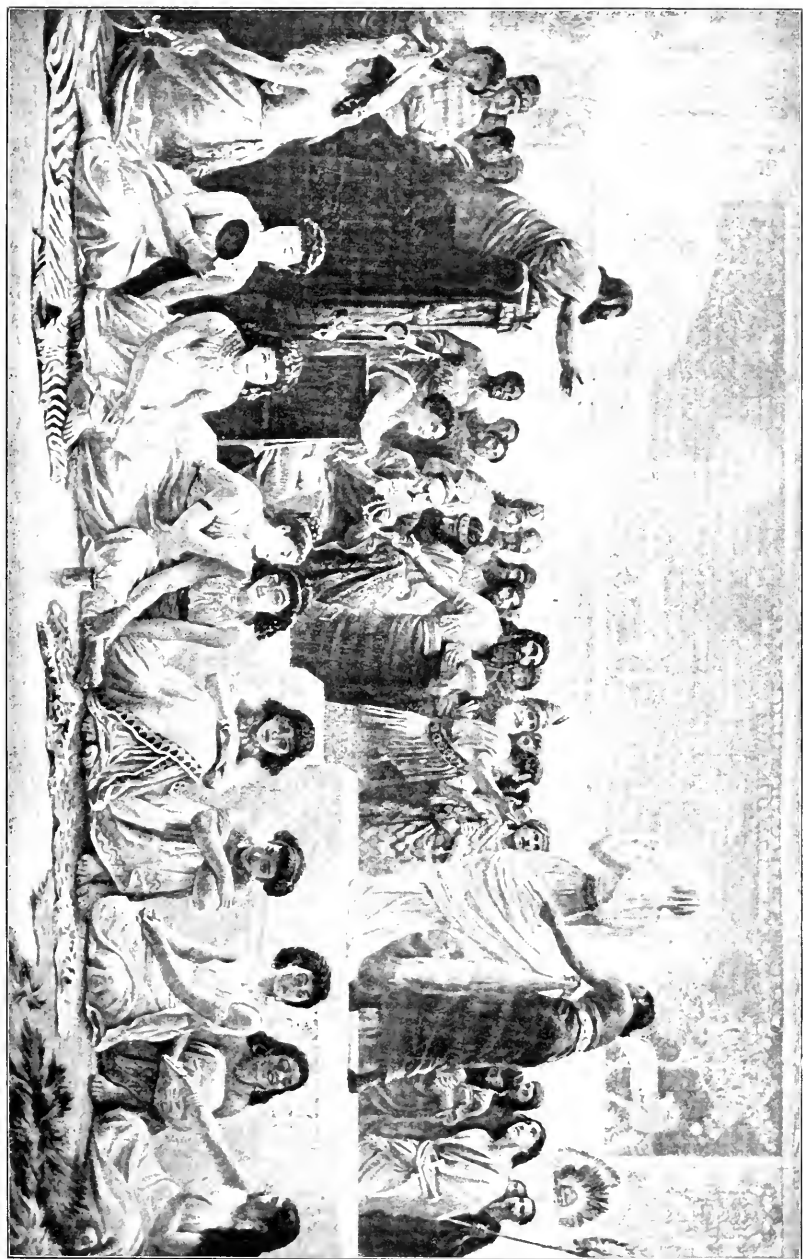
attention to the cultivation of estimable qualities of mind and heart and character, to self-discipline and health-culture, than to external adornment of the person. Form a high ideal of what a grand, noble, and lovable woman ought to be, and endeavor to become such.

3. Do not be in too great a hurry, and do not make your favors too cheap. Maintain a maidenly reserve, which is vastly more attractive to intelligent and sensible men than the bold and flashy manners of many young women of the present day, which say as distinctly as words could speak, something like the following:

“I am in the matrimonial market. Won't you buy? Speak quick! I am in a hurry to be sold as soon as possible.”

Such vain creatures are usually “sold,” to their infinite mortification and chagrin. They hope to catch a great prize in the shape of a wealthy or talented husband; whereas, in the majority of cases, they are picked up by some shallow-brained fop, who is skilled only in the arts of deception, in which he has trained himself to such perfection as to become an equal and suitable match for one of those vain and flashy daughters of fashion.

Again we say, Do not be in a hurry. Wait and work. Endeavor to become purer and better, and more thoroughly sincere and genuine in your purposes, and you may be sure that in due time, and at the right time, the one man who is capable of making you the best possible husband will find you. If you are overlooked, do not begin to bemoan your lot, but be glad and thankful that you are not the wife of an incumbrance, and be sure that in all probability, if you were not single, you would be in that unhappy predicament.





A CHAPTER FOR WIVES AND MOTHERS

YOU have found a husband, it is to be hoped, to your mind, and suited to you, and now the question is, What are you going to do with him or for him? In the first place, make him a pleasant, cheerful, tidy home. Take good care of him. Particularly, take good care of his stomach, by supplying him with pure, wholesome food. If you can keep his digestion good, you can rely upon his keeping his temper, unless he is an extraordinarily ill-tempered man. Be careful always to treat him well, and demand that he should treat you well. Treat him respectfully, and insist that he shall treat you respectfully in return. Respect his rights of conscience, and require him to respect yours. Humor him a little, especially if you are in the right, and he in the wrong. You can afford to be generous and liberal if you have the right on your side, in which case you will certainly come out ahead in the long run.

Never allow your undoubted rights to be trampled upon without protest. What are married women's rights? we are asked. Some women imagine that when married, all their rights become subject to their husband's wishes. This is a mistake. Both human and divine laws recognize the fact that a woman possesses individual rights of which she cannot be deprived, even by her husband. One of these is the right of conscience. No woman is ever called upon to sacrifice the demands of conscience to the wishes of her husband.

Another right which every wife possesses is the right to control her own person; that is, she is master of her own body, and is under no physical or moral obligation to submit to demands made upon her by her husband unless her own instincts lead in the same direction. Many other minor rights might be mentioned, but these are the most important, and perhaps the only ones concerning which any serious question is likely to arise.

The Young Mother.—One of the natural results of marriage is motherhood. This function has, however, in this perverted age, come to be looked upon as a burden, and by some, almost a disgrace. There probably never was a time like the present, when paternity is avoided by every conceivable device. Some of the numerous evils which grow out of the reluctance on the part of women to fulfill the most important function of womanhood, have been pointed out elsewhere in this work, and need not be recapitulated here.

Pregnancy.—The leading signs of pregnancy are as follows:

1. *Cessation of Menstruation.* This is generally the first evidence of conception, and is usually reckoned as the beginning of the period of gestation, or pregnancy. It sometimes happens, however, that menstruation continues during the whole period of pregnancy.

2. *Morning Sickness* is a symptom which usually appears early in the second month, sometimes, even in the first week. The patient experiences nausea just after rising in the morning, which is sometimes accompanied by vomiting.

3. *Change in the Breasts.* By the middle or end of the second month, the breasts begin to enlarge, becoming firmer to the touch, and also somewhat sensitive.

The nipple becomes darker in color, and the ring around it, technically termed the *areola*, also acquires a deeper hue, and extends its circle. Little tubercles make their appearance upon the surface. At this period, dark spots, closely resembling liver spots, make their appearance upon the face and hands. These differ from liver spots in that they usually disappear very speedily after childbirth.

4. *Increase in the Size of the Womb.* By the end of the second month, the womb acquires sufficient increase in size to cause it to settle down into the pelvis, in consequence of which the abdomen acquires an unnatural flatness characteristic of this condition.

5. *Beating of the Fetal Heart.* Between the third and fourth months, the fetus has attained sufficient growth to enable the experienced observer to hear the beating of the heart. This is the first sign of pregnancy. The beating of the fetal heart is to be distinguished from that of the mother by its frequency, which is usually about one hundred and thirty or one hundred and fifty beats per minute.

6. *Quickening.* This term is usually applied to the first feeling of the movements of the child by the mother. They may be felt any time by a quick tap on the abdomen.

7. Continued enlargement of the fetus takes place from its rapid growth at this time.

8. Near the termination of pregnancy, the uterus becomes so greatly enlarged that severe pressure is made upon the stomach, which occasions a *return of the nausea and vomiting.*

9. *Leucorrhœa.* During the last few weeks of pregnancy, the congested state of the blood vessels of the vagina occasions a leucorrhœal discharge.

10. *Settling of the Womb.* At the termination of the pregnancy, just prior to childbirth, the womb again settles down into the pelvis, causing a change in the shape of the abdomen.

The Curse Removed.—Most women look forward to the period of childbirth with great apprehension and anxiety, in consequence of the great suffering which must be endured, and the no small peril to life and health which are involved. Quite an extensive observation has convinced us, however, that a large share of the suffering and danger may be obviated by careful preparation for the event. The following suggestions are particularly important:

1. The diet should consist chiefly of fruits, grains, and milk. The practice of drinking one or two glasses of water an hour before each meal is an excellent measure of preventing disease of the kidneys. Tea and coffee should be discarded, as they cause a decided increase of the tendency to morning sickness, besides producing nervous irritability. Stimulants and condiments of all sorts should be scrupulously avoided. The avoidance of oatmeal and other grains which furnish a large amount of bone-making material, is a doctrine without scientific foundation, as we have elsewhere shown at some length.

2. An abundance of vigorous muscular exercise should be taken daily. All the muscles of the body should be exercised, particularly those of the abdomen. By these means some of the most troublesome complications of labor may be avoided, and the birth made easy. Among the leading causes of painful childbirth, are sedentary habits. The mother should take regular exercise, even up to the last day. Walking is an excellent form of exercise; and when this can be supplemented

by massage, and particularly by careful kneading of the abdominal muscles, very great advantage may be gained.

3. Tight-lacing, the suspending of heavy skirts from the waist, and other errors in dress, are so manifestly evil that we scarcely need take space to condemn them. Yet some women will even insist on wearing corsets during pregnancy, for the purpose of preserving their form. This is a practice so wicked and pernicious that in our opinion it ought to be prohibited by law.

4. Baths of various sorts are of immense advantage in securing easy childbirth. A general bath should be taken at least twice a week. A warm vaginal injection should be taken daily. The temperature of the water should be 95° to 100° . A little fine castile soap should be used to secure perfect cleanliness of the parts. By this means the troublesome leucorrhœal discharge, and the annoying itching which frequently attends it, may usually be wholly controlled, if not entirely prevented. A sitz bath taken during the early months once or twice a week, and during the last two or three months daily, or every other day, is very beneficial. The temperature of the bath should be from 90° to 94° , and should be continued twenty or thirty minutes. In taking the bath, great care should be exercised not to produce any shock to the patient by the sudden application of either very hot or very cold water.

A Hayti Mother.—The freedom from pain in childbirth enjoyed by barbarous nations is to the civilized woman a matter of wonder and amazement. The same immunity from suffering is enjoyed by negro women, and by those of various other nations. A friend of the writer, an old sea captain, recently related in substance the following incident:

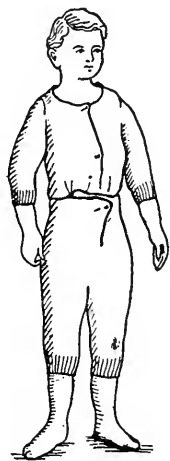
While living at Hayti a few years ago, as he was driving one morning, he passed his washerwoman, who with a huge basket of soiled clothes on her head, was walking two or three miles into the country to a little lake, which she used for a washtub in her laundry operations. On returning in the evening over the same route, he again passed the woman, returning with her basket filled with spotless linen, carrying a new-born babe in her arms. It was evident that she had not allowed the small incident of a childbirth to interfere with the regular business of the day.

We would not attempt to maintain that all women can bear children as easily as the Hayti washerwoman, even if most careful attention is given to all the rules of health. Among the most highly civilized nations, especially the Caucasian race, the neglect of physical culture has produced disproportionate development between the head and other portions of the body, which is unquestionably one cause of suffering at childbirth, and cannot be wholly obviated by any attention to general or special hygiene; but that the sufferings of childbirth are greatly mitigated, and in many cases almost wholly prevented, we are positively assured by experience with scores of women who have faithfully carried out the simple suggestions made in this and other works in which we have presented this important subject.

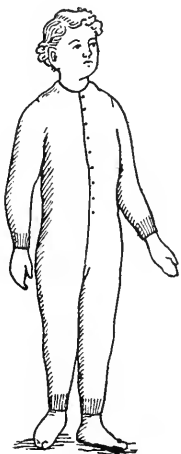
Ante-Natal Influences.—There can be no doubt that many circumstances which are entirely within the power of the parents to supply, exert a powerful influence in molding both the mental and the physical characteristics of offspring. The stock-raiser, by carefully availing himself of the controlling power given him by a knowledge of this fact, is enabled to produce almost any required quality in his young animals.



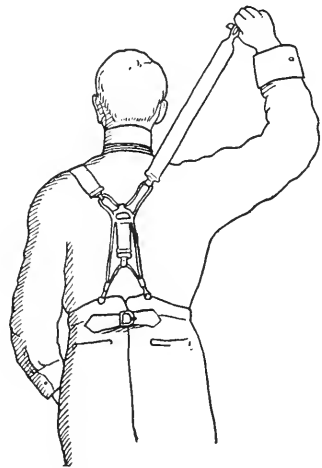
*Common Sense Methods
 (From "Healthful Dress System" Pamphlet)*



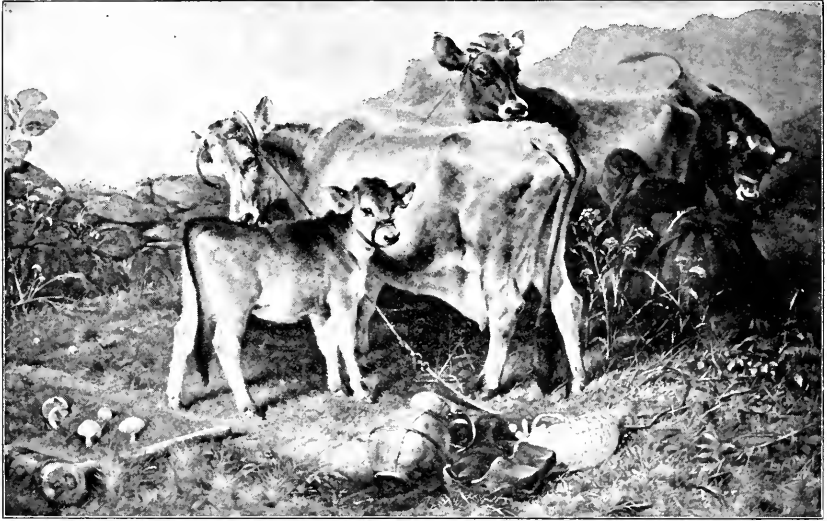
*Exposed Neck
 Wrists and Ankles*



*Protected Neck
 Wrists and Ankles*



Better than a Belt



490-a

CAREFUL BREEDING



490-b

NEGLECTED PROGENY

Pigeon fanciers show wonderful skill in thus producing most curious modifications in birds. The laws of heredity and development are carefully studied and applied in the production of superior horses, cows, dogs, and pigeons; but an application of the same principles to the improvement of the human race is rarely thought of. Human beings are generated in as haphazard and reckless a manner as weeds are sown by the wind. No account is taken of the possible influence which may be exerted upon the future destiny of the new being by the physical or mental condition of parents at the moment when the germ of life is planted, or by the mental and physical conditions and surroundings of the mother while the young life is developing. Indeed, the assertion of a modern writer that the poor of our great cities virtually "spawn" children, with as little thought of influences and consequences as the fish that sow their eggs broadcast upon the waters, is not so great an exaggeration as it might at first sight appear to be.

Law Universal.—Men and women are constantly prone to forget that the domain of law is universal. Nothing comes by chance. The revolutions of the planets, studied by the aid of the telescope; and the gyrations of the atoms, seen only by the eye of science, are alike examples of the controlling influence of law. Notwithstanding this sad ignorance and the disregard of this vitally important subject, the effects of law are only too clearly manifested in the crowds of wretched human beings with which the world is thronged. An old writer sagely remarks, "It is the greatest part of human felicity to be well born;" nevertheless, it is the sad misfortune of by far the greater portion of humanity to be deprived of this inestimable "felicity."

A Source of Crime.—Who can tell how many of the liars, thieves, drunkards, murderers, and prostitutes of our day are less responsible for their crimes against themselves, against society, and against Heaven, than those who were instrumental in bringing them into the world? Almost every village has its boy “who was born drunk,” a staggering, simpering, idiotic representative of a drunken father, beastly intoxicated at the very moment when he should have been most sober.

An interesting study of this question has been made public by Mr. Dugdale, a member of the Prison Association of the State of New York. When visiting the various jails of the State, he found in one, six criminals, between all of whom there was a family relation. Upon further inquiry, he found that of the same family there were twenty-nine relatives in the vicinity, seventeen of whom were criminals. Still further investigation developed the following facts:

A Bad Family.—Within seventy-five years, 1,200 persons have sprung from five sisters, several of whom were illegitimate, and three of whom were known to be unchaste, and who married men whose father was an idle, thriftless hunter, a hard drinker, and licentious.

Of this family, the history of about 709 was traced. Of these, the facts set forth in the following incomplete summary were found to be true:

| | |
|---|-------------|
| Paupers | 280 |
| Years of pauperism | 798 |
| Criminals | 140 |
| Years of infamy | 750 |
| Thieves | 60 |
| Murderers | 7 |
| Prostitutes and adulteresses | 165 |
| Illegitimate children | 91 |
| No. of persons contaminated by syphilitic disease ... | 480 |
| Cost to the State in various ways | \$1,308,000 |

Without doubt, a complete summary would make this showing still more appalling, since of the 709 whose histories were traced, it was in many instances impossible to determine that the individuals were guilty of crime or unchastity, even where there were grounds for suspicion. Such cases were not included in the summary.

No amount of argument on this question could be so conclusive as are these simple facts concerning the "Juke" family. It is certainly high time that our legislators began to awaken to this subject, and consider whether it would be an unprofitable experiment to make some attempt to prevent the multiplication of criminals in this manner. We are not prepared to offer a plan for securing an end; but it is very clearly important that something should be done in this direction.

A Physiological Fact.—It is an established physiological fact that the character of offspring is influenced by the mental as well as the physical conditions of the parents at the moment of the performance of the generative act. In view of this fact, how many parents can regard the precocious, or even mature, manifestations of sexual depravity in their children without painful smittings of conscience at seeing the legitimate results of their own sensuality? By debasing the reproductive function to an act of selfish, sensual indulgence, they imprinted upon their children an almost irresistible tendency to vice. Viewing the matter from this standpoint, what wonder that licentiousness is rife! that true chastity is among the rarest of virtues!

Prof. O. W. Holmes remarks on this subject: "There are people who think that everything may be

done if the doctor, be he educator or physician, be only called in season. No doubt; but *in season* would often be a hundred or two years before the child was born, and people never send so early as that." "Each of us is only the footing up of a double column of figures that goes back to the first pair. Every unit tells, and some of them are *plus* and some *minus*. If the columns don't add up right, it is commonly because we can't make out all of the figures."

It cannot be doubted that the throngs of deaf, blind, crippled, idiotic unfortunates who were "born so," together with a still larger class of dwarfed, diseased, and constitutionally weak individuals, are the lamentable results of the violation of some sexual law on the part of their progenitors.

Something for Parents to Consider.—If parents would stop a moment to consider the momentous responsibilities involved in the act of bringing into existence a human being; if they would reflect that the qualities imparted to the new being will affect its character to all eternity; if they would recall the fact that they are about to bring into existence a mirror in which will be reflected their own characters divested of all the flimsy fabrics which deceive their fellowmen, revealing even the secret imaginings of their hearts, there would surely be far less of sin, disease, and misery born into the world than at the present day; but we dare not hope for such a reform. To effect it would require such a revolution in the customs of society, such a radical reform in the habits and characters of individuals, as could be done by nothing short of a temporal millennium.

It is quite probable that some writers have greatly exaggerated the possible results which may be attained

by proper attention to the laws under consideration. All cannot be equally beautiful; every child cannot be a genius; the influence of six thousand years of transgression cannot be effaced in a single generation; but persevering, conscientious efforts to comply with every requirement of health, purity, morality, and the laws of nature, will accomplish wonders in securing healthy children with good dispositions, brilliant intellects, and beautiful bodies.

This is not the proper place to describe in detail a plan to be pursued; but the few hints given, if rightly appreciated, may enable those interested in the subject to plan for themselves a proper course. In concluding the subject, we may summarize its chief points as follows, for the purpose of impressing them more fully upon the mind:

The Origin of Evil.—1. If a child is begotten in lust, its lower passions will as certainly be abnormally developed as peas will produce peas, or potatoes produce potatoes. If the child does not become a rake or a prostitute, it will be because of uncommonly fortunate surroundings, or a miracle of divine grace. But even then, what terrible struggles with sin and vice, with foul thoughts and lewd imaginations,—the product of a naturally abnormal mind,—must such an individual suffer! If he is unsuccessful in the conflict, is he alone to blame? Society, his fellowmen, will censure him alone; but He who knoweth all the secrets of human life will pass a more lenient judgment on the erring one, and mete out punishment where it most belongs.

2. The same remarks apply with equal force to the transmission of other qualities. If the interest of the parents is only for self, with no thought for the well-being of the one whose destiny is in their hands, they

can expect naught but a selfish character, a sordid, greedy disposition, in the child.

3. The influence of the father is, at the outset, as great as that of the mother. The unhappy or immoral thoughts of one alone at the critical moment when life is imparted, may fix for eternity a foul blot upon the character yet unformed.

4. If, during gestation, the mother is fretful, complaining, and exacting; if she requires to be petted and waited upon; if she gratifies every idle whim and indulges every depraved desire and perverted appetite, as thousands of mothers do,—the result will surely be a peevish, fretful child, that will develop into a morose and irritable man or woman, imperious, unthankful, disobedient, wilful, gluttonous, and vicious.

How to Beget Sound Children.—If such undesirable results would be avoided, the following suggestions should be regarded:

1. For the beginning of a new life, select the most favorable time, which will be when the bodily health is at its height; when the mind is free from care and anxiety; when the heart is joyous, cheerful, and filled with hope, love, high aspirations, pure and beautiful thoughts. If, as one writer says, it is the duty of every human pair engaging in the reproductive act, to bring into existence the most perfect specimen of the race of which they are capable, then it becomes a monstrous crime to enter into relations which may produce a contrary result. This may be a truth hard to accept, but who is prepared to dispute it on logical or moral grounds?

2. If a child has been properly conceived, the duty then devolves upon the mother to secure its proper development. Is beauty desired, let the mother be sur-

rounded with beautiful objects; and let her mind dwell upon such objects. If an active mind and brilliant intellect are required, the mother should devote considerable time to study and mental labor of a pleasant nature. The moral nature should be carefully cultivated, to insure a lovely disposition. No angry words or unhappy feelings should be tolerated. Purity of heart and life should be maintained. The husband should do his part by supplying favorable surroundings, suggesting cheerful thoughts, and aiding mental culture.

3. After birth, the mother still possesses a molding influence upon the development of her child through the lacteal secretion. Every mother knows how speedily the child will suffer if nursed when she is exhausted by physical labor or when suffering from nervous excitement, as anger or grief. These facts show the influence which the mental states of the mother exert upon the child, even when the act of nursing is the only physical bond between them.

It will be a happy day for the race if ever parents recognize the fact that infants, even human beings in embryo, possess rights which are as sacred as those of adult human beings.

This whole subject is more fully treated by the author in special works, full information concerning which can be obtained by those wishing to know more on this subject.

HYGIENE FOR WOMEN IN ADVANCED LIFE

CHANGE OF LIFE.—The two most important periods in a woman's life are those which mark the beginning and the end of the menstrual function. The duration of sexual activity in women is usually thirty-two years, extending from the average age of thirteen to forty-five or forty-six. There is great individual variation in this respect, however, the termination of the menstrual function in some persons occurring as early as the thirtieth year, while in others it is delayed until the age of sixty or upward. In a case under the author's care a few years ago, the patient, aged sixty, was still menstruating regularly. It is never possible to predict with any degree of accuracy just at what age the change of life, or menopause, will occur.

The physical changes which occur at the change of life are the opposite to those which mark the period of puberty. The ovaries, womb, and vagina undergo a process of atrophy, or shrinkage, by which they become reduced to a smaller size than before development occurred.

The symptoms which mark the beginning of the change of life are: irregularity of the menses, both as to time and quantity; nervousness and general decline of health, signified by loss of flesh, and various disturbances in the stomach, bowels, bladder, and other organs; occasionally eruptions of the skin, particularly upon the face; sometimes a slight growth of hair upon the upper lip; suffering from neuralgia, nervousness, and

sometimes hysteria; complaint of sudden flushing of the face, or "rush of blood to the head;" the hands, legs, and trunk of the body sometimes affected, as well as the head and face. These flushings are sudden, and usually last but a few minutes, and are followed by profuse perspiration. Sometimes a perspiration does not occur, a condition known as "dry flushing," which is much more distressing than the ordinary form, taking its place. Profuse perspiration sometimes occurs during sleep, and is very likely to follow excitement, either mental or nervous. A great variety of other symptoms, involving nearly every organ of the body, are present during this period.

One of the dangers which should be especially mentioned is the liability of morbid growths to make their appearance at this time. Various tumors of the womb, as fibroids and cancers, select this as their favorite time of attack. A cancer is not likely to occur, however, unless the womb has sometime been torn at childbirth, and through neglect the laceration has not been repaired. Growths of the urethra are not unlikely to occur at this time.

Hygiene of the Menopause.—Many of the ills to which women are subject at this period may be avoided by proper preventive measures. Pre-existing disease of the womb, which through neglect or improper treatment has not been cured, lays the foundation for much suffering at this time. It is indeed probable that previous womb disease is the leading cause of suffering at this period, as it is hardly supposable that in the normal state such vital disturbances and great suffering as are observed at this period would occur. This emphasizes the importance of adopting such measures as will secure relief from whatever local disorders may

exist before this period arrives, thus avoiding much of the inconvenience and suffering of later years, to which the individual will otherwise be exposed. The following suggestions will be found of especial service in preventing and mitigating the sufferings attendant at this period:

1. Individuals passing through the change of life should be relieved from all burdensome cares, and should be kept free from all sources of worry and excitement. Cheerfulness and harmony of spirits are particularly important. If this cannot be obtained at home, arrangements should be made for the patient to go to some suitable place away from home for a few weeks or months.

2. Special attention should be given to diet, which should be simple, wholesome, and nourishing, but free from exciting stimulants of all sorts. Tea and coffee, as well as all other narcotics and stimulants, should be studiously avoided. The enforcement of this rule is sometimes difficult, owing to the intense craving for nerve stimulants which many women experience at this period. Bitters and patent medicines of all sorts do a great deal of mischief when employed as they are apt to be. Their use is wholly without good results, and is often productive of almost irreparable damage.

3. The general health should be maintained by all possible means. Outdoor exercises, carriage-riding when the patient is unable to take a sufficient amount of exercise by walking, are to be commended. Careful attention should be given to the bowels, which may be kept regular by the use of coarse grains and an abundance of fruit.

4. The flushings or profuse perspirations are best relieved by hot saline sponge baths, hot and cold appli-

cations to the spine, and the avoidance of all sources of physical, mental, or nervous excitement.

5. Most of the local symptoms which give annoyance at this period may be relieved by the hot vaginal douche. The distressing leucorrhœal discharge, accompanied by violent itching, which often makes its appearance just after the change of life, may usually be relieved by appropriate treatment, though there is no one method which will answer for all cases.

Vaginal Douche.—This consists in the injection of water into the vagina by means of a proper instrument. The temperature of the water should usually be from 105° to 115° F. The water should not be injected with too much force. On this account, a fountain or syphon syringe is best for the purpose. An instrument with all accessory appliances may be obtained from any druggist. Many druggists also keep fountain syringes which are very serviceable for this purpose. The tube should enter the parts far enough to bring the water in contact with the deeper parts of the vaginal mucous membrane. The patient should be in a reclining position while the douche is being taken; if taken in a sitting position, it is of very little use. In cases of acute inflammation, the douche should be taken daily, or even two or three times a day, and from three to six quarts of water should ordinarily be employed.

A CHAPTER FOR MARRIED PEOPLE

IT seems to be a generally prevalent opinion that the marriage ceremony removes all restraint from the exercise of the sexual functions. Few seem to even suspect that the seventh commandment has any bearing upon sexual conduct within the pale of matrimony. Yet if we may believe the confessions and statements of men and women, legalized prostitution is a more common crime than illicit commerce of the sexes. So common is the popular error upon this subject, and so strongly fortified by prejudice, that it is absolutely dangerous for a writer or speaker to express the truth, if he knows it and has a disposition to do so. Any attempt to call attention to true principles is mocked, decried, stigmatized, and if possible extinguished. The author is vilified, and his work is denounced, and relegated to the ragman. Extremist, fanatic, ascetic, are the mildest terms employed concerning him, and he escapes with rare good fortune if his chastity or virility is not assailed.

We are not going to run any such risks, and so shall not attempt to enunciate or maintain any theory. We shall content ourselves with plainly stating established physiological facts by quotations from standard medical authors, leaving each reader to draw conclusions and construct a practical formula for himself.

Object of the Reproductive Functions.—Man, in whatever condition we find him, is more or less depraved. This is true as well of the most cultivated

and refined ladies and gentlemen of the great centers of civilization, as of the misshapen denizens of African jungles, or the scarcely human natives of Australia and Terra del Fuego. His appetites, his tastes, his habits, even his bodily functions, are perverted. Of course, there are degrees of depravity and varieties of perversion. In some respects, savages approach more nearly to the natural state than civilized man, and in other particulars, the latter more nearly represents man's natural condition; but in neither barbarism nor civilization do we find man in his primitive state.

In consequence of this universal departure from his original normal condition,—the causes of which we need not here trace, since they are immaterial in the consideration of this question,—when we wish to ascertain with certainty the functions of particular organs of the human body, we are obliged to compare them with the corresponding organs of lower animals, and study the functions of the latter. It is by this method of investigation that most of the important truths of physiology have been developed; and the plan is universally acknowledged to be a proper and logical one.

The Sexual Function in Lower Animals.—Then if we wish to ascertain, with certainty, the true function of the reproductive organs in man, we must pursue the course above indicated; in other words, study the function of reproduction in lower animals. We say *lower animals*, because man is really an animal, a member of the great animal kingdom, though not a beast,—at least, he should not be a beast, though some animals in human form approach very closely to the line that separates humanity from brutes. We are

brought, then, for a solution of this problem, to a consideration of the question, What is the object of the reproductive act in those members of the animal kingdom just below man in the scale of being? Let science tell us; for zoologists have made a careful study of this subject for centuries.

We quote the following paragraphs from one of the most distinguished and reliable of modern physiologists,* the facts which he states being confirmed by all other physiologists:

“Every living being has a definite term of life, through which it passes by the operation of an invariable law, and which, at some regularly appointed time, comes to an end. . . . But while individual organisms are thus constantly perishing and disappearing from the stage, the particular kind, or species, remains in existence. . . . This process, by which new organisms make their appearance to take the place of those which are destroyed, is known as the process of *reproduction*, or *generation*.

“The ovaries, as well as the eggs which they contain, undergo, at particular seasons, a periodical development, or increase in growth. . . . At the approach of the generative season, in all the lower animals, a certain number of the eggs, which were previously in an imperfect and inactive condition, begin to increase in size, and become somewhat altered in structure.”

“In most fish and reptiles, as well as in birds, this regular process of maturation and discharge of eggs takes place but once in a year. In different species of quadrupeds, it may take place annually, semiannually, bi-monthly, or even monthly; but in every instance, it recurs at regular intervals, and exhibits accordingly, in a marked degree, the periodic character which we

* Dalton

have seen to belong to most of the other vital phenomena.”

Periodical Reproduction.—“In most of the lower orders of animals there is a periodical development of the testicles in the male, corresponding in time with that of the ovaries in the female. As the ovaries enlarge, and the eggs ripen in the one sex, so in the other the testicles increase in size, as the season of reproduction approaches, and become turgid with spermatozoa. The accessory organs of generation, at the same time, share the unusual activity of the testicles, and become increased in vascularity, and ready to perform their part in the reproductive function.”

“Each of the two sexes is then at the same time under the influence of a corresponding excitement. The unusual development of the genital organs reacts upon the entire system, and produces a state of peculiar activity and excitability, known as the condition of ‘erethism.’”

A Lesson from Instinct.—“It is a remarkable fact, in this connection, that the female of these animals will allow the approaches of the male only during and immediately after the œstral period; that is, just when the egg is recently discharged, and ready for impregnation. At other times, when sexual intercourse would be necessarily fruitless, the instinct of the animal leads her to avoid it; and the concourse of the sexes is accordingly made to correspond in time with the maturity of the egg and its aptitude for fecundation.”

“The egg, immediately upon its discharge from the ovary, is ready for impregnation. If sexual intercourse happens to take place about that time, the egg and the spermatic fluid meet in some part of the female generative passages, and fecundation is accomplished.

. . . If, on the other hand, coitus does not take place, the egg passes down into the uterus unimpregnated, loses its vitality after a short time, and is finally carried away with the uterine secretions.”

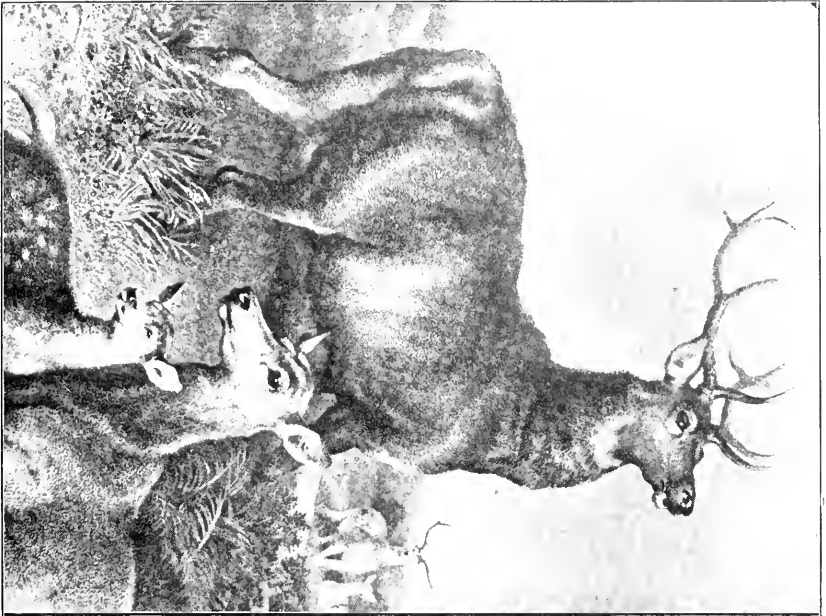
“It is easily understood, therefore, why sexual intercourse should be more liable to be followed by pregnancy when it occurs about the menstrual epoch than at other times. . . . Before its discharge, the egg is immature, and unprepared for impregnation; and after the menstrual period has passed, it gradually loses its freshness and vitality.”

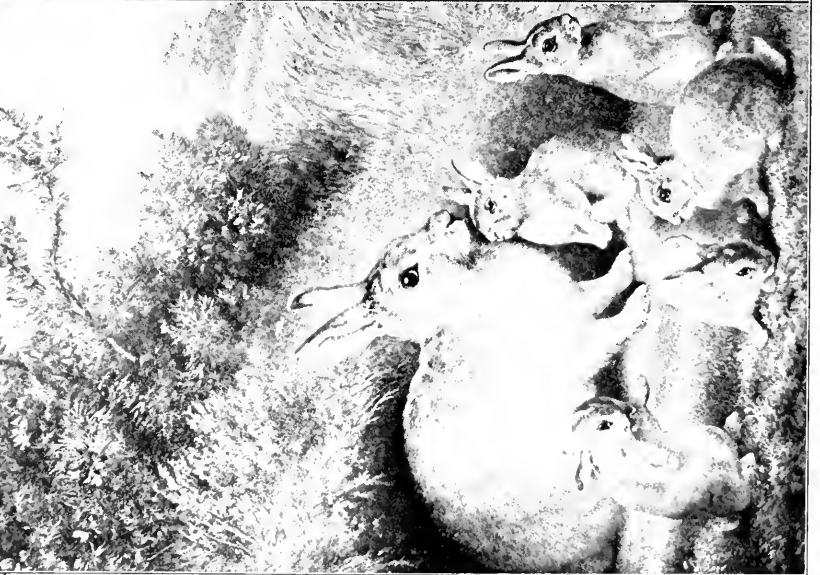
The law of periodicity, as it affects the sexual activity of males of the human species, is indicated in the following remarks by the same author:

“The same correspondence between the periods of sexual excitement in the male and female, is visible in many of the animals [higher mammals], as well as in fish and reptiles. This is the case in most species which produce young but once a year, and at a fixed period, as the deer and the wild hog. In other species, on the contrary, such as the dog, the rabbit, the guinea-pig, etc., where several broods of young are produced during the year, or where, as in the human subject, the generative epochs of the female recur at short intervals, so that the particular period of impregnation is comparatively indefinite, the generative apparatus of the male is almost always in a state of full development, and is excited to action at particular periods, apparently by some influence derived from the condition of the female.”

Summary of Important Facts.—The facts presented in the foregoing quotations from Dr. Dalton may be summarized as follows:

1. The sexual function is for the purpose of pro-





ducing new individuals to take the place of those who die, and thus preserve the species from becoming extinct.

2. In the animal kingdom generally, the reproductive function is *necessarily* a periodical act, dependent upon the development of the reproductive organs of both the male and the female at stated periods.

3. In those exceptional cases in which the organs of the male are in a state of constant development, sexual congress occurs, in lower animals, only at those times when the periodical development occurs in the female.

4. Fecundation of the female element can only take place about the time of periodical development in the female.

5. The desire for sexual congress naturally exists in the female only at or immediately after the time of periodical development.

6. The constant development of the sexual organs in human males is a condition common to all animals in which development occurs in the female at short intervals, and is a provision of nature to secure a fruitful union when the female is in readiness, but not an indication for constant or frequent use.

7. The time of sexual congress is always determined by the condition and desires of the female.

A Hint from Nature.— An additional fact, as stated by physiologists, is that, under normal conditions, the human female experiences sexual desire immediately after menstruation more than at any other time. It has, indeed, been claimed that at this period only does she experience the true sexual instinct, unless it is abnormally excited by disease or otherwise.

From these facts the following conclusions must evidently be drawn:

1. The fact that in all animals but the human species the act can be performed only when reproduction is possible, proves that in the animal kingdom in general the sole object of the function is reproduction. Whether man is an exception, must be determined from other considerations.

2. The fact that the males of other animals besides man, in which the sexual organs are in a state of constant development, do not exercise those organs except for the purpose of reproduction, is proof of the position that the constant development in man is not a warrant for their constant use.

3. The general law that the reproductive act is performed only when desired by the female, is sufficient ground for supposing that such should be the case with the human species also.

Some Valuable Opinions.—The opinions of several writers of note are given in the following quotations:

“The approach of the sexes is, in its purest condition, the result of a natural instinct, the end of which is the reproduction of the species. Still, however, we are far from saying that this ultimate result is, in any proportion of cases, the actual thought in the minds of the parties engaged.”

“The very lively solicitations which spring from the genital sense, have no other end than to insure the perpetuity of the race.” *

“Observation fully confirms the views of inductive philosophy; for it proves to us that coitus, exercised otherwise than under the inspirations of honest instinct, is a cause of disease in both sexes, and of danger to the social order.” †

“It is incredible that the act of bringing men into

* Dr. Gardner.

† Mayer.

life, that act of humanity, without contradiction the most important, should be the one of which there should have been the least supposed necessity for regulation, or which has been regulated the least beneficially.”*

“But it may be said that the demands of nature are, in the married state, not only legal, but should be physically right. So they are, when our physical life is right; but it must not be forgotten that few live in a truly physical rectitude.”†

“Among cattle, the sexes meet by common instinct and common will; it is reserved for the human animal to treat the female as a mere victim to his lust.”‡

“He is an ill husband that *uses his wife as a man treats a harlot*, having no other end but pleasure: concerning which our best rule is, that although in this, as in eating and drinking, there is an appetite to be satisfied, which cannot be done without pleasing that desire; yet, since that desire and satisfaction were intended by nature for other ends, they should never be separated from those ends.”

“It is a sad truth that many married persons, thinking that the flood-gates of liberty are set wide open, without measures or restraints (so they sail in the channel), have felt the final rewards of intemperance and lust by their unlawful using of lawful permissions. Only let each of them be temperate, and both of them modest.”§

Says another writer very emphatically, “It is a common belief that a man and woman, because they are legally united in marriage, are privileged to the unbridled exercise of amateness. This is wrong. Nature, in the exercise of her laws, recognizes no human enactments, and is as prompt to punish any infringement of her laws in those who are legally married, as

* Dunoyer. † Gardner. ‡ *Quarterly Review*. § Jeremy Taylor.

in those out of the bonds. Excessive indulgence between the married produces as great and lasting evil effects as in the single man or woman, and is nothing more nor less than legalized prostitution.”

Results of Excesses.—The sad results of excessive indulgences are seen on every hand. Numerous ailments attributed to overwork, constitutional disease, or hereditary predisposition, know no other cause and need no other explanation.

Effects upon Husbands.—No doubt the principal blame in this matter properly falls upon the husband; but it cannot be said that he is the greatest sufferer; however, his punishment is severe enough to clearly indicate the enormity of the transgression, and to warn him to a reformation of his habits. The following is a quotation from an eminent medical authority:

“But any warning against sexual dangers would be very incomplete if it did not extend to the excesses so often committed by married persons in ignorance of their ill effects. Too frequent emissions of the life-giving fluid, and too frequent excitement of the nervous system, are in themselves most destructive. The result is the same within the marriage bond as without it. The married man who thinks that because he is a married man he can commit no excess, however often the act of sexual congress is repeated, will suffer as certainly and as seriously as the unmarried debauchee who acts on the same principle in his indulgences,—perhaps more certainly, from his very ignorance, and from his not taking those precautions and following those rules which a career of vice is apt to teach the sensualist.

“Many a man has, until his marriage, lived a most continent life; so has his wife. As soon as they are

wedded, intercourse is indulged in night after night, neither party having any idea that these repeated sexual acts are excesses which the system of neither can bear, and which, to the man at least, are absolute ruin. The practice is continued till health is impaired, sometimes permanently; and when a patient is at last obliged to seek medical advice, he is thunderstruck at learning that his sufferings arise from excesses unwittingly committed. Married people often appear to think that connection may be repeated as regularly and almost as often as their meals. Till they are told of the danger, the idea never enters their heads that they are guilty of great and almost criminal excess; nor is this to be wondered at, since the possibility of such a cause of disease is seldom hinted at by the medical man they consult."

"Some go so far as to believe that indulgence may increase these powers, just as gymnastic exercises augment the force of the muscles. This is a popular error, and requires correction. Such persons should be told that the shock on the system each time connection is indulged in is very powerful, and that the expenditure of seminal fluid must be particularly injurious to organs previously debilitated. It is by this and similar excesses that premature old age and complaints of the generative organs are brought on."

"The length to which married people carry excesses is perfectly astonishing."

Consequences of Excess.—"Since my attention has been particularly called to this class of ailments, I feel confident that many of the forms of indigestion, general ill health, hypochondriasis, etc., so often met with in adults, depend upon sexual excesses. . . . That this cause of illness is not more generally

acknowledged and acted on, arises from the natural delicacy which medical men must feel in putting such questions to their patients as are necessary to elicit the facts.”

“It is not the body alone which suffers from excesses committed in married life. Experience every day convinces me that much of the languor of mind, confusion of ideas, and inability to control the thoughts, of which some married men complain, arise from this cause.”*

The debilitating effects of excessive sexual indulgence arise from two causes; viz., the loss of the seminal fluid, and the nervous excitement. With reference to the value of the spermatic fluid, Dr. Gardner remarks:

“The sperm is the purest extract of the blood. . . . Nature, in creating it, has intended it not only to communicate life, but also to nourish the individual life. In fact, the reabsorption of the fecundating liquid impresses upon the entire economy new energy, and a virility which contributes to the prolongation of life.”

Another case came under our observation in which the patient, a man, confessed to having indulged every night for twenty years. We did not wonder that at forty he was a complete physical wreck.

Continence of Athletes. — “The moderns who are training are well aware that sexual indulgence wholly unfits them for great feats of strength, and the captain of a boat strictly forbids his crew anything of the sort just previous to a match. Some trainers have gone so far as to assure me that they can discover by a man’s style of pulling whether he has committed such a breach of discipline overnight, and have not

* Acton.

scrupled to attribute the occasional loss of matches to this cause.”*

A Cause of Throat Disease.—The disease known as *clergyman's sore throat* is believed by many eminent physicians to have its chief origin in excessive venery. It is well known that sexual abuse is a very potent cause of throat diseases. This view is supported by the following from the pen of the learned Dr. X. Bourgeois:

“We ought not, then, to be surprised that the physiological act, requiring so great an expenditure of vitality, must be injurious in the highest degree, when it is reiterated abusively. To engender is to give a portion of one's life. Does not he who is prodigal of himself, precipitate his own ruin? A peculiar character of the diseases which have their origin in venereal excesses and masturbation is chronicity.”

“Individual predispositions, acquired or hereditary, engender for each a series of peculiar ills. In some, the debility bears upon the pulmonary organs. Hence result the dry cough, prolonged hoarseness, stitch in the side, spitting of blood, and finally phthisis. How many examples are there of young debauchees who have been devoured by this cruel disease! . . . It is, of all the grave maladies, the one which venereal abuses provoke the most frequently. Portal, Bayle, Louis, say this distinctly.”

The author has met a large number of cases which fully verified the above statements. In fact, in quite a large proportion of cases suffering from sexual excesses which have come under his care, some form of throat ailment has been present.

A Cause of Consumption.—This fatal disease finds a large share of its victims among those addicted to

* Acton.

sexual excesses, either of an illicit nature or within the marriage pale; for the physical effects are essentially identical. This cause is especially active and fatal with sedentary persons, but is sufficiently powerful to undermine the constitution under the most favorable circumstances, as the following case illustrates:

The patient was a young man of twenty-two, large, muscular, and well developed, having uncommonly broad shoulders and a full chest. His occupation had been healthful, that of a laborer. He had coughed for several months, and was spitting blood. Examination of the lungs showed that they were hopelessly diseased. There was no trace of consumption in the family, and the only cause to which the disease could be attributed was excessive sexual indulgence, which he confessed to having practiced for several years.

Prostatic Troubles.— One of the most distressing symptoms of advanced age is enlargement of the prostate. Men who give themselves up to sexual excesses find themselves at middle age or even sooner, suffering with these disorders, even in a very grave form. We have met a number of instances in which a difficulty of this kind existed, but disappeared very readily when the patient corrected his habits by adopting a continent life.

Effect on Wives.— If husbands are great sufferers, as we have seen, wives suffer still more terribly, being of feebler constitution, and hence less able to bear the frequent shock which is suffered by the nervous system. Dr. Gardner places this evil prominent among the causes “the result of which we see deplored in the public press of the day, which warns us that the American race is fast dying out, and that its place is being filled by emigrants of different lineage, religion, political ideas, and education.”

The same author remarks further on the results of this with other causes which largely grow out of it:

“It has been a matter of common observation that the physical status of the women of Christendom has been gradually deteriorating; that their mental energies were uncertain and spasmodic; that they were prematurely care-worn, wrinkled, and enervated; that they became subject to a host of diseases scarcely ever known to the professional men of past times, but now familiar to, and the common talk of, the matrons, and often, indeed, of the youngest females in the community.”

So prevalent are these maladies that Michelet says with truth that the present is the “age of womb diseases.”

An Illustrative Case.—Every physician of observation and experience has met many cases illustrative of the serious effects of the evil named. Many years ago, when the author was acting as assistant in a large dispensary in an Eastern city, a young woman applied for examination and treatment. She presented a great variety of nervous symptoms, prominent among which were those of mild hysteria and nervous exhaustion, together with impaired digestion and violent palpitation of the heart. In our inquiries respecting the cause of these difficulties, we learned that she had been married about six months. A little careful questioning elicited the fact that sexual indulgence was invariably practiced every night, and often two or three times, occasionally as many as four times a night.

We had the key to her troubles at once, and ordered entire continence for a month. From her subsequent reports we learned that her husband would not allow her to comply with the request, but that indulgence was

much less frequent than before. The result was not all that could be desired, but there was marked improvement. If the husband had been willing to "do right," entire recovery would have taken place with rapidity.

Thousands of unfortunate wives are constantly under the doctor's care for the treatment of local ailments which have their sole origin in sexual excesses for which their husbands are responsible. It is not overstating the matter when we say that we have met hundreds of cases of this sort, and scores of times have we been requested by suffering wives to appeal to their husbands in their behalf.

Something for Husbands to Consider.—We take pleasure in quoting the following remarks from an address of the eminent Prof. T. Parvin, M. D., of Jefferson Medical College, Philadelphia:

"In woman, love throbs in every pulse, thrills in every nerve and fiber of her being; her life is love. She gives herself to the one she truly loves. If you find out the history of poor seduced girls, those who, as is so commonly said, loved not wisely but too well, you will find that in almost all cases they yielded to the seducer in no paroxysm of sensual passion, but because they loved and trusted with their whole heart; they fell because they sought not their own, but the gratification of another. I do not believe one bride in a hundred, of delicate, educated, sensitive women, accepts matrimony from any desire of sexual gratification; when she thinks of this at all, it is with shrinking, rather than with desire. Happy that union in which the husband understands the womanly nature.

"On the other hand, how many women are made wretched by the husband who thinks the highest end of

marriage is copulation, and that his wife ought to be equally amorous with himself.

“It is a mistake to suppose that the kindness, the kiss, and the loving embrace of the wife are, in general, the expression of sexual desire. The following was the exclamation, to me, of a most refined and cultivated lady, the mother of five children, and who dearly loved her husband: ‘How often we wives would caress our husbands if we did not know the inevitable consequences!’ I know that I am right as to the womanly nature, and I know that if men generally thus believed, there would be less licentiousness, purer and happier wedded life, and healthier women; for how many women are rendered miserable, both morally and physically, by the sexual excesses and brutalities of husbands!”

In confirmation of these statements we quote the following from an author whose name frequently appears in this work, the eminent Dr. Acton:

“I have taken pains to obtain and compare abundant evidence on this subject, and the result of my inquiries I may briefly epitomize as follows: I should say that the majority of women, happily for them, are not very much troubled with sexual feeling of any kind. What men are habitually, women are only exceptionally. I admit, of course, the existence of sexual excitement, terminating even in nymphomania, a form of insanity that those accustomed to visit lunatic asylums must be fully conversant with; but, with these sad exceptions, there can be no doubt that sexual feeling in the female is, in the majority of cases, in abeyance, and that it requires positive and considerable excitement to be roused at all; and even if roused, which in many instances it never can be, is very moderate compared with that of the male.

“Many men, and particularly young men, form their ideas of women’s feelings from what they notice early in life among loose, or at least low and vulgar women. There is always a certain number of females who, though not ostensibly prostitutes, make a kind of trade of a pretty face. They are fond of admiration; they like to attract the attention of those immediately around them. Any susceptible boy is easily led to believe, whether he is not altogether overcome by the siren or not, that she, and hence all women, must have at least as strong passions as himself. Such women, however, give a very false idea of the condition of sexual feeling in general. Association with the loose women of London streets, in casinos and other immoral haunts, who, if they have not sexual feeling, counterfeit it so well that the novice does not suspect but that it is genuine, all seem to corroborate such an impression.

“Married men, medical men, or married women themselves, would, if appealed to, tell a different tale, and vindicate female nature from the vile aspersions cast on it by the abandoned conduct and ungoverned lust of a few of its worst examples. There are many females who never feel any excitement whatever. Others, again, immediately after each period, do become, to a limited degree, capable of experiencing it; but this capacity is only temporary, and will cease entirely until the next menstrual period. The best mothers, wives, and managers of households know little or nothing of sexual indulgences. Love of home, of children, of domestic duties, are the only passions they feel. As a general rule, a modest woman seldom desires any sexual gratification for herself. She submits to her husband, but only to please him; and but for

the desire of maternity, would far rather be relieved from his attention.”

The Greatest Cause of Uterine Disease.—Dr. J. R. Black remarks as follows on this subject:

“Medical writers agree that one of the most common causes of the many forms of derangement to which woman is subject consists in excessive cohabitation. The diseases known as menorrhagia, dysmenorrhœa, leucorrhœa, amenorrhœa, abortions, prolapsus, chronic inflammations and ulcerations of the womb, with a yet greater variety of sympathetic nervous disorders, are some of the distressing forms of these derangements. The popular way of accounting for many of these ills is that they come from colds or from straining lifts. But if colds and great strain upon the parts in question develop such diseases, why are they not seen among the inferior animals? The climatic alternations they endure, the severe labor some of them are obliged to perform, ought to cause their ruin; or else, in popular phrase, ‘make them catch their death o’ cold.’ ”

Legalized Murder.—A medical writer of considerable ability presents the following picture, the counterpart of which almost any one can recall as having occurred within the circle of his acquaintance; perhaps numerous cases will be recalled by one who has been especially observing:

“A man of great vital force is united to a woman of evenly balanced organization. The husband, in the exercise of what he is pleased to term his ‘marital rights,’ places his wife, in a short time, on the nervous, delicate, sickly list. In the blindness and ignorance of his animal nature, he requires prompt obedience to his desires; and, ignorant of the law of right in this direction, thinking that it is her duty to accede to his wishes,

though fulfilling them with a sore and troubled heart, she allows him passively, never lovingly, to exercise daily and weekly, month in and month out, the low and beastly of his nature, and eventually, slowly but surely, to kill her. And this man, who has as surely committed murder as has the convicted assassin, lures to his net and takes unto himself another wife, to repeat the same program of legalized prostitution on his part, and sickness and premature death on her part.”

Professor Gerrish, in a little work from which we take the liberty to quote, speaks as follows on this subject:

“One man, reckless of his duty to the community, marries young, with means and prospects inadequate to support the family which is so sure to come ere long. His ostensible excuse is love; his real reason, the gratification of his carnal instincts. Another man, in exactly similar circumstances, but too conscientious to assume responsibilities which he cannot carry, and in which failure must compromise the comfort and tax the purses of people from whom he has no right to extort luxuries, forbears to marry; but, feeling the passions of his sex, and being imbued with the prevalent errors on such matters, resorts for relief to unlawful coition. At the wedding of the former, pious friends assemble with their presents and congratulations, and bid the legalized prostitution Godspeed. Love shields the crime, all the more easily because so many of the rejoicing guests have sinned in precisely the same way. The other man has no festival gathering. . . . Society applauds the first and frowns on the second; but, to my mind, the difference between them is not markedly in favor of the former.”

“We hear a good deal said about certain crimes against nature, such as pederasty and sodomy, and they meet with the indignant condemnation of all right-minded persons. The statutes are especially severe on offenders of this class, the penalty being imprisonment between one and ten years, whereas fornication is punished by imprisonment for not more than sixty days and a fine of less than one hundred dollars. But the query very pertinently arises just here as to whether the use of the condom and defertilizing injections is not equally a crime against nature, and quite as worthy of our detestation and contempt. And, further, when we consider the brute creation, and see that they, guided by instinct, copulate only when the female is in proper physiological condition and yields a willing consent, it may be suggested that congress between men and women may, in certain circumstances, be a crime against nature, and one far worse in its results than any other. Is it probable that a child born of a connection to which the woman objects, will possess that felicitous organization which every parent should earnestly desire and endeavor to bestow on his offspring? Can the unwelcome fruit of a rape be considered, what every child has a right to be, a pledge of affection? Poor little Pip, in ‘Great Expectations,’ spoke as the representative of a numerous class when he said, ‘I was always treated as if I had insisted on being born, in opposition to the dictates of reason, religion, and morality, and against the dissuading arguments of my best friends.’ We enjoin the young to honor father and mother, never thinking how undeserving of respect are those whose children suffer from inherited ills, the result of the selfishness and carelessness of their parents in begetting them.

Accidental Pregnancies.—“ These accidental pregnancies are the great immediate cause of the enormously common crime of abortion, concerning which the morals of the people are amazingly blunted. The extent of the practice may be roughly estimated by the number of standing advertisements in the family newspapers, in which feticide is warranted safe and secret. It is not the poor only who take advantage of such nefarious opportunities; but the rich shamelessly patronize these professional and cowardly murderers of defenseless infancy. Madame Restell, who died by her own hand in New York, left a fortune of a million dollars, which she had accumulated by producing abortions.”

A husband who has not sunk in his carnality too far below the brute creation, will certainly pause a moment, in the face of such terrible facts, before he continues his sensual, selfish, murderous course.

The following remarks which our own professional experience has several times confirmed, reveal a still more heinous violation of nature's laws:

“To many it may seem that it is unnecessary to caution against contracting relationships at the period of the monthly flow, thinking that the instinctive laws of cleanliness and delicacy were sufficient to refrain the indulgence of the appetites; but they are little cognizant of the true condition of things in this world. Often have I had husbands inform me that they had not missed having sexual relations with their wives once or more times a day for several years; and scores of women with delicate frames and broken-down health have revealed to me similar facts, and I have been compelled to make personal appeals to the husbands.” *

It seems scarcely possible that such enormity could

* Gardner.

be committed by any human being, at least by civilized men, and in the face of the injunctions of Moses to the Jews, to say nothing of the evident indecency of the act. The Jews still maintain their integrity to the observance of the command of their ancient lawgiver.

Indulgence during menstruation is liable to produce violent hemorrhage, internal congestion, and even inflammation in the woman, and in the man an inflammation of the urethra, similar to gonorrhœa. One of the most inveterate cases of catarrhal inflammation of the urethra which we have ever met in the treatment of a large number of cases of this sort, was occasioned in this way.

Effects upon Offspring.—That those guilty of transgression should suffer, seems only just; but that an innocent being who had no part in the sin, no voice in the time or manner of its advent into the world,—that such a one should suffer equally, if not more bitterly, with the transgressors themselves, seems anything but just. But such is nature's inexorable law, that the iniquities of the parents shall be visited upon the children; and this fact should be a most powerful influence to prevent parental transgression, especially in this direction, in which the dire consequences fall so heavily and so immediately upon an innocent being.

Says Acton, "The ill effects of marital excesses are not confined to offending parties. No doubt can exist that many of the obscure cases of sickly children, born of apparently healthy parents, arise from this cause; and this is borne out by investigations among animals."

Breeders of stock who wish to secure sound progeny will not allow the most robust stallion to associate with mares as many times during the whole season as some of these salacious human males perform a simi-

lar act within a month. One reason why the offspring suffer is that the seminal fluid deteriorates very rapidly by repeated indulgence. The spermatozoa do not have time to become mature, and progeny resulting from such immature elements will possess the same deficiency; hence the hosts of deformed, scrofulous, weazen, and idiotic children which curse the race, and testify to the sensuality of their progenitors. Another reason is the physical and nervous exhaustion which the parents bring upon themselves, and which totally unfits them to beget sound, healthy offspring.

Often the effects of this evil may be traced in a large family of children, nearly all of whom show traces of the excesses of their parents. It commonly happens, too, that such large families are on the hands of poor men who cannot earn enough to give them sufficient food and comfortable clothing, with nothing whatever to provide for their education. The overburdened mother has her strength totally exhausted by the excessive demands upon her system incident to child-bearing, so that she is unable to give her children that culture and training which all children need. More than likely she feels that they were forced upon her, and hence she cannot have for them all that tender sympathy and affection a mother should feel. The little ones grow up ignorant, and often vicious; for the want of home care drives them to the street. Thus does one evil create another.

It is certainly a question which deserves some attention, whether it is not a sin for parents to bring into the world more children than they can properly care for. If they can rear and educate three children properly, the same work would be only half done for six; and there are already in the world a sufficiency of half-

raised people. From this class of society the ranks of thieves, drunkards, beggars, vagabonds, and prostitutes are recruited. Why should it be considered an improper or immoral thing to limit the number of children according to the circumstances of the parents? Ought it not to be considered a crime against childhood and against the race to do otherwise? It is seriously maintained by a number of distinguished persons that man "is in duty bound to limit the number of his children as well as the sheep on his farm, the number of each to be according to the adequacy of his means for their support."

Transgression of nature's law by indulgence during pregnancy is followed by the worst results of any form of marital excess. The mother suffers doubly, because laden with the burden of supporting two lives instead of one. But the results upon the child are especially disastrous. During the time when it is receiving its stock of vitality, while its plastic form is being molded, and its various organs acquiring that integrity of structure which makes up what is called constitutional vigor,—during this most critical of all periods in the life of the new being, its resources are exhausted and its structure is depraved, and thus constitutional tendencies to disease are produced, by the unnatural demands made upon the mother.

Effect upon the Character.—Still another terrible consequence results from this practice so contrary to nature. The delicate brain, which is being molded with the other organs of the body, receives its cast largely from those mental and nervous sensations and actions of the mother which are the most intense. One of the most certain effects of sexual indulgence at this time is to develop abnormally the sexual instinct in the

child. Here is the key to the origin of much of the sexual precocity and depravity which curse humanity. Sensuality is born in the souls of a large share of the rising generation. What wonder that prostitution flourishes in spite of Christianity and civil law?

It is scarcely necessary to say that all medical testimony concurs in forbidding indulgence during gestation. The same reasons require its interdiction during the nursing period. The fact that fecundation would be impossible during pregnancy, and that during this period the female, normally, has no sexual desire, are other powerful arguments in favor of perfect continence at this time.

We quote the following from a work on health by Dr. J. R. Black:

“Coition during pregnancy is one of the ways in which the predisposition is laid for that terrible disease in children, epilepsy. The natural excitement of the nervous system in the mother by such a cause cannot operate otherwise than by inflicting injury upon the tender germ in the womb. This germ, it must be remembered, derives every quality it possesses from the parents, as well as every particle of matter of which it is composed. The old notion of anything like spontaneity in the development of the qualities of a new being, is at variance with all the latest facts and inductions concerning reproduction. And so is that of a creative fiat. The smallest organic cell, as well as the most complicated organism, in form and quality, is wholly dependent upon the laws of derivation.

“These laws are competent to explain, however subtle the ultimate process may be, the great diversities of human organization and character. Impressions from without, the emotions, conduct, and play of

the organic processes within, are never alike from day to day, or from hour to hour; and it is from the aggregate of these in the parents, but especially of those in the mother immediately before and after conception, that the quality of the offspring is determined. Suppose that there is every now and then an unnatural, excited, and exhausted state of the nervous system produced in the mother by excessive cohabitation, is it any wonder that the child's nervous system, which derives its qualities from those of its parents, should take its peculiar stamp from that of the parent in whom it lives, moves, and has its being?

“In the adult, epilepsy is frequently developed by excessive venery; and the child born with such a predisposition will be exceedingly liable to the disease during its early years, when the nervous system is notoriously prone to deranged action from very slight disturbing causes.

“The infringement of this law regulating intercourse during pregnancy, also reacts injuriously upon the mental capacity of the child, tending to give it a stupid, animalized look, and, there is also good reason to believe, aids in developing the idiotic condition.”

Other Limitations.—Sexual indulgences ought not to occur after abortion, miscarriage, or labor at full term. Dr. Parvin reports the following case:

“A friend in the Philadelphia legal profession has told me of his procuring a divorce within two years, for a wife, on account of her husband's cruelty, and a part of that cruelty was the driving of the nurse out of his wife's room three days after her confinement, in order that he might have intercourse with his wife.”

A Selfish Objection.—The married man will raise the plea that indulgence is to him a necessity.

He has only to practice the principles laid down for the maintenance of continence to entirely remove any such necessity, should there be the slightest semblance of a real demand. Again, what many mistake for an indication of the necessity for indulgence, to relieve an accumulation of semen, is in fact, to state the exact truth, but a call of nature for a movement of the bowels. How this may occur has already been explained, as being due to the pressure of the distended rectum upon the internal organs of generation situated at the base of the bladder. It is for this reason, chiefly, that a good share of sexual excesses occur in the morning.

But, aside from all other considerations, is it not the most supreme selfishness for a man to consider only himself in his sexual relations, making his wife wholly subservient to his own desires? As a learned professor remarks, in speaking of woman, "Who has a right to regard her as a therapeutic agent?"

Brutes and Savages More Considerate.—It is only the civilized, Christianized(?) male human being who complains of the restraint imposed upon him by the laws of nature. The untutored barbarian, even some of the lowest of those who wear the human form, together with nearly all the various classes of lower animals, abstain from sexual indulgence during pregnancy. The natives of the Gold Coast and many other African tribes regard it as a shameful offense to cohabit during gestation. In the case of lower animals, even when the male desires indulgence, the female resents any attempt of the sort by the most vigorous resistance.

Are not these wholesome lessons for that portion of the human race which professes to represent the accumulated wisdom, intelligence, and refinement of

the world? Those who need reproof on this point may reflect that by a continuance of the evil practice they are placing themselves on a plane even below the uncouth negro who haunts the jungles of Southern Africa.

We quote the following from the pen of a talented professor in a well-known medical college:

“I believe we cannot too strenuously insist upon this point,—that sexual intercourse should never be undertaken with any other object than procreation, and never then unless the conditions are favorable to the production of a new being who will be likely to have cause to thankfully bless his parents for the gift of life. If this rule were generally observed, we should have no broken-nosed Tristram Shandys complaining of the carelessness of their fathers in begetting them.” *

What May Be Done.—But what is the practical conclusion to be drawn from all the foregoing? What *should* people do? What *may* they do? Dr. Gardner offers the following remarks, which partially answer the questions:

“We have shown that we can ‘DO RIGHT’ without prejudice to health by the exercise of continence. Self-restraint, the ruling of the passions, is a virtue, and is within the power of all well-regulated minds. Nor is this necessarily perpetual or absolute. The passions may be restrained within proper limitations. He who indulges in lascivious thoughts may stimulate himself to frenzy; but if his mind were under proper control, he would find other employment for it, and his body, obedient to its potent sway, would not become the master of the man.”

What are the “proper limitations” every person must decide for himself in view of the facts which have

* Dr. Gerrish.

been presented. If he find that the animal in his nature is too strong to allow him to comply with what seems to be the requirements of natural law, let him approximate as nearly to the right as possible. "Let every man be fully persuaded in his own mind," and act accordingly, not forgetting that this is a matter with serious moral bearings, and hence one in which conscience should be on the alert. It is of no use to reject truth because it is unpalatable. There can be nothing worse for a man than to "know the truth and do it not."

It is but fair to say that there is a wide diversity of opinion among medical men on this subject. A very few hold that the sexual act should never be indulged except for the purpose of reproduction, and then only at periods when reproduction will be possible. Others, while equally opposed to the excesses, the effects of which have been described, limit indulgence to the number of months in the year.

Read, reflect, weigh well the matter, then fix upon a plan of action, and if it be in accordance with the dictates of better judgment, do not swerve from it.

If the suggestion made near the outset of these remarks, in comparing the reproductive function in man and animals,—that the seasons of sexual approach should be governed by the inclination of the female,—were conscientiously followed, it would undoubtedly do away with at least three-fourths of the excesses which have been under consideration. Before rejecting the hint so plainly offered by nature, let every man consider for a moment whether he has any other than purely selfish arguments to produce against it.

Early Moderation.—The time of all others when moderation is most imperatively demanded, yet least

likely to be practiced, is at the beginning of matrimonial life. Many a woman dates the beginning of a life of suffering from the first night after marriage; and the mental suffering from the disgusting and even horrible recollections of that night, the events of which were scarred upon her mind as well as upon her body, have made her wretched both mentally and physically.

A learned French writer, in referring to this subject, says, "The husband who begins with his wife by a rape is a lost man. He will never be loved."

Cases have come under our care of young wives who have required months of careful treatment to repair the damage inflicted on their wedding night. A medical writer has reported a case in which he was called upon to testify in a suit for divorce, which is an illustration of so gross a degree of sensuality that the perpetrator certainly deserved most severe punishment. The victim, a beautiful and accomplished young lady, to please her parents, was married to a man much older than herself, riches being the chief attraction. She at once began to pine, and in a very few months was a complete wreck. Emaciated, spiritless, haggard, she was scarcely a shadow of her former self. The physician who was called in, upon making a local examination, found those delicate organs in a state of most terrible laceration and inflammation. The bladder, rectum, and other adjacent organs were highly inflamed, and sensitive in the highest degree. Upon inquiring respecting the cause, he found that from the initial night she had been subjected to the most excessive demands by her husband, "day and night." The tortures she had undergone had been terrific; and her mind trembled upon the verge of insanity. She entered suit for divorce on the charge of cruelty, but

was defeated, the judge ruling that the law has no jurisdiction in matters of that sort.

In another somewhat similar case that came to our knowledge, a young wife was delivered from the lecherous assaults of her husband—for they were no better—by the common sense of her neighbor friends, who gathered in force, and insisted upon their discontinuance. It is only now and then that cases of this sort come to the surface. The majority of them are hidden deep down in the heart of the poor, heart-broken wife, and too often they are hidden along with the victim in an early grave.

Prevention of Conception.—The evil considered in the preceding pages is by far the greatest cause of those which will be dwelt upon here. Excesses are habitually practiced through ignorance or carelessness of their direct results; and then, to prevent the legitimate result of the reproductive act, innumerable devices are employed to render it fruitless. To even mention all of these would be too great a breach of propriety, even in this plain-spoken work; but accurate description is unnecessary, since those who need this warning are perfectly familiar with at least some of the foul accessories of evil thus employed. We cannot do better than to quote from the writings of several of the most eminent authors upon this subject. The following paragraphs are from the distinguished Mayer, who has been already frequently quoted:

“The numerous stratagems invented by debauch to annihilate the natural consequences of coition, have all the same end in view.”

Conjugal Onanism.—“The soiling of the conjugal bed by the shameful maneuvers to which we have made allusion, is mentioned for the first time in Gen. 38:6,

and following verses: 'And it came to pass, when he [Onan] went in unto his brother's wife, that he spilled it on the ground, lest that he should give seed to his brother. And the thing which he did displeased the Lord; wherefore he slew him.'

"Hence the name, *conjugal Onanism*.

"One cannot tell to what great extent this vice is practiced, except by observing its consequences, even among people who fear to commit the slightest sin, to such a degree is the public conscience perverted upon this point. Still, many husbands know that nature often succeeds in rendering nugatory the most subtle calculations, and reconquers the rights which they have striven to frustrate. No matter; they persevere, none the less, and by the force of habit they poison the most blissful moments of life, with no surety of averting the result that they fear. So, who knows if the infants, too often feeble and weazen, are not the fruit of these in themselves incomplete *procreations*, and disturbed by preoccupations foreign to the generic act? Is it not reasonable to suppose that the creative power, not meeting in its disturbed functions the conditions necessary for the elaboration of a normal product, the conception might be from its origin imperfect, and the being which proceeded therefrom, one of those monsters which are described in treatises on teratology?"

"Let us see, now, what are the consequences to those given to this practice of conjugal Onanism.

"We have at our disposition numerous facts which rigorously prove the disastrous influence of abnormal coitus to the woman, but we think it useless to publish them. All practitioners have more or less observed them, and it will only be necessary for them to call upon their memories to supply what our silence leaves.

‘However, it is not difficult to conceive,’ says Dr. Francis Devay, ‘the degree of perturbation that a like practice should exert upon the genital system of woman by provoking desires which are not gratified. A profound stimulation is felt through the entire apparatus; the uterus, Fallopian tubes, and ovaries enter into a state of orgasm, a storm which is not appeased by the natural crisis. It is to this cause, too often repeated, that we should attribute the multiple neuroses, those strange affections which originate in the genital system of woman. Our conviction respecting them is based upon a great number of observations. Furthermore, the normal relations existing between the married couple undergo unfortunate changes; this affection, founded upon reciprocal esteem, is little by little effaced by the repetition of an act which pollutes the marriage bed; from thence proceed certain hard feelings, certain deep impressions which, gradually growing, eventuate in the scandalous ruptures of which the community rarely know the real motive.’

‘If the good harmony of families and their reciprocal relations are seriously menaced by the invasion of these detestable practices, the health of women, as we have already intimated, is fearfully injured. A great number of neuralgias appear to us to have no other cause. Many women that we have interrogated on this matter have fortified this opinion. But that which to us has passed to the condition of incontestable proof, is the prevalence of uterine troubles, of enervation among the married, hysterical symptoms which are met with in the conjugal relation as often as among young virgins, arising from the vicious habits of the husbands in their conjugal intercourse. . . . Still more, there is a graver affection, which is daily increasing,

and which, if nothing arrests its invasion, will soon have attained the proportions of a scourge; we speak of the degeneration of the womb. We do not hesitate to place in the foremost rank, among the causes of this redoubtable disease, the refinements of civilization, and especially the artifices introduced in our day in the generic act. When there is no procreation, although the procreative faculties are excited, we see these pseudo-morphoses arise. Thus it is noticed that polypi and schirrus [cancer] of the womb are common among prostitutes.”

“We may, we trust, be pardoned for remarking upon the artifices imagined to prevent fecundation, that there is in them an immense danger, of incalculable limits. We do not fear to be contradicted or taxed with exaggeration in elevating them into the proportions of a true calamity.”

The following is from an eminent physician * who for many years devoted his whole attention to the diseases of women, and lectured upon the subject in a prominent medical college:

“It is undeniable that all the methods employed to prevent pregnancy are physically injurious. Some of these have been characterized with sufficient explicitness, and the injury resulting from incomplete coitus to both parties has been made evident to all who are willing to be convinced. It should require but a moment’s consideration to convince any one of the harmfulness of the common use of cold ablutions and astringent infusions and various medicated washes. Simple, and often wonderfully salutary, as is cold water to a diseased limb festering with inflammation, yet few are rash enough to cover a gouty toe, rheumatic knee, or erysipelatous head with cold water.

*Dr. Gardner. 32

. . . Yet, when in the general state of nervous and physical excitement attendant upon coitus, when the organs principally engaged in this act are congested and turgid with blood, do you think you can with impunity throw a flood of cold or even lukewarm water far into the vitals in a continual stream? Often, too, women add strong medicinal agents, intended to destroy by dissolution the spermatic germs, ere they have time to fulfill their natural destiny. These powerful astringents suddenly corrugate, and close the glandular structure of the parts, and this is followed, necessarily, by a corresponding reaction, and the final result is debility and exhaustion, signalized by leucorrhœa, prolapsus, and other diseases.

“Finally, of the use of intermediate tegumentary coverings, made of thin rubber or gold-beater’s skin, and so often relied upon as absolute preventives, Madame de Stael is reputed to have said, ‘They are cobwebs for protection, and bulwarks against love.’ Their employment certainly must produce a feeling of shame and disgust utterly destructive of the true delight of pure hearts and refined sensibilities. They are suggestive of licentiousness and the brothel, and their employment degrades to bestiality the true feelings of manhood and the holy state of matrimony. Neither do they give, except in a very limited degree, the protection desired. Furthermore, they produce (as alleged by the best modern French writers, who are more familiar with the effect of their use than we are in the United States) certain physical lesions from their irritating presence as foreign bodies, and also from the chemicals employed in their fabrication, and other effects inseparable from their employment, oft-times of a really serious nature.

“I will not further enlarge upon these instrumentalities. Sufficient has been said to convince any one that to trifle with the grand functions of our organism, to attempt to deceive and thwart nature in her highly ordained prerogatives, no matter how simple seem to be the means employed, is to incur a heavy responsibility and run a fearful risk. It matters little whether a railroad train is thrown from the track by a frozen drop of rain or a huge boulder lying in the way; the result is the same, the injuries as great. Moral degradation, physical disability, premature exhaustion and decrepitude, are the result of these physical frauds, and force upon our conviction the adage, which the history of every day confirms, that ‘honesty is the best policy.’ ”

“Male Continence.”—A peculiar method, misnamed “male continence” was practiced by the members of the Oneida Community, and has been recommended by some writers as physiological and proper. The very opposite is true. This abominable practice can be considered as nothing better than double masturbation. Its terrible results do not differ much from those of solitary vice.

Shaker Views.—The Shakers do not, as many suppose, believe wholly in celibacy. They believe in marriage and reproduction regulated by the natural law, and would limit population, but not by interfering with nature; rather, by following nature’s indications to the very letter. They believe “that no animals should use their reproductive powers and organs for any other than the simple purpose of procreation.” Recognizing the fact that this is the law among lower animals, they insist upon applying it to man. Thus they find no necessity for the employment of those

abominable contrivances so common among those who disregard the laws of nature. Who will not respect the purity which must characterize sexual relations so governed?

Moral Bearings of the Question.—Most of the considerations presented thus far have been of a physical character, though occasional references to the moral aspect of the question have been made. In a certain sense—and a true one—the question is wholly a moral one; for what moral right have men or women to do that which will injure the integrity of the physical organism given them, and for which they are accountable to their Creator?—Surely none; for the man who destroys himself by degrees is no less a murderer than he who cuts his throat or sends a bullet through his brain. The crime is the same, being the shortening of human life, whether the injury is done to one's self or to another. In this matter, there are at least three sufferers; the husband, the wife, and the offspring, though in most cases, doubtless, the husband is the one to whom the sin almost exclusively belongs.

Unconsidered Murders.—But there is a more startling phase of this moral question. It is not impossible to prove that actual violence is done to a human life.

It has been previously shown that in the two elements, the ovum of the female and the spermatozoon of the male, are all the elements, in rudimentary form, which go to make up the "human form divine." Alone, neither of these elements can become anything more than it already is; but the instant they come in contact, fecundation takes place, and the individual life begins. From that moment until maturity is reached, years subsequently, the whole process is only one of development. Nothing absolutely new is added at any

subsequent moment. In view of these facts, it is evident that at the very instant of conception the embryonic human being possesses all the right to life it ever can possess. It is just as much an individual, a distinct human being, possessed of soul and body, as it ever is, though in a very immature form. That conception may take place during the reproductive act cannot be denied. If, then, means are employed with a view to prevent conception immediately after the accomplishment of the act, or to suspend it at any subsequent time, it would be done by destroying the delicate product of the conception which had already occurred, and which, as before observed, is as truly a distinct individual as it can ever become,—certainly as independent as at any time previous to birth.

Is it immoral to take human life? Is it a sin to kill a child? Is it a crime to strangle an infant at birth? Is it a murderous act to destroy a half-formed human being in its mother's womb? Who will dare to answer, No, to one of these questions? Then who can refuse assent to the plain truth that it is equally a murder to deprive of life the most recent product of the generative act?

Who can number the myriads of murders that have been perpetrated at this early period of existence? Who can estimate the load of guilt that weighs upon some human souls? Who knows how many brilliant lights have been thus early extinguished? how many promising human plantlets thus ruthlessly destroyed in the very act of germinating? It is to be hoped that in the final account the extenuating influence of ignorance may weigh heavily in the scale of justice against the damning testimony of these "unconsidered murders."

The Charge Disputed.—It will be urged that these early destructions are not murders. Murder is an awful word. The act itself is a terrible crime. No wonder that its personal application should be studiously avoided; the human being who would not shrink from such a charge would be unworthy of the name of human—a very brute. Nevertheless, it is necessary to look the plain facts squarely in the face, and shrink not from the decision of an enlightened conscience. We quote the following portions of an extract which we give in full elsewhere; it is from the same distinguished authority * so frequently quoted:

“There is, in fact, no moment after conception when it can be said that the child has not life, and the crime of destroying human life is as heinous and as sure before the period of ‘quickenings’ has been attained, as afterward. But you still defend your horrible deed by saying: ‘Well, if there be, as you say, this mere animal life, equivalent at the most to simple vitality, there is no mind, no soul, destroyed, and therefore there is no crime committed.’ Just so surely as one would destroy and root out of existence all the fowls in the world by destroying all the eggs in existence, so certain is it that you do by your act destroy the animal man in the egg, and the soul which animates it. . . . Murder is always sinful, and murder is the wilful destruction of a human being at any period of its existence, from its earliest germinal embryo to its final, simple, animal existence in aged decrepitude and complete mental imbecility.”

Difficulties.—Married people will exclaim, “What shall we do?” Delicate mothers who have already more children on their hands than they can care for, whose health is insufficient to longer endure the pains

* Gardner

and burdens of pregnancy, but whose sensual husbands continue to demand indulgence, will echo in despairing tones, while acknowledging the truth, "What shall *we* do?" We will answer the question for the latter first.

Mr. Mill, the distinguished English logician, in his work on "The Subjection of Woman," thus represents the erroneous view which is popularly held concerning the sexual relations of the wife to the husband: "The wife, however brutal a tyrant she may be chained to, —though she may know that he hates her, though it may be his daily pleasure to torture her, and though she may feel it impossible not to loathe him,—he can claim from her and enforce the lowest degradation of a human being, that of being made the instrument of an animal function contrary to her inclinations."

Woman's Rights.—A woman does not, upon the performance of the marriage ceremony, surrender all her personal rights. The law recognizes this fact if her husband beats her, or in any way injures her by physical force, or even by neglect. Why may she not claim protection from other maltreatment as well? or, at least, why may she not refuse to lend herself to beastly lust? She remains the proprietor of her own body, though married; and who is so lost to all sense of justice, equity, and even morality, as to claim that she is under any moral obligation to allow her body to be abused?

"But such a course would lead to separation and divorce in numerous cases." Who will contend for the maintenance of a relation which has no other bond than lust, which views no other object than the gratification of the animal passions? Were not such a bond better broken than preserved, and were not such an

object better frustrated than attained? Judge candidly.

We have carefully avoided any attempt to point out the duty of a woman under the circumstances named. That must be left for her to settle with her own conscience after receiving due information. Some will not hesitate to urge her to assert and maintain her rights at all hazard. Should a woman feel in conscience bound to do so, it would be the duty of every moral person to support her; for she has an undoubted moral right, whether she chooses to exercise it or not.

What to Do.—Now to the question as asked by the first parties,—married people who together seek for a solution of the difficulties arising from an abandonment of all protectives against fecundation. The true remedy, and the natural one, is doubtless to be found in the suggestion made under the heads of “Continence” and “Marital Excesses.” By a course of life in accordance with the principles there indicated, all these evils and a thousand more would be avoided. There would be less sensual enjoyment, but more elevated joy. There would be less animal love, but more spiritual communion; less grossness, more purity; less development of the animal, and a more fruitful soil for the culture of virtue, holiness, and all the Christian graces.

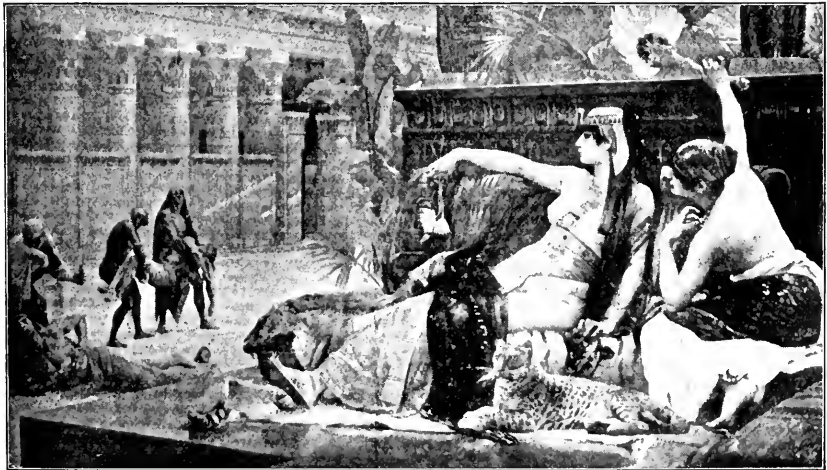
“But such a life would be impossible this side of heaven,” many exclaim. A few who have tried the experiment think not. The Shakers claim to practice, as well as teach, such principles; and with the potent aids to continence previously specified, it might be found less difficult in realization than in thought.

Another suggestion, certainly beneficial to individual health, is that the husband and wife should habitually



TRUE TO NATURE

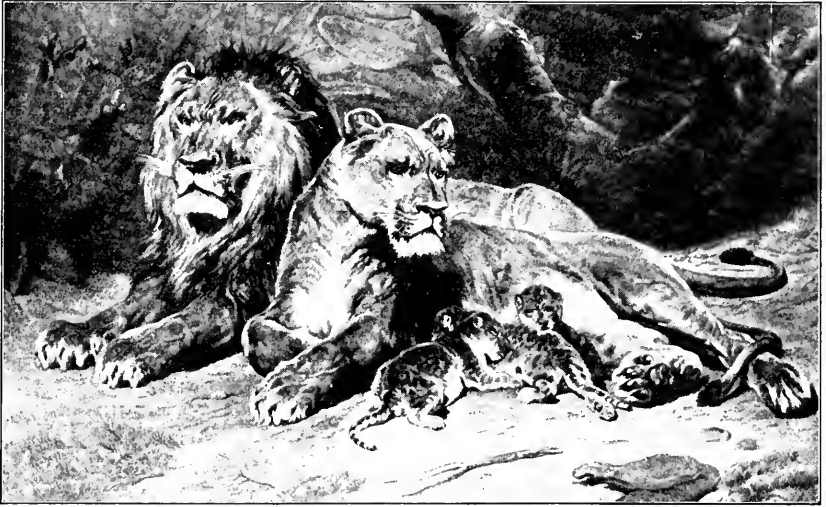
545-a



FALSE TO NATURE

(Cleopatra Testing the Poison before Suicide.)

545-b



5-16-a

CHERISHED OFFSPRING



5-16-b

A FOUNDLING

occupy separate beds. Such a practice undoubtedly serves to keep the sexual instincts in abeyance. Separate apartments, or at least the separation of the beds by a curtain, is also to be recommended. Sleeping in single beds is reputed to be a European custom of long standing among the higher classes.

This subject cannot be concluded better than by the following quotations from an excellent and able work, entitled, "The Ten Laws of Health:"*

"The obvious design of the sexual desire is the reproduction of the species. . . . The gratification of this passion, or indeed of any other, beyond its legitimate end, is an undoubted violation of natural law, as may be determined by the light of nature, and by the resulting moral and physical evils."

"Those creatures not gifted with erring reason, but with unerring instinct, and that have not the liberty of choice between good and evil, cohabit only at stated periods, when pleasure and reproduction are alike possible. It is so ordered among them that the means and the end are never separated; and as it was the All-wise Being who endowed them with this instinct, without the responsibility resulting from the power to act otherwise, it follows that it is HIS LAW, and must, therefore, be the true copy for all beings to follow having the same functions to perform, and for the same end. The mere fact that men and women have the power and liberty of conforming or not conforming to this copy does not set them free from obedience to a right course, nor from the consequences of disobedience."

"The end of sexual pleasure being to reproduce the species, it follows, from the considerations just advanced, that when the sexual function is diverted from its end (reproduction), or if the means be used

*Black.

when the end is impossible, harm or injury should ensue.”

“Perhaps the number is not small of those who think there is nothing wrong in an unlimited indulgence of the sexual propensity during married life. The marriage vow seems to be taken as equivalent to the freest license, about which there need be no restraint. Yet, if there be any truth in the law in reference to the enjoyment of the means only when the end is possible, the necessity of the limitation of this indulgence during married life is clearly as great as for that of any other sensual pleasure.

“A great majority of those constituting the most highly civilized communities, act upon the belief that anything not forbidden by sacred or civil law is neither sinful nor wrong. They have not found cohabitation during pregnancy forbidden; nor have they ever had their attention drawn to the injury to health and organic development which such a practice inflicts. Hence, a habitual yielding to inclination in this matter has determined their lifelong behavior.

“The infringement of this law in the married state does not produce in the husband any very serious disorder. Debility, aches, cramps, and a tendency to epileptic seizures are sometimes seen as the effects of great excess. An evil of no small account is the steady growth of the sexual passion by habitual unrestraint. It is in this way that what is known as libidinous blood is nursed as well among those who are strictly virtuous, in the ordinary meaning of the term, as among those who are promiscuous in their intercourse.

“The wife and the offspring are the chief sufferers by the violation of this law among the married. Why

this is so, may in part be accounted for by the following consideration: Among the animal kind it is the female which decides when the approaches of the male are allowable. When these are untimely, her instinctive prompting leads her to resist and protect herself with ferocious zeal. No one at all acquainted with the remarkable wisdom nature invariably displays in all her operations, will doubt that the prohibition of all sexual intercourse among animals during the period of pregnancy must be for a wise and good purpose. And if it serves a wise and good purpose with them, why should an opposite course not serve an unwise and bad purpose with us? Our bodies are very much like theirs in structure and in function; and in the mode and laws that govern reproduction there is absolutely no difference. The mere fact that we possess the power to act otherwise than they do during that period, does not make it right.

“Human beings having no instinctive prompting as to what is right and what is wrong, cohabitation, like many other points of the behavior, is left for reason or the will to determine; or, rather, as things now are, to unreason; for reason is neither consulted nor enlightened as to what is proper and allowable in the matter. Nature’s rule, by instinct, makes it devolve upon the female to determine when the approaches of the male are allowable.

“But some may say that she is helpless in the matter. No one dare to approach her without consent before marriage; and why should man not be educated up to the point of doing the same after marriage? She is neither his slave nor his property; nor does the tie of marriage bind her to carry out any unnatural requirement.”

INFANTICIDE AND ABORTION

Few but medical men are aware of the enormous proportions which have been assumed by these terrible crimes during the present century. That they are increasing with fearful rapidity, and have really reached such a magnitude as to seriously affect the growth of civilized nations, and to threaten their very existence, has become a patent fact to observing physicians. The crime itself differs little in reality from that considered under the heading, "Prevention of Conception." It is, in fact, the same crime postponed till a later period.

We quote the following eloquent words on this subject:

"Of all the sins, physical and moral, against man and God, I know of none so utterly to be condemned as the very common one of the destruction of the child while yet in the womb of the mother. So utterly repugnant is it that I can scarcely express the loathing with which I approach the subject!—murder in cold blood, without cause, of an unknown child, one's nearest relative; in fact, part of one's very being, actually having, not only one's own blood in its being, but that blood momentarily interchanging! Good God! Does it seem possible that such depravity can exist in a parent's breast—in a mother's heart?

"'Tis for no wrong that it has committed that its sweet life is so cruelly taken away. Its coming is no disgrace; its creation was not in sin, but—its mother 'don't want to be bothered by any more brats; can hardly take care of what she had got; is going to Europe in the spring.'

“We may forgive the poor, deluded girl—seduced, betrayed, abandoned—who in her wild frenzy, destroys the mute evidence of her guilt. We have sympathy and sorrow for her. But for the married shirk who disregards her divinely ordained duty, we have nothing but contempt, even if she be the lordly woman of fashion, clothed in purple and fine linen. If glittering gems adorn her person, within there is foulness and squalor.”*

Not a Modern Crime.—Although this crime has attained remarkable proportions in modern times, it is not a new one by any means, as the following paragraph will suffice to show:

“Infanticide and exposure were also the custom among the Romans, Medes, Canaanites, Babylonians, and other Eastern nations, with the exception of the Israelites and Egyptians. The Scandinavians killed their offspring from fantasy. The Norwegians, after having carefully swaddled their children, put some food into their mouths, placed them under the roots of trees or under the rocks, to preserve them from ferocious beasts. Infanticide was also permitted among the Chinese, and we saw, during the last century, vehicles going round the streets of Peking daily to collect the bodies of the dead infants. To-day there exist foundling hospitals to receive children abandoned by their parents. The same custom is also observed in Japan, in the isles of the Southern Ocean, at Otaheite, and among several savage nations of North America. It is related of the Jagers of Guinea that they devour their own children.”†

The Greeks practiced infanticide systematically, their laws at one time requiring the destruction of crippled or weakly children. Among all the various

*Gardner. †Burdach.

nations, the general object of the crime seems to have been to avoid the trouble of rearing children, or to avoid a surplus, objects not far different from those had in view by persons who practice the same crimes at the present time.

The destruction of the child after the mother has felt its movements, is termed infanticide; before that time it is commonly known as abortion. It is a modern notion that the child possesses no soul or individual life until the period of quickening,—an error which we have already sufficiently exposed. The ancients, with just as much reason, contended that no distinct life was present until after birth. Hence it was that they could practice without scruple the crime of infanticide to prevent too great increase of population. “Plato and Aristotle were advocates of this practice, and these Stoics justified this monstrous practice by alleging that the child only acquired a soul at the moment when it ceased to have uterine life and commenced to respire. From hence it resulted that, the child not being animated, its destruction was no murder.”

The prevalence of this crime will be indicated by the following observations from the most reliable sources:

“We know that in certain countries abortion is practiced in a manner almost public, without speaking of the East, where it has, so to speak, entered into the manners of the country. We see it in America, in a great city like New York, constituting a regular business, and not prevented, where it has enriched more than one midwife.”

“England does not yield to Germany or France in the frequency of the crime of infanticide.” *

* Jardien.

“Any statistics attainable are very incomplete. False certificates are daily given by attending physicians. Men, if they are only rich enough, die of ‘congestion of the brain,’ not ‘delirium tremens;’ and women, similarly situated, do not die from the effects of abortion, but of ‘inflammation of the bowels,’ etc.”

“Infanticide, as it is generally considered (destroying a child after quickening), is of very rare occurrence in New York; whereas abortions (destroying the embryo before quickening) are of daily habit in the families of the best informed and most religious; among those abounding in wealth, as well as among the poor and needy.” *

“Perhaps only medical men will credit the assertion that the frequency of this form of destroying human life exceeds all others by at least fifty per cent, and that not more than one in a thousand of the guilty parties receive any punishment by the hand of civil law. But there is a surer mode of punishment for the guilty mother in the self-executing laws of nature.” †

“From a very large verbal and written correspondence in this and other States, I am satisfied that we have become a *nation of murderers*.” ‡

Said a distinguished clergyman of Brooklyn in a sermon, “Why send missionaries to India when child-murder is here of daily, almost hourly, occurrence; aye, when the hand that puts money into the contribution-box to-day, yesterday, or a month ago did, or to-morrow will, murder her own unborn offspring?”

“The Hindoo mother, when she abandons her babe upon the sacred Ganges, is, contrary to her heart, obeying a supposed religious law, and you desire to convert her to your own worship of the Moloch of

* Gardner. † Black. ‡ Reamy.

Fashion and Laziness and love of Greed. Out upon such hypocrisy!"

Writers tell us that it has even become the boast of many women that they "know too much to have babies."

Causes of the Crime.—Many influences may combine to cause the mother ruthlessly to destroy her helpless child; as, to conceal the results of sin, to avoid the burdens of maternity, to secure ease and freedom to travel, etc., or even from a false idea that maternity is vulgar; but it is true, beyond all question, that the primary cause of the sin is far back of all these influences. The most unstinted and scathing invectives are used in characterizing the criminality of a mother who takes the life of her unborn babe; but a word is seldom said of the one who forced upon her the circumstances which gave the unfortunate one existence. Though doctors, ministers, and moralists have said much on this subject, and written more, it is reasonable to suppose that they will never accomplish much, if anything, in the direction of reform until they recognize the part the man acts in all these sad cases, and begin to demand reform where it is most needed, and where its achievement will effect the most good. As was observed in the remarks upon the subject of "Prevention of Conception," this evil has its origin in "marital excesses," and in a disregard of the natural law which makes the female the sole proprietor of her own body, and gives to her the right to refuse the approaches of the male when unprepared to receive them without doing violence to the laws of her being.

The Nature of the Crime.—"The married and well-to-do, who by means of medicines and operations

produce abortions at early periods of pregnancy, have no excuse, except the pretense that they do not consider it murder until the child quickens.

“No, not murder, you say, for ‘there has not been any life in the child.’ Do not attempt to evade, even to man, a crime which cannot be hidden from the All-seeing. The poor mother has not herself felt the life of the child perhaps, but that is a quibble only of the laws of man, founded indeed upon the view, now universally recognized as incorrect, that the child’s life began when its movements were first strong enough to be perceptible. There is, in fact, no moment after conception when it can be said that the child has not life, and the crime of destroying human life is as heinous and as sure before the period of ‘quickening’ has been attained as afterward. But you still defend your horrible deed by saying, ‘Well, if there be, as you say, this mere animal life, equivalent at the most to simple vitality, there is no mind, no soul destroyed, and therefore there is no crime committed.’ Just so surely as one would destroy and root out of existence all the fowls in the world by destroying all the eggs in existence, so certain it is that you do by your act destroy the animal man in the egg, and the soul which animates it. When is the period that intelligence comes to the infant? Are its first feeble strugglings any evidence of its presence? Has it any appreciable quantity at birth? Has it any valuable, useful quantity even when a year old? When, then, is it that destruction is harmless or comparatively sinless? While awaiting your metaphysical answer, I will tell you when it is sinful. Murder is always sinful, and murder is the wilful destruction of a human being at any period of its existence, from its

earliest germinal embryo to its final, simple, animal existence in aged decrepitude and complete mental imbecility." *

"There are those who would fain make light of this crime by attempting to convince themselves and others that a child, while in embryo has only a sort of vegetative life, not yet endowed with thought and the ability to maintain an independent existence. If such a monstrous philosophy as this presents any justification for such an act, then the killing of a newly born infant or of an idiot may be likewise justified. The destruction of the life of an unborn human being, for the reason that it is small, feeble, and innocently helpless, rather aggravates than palliates the crime. Every act of this kind, with its justification, is obviously akin to that savage philosophy which accounts it a matter of no moment, or rather a duty, to destroy feeble infants, or old, helpless fathers and mothers." †

Instruments of Crime.—"The means through which abortions are effected are various. Sometimes it is through potent drugs, extensively advertised in newspapers claiming to be moral!—the advertisements so adroitly worded as to convey under a caution the precise information required of the liability of the drug to produce miscarriages. Sometimes the information is conveyed through secret circulars; but more commonly the deed is consummated by professed abortionists, who advertise themselves as such through innuendo, or through gaining this kind of repute by the frequent commission of the act. Not a few women, deterred by lingering modesty or some sense of shame, attempt and execute it upon themselves, and then volunteer to instruct and encourage others to go and do likewise." †

* Gardner. † Black.

Results of This Unnatural Crime.—It is the universal testimony of physicians that the effects of abortion are almost as deadly upon the mother as upon the child. The amount of suffering is vastly greater; for that of the child, if it suffer at all, is only momentary, in general, while the mother is doomed to a life of suffering, of misery, if she survives the shock of the terrible outrage against her nature. It has been proved by statistics that the danger of immediate death is *fifteen times as great as in natural childbirth*. A medical author of note asserts that a woman suffers more injury from one abortion than she would from twenty normal births. Says an eminent physician on this point:

“We know that the popular idea is that women are worn out by the toil and wear connected with the raising of large families, and we can willingly concede something to this statement; but it is certainly far more observable that the efforts at the present day made to avoid propagation, are ten thousandfold more disastrous to the health and constitution, to say nothing of the demoralization of mind and heart, which cannot be estimated by red cheeks or physical vigor.”

But suppose the mother does not succeed in her attempts against the life of her child, as she may not; what fearful results may follow! Who can doubt that the murderous intent of the mother will be stamped indelibly upon the character of the unwelcome child, giving it a natural propensity for the commission of murderous deeds?

Then again,—sickening thought,—suppose the attempts to destroy the child are unsuccessful, resulting only in horrid mutilation of its tender form; when such a child is born, what terrible evidences may it bear in

its crippled and misshapen body of the cruel outrage perpetrated upon it! That such cases do occur is certain from the following narrative:

“A lady, determined not to have any more children, went to a professed abortionist, and he attempted to effect the desired end by violence. With a pointed instrument the attempt was again and again made, but without the looked-for result. So vigorously was the effort made, that, astonished at no results being obtained, the individual stated that there must be some mistake, that the lady could not be pregnant, and refused to perform any further operations. Partially from doubt and partially from fear, nothing further was attempted; and in due process of time the woman was delivered of an infant, shockingly mutilated, with one eye entirely put out, and the brain so injured that this otherwise robust child was entirely wanting in ordinary sense. This poor mother, it would seem, needs no future punishment for her sin. Ten years face to face with this poor idiot, whose imbecility was her direct work—has it not punished her sufficiently?”

An Unwelcome Child.—A number of years ago, a woman called on the writer, stating that she had become pregnant much against her wishes, and earnestly desired that an abortion should be produced. The following conversation ensued:

“Why do you desire the destruction of your unborn infant?”

“Because I already have three children, which are as many as I can properly care for; besides, my health is poor, and I do not feel that I can do justice to what children I now have.”

“Your chief reason, then, is that you do not wish more children?”

“Yes.”

“On this account you are willing to take the life of this unborn babe?”

“I must get rid of it.”

“I understand that you have already borne three children, and that you do not think you are able to care for more. Four children are, you think, one too many, and so you are willing to destroy one. Why not destroy one of those already born?”

“Oh, that would be murder!”

“It certainly would, but no more murder than it would be to kill this unborn infant. Indeed, the little one you are carrying in your womb has greater claims upon you than the little ones at home, by virtue of its entire dependence and helplessness. It is just as much your child as those whose faces are familiar to you, and whom you love. Why should you be more willing to take its life than that of one of your other children? Indeed, if one must die because there are too many, there are several reasons why one of those already born should be sacrificed instead of the one unborn. Your other children you are acquainted with. Some of them have serious faults. None of them have very marked mental ability or give very great promise of becoming specially useful in the world. This one that is unborn may, for aught you know, be destined to a career of wonderful usefulness. It may be a genius, endowed with most remarkable gifts. It may be a discoverer of some new truth or new principle, which will be of great service to the world. It may be of all your children the most talented and the most lovable, and in every way the most desirable. Again, you cannot destroy the life of this innocent child whom you have never seen, without endangering your own life

as well, and certainly not without incurring the risk of lifelong suffering and disease. This could all be avoided by the sacrifice of a child already born."

"But that would be too horrible! To think of taking one of my little boys and cutting his throat, or throwing him into the river! I could not do such a wicked thing."

"The act would be in no sense more wicked than what you have come here to request me to do for you. Certainly, you do not think that I advise you to take the life of one of your little children. I only wish to present the subject to you in such a light that you will see the enormity of the crime which in your heart you have proposed to commit. My most earnest advice to you is that you put such thoughts far from your mind, and endeavor to make the best of your present circumstances. Employ all such means as will build up your health, fortify yourself for the ordeal through which you must pass, and conduce in every way to the development of a vigorous and healthy child."

The woman left our office defeated, but not wholly restored to moral sanity. She continued to bemoan her condition, and allowed her heart to be filled with enmity against the innocent being that was in no way responsible for her afflictions. So far as we know, however, no active measures were taken to produce abortion. The mother dragged out a miserable existence for several months, and finally gave birth to a puny infant, which barely survived the perils of parturition, and came into the world the most wretched of all human beings, "an unwelcome child." In a few weeks it became emaciated to an extent almost beyond belief, with not one particle of fatty tissue remaining to give to its body the plumpness and roundness natu-

ral to this period of life. The eyes were sunken back in their sockets, the cheeks fallen in, the nose pinched, and the whole countenance presented the appearance of infirm old age, just upon the verge of the grave, from consumption. The fingers resembled most those of a skeleton. Horrible sores began to make their appearance, first on the hands, then about the head and eyes. The bones began to decay and drop out one by one, and yet the poor little creature clung to life week after week, becoming more wretched and miserable, a constant moaning and crying day and night indicating the intense suffering which it endured. Horrible spasms now and then deprived it of the power to breathe. Again and again the mother thought it was dying, and even dead, but still it survived month after month, lingering on, literally a living, breathing putrefying corpse. During all these days and weeks and months of weary watching, day and night, what must have been the mother's regrets! What pangs of bitter self-reproach, and what remorse of conscience must have burned in her heart, as during the long night watches she sat beside her dying babe, and listened to its piteous moans!

And still the wretched infant lingered. Its little flickering flame of life burned faintly on for many months. The mother nursed it day and night, dressing its festering sores and soothing its feeble cries. But vain was her effort to undo the wrong she had done her little one. Let us hope that by genuine repentance and the many months of faithful and patient watching, she has made a full atonement for her sin.

The Remedy.—Whether this gigantic evil can ever be eradicated is exceedingly doubtful. To effect its cure would be to make refined Christians out of brutal

sensualists, to emancipate woman from the enticing, alluring slavery of fashion, to uproot false ideas of life and its duties,—in short, to revolutionize society. The crime is perpetrated in secret. Many times no one but the criminal herself is cognizant of the evil deed. Only occasionally do cases come near enough to the surface to be dimly discernible; hence the evident inefficiency of any civil legislation. But the evil is a desperate one, and is increasing; shall no attempt be made to check the tide of crime and save the perpetrators from both physical and spiritual perdition? An effort should be made, at least. Let every Christian raise the note of warning. From every Christian pulpit let the truth be spoken in terms too plain for misapprehension. Let those who are known to be guilty of this most revolting crime be looked upon as murderers, which they are; and let their real moral status be distinctly shown.

All these means will do something to effect a reform; but the radical cure of the evil will only be found in the principles suggested in the section devoted to the consideration of “Marital Excesses.” The adoption of those principles and strict adherence to them would effectually prevent the occurrence of circumstances which are the occasion of abortions and infanticides.

Murder by Proxy.—“There is, at the present time, a kind of infanticide, which, although it is not so well known, is even more dangerous, because done with impunity. There are parents who recoil with horror at the idea of destroying their offspring, although they would greatly desire to be disembarrassed of them, yet place them without remorse with nurses who enjoy the sinister reputation of never returning the chil-

dren to those who intrusted them to their care. These unfortunate little beings are condemned to perish from inanition and bad treatment.

“The number of these innocent victims is greater than would be imagined, and very certainly exceeds that of the marked infanticides sent by the public prosecutor to the court of the assizes.”

DISEASES PECULIAR TO WOMEN

CAUSES OF DISEASE AMONG WOMEN.—
The great prevalence of diseases peculiar to the sex among American women, is a matter of remark by medical authors. The women of European countries are far less subject to these maladies than are American women, but yet they are more or less prevalent among all civilized people. Among the principal causes to which this state of things is attributable, the following may be enumerated:

1. *Carelessness at Menstruation.*—Neglect to care properly for themselves at the menstrual period, either through carelessness or ignorance of the consequences, is probably one of the most common causes of uterine or ovarian disorders. Neglects of this kind are most likely to occur, and are most harmful, during the first two or three years after the beginning of the menstrual period.

2. *Sexual sins*, in the form of self-abuse in the unmarried and excesses in the married, and prolonged excitement from erotic thoughts in both classes, are unmistakably a frequent cause of ovarian and uterine diseases.

3. *Neglect of the Bowels.*—Constipation is a prevalent disorder among women. It is sometimes the result of improper diet and sedentary habits, but is quite as frequently the effect of neglecting to evacuate the bowels at a regular hour each day, which is essential to proper and regular action. Constipation gives rise

to congestion of the pelvic organs; and the violent efforts necessary to expel the hardened contents of the bowels, force the womb and ovaries out of position, straining the ligaments and other structures by which they are held in position, and causing intense congestion by the prolonged straining efforts.

4. *Excessive Use of Drugs.*—This must also be set down as a frequent cause of disease in women, though not always of local disorders. After-dinner pills, liver regulators, laxatives, etc., frequently operate in an injurious manner upon the pelvic viscera.

5. *Errors in Dress.*—Tight-lacing, the wearing of heavy skirts about the waist, neglect to properly clothe the limbs, the wearing of high-heeled shoes,—these and other errors in dress common among American women, are responsible for a large share of the weak backs and other evidences of local disease of which women complain.

The importance of woman's dress has excited so much interest of late that it might not be out of place to give to its consideration at this point, a larger amount of space than under ordinary circumstances would be admissible. A writer in the *North American Review* took up the cudgel in defense of what the majority of intelligent physicians consider to be the most objectionable features of fashionable dress. As the profession and reputation of the writer referred to are such that much harm may be done by the sophistical arguments which he presents upon the subject, it may be profitable to devote a little time to their consideration, though their real weight is so slight that if they had been produced by an obscure individual, they would certainly not be worthy a moment's consideration. This champion of fashion writes as follows:

“Without going into the consideration of the dress of women in various parts of the world, it will be sufficient if I confine what I have to say on the subject to their apparel as worn at the present day. But it is an important fact that in the earlier periods of the history of the human race, there were no essential points of difference in the dress of the two sexes, except, perhaps, in the way of wearing the hair. Roman men and women, for instance, wore nearly the same kind of external garments. A plate in Planché’s ‘History of Costume’ represents a group of Anglo-Saxon men and women of the tenth century, and it is difficult, if not impossible, to tell which of the figures represent men and which women. The traditional fig-leaf was the same for both sexes, and from it were evolved skirts that varied but little in shape and general appearance, whether they concealed the nakedness of a man or that of a woman. The differences that now exist have been caused mainly by the revolt of man from the inconvenience of long skirts, and the assumption by him of a separate covering for each leg. What he has gained in the facility with which he can run, leap, climb trees, straddle a horse, row a boat, and do the many other things that his occupations require of him, he has certainly lost in grace and elegance. Trousers are of oriental origin, and in the form of breeches were worn by the ancient Gauls and Britons. They went out of fashion, however, soon after the occupation by the Romans, and the gown took their place, or rather reacquired its place, for both sexes.

“So far as I know, the wearing of trousers by women is a mere matter of convenience and esthetics that they are perfectly competent to settle for themselves, and that they certainly will decide without in-

terference from the other sex. It is not a question into which sanitation enters. There are no statistics to show that the partial exposure of the lower extremities to the atmosphere, which more or less attends upon the absence of trousers, leads to greater ill-health or mortality than when they are more securely covered with trousers. Rheumatism, sciatica, hip-joint disease, white-swelling, neuralgia, etc., are more common in men than they are in women. It is true that women sometimes wear drawers in winter, but they are in general a poor protection in themselves compared with the close-fitting woolen drawers of men, and the superimposed trousers of even more compact material. As a matter of fact, however, women endure cold weather as well as do men, not because they are more warmly clad, but because, owing to the flowing character of their garments, and the fact that they are not in close contact with the lower part of the body, a stratum of air exists between them and the skin, and this, being a good non-conductor of heat, prevents the rapid cooling of the surface that would otherwise take place. It acts just as does the two or three inches thickness of air when double windows are put into a house."

A Muddled Professor.—What a pity that the discovery that loose skirts are warmer for the legs than closely fitting garments, should have been made at so late a day as this! What an amount of earnest talk has been wasted! How the advocates of dress reform have waxed warm in condemning the prevailing style in women's dress, on the ground that the circulation is disturbed by the exposure of the limbs to chilling by the loose skirts, which Dr. ——— has discovered are much warmer than drawers or pantaloons! As most of the agitators of the dress reform question have been

women, this discovery certainly suggests a sad want of acumen on the part of the fair sex, that they should have failed to make the discovery themselves, though having had an opportunity for practical experimentation which it is hardly supposable that Dr. —— has had. It certainly requires the highest kind of genius to be able to rise above the necessity for the observation of facts to which vulgar minds are subjected, and this remarkable discovery of the eminent Professor affords another illustration of what may be accomplished by a skilful use of the “scientific imagination.” The Professor’s reasoning makes it very clear that poor masculine humanity has been for some centuries back abused in a gross and cruel manner, and that science demands that the doctors should preach a crusade against pantaloons, and insist that men shall meekly submit to a reinstatement of the reign of the petticoat. Now that we are fully awakened to the exposures and dangers involved in the wearing of pantaloons, it is a matter of amazement that the unhappy male biped who has been subjected to such a barbarous costume, has not been quite exterminated by this dreadful abuse of his nether extremities.

Personally, we have never had any experience in petticoats; but when we have seen a woman battling her way along the street against a December wind, with her dress skirts whipping about like sails, and the frosty air making small cyclones around her limbs protected only by cotton stockings and thin drawers, our unscientific imagination has somehow become impressed with the idea that the biped in pantaloons on the other side of the street has a great advantage in point of warmth as well as convenience, notwithstanding the lack of “esthetic” qualities in his dress. It

might appear to some persons of meager intellectual endowments, and not gifted with "scientific imaginations," that women endure the cold season of the year as well as men, not because their skirts afford them better protection, but because they are less exposed to the inclemencies of the season, their occupations being indoors.

The Professor continues: "But as the occupations of women are gradually becoming identical with those of men, it appears to be desirable, on the score of convenience, that they should wear trousers, even at the sacrifice of warmth and beauty. A woman commanding a steamboat would certainly be more efficient in trousers than in long skirts. A saleswoman in a shop would do her work with more comfort to herself, and more to the satisfaction of her employer, if she were disencumbered of the gown and petticoats that prevent her from climbing step-ladders to get down goods, or jumping over the counter, like her male rival. Even as a physician, or as a nurse in a hospital, she would more effectually perform her work if she wore trousers, and thus had more freedom in the motions of her lower limbs. A woman surgeon, for instance, called upon to reduce a dislocation of the shoulder-joint, would find skirts very greatly incommodious when she came to put her heel into the axilla of the patient in order to obtain the necessary fixed point to counteract the effects of her traction. Besides, the flowing drapery worn by the woman physician and nurse is more apt to absorb contagion than the closely fitting trousers of man, and hence renders them carriers of disease from house to house, or from person to person.

"If I had the determination of the question, I should prescribe trousers for all women that do man-

ual labor, except such as is of a purely ornamental character,—embroidery, crocheting, etc.,—and such as is strictly confined to the use of the hands, without the legs being necessarily brought into use,—sewing, knitting, writing, painting, etc. The sewing-machine should never be worked by a woman in skirts. The gown and petticoats I would reserve exclusively for women embraced in the above-named exceptions, and for those whose office in society is to be ornamental and useful in the various social relations of life. Certainly a great deal of the esthetics of a drawing-room, a ball-room, or a dinner-table would be lost if the women who attend them wore trousers instead of the silk, satin, and velvet gowns that now add so much to their loveliness. I can quite conceive that a man thoroughly imbued with the prejudices received from a biased education, indisposed to accept new ideas, and deeply endowed with a love for the beautiful, might be reluctant to pay his addresses with a view to matrimony to a woman wearing trousers. Still, under the influence of familiarity with the idea of a change in the nether garments of the sex, and especially if they be generally adopted by pretty women, it might reasonably be expected that a change of opinion and emotion would ensue, and that perhaps in time he might even be brought to regard trousers as filling more completely his idea of the beautiful than do skirts at the present day.”

Our author is afraid that the ball-room and the dinner-table will lose some of their “esthetics” if women should put on trousers; but he at once admits that the “esthetics” of the dress question is wholly a matter of habit, and may be completely reversed if sufficient time is allowed. He continues:

“There is another point that requires consideration, and that is the practice of wearing the gown cut low in the neck, so as to expose the breast, and without covering for the arms. It is doubtful if this leads to any ill consequences. It has been continued for many generations without apparent injury. It might be supposed, at first thought, that bronchitis, pleurisy, pneumonia, and many kinds of rheumatism and neuralgia would be the result of the custom; but such is really not the case, all these affections being much more frequently met with in men who cover the chest and arms with several thicknesses of woolen material in addition to a shirt of linen or cotton.”

Our learned author evidently delights in paradoxes. He gravely says, “There is another point that requires consideration,” referring to the practice of exposing the arms and chest, formerly more fashionable than at the present time. One certainly would expect to hear at least some word of condemnation of this fashion, the unhealthfulness of which has been too frequently demonstrated by those addicted to it, to require the dictum of a learned doctor either for or against it. Indeed, the Professor himself seems to recognize the apparent weakness of his defense of this most absurd of fashionable follies, since he remarks, “It might be supposed at first thought,” etc., but gives no substantial reason why it might not also be supposed at second thought, especially since the same statistics which show man to be the greatest sufferer from bronchitis, pneumonia, etc., as the result of his greater exposure to the weather, show that consumption, a disease which kills vastly more than all the maladies named, finds by far the greatest percentage of its victims among women. It is certainly a mar-

velous exhibition of legerdemain in logic by which the Professor at one moment advocates the wearing of skirts and petticoats on the score of warmth for the limbs, and the next insists that for the other extremity of the body, which is certainly much more closely related to the organs of greatest importance in the vital economy, no clothing whatever is needed.

“It has been strenuously urged by many so-called sanitary reformers, that women should support their skirts by straps passing over the shoulders, and some few have been induced to adopt the method. It is to be hoped that it will not spread. A woman’s hips are proportionally wider than those of a man, and there is no better way of keeping up the many petticoats that it is sometimes necessary to wear, than by fastening them with strings or bands around the waist, over the corset. Shoulder-straps hinder the movements of the chest, and tend to make those who wear them round-shouldered. Besides, they could not well be worn with a low-necked dress. Even if trousers should come into general use for women, it would be better that they should be kept up by the support of the hips than by suspenders passing over the shoulders. It is true that many men wear suspenders, and this fact may perhaps lead to their adoption by some women; but again no inconsiderable number of the male sex support their trousers from the hips. If comparatively narrow-hipped man can do this, wide-hipped woman ought to be able to do it better.”

This paragraph certainly reads like the ingenious advertisement of a fashionable *modiste*, prepared after the style of the latest pattern of quack medicine advertisements. The Doctor speaks as one in authority when he says, “There is no better way,” etc. Did he

ever try the experiment? We know of some hundreds of intelligent women who have tried the experiment of changing the weight of the clothing from the waist to the shoulders, and we do not know of a single instance in which the experimenter has been willing to return to the old style of dressing, after shoulder-straps had been adopted. Suppose the Doctor should try the experiment himself once. Let him supply himself with a fashionable corset, now button his pantaloons tightly around his waist, and fill his pockets with buck shot or twenty-dollar gold pieces, and start off for a ten-mile tramp. If he doesn't complain of a dragging pain in the lower bowels and an insupportable backache before he gets around home, it will be because he hails the first cab, and takes the journey on wheels.

“Shoulder-straps hinder the movements of the chest, and tend to make the wearer round-shouldered.” Undoubtedly this is true if “many petticoats” are suspended from them; but what intelligent woman who has undertaken to reform her dress does not know that “many petticoats” are *never*, instead of “sometimes, necessary.” But here is the real argument: “Besides, they could not well be worn with a low-necked dress.” Certainly not. A strip of red, white, or striped webbing striking straight down across a broad, bare space of pink and white immodesty, would destroy a “great deal of esthetics.”

But did it ever occur to our learned authority that corsets may “hinder the movements of the chest, and tend to make those who wear them” narrow-waisted? It is true, women have wider hips than men, but this anatomical peculiarity is given to women for quite another purpose than to hang either trousers or petticoats on. The Italian farmer works the cow as well

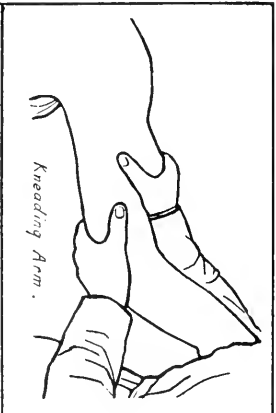
as the ox before the cart or plow. What would even Dr. ——— say if he should find one of these old-fashioned agriculturists adjusting a yoke around the middle of his female bovine, because her hips happened to be a little wider than those of her broad-shouldered brother?

“A good deal more might be said in regard to hats, shoes, and stockings. But as I remarked in the beginning, women will settle all the questions of dress for themselves. There is no evidence to show that in this respect men have ever interfered with them; and if they should presume to make the attempt, it is not at all likely that their advice would be heeded.”

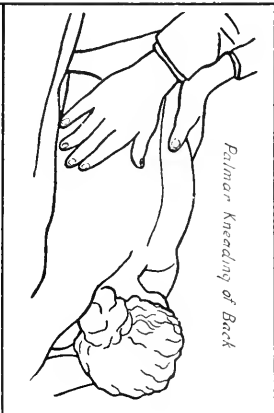
We are able at last to find one sentiment with which we can quite agree. Women are settling this question of dress for themselves, and are perfectly competent to do so, and it is certainly to be hoped that they will not allow fashion-blinded men, even though they may be backed by the prestige of a world-wide reputation in some specialty, to interfere with their attempts to rescue their sisters from the most thralling slavery of modern times,—fashionable dress.

The influence of dress in producing disease in women is so important and far-reaching in its consequences, that we feel it not out of place to devote some additional space to the consideration of this question.

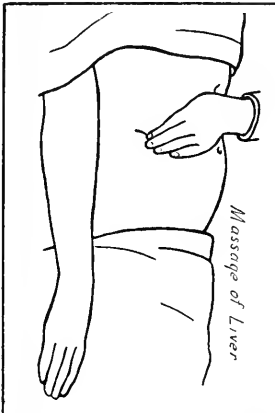
First of all, attention is invited to the normal position of the organs of the trunk. By referring to the colored chart, it will be noted that the liver, spleen, pancreas, and stomach are all located above or at the waist. The transverse colon lies at the waist line. The kidneys lie just at the waist. The greater portion of the space below the waist is occupied by the small intestines, the bladder, and the rectum, with the uterus



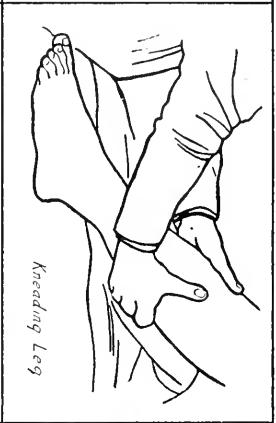
Kneading Arm.



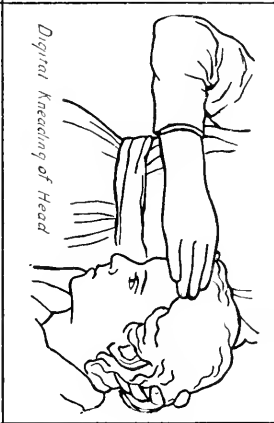
Palmar Kneading of Back



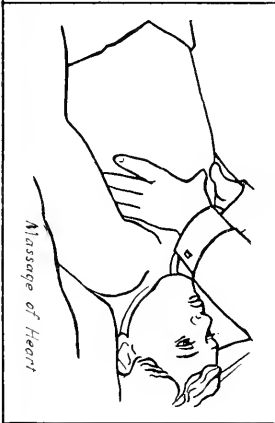
Massage of Liver



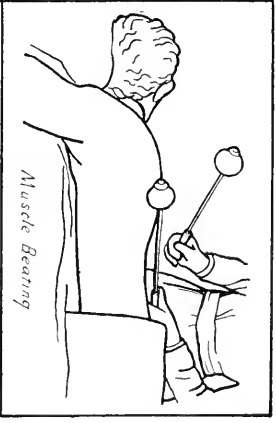
Kneading Leg



Digital Kneading of Head



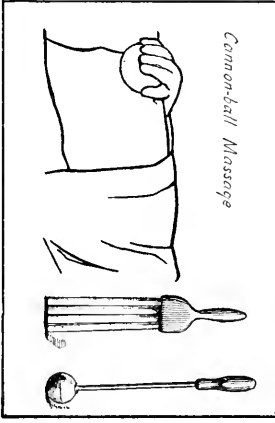
Massage of Heart



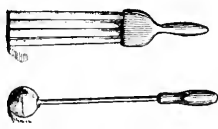
Muscle Bearing



Neck Massage

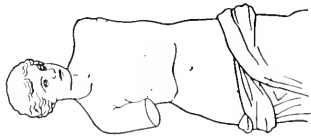


Common-ball Massage



MASSAGE

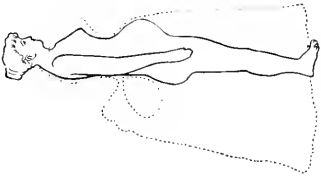
(See page 726 Figures Borrowed from "The Art of Massage," 300 pages, fully Illustrated.)



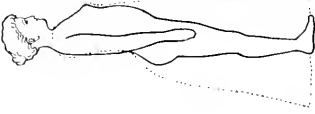
Venus of Milo



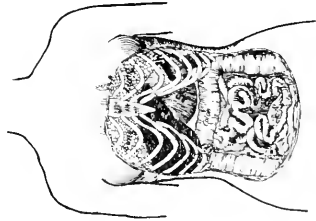
A Fashionable Waist



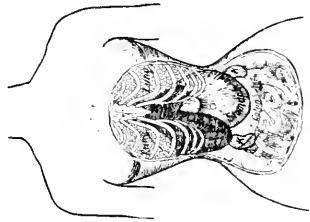
Made-up Figure



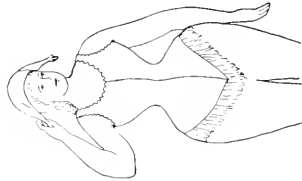
Natural Form



Inside View of Healthy Figure.



Inside View of Corset Deformity



French Actress



Prolapsed Abdominal Viscera.

Abdominal Supporter

and its appendages in the female, and the prostate gland and other special structures in the male. It is noticeable that the organs of the greatest weight and functional importance are located at or above the waist.

How are all these important organs held in position? Although fitted together with the nicety of an articulation, the viscera are certainly not held together by anything corresponding to the firm ligamentous bands which unite the osseous elements of a joint. The so-called ligaments which hold in place the liver, stomach, spleen, and bowels, cannot properly be called ligaments, as very little ligamentous structure enters into their composition. The same must be said of the ligaments which are supposed to support in place the uterus and ovaries, although it must be added that some of the uterine ligaments contain muscular tissues which play a very important part in maintaining the uterus in its proper relation to the trunk and the contiguous organs. The idea is gaining ground among those who have made a special study of this subject, that the chief factor in the support of the pelvic viscera, as well as other of the organs of the lower trunk cavity, is the muscular walls of the abdomen.

Compression of the waist necessarily involves displacement of the organs occupying this portion of the trunk. The unyielding character of the chest walls, and the resistance of the diaphragm prevent any considerable displacement in an upward direction. Consequently, the necessary result of waist-compression, either by the corset or by tight bands, is, that the liver, stomach, bowels, and other organs occupying this zone of the body, are carried downward. The same compressing force which diminishes the circumference of

the body at the waist, interferes with the normal activity and development of the muscles which form the anterior wall of the lower trunk, so that they offer little resistance to the displacing force applied at the waist.

In twenty years of medical practice, we have had to deal almost exclusively with chronic disorders of various sorts, and especially with two classes of chronic disease,—digestive disorders, and maladies peculiar to women. Having under observation from 1,000 to 1,500 cases annually, in conditions favorable for careful study and comparison, we long ago noticed the remarkable frequency of the association of certain forms of pelvic disorder (especially in women) with a narrow waist and a protruding abdomen. We did not, however, attach so great importance to the matter as we should have done, because we had an erroneous notion respecting the normal contour of the female figure. It was only after careful study of this matter among savage women, and women whose figures had never been modified by the deforming influence of the ordinary civilized dress, that we acquired a basis from which to view this subject in a rational way. We then began careful inquiry into the matter, and for several years back have made, in all cases of pelvic disease of women coming under my observation, a careful study of the condition and relative position of the various abdominal viscera, as well as of the pelvic organs.

In 250 cases of women suffering from pelvic diseases, taken consecutively and without selection, in each of which a careful examination was made with reference to the condition and position of each of the abdominal viscera as well as of the pelvic organs, we observed the following disturbances of the static relations of the viscera:

In 232 cases, downward displacement of stomach and bowels.

In seventy-one cases, right kidney distinctly movable and sensitive to pressure.

In six cases, both kidneys freely movable.

In nine cases, downward displacement of the spleen.

How a displacement of the stomach, a kidney, the bowels, the uterus, or an ovary, may occasion disease, is a pathological question which it is not necessary to spend time in discussing, since the disturbance in blood-circulation, and hence in nutritive changes (possibly, also, in the supply of nervous energy), and the development of abnormal and pernicious nerve-reflexes, are etiological factors, the influence of which is too well known and understood to be disputed, and which are likely to come into active operation under the morbid conditions established in an organ crowded by abnormal pressure out of its proper place. Nature has placed each internal organ in the position in which it can do its work most easily and efficiently; and the studies of the results of visceral displacement which have been made by eminent scientific physicians, have shown that to morbid conditions of this sort may be fairly attributable the most serious, and not infrequently the most obstinate, disturbances of some of the most important vital functions, and through them, of all the other functions of the body.

The question may arise, whether we are treating the subject fairly, in charging upon errors in dress, so great and so serious modifications of the human form as we have pointed out, and whether it is not possible that visceral displacements in some of those cases to which we have called attention are to be found in men as well as in women. In order to place this

subject upon a rational basis, we recently made a careful examination respecting the position of the stomach, liver, and bowels in fifty working men and seventy-one working women, all of whom were in ordinary health.

Of the seventy-one women examined, prolapsus of the stomach and bowels was found in fifty-six cases. In nineteen of these cases, the right kidney was found prolapsed, and in one case, both kidneys. The fifteen cases in which the stomach and bowels were not prolapsed were all persons under twenty-four years of age. None of these had ever laced tightly, and four had never worn corsets or tight waistbands, having always worn clothing suspended from the shoulders. It is noticeable that in a number of cases in which corsets had never been worn, tight waistbands had produced very extensive displacement of the stomach, bowels, and kidneys. In one of these the liver was displaced downward.

In the fifty men, we found only six in whom the stomach and bowels could be said to be prolapsed. In one the right kidney was prolapsed. In only three was the degree of prolapse anything at all comparable with that observed in the women, and in these three (and in one other of these six cases, making four in all) it was found on inquiry that a belt or something equivalent had been worn in three cases, as a means of sustaining the pantaloons. In one case the patient attributed his condition to the wearing of a truss furnished with a belt drawn tightly about the waist. This belt had been worn a sufficiently long time to be an ample cause for the visceral displacement observed. In the two cases of slight visceral prolapse in which belts had been worn, there was considerable deformity of the figure due to general weakness, and a habitual standing

with the weight upon one foot. By comparison, we see that the relative frequency of visceral prolapse in the men and women examined, was twelve per cent of the men, and eighty per cent of the women. In other words, visceral prolapse was found to be six and two-thirds times as frequent in women as in men. It is also noticeable that, with the exception of two cases, the visceral prolapse in the men was due to the same cause which caused visceral prolapse in women; viz., constriction of the waist. It makes no difference, of course, whether the constriction is applied by means of a corset or a waistband or a belt.

We have met a number of cases of visceral prolapse in men in which the disease was directly traceable to the wearing of a belt. One case was that of a military officer, who wore a tight sword belt, in which he carried almost constantly a heavy sword. We have also made some observations of the same character among blacksmiths, who have a habit of sustaining their pantaloons by means of the strings of their leather aprons tied tightly about the waist, the suspenders being loosened so as to give greater freedom to the movements of the arms. Farmers, also, sometimes seek to liberate their shoulders by wearing the suspenders tied about the waist. Leaving out of consideration the four cases of men in whom the visceral displacement was due to the same causes which produce this morbid condition in women, we find but two cases in which the viscera had become displaced from other causes, or one in twenty-five,—a frequency just one-twentieth of that in which this diseased condition is found in women who consider themselves enjoying ordinary health.

These facts are amply sufficient to establish the proposition that constriction of the waist is the cause

of downward displacement of the pelvic viscera, and of the diseases which naturally grow out of such disturbances of the static relations of the organs occupying this portion of the trunk.

Diseases of Women.—The disorders described in this section are some of the most common to which women are subject, and are all sufficiently serious to demand special attention when recognized. We have not space here to give accurate directions for the required treatment, but think it proper to describe the several maladies named, so as to render women intelligent respecting their nature, and thus induce them to take prompt steps to procure proper treatment. In other works published by the author, simple measures of treatment, such as can be used safely and successfully at home, are carefully and fully described.

General Suggestions.—We may add, however, the following general suggestions respecting the treatment of those disorders, which are applicable to nearly all forms of diseases peculiar to women:

Nearly all forms of uterine diseases are accompanied by more or less congestion of the womb and ovaries. There is pain in the region of the ovaries, across the lower part of the bowels, in the back, or in other parts adjacent to the sexual organs. Leucorrhœa is also present in a great majority of cases. For the relief of these various symptoms, there is no one measure so generally applicable and capable of accomplishing so much as the hot vaginal douche. This consists of the injection of hot water into the vagina. The water should be as hot as can be borne without discomfort, and should be taken in considerable quantities. Not less than one gallon, and generally two or three gallons, should be employed at each application.

The best means of administering the douche is by a siphon syringe. The treatment should be taken in a horizontal position.

When the leucorrhœal discharge is very abundant, and is not relieved by the persistent use of hot water, alum or tannin may be added to the last portion of water used, one or two drams to the quart.

Women suffering from uterine diseases should usually rest at the menstrual period. It is not always necessary that the patient should remain in bed, though this is sometimes required; but a large share of the ordinary duties should be suspended for a day or two preceding the period, and until a day or two after it. By this means the aggravation of troubles which usually occur at each menstrual period, may after a time be decreased, until nature has time to restore the morbid functions to proper action.

Since prolapsus of the bowels and other abdominal organs, as the result of relaxation of the abdominal muscles, is one of the chief causes of a large share of the special ailments from which women suffer, it is evident that for the relief of these ailments special means must be adopted by which these prolapsed organs may be restored to position and the weakened abdominal muscles strengthened. Temporary relief may be obtained in a great number of cases by the wearing of a properly adjusted abdominal supporter; even a wide bandage of strong muslin bound tightly about the lower abdomen will afford great relief in many cases. Permanent relief, however, can be obtained only by the adoption of active measures by means of which the abdominal muscles may be strengthened and developed. Massage, Swedish gymnastics, manual Swedish movements, and proper applications

of electricity are of the greatest value for this purpose; indeed, we consider it next to impossible to treat successfully a large share of the ailments peculiar to women without the employment of the measures last mentioned. Abdominal supporters and bandages are of great value as palliatives, but they are practically valueless as curatives, and the same must be said of a large number of the surgical operations which are indicated and performed for the relief of the multitudinous morbid conditions from which women suffer.

Leucorrhœa, or Whites.—This most common of all maladies peculiar to the sex is not always an independent condition, but sometimes a symptom of other disease. It is often indicative of a serious disease, and should receive prompt attention. A slight whitish discharge may take place just before or just after the menstrual period, which is entirely natural; but when it continues during the interval between the periods, it is evidence of disease, either of the vaginal mucous membrane or of the womb, or both. Viscid mucous discharges are generally from the womb. Curdy discharges are occasioned by catarrh of the vagina. Offensive watery discharges indicate tumors of the womb, which are sometimes malignant. Bloody discharges are the result of tumors of various kinds, and cancers, and lacerations of the womb. A very offensive discharge is often indicative of cancer.

Treatment.—The hot vaginal douche should be used daily, and, if necessary, more than once a day. When the discharge is profuse, but not offensive in character, ordinary alum may be advantageously employed in the proportion of a teaspoonful to a quart of water. The whole amount of water used for the douche need not contain alum, but only the last quart or two.

The temperature of the water employed should be 110° to 120° and the quantity four to eight quarts. When the discharge is offensive in character, permanganate of potash (ten grains to the quart of water) should be used in place of the alum every other day. Use the alum douche on alternate days. Watery or bloody discharges often require more vigorous measures; but such cases should receive the personal attention of a physician; in fact, in all cases in which the discharge is profuse, a physician should be consulted, unless the discharge very quickly and permanently disappears by the adoption of the simple means suggested.

Vaginitis.—This is an inflammation of the vagina which very nearly corresponds to gonorrhœa in the male. There is much swelling, heat, and tenderness, and a smarting or burning sensation, accompanied by more or less discharge, usually of a greenish character. The principal causes are an irritating discharge from the womb, use of caustics, the wearing of uterine supporters, self-abuse and other sexual excesses, and contagion.

Treatment.—The hot vaginal douche and permanganate douche (see index) used daily will usually effect a cure in cases of this sort within a short time, if faithfully tried, although pains must be taken to secure the application of the solution to the entire vaginal surface, and the cause of the condition must of course be effectually removed. When there is great irritation, an emollient application should be employed. Starch or a powder consisting of equal parts of starch and subcarbonate of bismuth, is very valuable. This must be applied by a physician or some person skilled in making applications of this kind.

Vaginismus.—This condition is one in which great irritability exists about the mouth of the vagina, causing violent contraction, accompanied by cutting pain. It is often the cause of much suffering as well as inconvenience. The principal causes are inflammation of the vagina, rawness of the mucous membrane, vascular growths of the urethra, fissure of the anus, hysteria, itching of the genitals. This complaint often occasions great distress, and is characterized by intense itching, burning, or tingling of the external organs of generation. The itching sometimes extends into the vagina to some extent. The most common cause of the disease is an ichorous discharge from the womb or the vagina, which frequently occurs in old age. This disorder is sometimes present in cases of diabetes. The disease is occasionally wholly nervous in character.

Treatment.—The hot vaginal douche is of great value in many cases of this kind. In some instances, forcible dilatation by means of a surgical operation is required. Diseases of the rectum, when existing, must of course be removed. The same is true of diseased conditions of the urethra. Electricity is occasionally of great value in treating cases of this kind.

Uterine Catarrh.—This is a catarrhal inflammation of the mucous membrane lining the uterus. The most common causes are taking cold at the menstrual period and self-abuse or sexual excesses. Women who do not nurse their children after childbirth are very apt to suffer with this disease. The general symptoms are a constant discharge, often appearing in adhesive, stringy masses; scanty, suppressed, painful, or profuse menstruation; headache, particularly at the top of the head; weakness in the back and across the lower

part of the bowels; slow digestion; inactive bowels; neurasthenia; hysteria; general debility.

Treatment.—Rest in bed and the employment of hot vaginal douches are of very great value. A sitz bath, at 75° to 80° F., taken daily at bedtime after the douche, is also of very great value. In very obstinate cases, a surgical operation may be necessary, the operation consisting of scraping the inside of the uterus with a proper instrument and afterward making applications of galvanic electricity. The latter method is very successful in a great number of cases.

It must not be forgotten, also, that catarrh is only a symptom, and indicates a state of congestion which may be the result of prolapsed abdominal viscera, requiring restoration of the tone of the abdominal muscles by massage, electricity, and gymnastics. Temporary relief may often be obtained by abdominal supporters.

Chronic Inflammation of the Womb.—The symptoms are pain in the lower part of the back and just above the pubic bone, tenderness on pressure at the last-named point, weight or dragging feeling in the bowels, desire to relieve the bladder too frequently, leucorrhœa, headache, general nervous debility. The most common causes are sexual excesses, employment of means to prevent conception, improper dress, abortions and miscarriages, getting up too soon after confinements, injuries in the neck of the womb, or perineum, occurring at childbirth. To these must also be added the wearing of uterine supporters, which frequently, by not fitting properly, produce serious inflammation of the womb.

Treatment.—This disease requires absolute rest in bed and the employment of hot vaginal douches two

or three times daily. Fomentation to the spine, hot and cold sponging of the spine, and, in the later stages of the disease, the sitz bath, are useful.

Measures of treatment as prescribed for catarrh of the womb are also useful in this condition, after the acute stage has passed.

Erosion of the Womb.—The condition usually known as ulceration of the womb is not what is commonly termed ulceration elsewhere, but would be more properly termed erosion. This condition generally exists in connection with congestion or chronic inflammation of the womb.

Treatment.—This condition usually requires the personal attention of a skilled physician. The hot vaginal douche, 110° to 115° F., is an excellent measure of treatment. The addition of borax is useful. After an ordinary douche of two to three gallons of water, inject a half pint of a saturated solution of borax.

The prolonged cool sitz bath is also very useful. Temperature 80° F. at first, to be reduced one degree daily to 75° F. Duration, ten to twenty minutes.

Amenorrhea, or Suppressed Menstruation.—This term is applied to a condition in which the menstrual flow is absent. There are two varieties of the disease, one in which the flow has never made its appearance, though the proper time has arrived, and the other in which the flow has been suppressed after having been once established. There are numerous causes of this disorder. It is usually the result of impaired nutrition. Every case of amenorrhea is not pathological, however. Sometimes, as in fevers and other wasting diseases, the function is suspended as a means of economizing the vital forces of the body. In these cases, no attempt should be made to restore the func-

tion by drugs or other means. Great harm is often done by the use of amenagogues. A temporary suppression of the menstrual flow sometimes results from the disuse of flesh food on the part of persons who have been accustomed to using it freely; but we never have seen any harm arise from the suppression of the menstrual flow in these cases. Persons suffering with amenorrhœa sometimes have a vicarious hemorrhage when the menstrual flow first makes its reappearance. The hemorrhage may occur from the nose, stomach, or bowels, and has often been known to occur through the skin in the form of bloody sweat.

Treatment.—When this condition is a symptom of general disease, a cure is to be obtained, not by treatment of the womb, but by removal of the general morbid conditions of which the symptom is a result. Every measure calculated to build up the general health should be employed, such as a very nourishing, wholesome, easily digested dietary, abundance of out-of-door exercise, gymnastics, particularly such exercise as will bring into activity the muscles of the trunk and legs, and in cases of great debility massage and manual Swedish movements, are among the most valuable measures to be employed. Swimming may be recommended for patients who have sufficient vigor to undertake this most healthful form of exercise. The following is a very good prescription as a daily routine of treatment: On going to bed at night, give a fomentation covering the whole abdomen, for fifteen minutes, changing every five minutes. After removing the fomentation, apply a towel wrung out of cold water dry enough so it will not drip. The towel should be long enough to reach around the body, and should be covered with oil muslin, then with several thicknesses of

flannel, to prevent evaporation. Remove in the morning, and take a cold towel bath, followed by vigorous rubbing. Replace the moist bandage worn during the night by a dry flannel bandage to be worn during the day. These simple measures, if faithfully followed, will be found effective in a very large proportion of cases of this kind.

The prolonged warm sitz bath, 98° to 100° F., ten to twenty minutes daily, is beneficial by increasing the circulation of blood in the pelvic organs. The hot foot or leg bath, 100° to 104° F., ten to fifteen minutes, acts in the same way. The heating leg compress is useful. The following is a simple mode of preparation: Wet in cold water one-third of a towel one yard long, wring dry, apply snugly about the calf of the leg, winding on first the wet part, then the dry. Over the towel apply a somewhat broader strip of mackintosh, then flannel cloth sufficient to retain the heat. Apply at bedtime, and retain overnight. Bathe the parts with cold water, and rub well in the morning before dressing.

Scanty Menstruation.—The principal causes of scanty or deficient menstruation are inflammation of the ovaries; ovarian tumors, consumption, or other wasting diseases; anteflexion of the womb; mental depression, or general debility.

Treatment.—The measures of treatment recommended for the preceding malady are equally applicable to this.

Menorrhagia.—This condition is that in which there is a too profuse discharge of blood. The system is weakened by the loss, and so much so, in many cases, that the individual does not recover her accustomed strength before the occurrence of the next period, when

she becomes weakened still more. By a continuance of this periodical loss, the person may be reduced to a state of almost utter helplessness. A deathly pallor of the countenance, extreme emaciation, loss of strength, and general debility mark the effects of the constant drain upon the system. Thousands of young women continue to suffer in this way year after year, until their constitutions are almost hopelessly wrecked, being deterred by false notions of modesty or delicacy from consulting a proper medical adviser and finding relief.

Treatment.—The observance of a few simple precautions, and the application of proper remedies will very promptly check the unnatural loss in most of these cases. In the first place, absolute rest, chiefly in a supine position, must be observed, not only during the menstrual period, but for a few days previous to its commencement. If this does not restrain the flow, cool and even cold compresses may be applied to the lower part of the abdomen and to the small of the back. In severe cases, no harm will come from the use of an ice compress, made by inclosing pounded ice between the folds of a towel. Great care must be taken to make the hands, arms, feet, and limbs thoroughly warm by the application of warm bottles and woolen blankets. These measures will scarcely fail to accomplish the desired end, if employed efficiently and judiciously. It may be well to add, just here, that the popular fear of using cold in such cases is groundless. No harm can come so long as the extremities are kept warm and the circulation well balanced. However, the patient must not be allowed to become chilly. It is also of importance that the patient be kept mentally quiet as well as physically so.

Much good will result from these simple measures at the time of the period; but a radical cure can only be effected by removing the cause of the difficulty. The patient's general health must be improved, and local congestion must be removed. This will be accomplished by attention to general hygiene, gentle exercise out-of-doors between the periods, abundance of good food, tonic baths and other necessary treatment if there is derangement of the digestive organs, and daily hip baths with a local douche. The hip bath should be taken in water of a temperature of 80° at the beginning, after five minutes lowering it five degrees. After another five minutes, it may be lowered a few degrees more. By taking at the same time a warm foot bath at 104°, quite a cool bath may be endured without chilling. The bath should be continued fifteen to thirty minutes, according to the strength of the patient. A shorter bath than this will do little good, as the sedative effect will not be obtained.

The hot vaginal douche should be taken just before the sitz bath. The fountain or siphon syringe should be employed, and the water used should range from 110° to 115°, as best suits the sensations of the patient.

By these simple remedies alone we have successfully treated scores of cases of this sort. In some cases, other remedies may be required, and in nearly all, accessory remedies can be employed to advantage; but the measures described are the main features of the most successful mode of treatment.

In obstinate cases of this disease, by which is to be understood all cases in which the disease does not readily yield to the application of the measures suggested, a skilful surgeon should be consulted, as the profuse flow is probably due to the existence in the uterus of

small growths known as "vegetations." These must be removed by an operation known as curetting. The operation is a very simple one, and is perfectly safe when performed under aseptic conditions, that is, when all the necessary precautions are taken to prevent infection and inflammation. The only discouraging feature of these cases is that the growths are very likely to return; curetting alone is not usually sufficient to effect a radical cure. It is sometimes necessary to treat the cavity of the uterus by the employment of galvanic electricity. We believe this to be the most effective means of making a radical cure in these cases.

Hemorrhage from the Womb.—A profuse flow of blood from the womb, occurring at any other time than the menstrual period, is a hemorrhage, and not menstruation. The flow of blood is sometimes so profuse as to endanger life.

Treatment.—For most cases of this description the measures of treatment to be adopted are the same as for the preceding disease; but in severe cases more active measures must be employed. The patient should, of course, remain quiet in bed with the feet and hips elevated. Heat should be applied to the spine, and cold bags or compresses over the lower abdomen. Hot alum douches (a tablespoonful to a quart of water) should be administered, and repeated every two or three hours if necessary. If the flow continues, a tampon consisting of equal parts of powdered alum and sugar (half a tablespoonful of each) may be applied. The alum and sugar should be wrapped up in one or two thicknesses of cheese-cloth, the edges of the cloth being gathered together and tied, the string being left long so that it can be removed when desired. Even these measures sometimes fail; in such cases, a

skilled surgeon should be at once consulted, as loss of blood through this channel is as serious as through any other. No hemorrhage of the uterus need be very long continued, except under most extraordinary circumstances. A skilled surgeon can quickly stop the flow of blood by passing a tampon consisting of a narrow strip of cheese-cloth, properly sterilized, into the uterus itself. Pressure is thus brought to bear upon the bleeding surface, which coagulates the blood in the mouths of the open vessels, thus stopping the hemorrhage. Hemorrhage of the womb is a symptom which should always give rise to apprehension, as it indicates the probable existence of some grave condition of the organ which requires the attention of a skilled surgeon. There are to be found in every large city, and in most smaller ones, able physicians who are entirely competent to deal with cases of this character, so that the loss of blood should not be allowed to continue day after day without receiving attention.

Dysmenorrhea.—This condition is that in which there is more or less pain and difficulty in connection with the menstrual process. The causes are various, as disease of the ovaries, congestion of the uterus, malformation, and displacement or distortion of the organ.

Treatment.—Some of these conditions require the attention of a skilled physician to remedy; but all may be palliated more or less by simple treatments which may be given at home. A warm sitz or hot hip bath just at the beginning of the period will often give almost magical relief. The application of fomentations over the lower part of the abdomen, and the corresponding portion of the spine, or of hot bags, bottles, etc., in the same localities, is of great utility. The patient should be covered warm in bed, should keep

quiet, and great care should be used to keep the extremities well warmed. The use of electricity is a very valuable aid in numerous cases, but its application requires the services of a physician, who should always be employed in severe cases when within reach.

In many cases of this form of disease, the suffering is so great that the constant dread of its periodical repetition becomes a source of great unhappiness, and casts a gloom over the life of an individual who would otherwise be happy.

In addition to the measures above suggested, cases of this character sometimes require curetting or scraping of the interior of the womb, or dilating the neck of the womb, or the employment of both measures. Often, however, it is necessary that applications of galvanic electricity should be made to the interior of the organ at frequent intervals for a few weeks, in order to effect a radical cure.

Ovarian Irritation.—The symptoms of this malady are tenderness in the groin, pain in walking or standing, and more or less continuous dull pain, which is greatly aggravated at the menstrual period, the latter being generally induced by a chill, which is quickly followed by a fever, resembling that present in inflammation of the ovaries. The most common causes of ovarian irritation are self-abuse, sexual excesses, improper dress, taking cold at the menstrual period, disappointment in love, abortion, constipation of the bowels, inflammation and displacement of the uterus, the opium habit, the use of “preventives.” Cases of this sort require skilful medical care and management.

Treatment.—Quite a large proportion of all cases of ovarian irritation are due to congestion of the or-

gans, resulting from prolapsus of the abdominal contents, causing compression of the ovaries and interference with the venous circulation. There is no better means of affording permanent relief in these cases than properly regulated gymnastics, by means of which the abdominal muscles are developed and strengthened, the depressed bowels elevated, the circulation of blood through the abdominal muscles accelerated, and thus a normal condition established. The hot vaginal douche, rest in bed in extreme cases, hot hip pack, sitz bath two or three times a week, cool morning sponge bath, regulation of the bowels, healthy mental state, and improvement in the general health and vigor, are the most effectual means of remedying difficulties of this nature. Local applications of electricity are of great value in special cases. We have found the greatest relief given by the sinusoidal electrical current, although the faradic and galvanic currents are often useful.

Inflammation of the Ovaries.—The principal symptoms are sudden pain in one or both groins, sometimes extending down the legs, frequently pain in the breast of the affected side, increase of pain during menstruation, with tenderness on pressure, pain in moving the bowels, general distress, nausea, more or less fever. The most common causes are taking cold during menstruation, mechanical injury, ante flexion, or gonorrhœa.

Treatment.—In this class of cases the patient should have absolute rest in bed. A hot hip pack may be administered daily, followed by a vaginal douche; alternate hot and cold sponging of the spine is a measure of value. These measures of treatment, particularly the vaginal douche, may be repeated several times a

day. Hot fomentations and hot poultices over the seat of pain often afford great relief.

When a high fever accompanying the local pain indicates severe local inflammation, the following method is wonderfully effective in the great majority of cases: Apply a hot blanket pack from the umbilicus to the feet. Slip under the pack an ice-bag, placing it over the seat of pain. After twenty minutes, remove the pack and apply a pack to each leg thus: Apply first a large linen towel, wrung dry as possible out of cold water. Cover this with mackintosh, snugly wrapped around the leg. Cover all with half a flannel sheet or blanket. Wrap the other leg in the same way. Now wrap both together in a flannel blanket until warm, including the hips and trunk. Be careful the treatment does not chill. Take off the ice-bag and apply a fomentation once in every half hour for five minutes. Repeat the hot hip and leg pack every three or four hours until the pain and inflammation subside.

The hot vaginal douche (110° to 115°) should be applied every three or four hours. A hot enema should be given once or twice daily.

Cellulitis.—This is an inflammation of the cellular tissue about the womb. The symptoms are chills, accompanied by fever and pain across the pelvis, sometimes nausea and vomiting, tenderness on pressure above the pubic bone, painful urination and defecation, profuse menstruation. Abscesses sometimes form, which may open externally, through the bowels, vagina, or bladder. Contractions of the uterus about the womb, causing displacement of the organ, are apt to follow this inflammation. The most common causes are childbirth, abortion, taking cold at the menstrual

period, inflammation of the uterus, the use of caustics upon the womb, gonorrhœa, pessaries, and sexual excesses.

Recent investigations of eminent surgeons have shown that the condition formerly supposed to be cellulitis, or inflammation of the cellular tissue about the uterus, is, in many cases, an inflammation of the Fallopian tubes, called in medical phraseology salpingitis. One of the most common causes of this condition is gonorrhœal infection. Every woman ought to know that in marrying a man who has once suffered from this disease, she is exposing herself to the liability of contracting it, even though many years have elapsed since the disease was supposed to have been cured. The disease is a very persistent one, apparently remaining latent for many years, only to break out afresh as the result of a slight cold or some other exciting cause, although perhaps in so modified a form that its real character is not suspected. Thousands of men who have led, for a time, dissipated lives, but have reformed, have unknowingly communicated to their wives this wretched disease, and have thereby not only rendered them sterile as the result of the inflammation of the tubes, set up by the infection, but have subjected them to most terrible suffering, and not infrequently to loss of life. Thousands of women have been saved from death only by the surgeon's knife. The author has had occasion to operate upon many cases of this kind, and not infrequently it has been only by the narrowest chance that the patient's life was saved.

In a recent case operated upon, the pelvis was filled with two enormous abscesses, one on either side, one of which ruptured in the effort to remove it, in spite

of the greatest care, giving vent to a great quantity of the most horrible smelling pus into the pelvic cavity. By exercising the greatest care in cleansing the pelvic cavity, and painstaking nursing after the operation, the patient's life was saved. This is only a sample of many cases which might be recorded. Our purpose in mentioning this fact is that every woman may be warned by a knowledge of the risk incurred in entering the matrimonial state with a man who has previously led a life of immorality. A man who has led a pure life runs not so great a risk in marrying a woman of impure life, as does a pure woman in marrying a reformed rake.

Treatment.—The treatment of pelvic inflammation is essentially the same as that described for “Inflammation of the Ovaries.” See page 596.

Prolapsus, or Falling of the Womb.—Of all forms of displacement of the womb, this is perhaps the most common. A woman suffering from prolapsus complains of tenderness just above the pubes; irritation of the bladder and rectum; sense of fulness in the vagina; dragging pain in the back, extending around the body, which, with other symptoms, is aggravated by walking or long standing upon the feet; profuse or painful menstruation; leucorrhœa. Sometimes local symptoms are entirely absent, all the unpleasant sensations being experienced elsewhere. Patients complain of a dull ache at the top of the head, nervousness and depression of spirits, constipation of the bowels, general debility. In very bad cases, the organ sometimes becomes so prolapsed that it protrudes from the body, a condition subjecting the patient to great suffering and inconvenience. In these instances, however, the patient may be relieved by a proper surgical opera-

tion, by means of which the organ is supported in a natural position.

In most of these cases, as well as in other forms of displacement, the patient has usually worn pessaries of some sort for years, with the effect of ultimately increasing the gravity of the condition, and greatly adding to the difficulty of effecting a cure. The most common causes of falling of the womb are the wearing of heavy skirts suspended from the waist, dancing, taking cold at the menstrual period, self-abuse, lifting heavy weights, improper management at childbirth, tear in the neck of the womb or perineum, and, in fact, local disease of any sort. Prolapsus is almost always attended by enlargement of the womb. Even the worst cases of this disease are curable by proper management, though many women suffering from this trouble endure the tortures of irrational treatment at the hands of inexperienced and incompetent physicians, from the effects of which they may suffer for many years.

Other Forms of Displacement.—Anteversión, anteflexión, retroversión, retroflexión, and the various other forms of displacement, are due to very much the same causes as those which give rise to prolapsus, and the symptoms are also very much the same. Backward displacements give rise to greater and more constant pain in the back; while forward displacements produce greater pain in the lower part of the body in front, disturbed action of the bladder, and hence too frequent and painful urination, etc. Remarks made regarding the treatment of prolapsus apply with equal force to these other forms of displacement.

Treatment.—The most common form of uterine displacement requiring the attention of the physician is retroversión or retroflexión. This condition is rarely

an isolated one; it is usually found in connection with abdominal displacements of various other organs of the trunk. In 150 cases of uterine displacements we found but four or five in which there was not displacement of other organs besides the womb. Displacement of the stomach and bowels was found in nearly every case; the right kidney was movable or floating in twenty-six cases, and the liver was prolapsed in five cases. The little success which has attended the treatment of retroversion, even by means of operations of various kinds and the notorious inefficiency of mechanical supports which not only fail of curing disease, but not infrequently aggravate the morbid conditions which are present with it, such as ulceration, inflammation, etc.,—is unquestionably due to the failure to recognize the fact that retroversion of the womb, as well as other forms of uterine displacement, is not an isolated condition, at least in a great majority of cases, but is only a single element in a general state of disorder affecting nearly all the organs of the trunk.

It is evident, then, that the successful treatment of this condition requires something more than treatment of the womb itself; the organs must be lifted up into place and supported. The abdominal muscles must be developed by gymnastics, massage, and electricity, manual Swedish movements, exercises of various sorts carefully adapted to each individual case, so that the support of the abdominal organs may be rendered permanent. These measures alone will, now and then, effect a cure, but cases in which a recovery can be effected thus easily are very rare. In the great majority of cases additional measures are necessary, the uterus must be restored to position and must be held in place. This can be conveniently done by means of

a pessary, but the use of pessaries involves various inconveniences and dangers, some of which have already been mentioned. The best means to be employed for this purpose is a simple surgical operation, which consists in the shortening or advancement of the round ligaments. By means of this operation the uterus is tilted forward, and held out of the current of the downward pressure, and is thus protected from the influence of the superincumbent weight of the prolapsed abdominal organs.

By the combination of these two classes of means, surgical and hygienic, nearly all cases of retroversion or retroflexion can be cured. This operation has been successfully performed in hundreds of cases. When the operation is properly performed, and followed by the application of the measures suggested, success may be attained in at least ninety-five per cent of all cases which are suited for the operation.

Prolapsus of the Ovaries.—The symptoms of this unfortunate and very serious condition are pain of a sickening character during movement of the bowels and in walking, and after standing on the feet for some time, starting in the groin and extending along the front of the thigh on the affected side; painful connection. On making an examination with the finger, the ovary can usually be felt as a round swelling on one side of the womb. Sometimes, in extreme cases, the ovary may be found behind the womb. The most common causes are chronic congestion of the womb, prolapsus, retroversion or retroflexion, inflammation of the ovaries, self-abuse and other sexual excesses, abortion, and the employment of means to prevent conception.

When due to retroversion or some other displace-

ment of the uterus, this difficulty may often be cured. In many cases the ovary cannot be restored permanently to position, but by proper treatment, the ovary can be brought into a healthy state so that pain and tenderness will disappear, and thus a practical cure will be obtained. The means for accomplishing this are the hot vaginal douche, the prolonged cool sitz (80° to 70°, for ten to twenty minutes), the wet girdle, and improvement of the general health. The bowels must be made regular. Continence is essential.

Rectocele.—This is a condition in which the posterior wall of the vagina is greatly relaxed and pulls forward, dragging with it, also, the anterior portion of the rectal wall. This forms a pouch in which the feces sometimes accumulate, and into which they are pressed when attempting to move the bowels, making it necessary to press the parts back in order to secure a movement. The most frequent cause is a tear of the perineum at childbirth. Cases of this sort require a surgical operation. We have found it necessary to perform this operation in many cases, and have uniformly met with most happy results.

Treatment.—In this condition, as well as in various forms of displacement of the womb, elevation and support of the abdominal organs is required, as well as surgical measures. In many cases surgical measures are not needed if the abdominal organs are properly supported.

Cystocele, or Prolapsus of the Bladder.—This is a condition somewhat similar to the preceding, only involving the front wall of the vagina, the back wall being dragged down to the vaginal wall, which forms a pouch bulging out at the vaginal entrance. The patient experiences difficulty in evacuating the bladder.

In a case recently under the care of the author, the amount of prolapsus was so great that the urethra was doubled upon itself, so that the bladder could not be evacuated without pressing backward on the prolapsed portion with the hand. In consequence of the retention of urine, the bladder being seldom emptied, disease of the bladder is likely to be set up, with its many attendant inconveniences and often great suffering.

The most common cause of this condition is prolapsus of the womb. It is frequently met with in its worst form in elderly women who also suffer with rectocele. In several cases which have come under the care of the author, the patients have been quite advanced in life, several years past the menopause, and the difficulty has been due to a tear in the perineum, followed by great relaxation of the vaginal walls. By means of a proper surgical operation, the difficulty is wholly curable; but little can be done for its relief by home treatment, aside from the employment of hot vaginal douches and solutions of tannin and other astringents, which, of course, afford only temporary relief.

Treatment.—The remarks made respecting the treatment of rectocele are equally applicable to this condition. A surgical operation is sometimes required, although, as a rule, surgical measures are of very little value unless accompanied or succeeded by measures calculated to strengthen the abdominal walls and support the abdominal organs. The abdominal supporter is of great value in these cases, as a palliative until the abdominal walls have acquired sufficient strength to support the tension of the abdomen. In cases in which women have borne many children, the muscular structures of the abdominal walls are so greatly weakened

that they can never be restored to the normal condition. In such cases the abdominal supporter must habitually be worn. The relief afforded by a properly adjusted supporter is all that is required in a great majority of cases of cystocele. Only cases in which the condition is so aggravated as to render it difficult or impossible to enter the bladder, or to occasion some other serious inconvenience, are suitable for operation.

Sterility.—In six cases out of seven in which married people are unable to beget children, the fault is with the wife. The most common causes in women are contraction of the canal of the womb, displacements, catarrh of the womb, leucorrhœa, and profuse menstruation. Of the remote causes, sexual excesses, especially self-abuse, are the most potent. In occasional cases, the womb or ovaries may be absent. Sometimes both of these organs are wanting. When this condition exists, a wise and experienced physician should be consulted, as in many cases the cause is of such a nature that it can be removed by proper treatment.

Probably one of the most common causes of sterility in women is an inflammation of the Fallopian tubes, often also involving the ovaries, resulting from gonorrhœal infection. Thousands of healthy women have been rendered sterile, and often invalids for life, by contracting gonorrhœa which existed in a latent form in their husbands, who had perhaps suffered from the disease and supposed themselves cured many years before, when sowing their wild oats in their younger days. Not infrequently also, the inflammation and resulting damage of the uterus and Fallopian tubes following an induced miscarriage or abortion, is a cause of sterility.

Treatment.—The treatment of this condition con-

sists in removing as far as possible the causes by which it is induced. In cases of stricture of the womb, a proper surgical operation is often the means of affording relief. We have in several instances effected a cure by the application of a galvanic current in cases of this sort. Improvement of the general health, and cure of a local discharge due to a vaginal catarrh, or catarrh of the womb, is also not infrequently successful in the cure of sterility.

Nymphomania.—This is a mental and nervous affection in which the patient is affected with uncontrollable sexual desires, which frequently lead to the grossest breaches of modesty. This humiliating disorder is most frequently the result of self-abuse, and allowing the mind to dwell without restriction upon lascivious thoughts. It is sometimes the result of ovarian irritation, and is occasionally observed in various diseases of the brain.

Treatment.—Isolation and treatment to relieve pelvic congestion, combined with general tonic baths and proper moral treatment, are the necessary measures. The prolonged cool sitz (75° to 70° , for twenty to thirty minutes), the neutral bath, the cold towel rub, and careful attention to the diet and to the bowels, are effective measures.

Hysterical Breast.—The breast is painful to the touch, and sometimes much swollen. The most frequent causes are disease of the womb and ovaries, self-abuse, and disorders of digestion. In one of the worst cases we ever met, in which the breasts were exceedingly sensitive and much swollen, the patient was greatly addicted to masturbation. The difficulty disappeared almost immediately when the habit was discontinued.

Treatment.—The following simple measures of treatment will be found valuable in this class of cases: A sitz bath two or three times a week, at a temperature of 92° to 95°. The sitz bath should be followed by a cool wet-sheet rub and vigorous friction. A vaginal douche daily on arising in the morning, and hot sponging of the spine, followed by a general cold towel rub, will be advantageous. The patient should wear, during the night, a moist abdominal bandage, consisting of a coarse towel wrung out of cold water, dry enough so that it will not drip, and wound about the body, covered with several thicknesses of dry flannel, sufficient to keep it warm. In the morning the abdominal bandage should be removed, fomentations should be applied to the spine, followed by the cold towel rub. A dry flannel bandage should be worn during the day. When the breast is greatly swollen and tender, a fomentation may be applied for ten or fifteen minutes once a day, followed by a heating compress, and the breast should be supported by a properly adjusted bandage.

Painful Sitting.—The patient complains of pain at the extreme lower end of the spine when sitting down or when rising from a sitting posture. The affection is most frequently found in diseased conditions of the ovaries, though it is sometimes the result of injuries received in childhood, or a fall in which the force of the blow was received upon the lower portion of the spine. The affection is curable, though in some cases a surgical operation is required.

Treatment.—Fomentations, alternate applications, using for the purpose sponges dipped alternately in very hot and very cold water, and the local application of faradic electricity, are of great value in the treatment of these cases. An effective bath is the very hot

sitz (108° to 118° for three to eight minutes), followed by a dash of cold water to hips and legs. The hot foot or leg bath and the Scotch douche to the legs, are useful modes of treatment.

Dyspareunia, or Painful Connection.—This disorder may arise from a great variety of causes. This is undoubtedly more frequent than is known to physicians, as women often suffer in this manner for years without making it known even to their husbands. The suffering may be the result of fissure of the vagina or rectum, irritation of the bladder and urethra, vascular growths at the mouth of the urethra, or sensitive parts about the mouth of the vagina. In some cases it seems to be a purely nervous affection. Nearly all cases are curable by the adoption of appropriate means.

Whatever local disease exists may, of course, be removed by proper treatment. In some cases a surgical operation is required. For the purpose of removing a small growth from the mouth of the urethra or some tender point at the orifice of the vagina, in cases in which chronic ovarian disease is the cause of the affection, it may become necessary to remove the diseased ovaries, although cases of this sort must be quite rare.

The hot vaginal douche and the neutral sitz (93° to 96°), duration fifteen to thirty minutes, give excellent results.

Urethral Tumors.—The symptoms are smarting, burning, or cutting pain, during or after passing the urine. Sometimes the pain is constant. It is generally aggravated by sexual connection. It is often so extreme as to render the patient's existence a burden, and to induce great impairment of the general health by the constant strain upon the nervous system. Local

examination usually reveals a swollen condition of the glands at the mouth of the urethra, which is red and often obstructed by a slight vascular growth looking some like a minute raspberry, very small in size. The author has met many cases of this sort, but has found the adoption of proper measures of treatment effective. If a tumor exists, it must be removed. The removal of these growths must be done in a thorough manner. Their disposition to return is so great that some surgeons of eminence have been led to regard them as having a strong tendency to malignancy. Quacks and so-called cancer specialists not infrequently subject patients to most horrible suffering by attempting to remove these growths by means of caustic pastes, plasters, etc. This method is barbarous, and is no more effective than less painful and more scientific means, and often involves extensive destruction of the surrounding parts. The proper mode of operating, in these cases, is removal with the galvano-cautery, the Pacquelin cautery, or electrolysis. Cancer specialists should be carefully avoided. Any skilled surgeon is prepared to perform the necessary operation in cases of this sort.

Bladder Disorders.—Various disorders of the bladder are accompanied by frequent or painful passage of urine. Retention of urine, and dull, aching pain after urination, are among the most common discomforts to which women are subject through local diseases. These are, in many cases, not due to disease of the bladder itself, but to some irritation of the womb or reflex irritation arising from disease of the ovaries.

Treatment.—The bladder douche is of great value in many cases of this sort, often effecting a cure within a short time, although sometimes it must be employed

for weeks, or even months, before a complete cure can be effected. This treatment must, of course, be employed under the supervision of a physician or a well-trained nurse. A careful examination of the bladder should be made in all cases, as a calculus may exist, or a tumor may be present, growing from the wall of the bladder. Complete relief may be afforded by opening the bladder and removing the tumor. Calculi may be removed by crushing without opening the bladder, although the latter operation is by no means so serious or dangerous a proceeding as might be imagined, providing it is performed by a skilled and experienced surgeon.

When the disease is confined to the urethra, there will often be found some small growth just within the mouth of the urethra, or sometimes a fissure may be observed by examination with a proper instrument. Such cases, of course, require the attention of a surgeon, and generally yield very promptly to the proper treatment. Sometimes there seems to be simply an irritability of the mucous membrane lining the urethra, and the canal is contracted. Such cases are very speedily relieved by gradual dilatation, as the author has verified in a great number of cases. When the bladder pain is due to some morbid condition outside of the bladder itself, the morbid condition, or whatever it may be, must receive such attention as is indicated.

In cases of obstinate catarrh of the stomach, complete rest of the bladder for a prolonged period is necessary. This is obtained by keeping the patient in bed and draining the bladder by means of a self-retaining catheter.

The hot vaginal douche is wonderfully helpful in a great many cases, as is also the hot bladder douche.

The temperature should be, for the bladder douche, 100° at the start, gradually increasing during the application to 120° F. Apply daily or twice daily, if necessary. Add to the water at end of the douche, a teaspoonful of salt and the same amount of borax for each quart of sterilized water.

Constipation.—Perhaps the majority of women are more or less afflicted with constipation. This may be due to sedentary habits, as well as the use of concentrated food and irregularity in attention to the calls of nature. Most persons suffering in this way become more or less habituated to the use of laxatives of various sorts, the tendency of which is to aggravate the disorder, if long continued.

Constipation is one of the most prolific causes of misplacements, and of congestions and inflammations of the womb and ovaries, and frequently gives rise to very serious local troubles. When present, this condition is an adequate cause for anxiety, and should receive prompt attention. By regularity of habits, proper diet, and such other means as have been recommended elsewhere in this work, the affection is wholly curable.

Chlorosis, or Green Sickness.—The chief characteristics of this disorder are the discoloration of the skin and absence of the menses. The condition occurs most frequently about the time of puberty, or just afterward. It is not due, as many suppose, to the suppression of the menses, but to a morbid condition of the system, which is itself the cause of deficient activity of the sexual organs. This disorder is not infrequently the result of self-abuse. The cause must be sought for and removed. When this is accomplished, nature will usually effect a cure within a short time.

Treatment.—The successful treatment of this condition consists chiefly in the application of such means as will restore the general health of the patient. Not infrequently indigestion and the resulting disturbances of nutrition, impoverishment of the blood, etc., will be found to be the real cause of the disease. In such cases, special attention must be given to improvement of the digestive process by a careful adaptation of the food to the patient's condition. These patients are generally suffering from hypopepsia, as we have found by a careful study of the stomach fluid in a large number of cases.

It was formerly supposed that the blood, in case of chlorosis, might be enriched by the administration of iron, the iron directly aiding in the formation of blood corpuscles; but it is now quite well established that iron cannot be directly assimilated, but aids in these cases only as it may aid some process in the digestive canal. An examination of the stomach fluid should be made in every case, when possible, as this is the only means by which a sound basis for treatment can be found.

Improvement of the general health is one of the principal things to be aimed at in treatment. As an aid to improvement in nutrition, the following simple means will be found advantageous: At 10 A. M. every morning, the spine of the patient should be sponged for fifteen minutes with water as hot as can be borne. Fomentations should be at the same time applied over the region of the stomach and liver. At the conclusion of the treatment, general perspiration will be found present. The whole surface of the body should be quickly sponged with cold water, taking care to keep the patient covered, so as to avoid chilling, quickly

rubbing and drying each portion bathed before proceeding to another part. The cold towel rub or wet-sheet rub are also to be recommended. After a bath, the patient should be rubbed with oil, and should take exercise out-of-doors. Walking, horseback-riding, or bicycle-riding are excellent exercises for these cases.

Lacerations at Childbirth.—The most common of all injuries received at childbirth are tears or lacerations of the neck of the womb or the perineum. Thousands of women are suffering from the results of injuries of this sort, without being aware of their condition. Tears of the womb are often mistakenly treated as “ulcerations.” The only way in which a radical cure can be effected is by a proper surgical operation, which in the hands of a skilful surgeon is attended by little pain, and is radically curative in its effects. Slight lacerations do not require an operation; but where a tear exists of sufficient extent to give rise to constant irritation, the latter cannot be permanently removed by other means than an operation. This remark applies to injuries of the womb. In tears of the perineum, whether an operation is required or not, depends upon the condition of the vagina and the parts. If greatly relaxed, so that a rectocele exists, with prolapsus of the womb or ovaries, or both, an operation is likely to be beneficial.

We ought not to leave this subject without remarking that quite a large proportion of patients who are supposed to be suffering from laceration requiring repair by a surgical operation, are not really suffering from laceration, but from other difficulties existing in connection with it. Prolapse of the stomach and bowels, a floating or movable kidney, or some kindred disorder,

will, in a large proportion of these cases, be found to be the real source or cause of the patient's suffering, and complete relief will be afforded by attention to these conditions. (See treatment recommended for "Prolapsus, or Falling of the Womb," and "Other Forms of Displacement.")

Vesico- and Recto-Vaginal Fistulae.—In cases of difficult and prolonged childbirth, the septum between the rectum and the vagina is sometimes injured to such an extent that a rupture occurs, and an opening is formed between the bladder and the rectum into the canal. This opening may be made to close up, in many instances, by frequent and prolonged vaginal injections with hot water; but this measure is generally insufficient, and a permanent opening is formed, causing much inconvenience and suffering, sometimes producing a most loathsome, repulsive condition. The only cure for these cases is through a surgical operation, which can be performed without risk to life, and with little or no suffering on the part of the patient, by a surgeon who is skilled and experienced in this class of cases. There is no operation a surgeon is called upon to perform in which the results are more satisfactory than this.

Tumors of the Womb.—The worst morbid growths to which the womb is subjected are polypus and fibroid tumors. Polypi seldom attain a large size. They are usually attached to some portion of the canal of the womb, sometimes by long, slender pedicles. In a case recently operated upon by the author, the tumor itself was not larger than a bean, but was attached by a pedicle nearly six inches in length.

The proper treatment of these growths is removal. It is usually necessary to treat the point from which

the tumor is taken by means of the galvanic cauterly, chromic acid, or some other escharotic.

Fibroid tumors frequently cause profuse hemorrhage from the womb. The menses gradually grow more frequent and profuse, until after a time the hemorrhage becomes nearly continuous. This class of tumors can usually be removed only by means of a surgical operation. Occasionally, however, when they develop on the inner surface of the womb, they are cast off by the efforts of nature.

Treatment.—The idea was formerly maintained, that the only thing to be done for these cases was to carry the patient along in some way until after the completion of the change of life, when it was supposed that the tumor would almost certainly disappear, but more recent experience shows this to be an error. There are certain forms of fibroid growths of the womb which do disappear in most cases at or after the menopause; but there are other forms of the disease in which the growth continues, and sometimes even with greater rapidity after the menopause than before. It should be remarked, also, that even in the most favorable cases, the patient is often subjected for so long a time to periodical losses of blood that the general health is completely ruined, and sometimes the system is so weakened that consumption or some other grave constitutional malady supervenes, and the patient dies before nature has had an opportunity to effect a cure by the atrophic changes which naturally occur at the menopause. The old idea that these cases should be left to nature, with the employment of only palliative means, is a fallacy which no scientific physician who is fully abreast of the progress which has been made in recent times, would for a moment tolerate.

Active treatment should be instituted in every case in which the patient is suffering an excessive loss of blood, pain, or inconvenience at the menstrual period, or in which a tumor is rapidly growing.

The prolonged cool sitz (75° to 65° for ten to twenty minutes), the hot douche, using a saturated solution of alum, and other measures suggested for uterine hemorrhage, are the proper means.

In persistent cases, a surgical operation is required for removal of the tumor or to limit its growth by ligation of the nourishing arteries. These operations are quite safe in the hands of a thoroughly competent abdominal surgeon.

Cancer of the Womb.—This malady is in ninety-nine cases out of a hundred the result of a neglected tear of the neck of the womb. It is important that this fact be generally known, and it should impel persons suffering with a tear of this sort received at childbirth, to apply to a competent surgeon for the necessary operation. Cancer is most successfully treated by prevention. It is undoubtedly true, however, that in many cases the disease in its early stages may be long postponed, and sometimes entirely eradicated, by operation. The presence of this disease is indicated by local pain, a bloody and offensive discharge, great and rapid failure of the general health, disturbances of the digestion, etc. Death usually occurs within two or three years of its commencement. Its progress may, however, be greatly delayed by the use of appropriate medicines; hence patients suffering in this way should not be abandoned, but should receive the attention of a skilled surgeon. In some cases a curative operation is possible. It is highly important, however, for the success of operation in these cases, that the disease be

discovered at the earliest possible moment, and the operation performed at once, before the infection has extended to the adjacent tissues and organs.

Deficient Development of the Womb and Ovaries.

—This condition is indicated by the failure of the menstrual period to make its appearance at the proper age, sometimes a masculine appearance of the patient, and frequently a slight growth of hair upon the upper lip. Cases of this sort require very skilful management, and should not be neglected. No good can be derived from the use of medicines of any sort, but such methods of treatment should be adopted as will improve the general nutrition, upon which the disorder depends.

Ovarian Tumor.—This condition, sometimes known as ovarian dropsy, was formerly regarded as an utterly hopeless malady; but it may be cured by removal of the diseased ovary, with the morbid growth which has developed. This operation, known as *ovariotomy*, is one of the greatest triumphs of modern surgery. The cyst sometimes attains enormous size. The danger to life from the operation is greatly increased, by great size, and by the inflammation excited by the pressure to which the surrounding tissues are subjected, often causing adhesion to the abdominal walls. It was formerly supposed that operation in these cases should be deferred until the tumor had acquired considerable size; but it is now generally considered that it should be performed as early as possible, and patients managed in this way are almost certain to recover.

For the best results in these cases, it is necessary that the patient should be operated upon in a well-equipped and skilfully managed hospital, by a competent and experienced surgeon, skilled in this particular line of surgical work. The patient must be cared for

by a well-trained nurse, experienced in the care of this class of cases. Under such favorable conditions, the mortality of this operation, which was formerly from twenty to forty per cent, may be reduced to two or three per cent, or even less. An eminent London surgeon has had a series of one hundred and twenty ovariectomies without a single death, and an American surgeon has even exceeded this record, having performed the operation of ovariectomy for removal of ovarian tumors and diseased ovaries one hundred and seventy-two times in succession, without losing a single case. Women suffering from a condition requiring this operation should not postpone the operation through dread of it, since delay often complicates the case very greatly, and renders the performance of the operation much more difficult, and also greatly increases the attendant risk.

Stricture of the Neck of the Womb.—Constriction of some portion of the neck of the womb is a not infrequent condition. The constriction is usually located at the inner end of the canal, though it may occur at any point. The usual symptom is pain at the menstrual period, and catarrh is sometimes present in the latter condition, when produced by other causes. This malady may be remedied by a proper surgical operation.

Floating Tumor.—A movable tumor, usually a little larger than the egg of a goose, sometimes exists in women who have borne children in rapid succession, especially women of small size who have borne very large children. It is usually found upon the right side, and by lying upon the back it may disappear, or be pressed up under the ribs, but falls down again as soon as the vertical position is assumed. The movable

body consists of a kidney which, with its attachments, has become loosened from its usual position at the back of the abdominal cavity. Owing to this fact, the tumor is sometimes known as floating kidney. A radical cure cannot be effected, either by surgical means or medical treatment, but great relief will be afforded the patient by the wearing of a proper abdominal supporter.

A condition known as movable kidney, in which the mobility of the organ is less than in floating kidney, is very common among civilized women. It is found, in fact, in fully twenty-five per cent of all adult women whose mode of dressing has been in accordance with the conventional usage of civilized women. This condition of the kidney is often more painful than floating kidney. The measures of treatment required are the same, though an operation is seldom needed. The restoration of the tone of the abdominal muscles by proper exercise, and the application of massage and electricity, will usually effect a cure, or, at any rate, relieve the patient from the distress due to the drag upon the sympathetic nerve consequent upon the pendant condition of the kidney, which receives branches from the solar plexus and other portions of the great sympathetic. The writer has often seen the kidney drawn up into place at once by placing the patient in a correct standing or sitting poise, the abdominal muscles being well drawn in.

Relaxed Abdomen.—The relaxed condition of the abdominal wall frequently present in women who have borne a number of children, and in which the abdominal walls have been greatly distended during pregnancy, is often not only a source of great inconvenience, but a cause of serious disease. The abdominal walls normally support themselves in position; but when thus

distended, they allow the stomach and intestines to fall into the lower portion of the abdominal cavity, thus bringing pressure upon the pelvic organs, which in turn become displaced, and otherwise diseased. Tight-lacing or the wearing of heavy skirts suspended from the waist, and the wearing of corsets, are very common predisposing causes of this condition.

Treatment.—The measures of treatment suggested for the relief of “prolapsus,” or “falling of the womb,” and other forms of displacement, are applicable to this condition, although, of course, no surgical measures are required. An abdominal supporter should be worn, and measures to strengthen the abdominal muscles are needed.

Imperforate Hymen.—Through overdevelopment, the hymen is sometimes imperforate, thus retaining the menstrual flow, and producing the appearance of delayed menstruation, when the function is really properly performed, the menstrual flow accumulating within the cavity of the womb or vagina. These cases of course require the services of a surgeon. A condition much more frequent than the foregoing, is one in which the hymen, while not imperforate, is developed to such an extent that the vaginal orifice is nearly closed, and the membrane sufficiently firm and unyielding to present an obstacle to coitus, requiring the services of a surgeon, though occasioning no difficulty before marriage.

Tumor of the Breast.—The most common tumors of the breast are fibrous, encysted growths. These growths are usually attended by more or less pain, but are not dangerous to life, and rarely if ever develop into cancer. Sometimes, however, they occasion so much distress that a surgical operation is necessary,

This should always be performed when there is the slightest ground for believing that it may be malignant in character. It is important that cases of this sort should receive attention, even though the growth may not be large nor painful. The tumor should be removed as soon as discovered, since these morbid growths not infrequently constitute the seat of malignant disease.

Cancer of the Breast.—This formidable disease seems to be rapidly increasing in frequency, notwithstanding the great number of “sure cures” which have been so largely advertised during the last century. The symptoms of cancer of the breast are hard and painful swelling in the breasts, causing, when somewhat advanced, retraction of the nipple. These growths are much more painful than those described under the above head, “Tumor of the Breast.” The proper treatment consists of thorough removal of the affected parts by operation. This method is wholly superior to any of the forms of plasters and caustics which are usually employed by the so-called cancer doctors.

The efficacy of the methods employed by cancer doctors is greatly overestimated by the public, the majority of the cases operated upon by them being growths of a simple character, which never would have done any harm if left alone, and would not have returned, whatever method had been employed in their removal.

Hysteria.—From the most remote ages of medical history, this disease has been regarded as intimately connected with morbid states of the female organs of generation, especially the uterus. That it is not exclusively produced by causes of this kind, is evidenced

by the fact that men also sometimes suffer from this curious malady. The phases which it assumes are so numerous that we shall not attempt an accurate description of it; neither is this required, as there are few who are not familiar with its peculiar manifestations. It simulates almost every disease. Even consumption and other formidable maladies have been so completely simulated by this disorder as to deceive physicians of long experience.

The foundation of this disease is almost always laid in some indiscretion by means of which disease of the uterus or ovaries is induced. Not infrequently it is the result of self-abuse. The disease should not be regarded as a trivial matter, wholly the result of a diseased imagination, and requiring only mental treatment, since it is a real malady, dependent upon morbid states of the system. It requires substantial and thorough treatment, as much as rheumatism, dyspepsia, or any other of the numerous diseases to which humanity is subject. Persons suffering in this way usually have low vitality, a great loss of nerve tone, excessive irritability, and deficient will-power. They should be taught that by the exercise of sufficient will-power, the peculiar manifestations of the disease may be controlled.

A warm sitz bath, a daily hot vaginal douche, daily hot fomentations to the spine, followed by a cool towel rub, are measures which will often be found of great service in these cases. Vigorous muscular exercise is also a curative means of great value. We have frequently recommended swimming for patients of this class, with excellent results.



SCIENCE TRIMS THE LAMP OF LIFE



DISEASES PECULIAR TO MEN

OF that quite numerous class of maladies which are peculiar to the male sex, by far the great majority are the result of some form of transgression of sexual law. The nature of these transgressions has been fully discussed in previous portions of this work, and what has already been said need not be reiterated here. The object of this chapter is to describe in greater detail than has been done in other portions of the work, the nature and symptoms of the various diseases of the male sexual organs.

The intimate association of all the various important functions of the body through the means of reflex nervous activity, lays the foundation for that profound and extensive influence upon the system at large which is observed to result from nearly all forms of sexual disease. It is, indeed, a common observation that local disorders so slight in character as to produce little or no inconvenience at the seat of disease, provoke, through morbid reflex influence, derangements of the most serious and often most distressing character in other portions of the body. Thus we not infrequently find, as the result of a slight irritability of the prostatic urethra, nervous debility, dyspepsia, emaciation, and a great variety of other marked and distressing symptoms. This fact emphasizes the importance of giving to this class of disorders careful and thorough attention. Quite frequently they are overlooked or neglected, even for years. Perhaps the

patient, through ignorance, imagines the symptoms to be of little consequence, and thinks that they will pass away without special attention; or it may be that he is deterred by shame or false modesty from communicating the facts of his condition to his medical adviser, and thus a disorder which at the beginning might have been promptly corrected by the employment of the simplest measures, or perhaps would have required nothing more than a few words of good advice, by long continuance acquires a chronic form, and through the occurrence of tissue changes, becomes so thoroughly fixed that the most skilful and persevering treatment is necessary to effect its removal.

The popular idea that time cures most diseases, is erroneous. The fact is, time does not cure. Nature cures, but time kills. Such acute maladies as active congestion, fevers, inflammations, and the like, pass through a regular cycle of changes, and by the unaided efforts of nature, will usually end in recovery. Chronic maladies, on the other hand, to which belong most sexual diseases, are of a different character. Chronic disease tends almost invariably to the production of changes in the tissues which serve to propagate and intensify the disorder, thus leading farther and farther away from the standard of health.

The difference between acute and chronic disorders has been very aptly compared to that between a straight line and a circle. One traveling a circle, sooner or later arrives at the starting-point. This is the course of an acute disease. One who travels in a straight line, is continually increasing the distance between himself and the starting-point. This is the course of a chronic disease. We wish to protest against the popular fallacy referred to, which leads hundreds

to delay giving proper attention to the morbid symptoms which they experience, until so grave a condition is reached that recovery is impossible.

We do not wish to produce unnecessary alarm or anxiety on the part of any, and would discourage in the most emphatic manner that morbid seeking after symptoms and dwelling upon and exaggerating every little deviation from the natural condition of the body, which is common among those who are suffering with maladies of the class considered in this chapter. In consequence, thousands of those who are suffering with the slightest ailments, imagine themselves to be much worse than they are. Great harm is done by those who unscrupulously take advantage of the ignorance and inexperience of these sufferers, and thereby produce, not only unnecessary alarm and distress, but an actual aggravation of the slight disorders from which they are suffering.

We cannot, in this chapter, consider the entire category of diseases to which men are peculiarly liable, but shall confine our remarks to those maladies which are of most common occurrence, and information concerning which will be likely to be of the greatest value. As previously stated, this work does not permit us to enter into the details of medical treatment which, in these disorders, may often be best left in the hands of a competent physician; or when they may be chiefly administered by the patient himself, should be directed by one whose study and experience have fitted him to modify and adapt to each individual case the general principles of treatment which have been elsewhere laid down.

The principal object in presenting this chapter has been to thoroughly acquaint the reader with the signs

of disease in the portions of the body considered, and the consequences of neglecting to give timely and thorough attention to these disorders before, by long continuance, they become difficult of eradication, if not wholly incurable.

Spermatorrhea.—Used in its most general sense, this term applies to all forms of disease of the sexual organs accompanied by involuntary seminal losses. In a more technical sense, it relates only to a condition in which there is an unconscious escape of the seminal fluid connected with the passage of urine or movement of the bowels. It is in the latter sense that the term is here used. This disease is not so frequent as has been supposed by many; and on the other hand, it is not so rare an affection as many medical writers have seemed to think. There are those who claim to believe that the disease occurs so infrequently that it is scarcely worthy to be considered a distinct disorder. After carefully investigating several hundred cases of diseases peculiar to men, we have come to believe that it is by no means so rare a disease as is generally supposed to be the case, having determined the presence of spermatozoa by microscopical examination in a large number of cases in which a discharge occurred after urinating or while straining at stool.

Symptoms.—The leading symptoms of true spermatorrhea are headache; dulness of intellect; loss of power to concentrate the mind; defective memory; occasionally, partial deafness; roaring in the ears; giddiness; spots before the eyes; blurring of vision; short breath; sensation of weight or stricture in the chest; various forms of dyspepsia, such as sour stomach, or heaviness at the stomach; sleepiness after meals; constipation of the bowels; dry skin; abnormal sensitive-

ness of the skin; crawling, tingling, and other peculiar sensations of the arms or legs; twitching of the muscles; pressure in the back of the head; weakness of the eyes; general stiffness in the muscles, and lack of muscular vigor; backache, especially in the lower portion of the back, in the morning, or after muscular effort, great depression of spirits; melancholy; sometimes a disposition to commit suicide; insanity; unsteadiness of gait; severe pains in various parts of the body; flushing of the face; palpitation; loss of flesh; tenderness of the spine; pain in one side; impotence; numbness, coldness, and other abnormal sensations of the sexual organs, which are likely to be in a relaxed and shrunken condition, and of a bluish color; pain in the spermatic cord, and sometimes in the groin, and also at times a dragging pain in the testicles, which are sometimes tender; smarting or burning sensations when passing urine or afterward; a troublesome dribbling after relieving the bladder; unnatural excitability of the parts; twitching of the muscles at the fork of the thighs; frequent or involuntary erections; epilepsy; paralysis; symptoms of consumption. Lastly, as a symptom characteristic of this disease, we should mention the escape of a whitish fluid in greater or less quantities after passing urine or straining at stool.

In the majority of these cases there is to be found an exceedingly irritable condition of the prostatic urethra, and, indeed, not infrequently of the whole urethral canal. This may be discovered by passing the finger into the rectum, and pressing against the prostate gland and the tissues just in front of it. In severe cases, a pressure upon the perineum and the under surface of the penis, close to the body, will show exquisite tenderness of these parts. An intense burn-

ing or smarting on passing urine is frequently present, indicating the same condition.

It must not be supposed that all the above symptoms are present in any one case; but a large majority will be found in well-pronounced cases of this disorder. Sometimes stricture may be present.

Spermatorrhea sometimes exists, not as a primary disease, but as a symptom of some other disorder. It is frequently present in extreme cases of nervous exhaustion, in convalescence from fever, the debility arising from pulmonary consumption, and in some cases of hemorrhoids or other forms of rectal disease.

It has been suggested that the tendency to this disease may be inherited. It is unquestionably true that some persons are much more liable to the disorder than those who do not possess the peculiar predisposing excitability which is so often present in this class of cases.

False Spermatorrhea.—It must not be supposed that true spermatorrhea exists in every case in which a slight discharge is noticed when straining at stool or after urinating. Probably the majority of cases in which this symptom occurs, though requiring serious attention, do not properly belong in this category. A slight discharge of this kind is a very common result of an incompletely cured gonorrhoea or gleet. Not infrequently, when a discharge of this kind has existed previously, and has been apparently cured, excessive sexual indulgence, taking cold, a constipated condition of the bowels, or a concentrated and irritating condition of the urine, may cause it to reappear. The discharge usually indicates a diseased condition of the urethra, any portion of which may be affected, though the prostatic portion is by far the most likely to be the part

diseased. In some cases, however, the difficulty is located in the vesicula seminalis, the lining membrane of which, like other portions of the urethral and genital passages, is subject to catarrh as the result of cold, undue sexual excitement, or contiguous inflammation.

Among the sad results of spermatorrhea, is stricture. This severe and painful disorder most commonly occurs as the result of the violent, acute inflammation of gonorrhoea, especially when prolonged in the form of gleet. In cases of spermatorrhea, however, it appears to be the result of long-continued congestion and irritation of the mucous membrane of the urethral canal, resulting in changes in the mucous membrane, which sooner or later produce more or less narrowing of the parts, or stricture. The amount of stricture produced in this way is not often so great as to produce complete obstruction, and is quite likely to be overlooked; but it may be quite sufficient to occasion a vast deal of suffering, and set up morbid processes in the bladder and other urinary passages, the result of which may be the worst possible.

All the hygienic measures which have been enumerated elsewhere as essential to the successful treatment of the results of self-abuse, must be brought to bear in these cases. Whenever possible, the patient should place himself under the care of a conscientious and skilful physician. The weakened will-power and loss of moral tone which usually exist in these cases, render the services of a physician most important, as very few of those suffering in this way have sufficient self-command and decision of character to pursue, for any length of time, the rigid and systematic efforts necessary for the eradication of the effects of long-continued wrong-doing.

The opinion expressed by many physicians when called upon by patients suffering in this way, that the disease is one of little consequence, and probably does not exist at all, often leads to great mischief; and certainly, when such an opinion is given without a close and critical investigation of the case, the patient may well doubt the individual's competence to deal with disorders of this class. Those who have had much to do with cases of this sort, have become thoroughly convinced, not only of their great frequency, but of the fact that their successful treatment requires the most painstaking efforts, and the exercise of the highest skill, not only in the selection and the application of remedial measures to the diseased parts, but in the education and discipline of the patient so as to secure his co-operation in carrying out those measures of treatment and regimen elsewhere suggested, such as proper diet, exercise, abstinence, etc., which are more important than any medicinal remedies that can be employed.

In the treatment of this disease, it should be thoroughly understood that the danger to the system consists, not alone in the loss of seminal fluid, but in the nervous exhaustion arising from reflex nervous action, which ultimately results in general debility and derangement of the whole system. The irritable condition of the diseased surfaces of those portions of the urethra usually affected, occasions a morbid irritability of the nerve centers of the lower portion of the spine, which have charge of this part of the body, and from this the irritation is propagated to other portions of the central nervous system. It is by this means that the digestive organs, lungs, heart, and in fact every portion of the body, suffer, even in an extreme degree, as the result of this disorder.

Seminal Weakness or Nocturnal Losses.—The great prevalence of masturbation among boys and young men, and marital excesses among married men, has rendered the existence of genital weakness so common that many physicians have come to believe that the occurrence of seminal losses during sleep is a perfectly normal condition, if not too frequently repeated. Extensive observation, however, has convinced the writer that this opinion is an error, and that in a man who is in perfect health, physically, mentally, and morally, such a thing as involuntary seminal losses will not occur, either sleeping or waking.

This diseased condition, for such we consider it to be under all circumstances, is not solely the result of self-abuse, however, as it may arise from any form of sexual abuse, as has been pointed out in previous portions of this work. Unquestionably, the underlying cause of the disease consists in a great number of circumstances relating to diet, matters of regimen, social surroundings, etc., pertaining to our modern civilization, which are directly calculated to stimulate the sexual propensities to abnormal activity.

The occurrence of an emission during sleep, indicates excessive irritability and want of nerve tone on the part of the nerve centers controlling the sexual organs. In a state of health, the influence of the brain or the nervous system alone is not sufficient to produce seminal ejaculation, the natural stimulus of coitus or the abnormal one of masturbation being required to compel the receptacles of this most precious of all vital fluids to yield up their contents. When the controlling nerve centers have been weakened by disease, however, and still further weakened by the general lowering of nerve tone during sleep, even the slight stimulus of a

passing dream may be sufficient to produce the involuntary actions by which the emission is occasioned. In many cases in which the disease has not reached this advanced stage, the emission does not occur during sleep except when conditions especially favoring it exist, such as the presence of undigested food in the stomach, loaded bowels, a full bladder, supine position, excessive heat from too much covering, or some similar cause of abnormal sexual excitement. After the disease has made further advancement, however, causing an additional loss of tone on the part of the sexual centers, the circumstances mentioned, while still favoring the occurrence of the emissions, are not essential to provoke it, as it will often occur with most distressing frequency, even when all unfavorable conditions are carefully avoided.

After the malady has made still further progress, the nerve centers become weakened to such a degree that the same involuntary discharge may occur through the excitement of impure thoughts, even while the patient is wide-awake. Another step lower, and that most deplorable condition is reached in which seminal losses occur without erotic thoughts, and even without the slightest degree of sexual excitement of any sort, a condition known as *spermatorrhea*, or *spermatorrhagia*, which is considered under another head.

Symptoms.—The leading symptoms of this disorder are pain in the lower portion of the back, various forms of headache, debility, pressure at the back of the head, fulness in the forehead with a general sense of oppression in the head, confusion of thought, dulness of mind, want of mental or physical energy, mental abstraction, irritability of temper, nervousness, fickleness, morbid fears, melancholy, roaring and various sounds in the

ears, specks before the eyes, tenderness of the eyeballs and sensitiveness of the eyes to light, dark rings under the eyes, muscular twitching, wandering pains in various parts of the body, numbness and other peculiar sensations in the arms and legs, symptoms of indigestion, constipation of the bowels, sediment in the urine, irregularity of the urinary excretion as to quantity, great sexual excitability or sexual apathy, seminal losses occurring during sleep either with or without dreams, smarting and burning of the urethra during or after urinating, dribbling after urination, sense of weight, pain, or uneasiness in the testicles, tenderness or dull pains in the perineum or fork of the thighs, and various other symptoms too numerous to mention.

It should be stated, however, in this connection, that not infrequently the patient attributes to this disorder many symptoms which are wholly foreign to it, and which arise from other diseases that happen to be present with it. The patient is quite certain to make close and frequent examinations of the sexual organs, and to notice the slightest deviations from what he considers to be the standard of health, as the result of which he not infrequently becomes unnecessarily alarmed, imagining that there is wasting of the parts, or other abnormal conditions which do not really exist. This tendency is greatly encouraged by the quackish advertisements found in the newspapers and scattered about the country in lying circulars, sent out by mercenary charlatans, in which are to be found grossly exaggerated descriptions of the disease and its effects, which are well calculated to excite in the highest degree, ignorant and susceptible young men who may be suffering with any of the symptoms of this disease.

A question of importance must not be overlooked in this connection: How frequently may emissions occur without occasioning injury? As has been previously said, an emission is an indication of an abnormal condition. However, the abnormality does not amount to what might properly be called a disease, when the occurrence is only occasional, and is not followed by any chronic general or local disturbance. When, however, an emission occurs with only a few days' interval, or when the occasional occurrence is followed by general discomfort and physical and mental depression or irritability, or such local symptoms as smarting after urination, dribbling after passing urine, etc., serious injury is being done, and the individual should consider it necessary to place himself under treatment. It may be said, in general, that the occurrence of an emission more often than once in three or four weeks is evidence that the morbid condition present is sufficiently serious to require medical attention. This statement will be met by the claim that plenty of cases may be cited in which losses have occurred with much greater frequency than this, for long periods, without apparent injury; but sooner or later other evidences of disease make their appearance. In all these cases, injurious results make their appearance sooner or later, if not in any other way, in the loss of sexual vigor and the occurrence of prostatic and other troubles which either do not occur at all in a healthy person, or are postponed to a late period of advanced life.

In the treatment of many of these cases, we have invariably noticed as one of the first symptoms of improvement that though the seminal losses still continued without great diminution in frequency, the patient no longer suffered the great depression of mind

and body which had previously followed their occurrence. This is a sign of improvement in general nerve tone, by means of which the disorder will be ultimately controlled. This change in the advance of the disease toward health is directly the reverse of that which occurs in the march of the disorder in the opposite direction. Patients may often imagine the emissions are doing no harm, though occurring with great frequency, simply because they do not feel any serious effects. But this is only because the general vital tone is sufficiently great to withstand for a time the exhausting drain upon the system; but sooner or later, nervous bankruptcy will supervene, and the patient will appreciate his true condition.

As regards the treatment of this disorder, it is not necessary to repeat what has been said in previous portions of this book, and we cannot attempt to treat the subject in anything like a complete manner, not only because our space is limited, but because such a treatise would not be in conformity with the general character of this work. The following, however, is what almost any young man may do to aid himself in recovering from this disease, in addition to such measures as may be suggested by a competent physician who has been made thoroughly cognizant of the peculiarities of the case:

1. *Diet*.—Eat only plain and simple food. Avoid all highly seasoned and stimulating articles of food, such as sauces, pepper, pepper-sauce, mustard, and condiments generally. Also avoid eating too fast, over-eating, and eating hearty or late suppers. It is far better to eat but two meals daily, and nothing after 4 or 5 P. M. Take care to chew the food very thoroughly. Substitute nuts and nut preparations, such as

malted nuts, for meats of all sorts. Whole-grain preparations, granola, toasted wheat flakes, graham bread, etc., should be used, together with ripe fruit. All kinds of alcoholic liquors, including wine, beer, and hard cider, must be scrupulously avoided, also the use of tobacco in any form. Tea and coffee are highly injurious. The diet should be made abstemious. Better too little than too much.

2. *Exercise*.—Plenty of exercise in the open air should be taken daily. When the employment is sedentary, dumb-bells, Indian clubs, and other forms of gymnastics are of great value, and should be taken regularly. The amount of exercise taken each day should be equivalent to walking from six to fifteen miles, according to the strength. Vigorous walking is one of the best forms of exercise. It is not well, as a rule, to take a great amount of exercise before breakfast. Exercise may often be taken to advantage just before retiring at night. It is useful at this time as a means of securing a healthful fatigue, which will insure sound and refreshing sleep.

3. *Mental Conditions*.—The mind should be controlled with the utmost rigor. Impure thoughts should not be harbored for a moment. The mind should not be occupied in the evening with anything of an exciting nature.

4. *Treatment*.—Take a good, thorough sponge or full bath, using soap, and rubbing vigorously with a coarse towel, twice a week, at bedtime. If the parts are irritable, smarting after urinating, and frequent emissions, take a hip bath at 100° daily, just before retiring at night. Continue the bath about fifteen minutes. Hot and cold applications to the lower portion of the spine three or four times a week, will also be

found beneficial; and when there is great local excitability or smarting after urinating, hot applications may be made to the perineum with advantage, using a sponge wet in hot water. When the bowels are constipated, wear an abdominal bandage, which should be applied by means of a towel wet in cold water and wrung out as dry as possible. Wind it around the body, and cover with a flannel bandage long enough to go two or three times around the body. Remove in morning and bathe the parts with cold water. Knead and percuss the bowels two or three times a day; and if very obstinate, resort to the warm water enema, which can be most conveniently taken by means of a fountain or siphon syringe.

Drink six or eight glasses of water in the course of the day. One hour before a meal, or two or three hours after, is the best time for taking the water. A glass or two may be taken with advantage just before retiring at night. If there is a tendency to atrophy or shrinkage of the parts, alternate sponging in hot and cold water daily for ten or fifteen minutes will be found beneficial.

Diurnal Losses.—Under the head of diurnal emissions or losses are included every form of seminal discharge occurring involuntarily during the waking hours. These discharges are very diverse in character. They usually occur just before or immediately after the passage of urine, or when straining at stool. However, in the majority of cases, they are not seminal in character, though there may be an occasional loss of seminal fluid. This fact may be ascertained by placing a small portion of the discharge upon a slip of glass, and putting it in the hands of a good microscopist for examination. We have made many examinations of

this kind, and while a trace of seminal fluid has been frequently found, we have been able to assure most of these patients that the discharge which they supposed to be seminal in character, and which had given rise to the gravest apprehensions, was really wholly of a catarrhal nature, and only significant as indicating a diseased condition of some portion of the urinary or genital passages.

These discharges should not be looked upon, however, as insignificant, and not worthy of attention, as they are always indicative of disease. The nature of the disease presents as various forms as do the discharges themselves. Several varieties are observed, which may be enumerated as follows:

1. The most common of all discharges of this kind is a clear, viscid secretion, much resembling the white of an egg, which escapes from the orifice of the urethra either before or after urination, or after an erection, following some degree of sexual excitement. This discharge is from the small glands located in the prostatic urethra, and is a perfectly natural secretion. Too great an amount, however, indicates abnormal irritability of the membrane of the locality from which it comes, and hence is deserving of attention.

2. An opaque mucous secretion which is formed in the seminal vesicles. This secretion may be either due to catarrh of the parts named, or may be a natural secretion squeezed out by the pressure of hardened feces in the act of moving the bowels. A similar discharge, noticed after urinating and after a movement of the bowels, may be the result of a chronic irritation or inflammation of some portion of the urethral canal, and in such a case requires thorough and careful treatment.

3. Lastly, we mention a milky looking fluid, in quantity varying from one to two drops to half a tea-spoonful, escaping at the beginning or end of urination, which is found to contain a greater or less quantity of spermatozoa.

All discharges from the urethra are liable to contain spermatozoa in greater or less quantities, either as the result of a relaxed condition of the openings of the ejaculatory ducts, which allows the semen contained in the seminal vesicles to escape, or often as the result of constipation of the bowels, the seminal fluid being mechanically forced out of the seminal vesicles by the pressure of the hardened contents of the bowels. These discharges may occur with very great frequency, or only at long intervals. When of very infrequent occurrence, their significance is not very great; but when, as is sometimes the case, they occur daily, the condition should receive prompt attention.

Sometimes the discharge of seminal fluid is backward into the bladder, and so mixed with the urine that attention is not called to it, and the patient is wholly unaware of the mysterious disease which is undermining his health, and goes from one physician to another seeking to find the real cause of his malady and the proper remedy, but obtaining no relief. We have met a number of cases of this sort, in some of which the amount of seminal fluid lost in this way, and the constancy of the symptom, quite exceeded any conception which we had previously formed of cases of this sort. The only method of detecting these cases is for the physician to adopt as a routine practice the plan of making a careful microscopical examination of the urine in every case.

All urethral discharges, of whatever character,

should be subjected to careful microscopical scrutiny, as by this means only can their real character be determined. We have frequently found seminal fluid present when it was least suspected, and when the small quantity discharged was supposed to be simply a little urethral mucus or prostatic fluid. The significance of these discharges is not in proportion to the quantity. Even the very slight amount of discharge, if constantly present, is indicative of a morbid condition, which may in time give rise to the very worst results. When such a discharge accompanies seminal losses, or any other form of sexual weakness, it must certainly be removed before the accompanying difficulty can be entirely relieved. The sediment which appears in the urine, as a general thing, has nothing to do with the discharges. These sediments usually consist of phosphates or urates, though sometimes there is more or less mucus present. When this is the case, whitish threads will be observed to float upward from the mass collected at the bottom of the vessel. When the deposit consists of urates, the urine is clear when first passed, the sediment only appearing after the urine has cooled. Phosphates appear in the urine when first voided, often giving to it a milky appearance, the cause of which is likely to be attributed to the presence of a large quantity of seminal fluid. It is exceedingly rare, however, that spermatozoa are present in so great a quantity as to give the urine this appearance.

The ordinary results of these emissions, when long continued, are the following:

1. The most constant of all the morbid conditions resulting from this discharge is a weakened condition of the organs affected. The functional activity of the sexual organs is perhaps more easily disturbed than

is found to be the case with any other organ or system of organs in the body. This is the wise provision of nature for the protection of the rest of the body, which suffers more profoundly from excessive exercise of the sexual function than from any other form of abnormal functional activity. Hence, when great excesses of this sort are indulged in, nature kindly takes away the power for indulgence, and thus prevents that utter destruction of the body which results from the continued exhausting drain to which the system might otherwise be subjected. When diurnal emissions of any sort occur, the sexual organs are also seriously diseased, and morbid processes are at work which are very certain to result ultimately in serious loss of sexual vigor. Cases in which the discharge is distinctly of a seminal character, were formerly considered to be practically hopeless; but by proper management, and with the aid of improved methods, these cases are known to be amenable to treatment, and it is probable that nearly all cases, if not every one, may be substantially cured by the adoption of the proper measures.

2. General nervous debility is another of the most prominent results of these losses. This arises, not so much from the drain upon the system by the frequent discharge, but from the morbid reflex influence of the local irritation, which gives rise to the discharge. The patient is much given to melancholy, and sometimes approaches almost to the border-line of insanity in consequence of the mental distress arising from the knowledge of his real condition, or from apprehension of a condition more grave than that which really exists.

3. Various diseases of the bladder and portions of the urinary passages are often present in these cases, and very frequent, difficult, or painful urination.

Smarting or burning at the beginning of the act of urination is a very constant symptom, to which is usually added a persistent and annoying dribbling of urine after evacuation of the bladder. This is due to the relaxed and weakened condition of the muscles of the urethra, and their failure to contract promptly, so as to expel the last portion of the urine. A similar condition of relaxation affects the mouths of the ejaculatory ducts, which causes them to remain open, allowing the escape of seminal fluid.

4. Dyspepsia in some one of its various forms is very frequently an accompaniment of this disorder, and is a direct cause of a great share of the debility and distress arising from it, which are usually attributed to the seminal losses, though not directly due to them.

When a person discovers himself to be affected with discharges of this sort, he should consider the matter one deserving of immediate and careful attention until every vestige of the disease is removed. The penalty of neglecting to attend to the matter with promptness will usually be, in the most favorable cases, early loss of sexual vigor, and in the great majority of cases, some worse form of sexual disease, and all the various accompanying symptoms which have been pointed out.

Treatment.—The prolonged cold sitz is a most excellent remedy. Temperature 78° to 70° F., fifteen to thirty minutes. Take a hot foot bath at the same time. Keep the bowels regular. Use an enema of cool water daily for some time, if necessary. Take a cool bath every morning; a cold towel bath is good. This is better: Let three or four inches of cold water run into the tub, sit down in the water after wetting the face

and neck well with cold water, and rub the legs well for three to five minutes.

The question of marriage has been discussed elsewhere in this work; but we cannot allow this opportunity to pass without reiterating the warning that a person suffering in this way should never think of marrying until the local disease has been substantially cured, as the deepest regret and intensification of suffering are almost certain to result when a contrary course is taken.

Diseased Prostate.—One of the most common accompaniments of the disease previously described is some form of prostatic disorder. Perhaps the most common of these is irritable prostate, a disease in which the affected part is sensitive to pressure, as may be discovered by introducing the finger into the rectum, and pressing in the direction of the bladder. The irritability is sometimes so great as to occasion pain or uneasiness in sitting, there being constantly a dull, aching pain in the perineum, or fork of the thighs. This condition may be the result of chronic or acute inflammation, but most often results from sexual excesses of some form. In cases of nocturnal losses, or spermatorrhea, this condition is a frequent cause of the continuance and aggravation of the disorder, occasioning undue excitement of the parts, and weakening of the nerve centers which have control over these organs, lowering their tone, and thus engendering the very conditions upon which this disorder chiefly depends. Persons suffering in this way generally complain of smarting during or after the evacuation of the bladder.

Acute Inflammation of the Prostate is generally the result of excessive sexual excitement, alcoholic indulgence, extension of gonorrhœal inflammation, or severe

treatment of the urethra by means of irritating injections and the careless use of sounds. Exposure of the parts to dampness and cold, as in sitting upon the ground or a wet board, has occasioned the disease.

The most common symptoms are a sensation of weight and fulness about the rectum and perineum, and an urgent desire to pass water, with uneasiness at the neck of the bladder. When the urine is passed, more or less pain is experienced at the close of the act. When the inflammation attains a high degree of intensity, the pain becomes throbbing and shooting in character. There is a sensation of great fulness and tenderness in the parts, also pain in the back when sitting. Great pain is experienced in the movement of the bowels, and in severe cases there may be obstruction of the urinary passages. The patient may suffer from chilliness, and generally has more or less fever. If the finger is placed in the rectum, the prostate gland is found to be more or less swollen and throbbing. If the patient remains quiet in bed, the recovery is generally quite speedy, though the gland is often left in an irritable and enlarged condition, and is liable to the occurrence of similar attacks, or the continuance of the inflammation in a chronic form, in which the same symptoms are experienced, though with a less degree of intensity. There is also more or less discharge, cloudiness of urine, and much difficulty and pain in passing the urine. Excessive exercise and the use of irritating foods aggravate the symptoms in the chronic as well as the acute form of the disease.

Enlargement of the Prostate is usually the result of acute or chronic inflammation, though it is not infrequently found in elderly persons and those who have been addicted to great excesses, without the occurrence

of the acute form of the disease. Enlargement of the prostate is considered by some to be a necessary accompaniment of old age; but this is certainly not the case, though it is probable that fully one-third of all men who have attained the age of fifty years have more or less enlargement of the part.

Many persons have a considerable degree of enlargement of the prostate without being aware of the fact, the increase in size being so gradual that it is not observed until so great a degree of obstruction to the passage of urine is produced as to require a considerable degree of voluntary expulsive force. The size of the stream is not usually lessened, but the force is greatly diminished. The patient urinates with much greater frequency than usual, and as the disease advances, considerable irritability and discomfort in the rectum is occasioned by the frequent and violent straining efforts required to evacuate the bladder. After a time, the obstruction becomes so great that the bladder cannot be fully evacuated by any effort on the part of the patient. When it becomes greatly distended, a small quantity of urine may be forced out by violent efforts, and during sleep a sort of overflow occurs, which may be the first symptom to which the patient's attention is seriously directed. The retained urine decomposes, becoming alkaline, irritating the mucous membrane and causing catarrh or inflammation of the bladder, and a great variety of attendant disorders and inconveniences, which, if neglected, may lead to fatal results. We have frequently met cases of this kind in which the bladder contained almost incredible quantities of urine which had probably been retained for weeks. In some cases, possibly the bladder had not been fully emptied for months.

Treatment.—The very same measures which have elsewhere been recommended for local congestion, particularly hot sitz baths, hot fomentations to the lower portion of the spine and perineum, are among the most useful measures in these cases. The same regimen as to diet should be followed as has been indicated for other sexual disorders, particularly the avoidance of all stimulating foods, tobacco, alcoholics, tea, coffee, etc. It is important, however, that the patient should avoid violent exercise, and that total abstinence as regards sexual indulgence should be observed until the disease is thoroughly cured.

In chronic cases, the prolonged cold sitz is useful (78° to 65°, ten to twenty minutes). When there is much tenderness, pain or smarting after urinating, or frequent urination, the very hot sitz is best. Begin at 104°, and increase rapidly to 118° to 120°. Duration, four to six minutes. Keep the bowels regular by the free use of granose flakes, fruit, and nuts.

Stricture.—A contraction, or stricture, of any portion of the urethral canal is usually the result of the acute inflammation of gonorrhœa, or the chronic irritation and inflammation of gleet. All grades of stricture exist in different cases, from a very slight narrowing of the canal, to complete obstruction. The idea that a stricture does no harm if it does not very materially obstruct the passage of urine, is a popular error which should be corrected. Any considerable degree of narrowing of the canal, whether sufficient to present a serious obstacle to the evacuation of the bladder or not, is a serious matter, and requires the attention of a competent surgeon. Such a contraction is usually sufficient to maintain a gleet discharge, and a chronic irritability which is likely to result in early

loss of sexual vigor, or some other form of sexual disorder.

Stricture is not always the result of gonorrhœa or acute inflammation of the urethra, but may, and frequently does, result from the practice of self-abuse, or may often be occasioned by a long continuance of nocturnal emissions which may have been occasioned by mental incontinence, even when masturbation has never been practiced. The earliest symptoms of stricture are pain and smarting at some point of the urethra during or after the passage of urine, this part being usually the seat of the stricture; a slight discharge; frequent urination; the peculiar form of the stream of urine, which may be twisted, forked, divided, or squirting. Change in the form of the stream should not, however, be looked upon as a positive symptom of stricture, as it is not infrequently occasioned by swelling of the lips of the orifice of the urethra. Pain in the testicles and back and irritation and protrusion of the rectum are frequent results of violent straining. Retention of the urine is also a frequent symptom. Sometimes, in consequence of retention of the urine, it becomes foul in the bladder, producing irritation of the mucous membrane, and subsequently catarrh of the bladder. In these cases, the mucus appears in the urine as a whitish deposit, shreds of which float through the urine. Blood is sometimes passed, especially in cases in which the catheter is frequently used. In advanced cases, the stricture becomes so close that the urine can be passed only in drops; and after a while, constant dripping occurs, due to overflowing of the bladder, which the patient is unable to empty by voluntary effort. The bladder becomes greatly distended, and sometimes nearly paralyzed. Great injury is occasionally done

through rupture of the urethra, from the violent straining efforts of the patient. There is generally great impairment of the general health in these cases. The patient complains of various disorders of the digestive organs, great pain in the loins and back, chilliness, followed by fever, especially after the use of the catheter, which sometimes produces symptoms so serious as to give rise to what is known as urethral fever.

The treatment of stricture is a matter which belongs exclusively to the skilled surgeon. The man who has any suspicion whatever that he is suffering with even a moderate degree of obstruction of the urethral canal, should at once seek skilful surgical advice. Sometimes the narrowing of the urethra may exist only at the orifice, and yet serious results may follow if the difficulty is neglected.

Balanitis.—Persons who have a long and rather tight foreskin frequently suffer from inflammation of the mucous membrane which covers the glans penis, or foreskin. The symptoms are severe burning or itching of the affected parts, frequently accompanied by violent erections and great sexual excitement. The foreskin is red and swollen, sometimes to a very great degree. A yellowish or whitish discharge of a very disagreeable odor is also present. The most common cause is neglect to keep the parts thoroughly cleansed.

Treatment.—The only treatment required in the majority of cases is thorough cleansing of the parts three or four times a day with tepid water and green soap. If the disease persists, a slightly astringent lotion may be applied, and if it is found impossible to prevent the disease by daily cleansing, a portion of the redundant prepuce should be removed by a surgeon.

When cases of this sort are neglected, thickening and narrowing of the foreskin is frequently the result, and this is sometimes so great as to be an obstruction to the passage of urine. We have met cases in which the result was an adhesion of the foreskin to the glans penis.

Phimosis.—This is a condition in which the foreskin is so tight that it cannot readily be drawn back over the glans penis. In some cases, the orifice is so small that there is barely room for the passage of the stream of urine in the evacuation of the bladder. A person may be born with this condition, or it may be the result of long-continued inflammation or irritation. This matter is one which should receive attention, as the irritation arising from phimosis may occasion various sexual disorders, particularly nocturnal emissions, a disease which is always aggravated by it, though originally induced by other causes.

As soon as discovered, this condition should be removed by the proper operation. It is rarely necessary to resort to the old method of circumcision, as the same results may be obtained by an operation less formidable and painful.

This condition is often present in young boys, even infants. Prompt attention is necessary for preventing serious disorders of the nervous system as well as disastrous local results.

Paraphimosis.—This condition is one rarely met with, except in cases of venereal disease, though some years ago we encountered a very severe case in the person of a little boy who was suffering from partial phimosis, and having accidentally drawn the prepuce over the glans, was unable to return it. In a short time, so great swelling occurred that sloughing of the

parts was threatened, when his father brought him to us for relief. Persons suffering with paraphimosis should not incur the risk of an accident of this sort. When paraphimosis exists, a physician should be called, unless by careful manipulation of the parts they can be readily restored to their normal condition.

Hydrocele.—This condition, sometimes incorrectly called dropsy of the testicle, consists in an excessive accumulation of natural secretion within one of the coverings of the testicle. The enlargement is usually pear-shaped, with the large end downward, and differs from hernia in its form, the tumor of hernia being larger at the upper instead of the lower part. When allowed to exist for years, hydrocele frequently causes a wasting of the testicle, and hence should receive attention as soon as it makes its appearance. It is not necessary to describe the methods of treatment required for this disorder, as a competent surgeon should be consulted.

Varicocele.—This condition consists of a varicose condition of the spermatic veins. It is a very frequent malady, probably one-tenth of all males being affected with it. In chronic cases, the disease is accompanied by more or less inflammation of the walls of the veins, causing thickening. The mass of veins sometimes attains an enormous size. Aside from the enlargement, the most common symptoms are pain in the testicle and groin, and a constant dragging sensation, especially when standing upon the feet, or engaged in active exercise. In many cases, these symptoms are not present to such an extent as to occasion any inconvenience during the cold months, but are very troublesome during the warm season of the year. The disease may be occasioned by the same causes which produce a vari-

case condition of the lower extremities, such as long standing upon the feet, or excessive walking. A very common cause is straining at stool. The disease is probably most frequent in those who have been addicted to self-abuse and other sexual excesses, though it is by no means confined to this class. Varicocele occurs most frequently on the left side, which is probably due to the absence of valves in the left spermatic vein.

The palliative treatment of this disorder consists in frequent bathing of the parts in cold water, and wearing a proper suspensory bandage to support the scrotum and its contents. The only radical method of cure consists in ligation of the spermatic veins. The old method of doing this operation was somewhat hazardous, and only justifiable in severe cases; but the improved methods now used are free from danger, and may be performed without the aid of an anesthetic, and without occasioning any great degree of pain.

Impotence.—Almost the sole cause of impotence is sexual excess of some kind, and the disease is in a great number of cases the result of self-abuse and unnatural coitus. The first symptom of approaching impotence is too early ejaculation, which is soon followed by loss of sexual power. The primary cause of the disease is exhaustion of the nerve centers which control the sexual organs. In a great share of these cases, nocturnal losses, or true spermatorrhea, is present with all the accompanying symptoms of this disorder, particularly an irritable condition of the urethra.

Treatment.—The majority of cases of impotence which have not been seriously mistreated, may be relieved, if they have not existed for too great a length

of time. In persons far advanced in years, who have become impotent through the natural decline of the vital powers, no measure of treatment can afford more than temporary relief. In young men who are suffering with complete or partial loss of sexual ability, as the result of excesses, the disease can usually be cured by the adoption of proper methods in the hands of an experienced physician. The patient may employ advantageously the regimen and treatment suggested for seminal weakness, which will be found of great service in conjunction with any other measures of treatment that may be instituted. We would warn persons suffering in this way against the use of aphrodisiac remedies, or sexual stimulants, as the ultimate results of such measures are the very worst possible, and no cases are so hopeless as those which have been mistreated in this way.

More abounding life and vitality are the things most needful. With an increase of general vigor, there may be likewise an increase of local vigor.

An outdoor life, simplicity and naturalness in all the habits of life, purity of life, physical as well as mental,—these, with daily cold baths, short cold sitz baths, bathing the parts in cold water, and the cool enema, are the most effective measures.

Sterility.—Sterility is by most men supposed to be a disease confined almost exclusively to the other sex; but careful researches have shown that when married couples are childless, the fault is with the husband in not less than one case out of six. Want of procreative power may be due to disease, or deficient development of the testicles, or entire absence of the organs. It may also arise from obstruction of some portion of the seminal ducts, from disease of the sem-

inal fluid, catarrhal or bloody discharges from some portion of the urinary passages, too frequent sexual indulgence, seminal losses, catarrh of the prostate, absence of spermatozoa, consumption, syphilis, nervous debility, and diseases of the brain and kidneys. The management of diseases of this kind requires the greatest skill on the part of the physician, and cannot be left to the patient himself, and hence few remarks concerning treatment are needed here. Many cases are incurable from their very nature; but cases in which the sterility is the result of abnormal discharges, are cured by correcting the discharge.

Gonorrhœa.—This very grave disease is due to infection with the gonococcus, one of the most virulent germs known. The gonococcus produces a very virulent and irritating toxin, which causes intense inflammation of the tissues with which it comes in contact, even producing ulceration and destruction of the tissues. The disease is usually confined to the urethral canal, but may affect other portions of the penis, as the head of the organ and the foreskin. Its usual course is from the orifice of the urethra inward. It may be confined to the mucous membrane, but usually involves the deeper structures. In severe cases, the inflammation may reach into the surrounding tissues so extensively as to cause distortion of the shape of the organ by contraction or stricture. Ulceration and various other grave injuries may be produced.

The infection of gonorrhœa may not be confined to the urinary canal. It may extend to the bladder, the kidneys, the seminal ducts and the testicles. When the testicles become involved in the disease, they are almost certain to be irreparably damaged and the result in time may be sterility. One of the most serious and painful complications results from the extension of the disease to the prostate, causing acute or chronic prostatitis. It is very difficult to reach and destroy the germs in this region, and chronic infection, with frequent relapses, is likely to occur.

A fact which should be more generally understood is the great susceptibility of the eye to gonorrhœal infection. The

resulting inflammation is most violent and is almost certain to destroy the eyesight if the most thoroughgoing measures are not employed with great promptness.

In women the disease is very likely to extend to the ovaries and Fallopian tubes, causing pelvic abscess and necessitating removal of the affected parts by an abdominal operation. Many thousands of innocent women have undergone this mutilating operation without knowing the real cause of their suffering. There are laws upon the statute books which recognize the communication of an infectious disease as a crime. Is it not time that such laws should be rigidly enforced? Should not pure and innocent women be protected against the horrible suffering and irreparable injury inflicted upon them by husbands who have become inoculated with a horrible "vice disease" while sowing "wild oats"?

Gonorrhœa is usually contracted by impure sexual contact, but the infection may be communicated through the medium of a towel or other objects which have been contaminated by an infected person. A person suffering from the disease should exercise the greatest care to avoid conveying the disease to his own eyes or exposing other persons to infection through infection of his hands. So far as possible soiling of the hands by contact with the discharge must be avoided; and while infected, care should be taken to touch no other part of the clothing or any other object that is likely to be afterward touched by the patient or any one else.

Symptoms.—The first symptoms of the disease are usually noticed two or three days after exposure. The first manifestations are itching, tingling, or simply slight uneasiness about the meatus, or mouth of the urethra, which, on examination, is found to be red and slightly stuck together by a viscid, colorless secretion. The discharge is at first very slight, but increases rapidly, and soon becomes thick and yellowish. On passing urine, a slight smarting sensation is felt. The disease may remain at this stage any length of time, from half a day to two or three days. Sooner or later, however, the symptoms become much aggravated

through extension of the disease into the deeper portions of the urethra, and the whole organ becomes swollen and tender, the discharge thick and green, and the passage of urine occasions a severe scalding sensation. Violent erections are frequently experienced, as is also chordee, a condition in which the organ is drawn into the shape of a bow during erections, a very painful and distressing condition.

In simple cases which pursue a natural course, the inflammation subsides after one to six weeks; but in many cases it will continue indefinitely, if not properly treated, in the form of gleet, which sometimes lasts for years. In this form of the disease, the discharge may be so slight as to be readily overlooked, but may be detected by pressing the urethra from behind forward. By this means a few drops of milky discharge can be squeezed out at the orifice of the urethra.

One of the most serious and frequent results of this disease is stricture, the extent of which may vary from the very slightest degree of obstruction to complete closure of the canal. The possible consequences of a stricture are the very worst imaginable; and a person who has acquired this unfortunate condition is certain to be subjected to many inconveniences, and may be compelled to endure great suffering therefrom.

Treatment.—When taken quickly in hand by a thoroughly competent physician this disease may usually be readily and completely cured. Unfortunately, the patient usually tries to cure himself, or resorts to some advertising specialist who generally does irreparable damage by harsh or inefficient methods. The best remedies known are rest in bed and application of silver of suitable strength. A one-per-cent solution of nitrate of silver or a twenty-five-per-cent solution of argyrol applied several times a day are most effective remedies in acute gonorrhoea.

In chronic gonorrhoea much stronger solutions must be used. Successful treatment of this condition requires the highest skill of the expert specialist.

If one eye becomes affected, the other eye should be at once protected by a "Buller's shield."

Gonorrheal Rheumatism

This is one of the results of the generalized infection by the gonococcus through diffusion of the germs or their poisons by means of the blood. This is one of the most painful and dangerous forms of rheumatism. Not only the joints, but the heart may be affected, and the injury may be permanent, through damage to the heart valve or the destruction of one or more important joints.

In addition to rest and other remedies usually employed in rheumatism these cases often require the use of a special "vaccine," the effects of which, when properly employed, are sometimes almost magical. "Vaccines" may also be employed in other obstinate or chronic forms of the disease.

Too much emphasis cannot be laid upon the importance of continuing the treatment until the last vestige of the disease is thoroughly eradicated. The mere stoppage of the discharge is not proof of a cure. The gonococcus often hides for years in prostate and other deep structures after a severe attack, and reappears in an acute relapse after sexual indulgence, taking cold, the use of alcohol, and even without apparent cause.

No man who has had gonorrhoea has any moral or legal right to marry unless he knows that he has been thoroughly cured. The occurrence of this disease in young men within recent times has become so common that it is no longer safe for a young woman to marry without the assurance of her own safety by a certificate of health. Fortunately methods are now known through which all reasonable doubt may be eliminated, even in most obscure cases, by examination of the blood.

Again the reader is most earnestly warned against self-treatment. It should not be forgotten that this disease is usually contracted through an act which is a violation of the laws of God and man. The fact of possession of the disease is usually evidence of the commission of a crime. The fact that so large a proportion of young men are guilty of immorality is no excuse and does not in any way mitigate the just penalty which Nature inflicts. Again we repeat that any per-

son finding himself afflicted with this disorder should at once seek a skilful physician for advice, and should give the matter serious attention until the disease is wholly eradicated.

Chancroid.—This disorder, sometimes termed simple venereal ulcer, was until recently regarded as a form of true syphilis. It is now known to be simply a local disease. It is an infectious, eating ulcer, which progresses rapidly when left to itself, and sometimes destroys a very considerable portion of the part attacked. The ulcer usually makes its appearance within one to two hours after exposure. Buboës, or hard swellings in the groin, often appear in connection with this disease. Chancroid, sometimes termed soft chancre, is distinguished from the ulcer which marks the beginning of true syphilis, by the fact that the tissues surrounding it are soft, while in true chancre the sore has a hard or indurated feeling. Another peculiarity of the soft chancre is that if a portion of the discharge, which is very copious, is introduced beneath the skin, or applied to a raw surface in any way, a new sore is produced, whereas the sore of true syphilis is not capable of being propagated by inoculation in the same individual.

This disorder requires vigorous and prompt attention; and a person suffering with it should place himself immediately under the care of a thoroughly competent physician. One of the most essential features of the treatment of this class of cases is thorough cleanliness.

Syphilis.—The symptoms of this disease are too numerous for full consideration here, and we can only notice some of the chief features of the disease. It has three distinct stages. The first is a local manifesta-

tion, known as *chancre*. Two or three weeks, or longer, after exposure, a small, hard, reddish pimple makes its appearance, usually upon the genitals, although cases have occurred in which the disease was contracted by kissing, when the chancre was formed upon the lip. The pimple increases in size for a few days, and finally ulcerates, and discharges slightly. It does not usually give much inconvenience, and is, in fact, not infrequently unnoticed. In this respect, chancre differs very materially from chancroid,—a very important distinction. After a few days the glands of the groins become somewhat enlarged, although not very painful. After one to three months, the secondary stage of the disease appears, as an eruption of red spots, which are followed by pimples. After a time, larger pimples or pustules make their appearance, leaving behind them pock marks like those of smallpox. Ulcers also appear in some cases. Simultaneously with the occurrence of the eruption, slightly raised spots of a whitish color, known as *mucous patches*, appear on the mucous membrane of the lips and tongue and throat. A slight discharge arises from these patches, which is of a very contagious character. The patient also has sore throat, and often sore eyes; and after the general health has become considerably impaired, suffers greatly with pain in the head, arms, legs, breast, and particularly in the joints, though the pain is not confined to them as in rheumatism. Small swellings, known as *nodes*, which are tender on pressure, appear on the shins and other parts.

Most of the above symptoms usually disappear after a few weeks, and the patient may seem to be well for several months or years; but unless the disease has been properly treated, it is all the time at work in the

system, and next makes its appearance in the deeper tissues, particularly in the bones and cartilages of the nose and skull. Not infrequently, the nose is greatly disfigured, or even wholly destroyed. The liver, lungs, kidneys, heart, and other internal organs are also likely to be affected. No other disease makes such fearful ravages in the human constitution as this, or subjects its victims to such horrible sufferings and disfigurements. It is also one of the most certainly communicable by heredity, of all diseases; and it is not possible for a physician to say to a person suffering with this disease, at any time, no matter how long treatment has been received, that he is cured, and may safely marry. Let every man whose blood is yet pure consider soberly whether he can afford to run the fearful risk of contamination with such a malady.

Among the essentials of treatment are absolute continence, abstemiousness, temperance, and regular habits of life. A physician should be consulted.

GENERAL HEALTH HINTS

THE frequent allusion in the preceding chapters of this work to the necessity for the care of the general health, and the relation of the various disorders mentioned to general bodily health, have naturally created in the mind of the interested reader a desire for further information upon this important subject; and there is no class of persons for whom information of this character is more desirable, and of greater practical value if accepted and carried out, than those who are suffering the results of any of the forms of sexual transgression which have been referred to in the preceding chapters. One who finds himself early in life bankrupt of vitality as the result of squandering his nerve force and physical energies in the indulgence of vicious propensities, certainly needs the help of all the aids to recovery which can be afforded by a knowledge of the laws which relate to the general well-being of the body.

Of those into whose hands this work may fall, there will be many who have fortunately escaped the pitfalls which the author has endeavored faithfully to point out, and who, he trusts, may be inspired by the perusal of this volume, with that degree of reverence for the crowning work of the Divine Author of our existence, and such a sense of the binding obligation of physical law, that they will welcome any information which will aid in elevating them to a higher plane of existence, to

a life of physical rectitude which is the best foundation for a high grade of mental and moral culture.

It is hoped that in the following pages, which are made up of observations upon health topics, the reader will find much which will interest him, and which may prove of real and lasting benefit if adopted in daily life.

HYGIENE OF THE MUSCLES

The following remarks on this subject are extracted from another work by the author, "The Home Hand-Book of Modern Medicine:"

How to Take Exercise.—It is not sufficient to simply take exercise indiscriminately, and without reference to the object for which it is taken, the manner, time, etc. It must be taken regularly, systematically, at proper times, and in proper quantities. Perhaps we cannot do better in treating this subject practically than to ask and answer some of the most important questions relating to this matter.

1. When is the best time to exercise? There is a popular theory extant that exercise taken early in the morning has some specific virtue superior to that taken at any other time. After careful observation on the subject, we have become convinced that this popular notion is a mistake when adopted as a rule for everybody. For many busy professional men, especially lawyers, editors, authors, clergymen, teachers, and others whose vocations keep them mostly indoors, the morning may be the only time when exercise can be taken conveniently; and if not taken at this time it is likely to be neglected altogether. Such persons, unless

they are laboring under some special derangement of the health, as dyspepsia or some other constitutional malady, had better by far take the morning walk or other form of exercise than to take none at all. However, we are convinced that for most persons the middle of the forenoon is a much better time to take any kind of active or vigorous exercise. In the morning, the circulation is generally weakest, and the supply of nerve force is the least abundant. In the forenoon, when the breakfast has been eaten and digestion has become well advanced, the system is at its maximum of vigor; hence, if the individual is at liberty to choose his time for exercise, this should be his choice.

For poor sleepers, a half hour's exercise taken in the evening not long before retiring, will often act like a soporific, and without any of the unpleasant after-effects of drugs.

Vigorous exercise should never be taken immediately after a meal, nor within an hour, and should not be taken immediately before eating. Disregard for this rule is a very common cause of dyspepsia.

2. What kind of exercise shall be taken? The answer to this question must, of course, vary with the individual. Exercise must be modified to suit the strength, the age, the sex, and even the tastes of the individual. As a general rule, persons who take exercise for health are apt to overdo the matter, the result of which is damage rather than benefit. For most persons, there is no more admirable and advantageous form of exercise than walking; but many find walking simply for exercise too tedious to persevere in it regularly. Such will find advantage in walking in companies, provided care is taken to avoid all such questionable diversions as walking matches, or any kind

of exercise in which there will a strife which will be likely to excite to excess.

Horseback-riding, for those who ride well and enjoy this form of exercise, may be of great benefit. It is not so well suited for ladies as for men, however, on account of the awkward and unnatural manner in which custom compels them to ride. It is impossible for a lady to ride with the same degree of comfort, ease, and grace that her male companion may, on account of the one-sided way in which she sits in the saddle. In many countries, ladies ride in the same manner as men; with them, of course, this objection does not hold.

Horseback-riding is an excellent aid to digestion, and often effectually relieves habitual constipation of the bowels.

Carriage-riding is worth little as a form of exercise, except for very feeble invalids, for whom the gentle swaying of the vehicle and the excitement of viewing objects seldom seen may be sufficient and appropriate exercise. Riding in a lumber wagon over a corduroy road is about the only kind of carriage-riding which is worth speaking of as exercise for people in ordinary health.

Skating, rowing, racing, baseball, football, dancing, and most other exercises of the sort are more often harmful than otherwise, because carried to excess, and associated with other evils of a pernicious character. Performance upon the trapeze, boxing, and pugilistic training are open to the same objection. Calisthenics, for schoolchildren and young students, is a most admirable form of exercise. It is also well adapted to invalids who are unable to walk more than a short distance at a time. In our opinion, every home ought to be equipped with all the conveniences for parlor gymnas-

ties. They afford not only healthful exercise, but a large amount of excellent amusement for the little folks.

For the majority of persons, no form of exercise is more highly beneficial, healthwise, than some kind of physical labor. For ladies, general housework is admirably adapted to bring into use all the different muscles of the body, while affording such a variety of different exercises and such frequent change that no part need be very greatly fatigued. There are thousands of young ladies pining under the care of their family physician in spite of all he can do by the most learned and complicated prescriptions, for whom a change of air or a year's residence in some foreign clime, or some similar expensive project, is proposed, when all in the world that is needed to make the delicate creatures well is to require them to change places with their mothers for a few weeks or months. Let them cease thrumming the piano or guitar for a time, and learn to cook, bake, wash, mend, scrub, sweep, and perform the thousand and one little household duties that have made their mothers and grandmothers well and robust before them. We made such a prescription once for a young lady who had been given up to die of consumption by a gray-headed doctor, and whose friends were sadly watching her decline, and in six weeks the young miss was well, and has been so ever since; but we entailed her everlasting dislike, and have no doubt that any physician or other person who should adopt the same course in similar cases will often be similarly rewarded.

For young men, there is no better or healthier exercise than sawing and chopping wood, doing work about the house and in the garden, caring for horses or cows, clearing walks, bringing water, or even help-

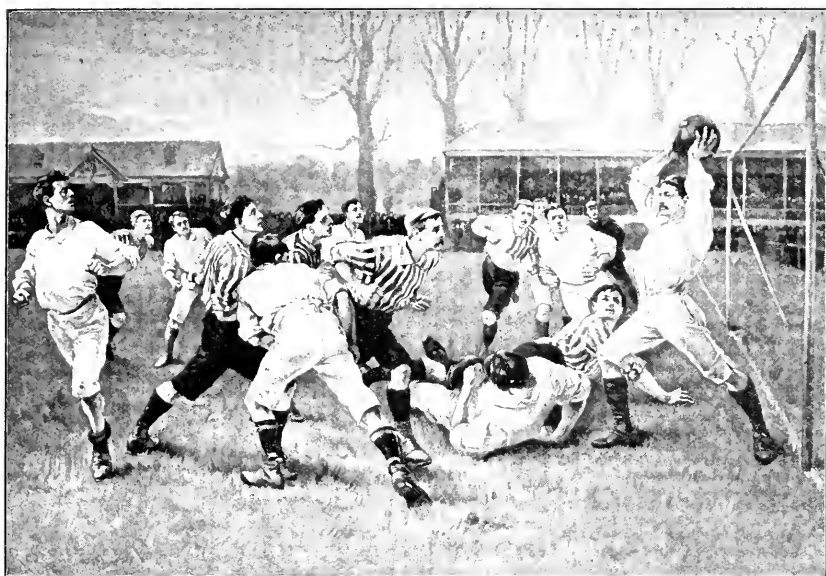
ing their mothers in laundry work. Such exercise is light, varied, oft changing, and answers all the requirements for health most admirably. We can heartily recommend it, and from personal experience, too. We advise all young men who can possibly get a chance to adopt this form of exercise as being the most certain of bringing back the largest returns for a given expenditure of force. There is no gymnasium in the world which is better calculated to secure excellent results from exercise than the kitchen, the wash-room, the workshop, the woodyard, the barn, and the garden. These are nature's gymnasia. They require no outlay for special appliances, and are always fitted up for use.

Deficient Exercise by Students.—The common idea that study and brain work are harmful has chiefly grown out of the fact that students usually confine themselves too closely to their books, keep late hours, and take as little as possible of active out-of-door exercise. There is no doubt but that the majority of students could do more work and better if they would devote at least two hours of each day to purely physical exercise. In ancient Greece, in the palmy days of that empire, physical training was considered as much a part of the necessary education of young men as their mental culture. Every inducement was offered to them to make themselves strong, vigorous, and athletic. Their schools were called gymnasia, on account of the attention given to gymnastics.

The young women, too, were trained in physical exercises as well as the young men. Small waists and delicate forms, white, soft, helpless hands and tiny feet were not prized among the pioneers of modern civilization. The mothers of heroes and philosophers were not pampered and petted and spoiled by indulgence.

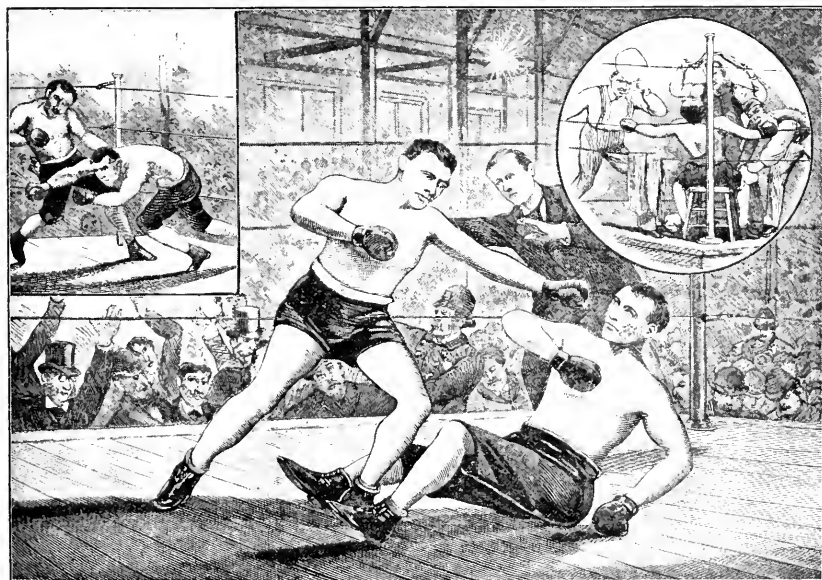
They were inured to toil, to severe exercise. Their bodies were developed so as to fit them for the duties of maternity, and give them such constitutions to bequeath to their children as would insure hardihood, courage, and stamina in the conflict with the world to obtain a subsistence, and with human foemen in the rage of battle. The women developed by this system of culture were immortalized in marble, and the beauty of their forms has been the envy of the world from that day to this; yet no one seems to think of attempting to gain the same beauty in the same way. It might be done; there is no reason why it cannot be; but the only way is the one which the Grecian women adopted, —physical culture.

Overtraining.—The careful observation of results in large numbers of cases shows very clearly that there is such a thing as overtraining, and that excessive development of the muscular system is not only a disadvantage, but absolutely harmful. Trainers are not long-lived. Dr. Winship, who developed his muscles until he was able to lift three thousand pounds, died when he should have been in his prime. The result of overtraining, or excessive development of the muscular system, is the weakening of other vital parts of the body. Symmetrical development is the best for health and long life. This is what we plead for, not for extremes in any direction. Let the nerves and the muscles be developed together and equably, and we shall have better results from both than would otherwise be possible. *Mens sana in corpore sano* was the motto of the ancient Greeks; and the experience of every day shows that the man with strong muscles and good digestion, with fair intellectual abilities, is the one who wins the goal to-day in the strife for wealth



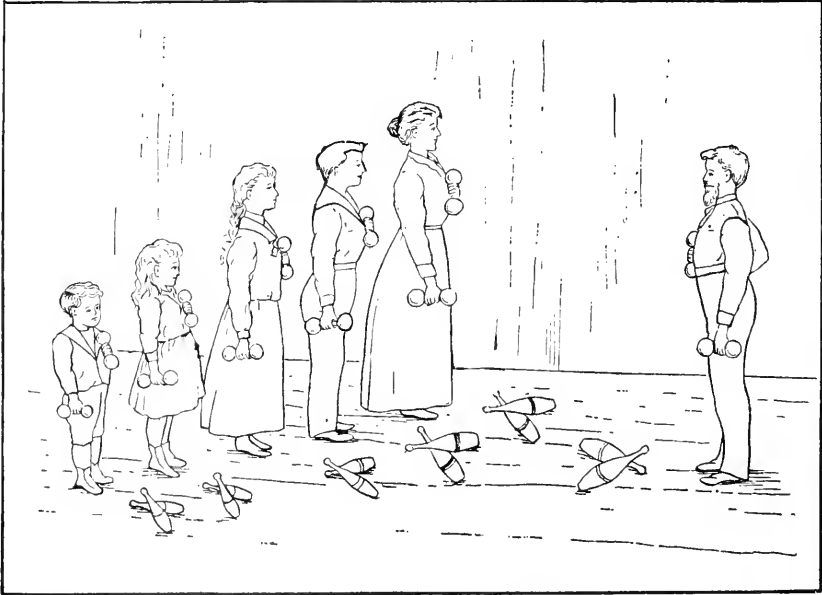
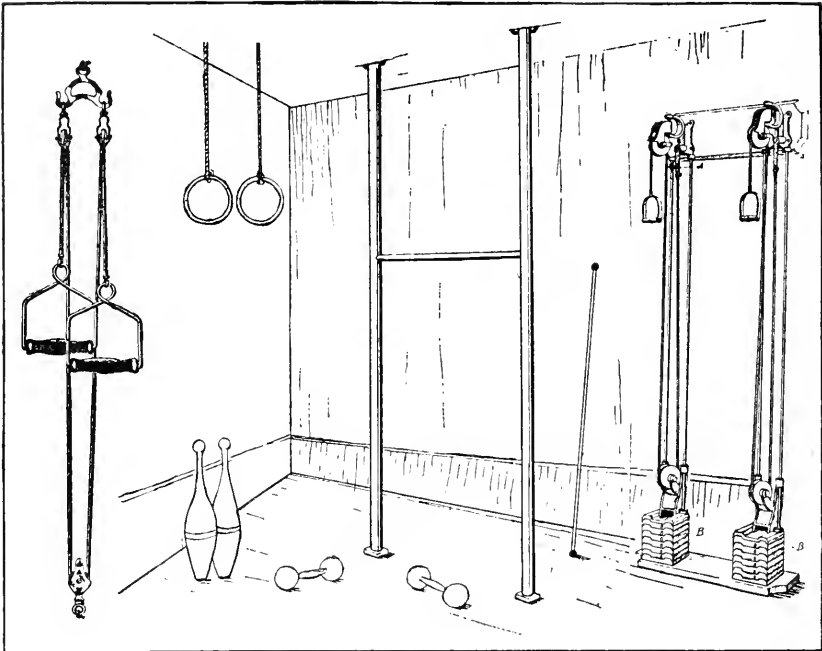
“With heel and shoulder, fist and thigh,
A rush to conquer or to die.”

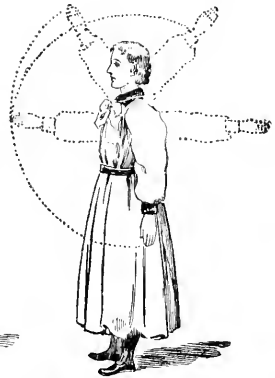
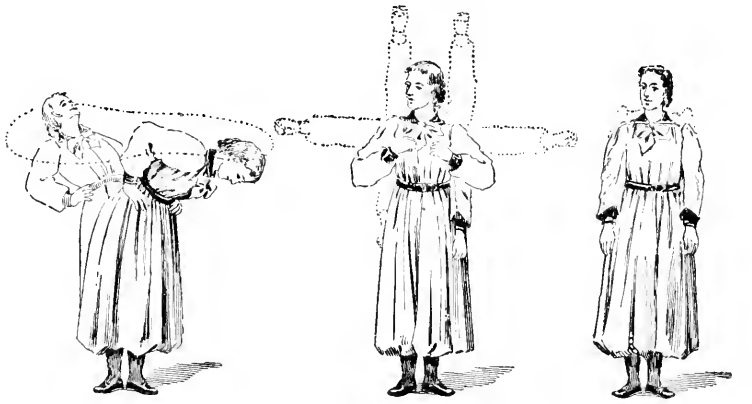
667-a



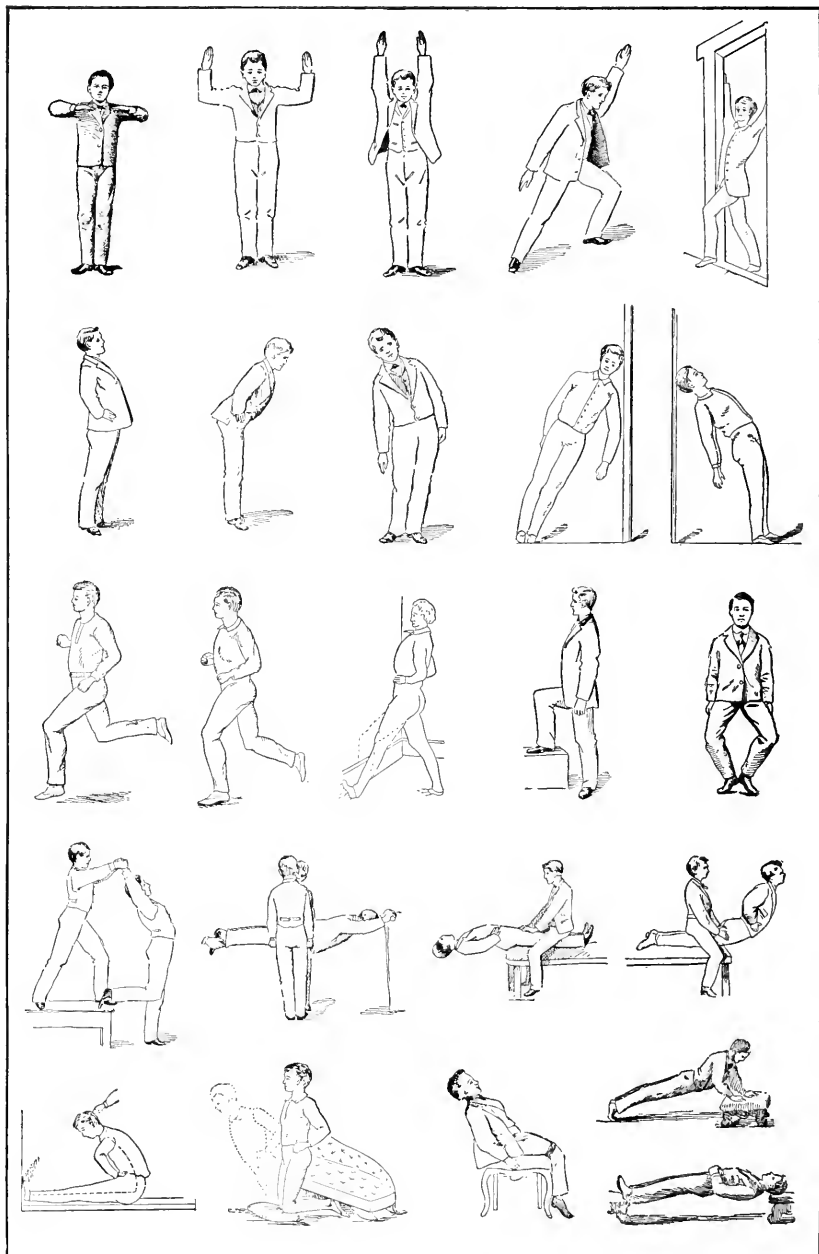
HARMFUL SPORTS

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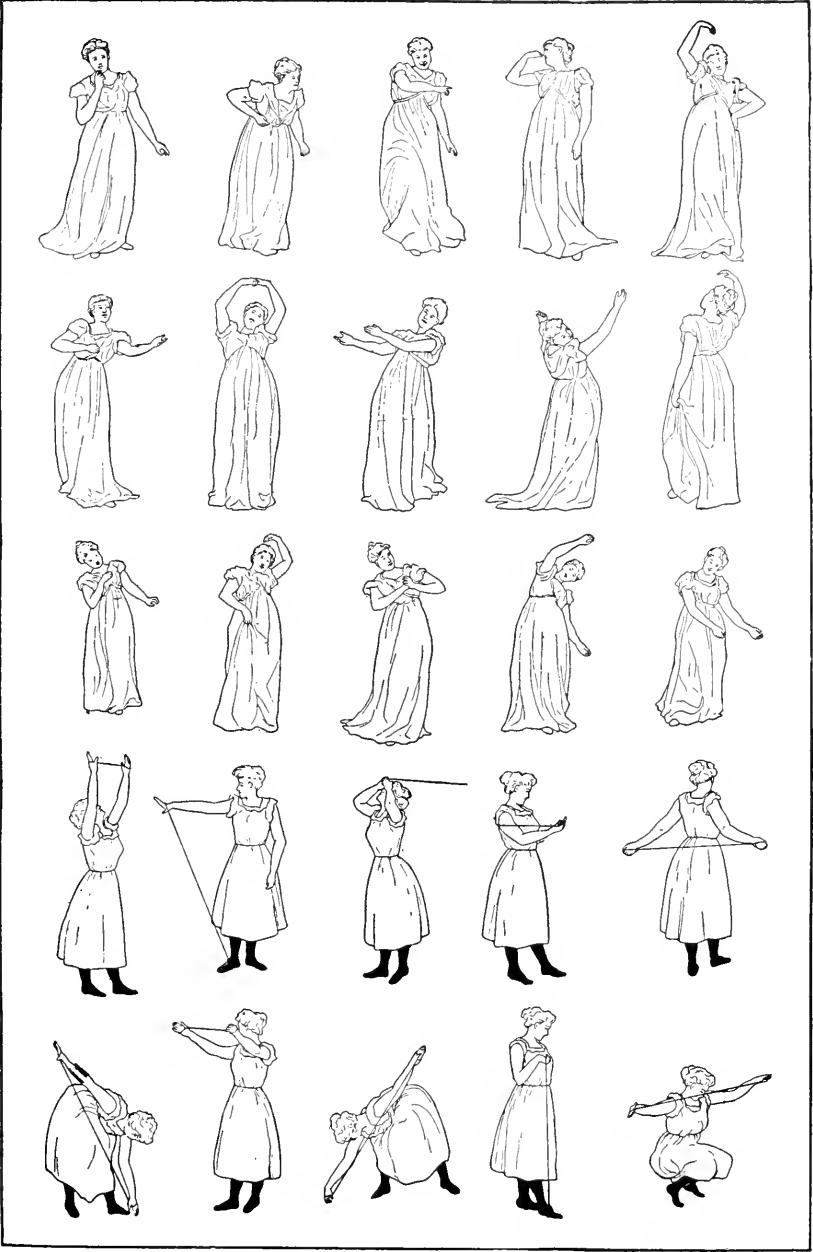


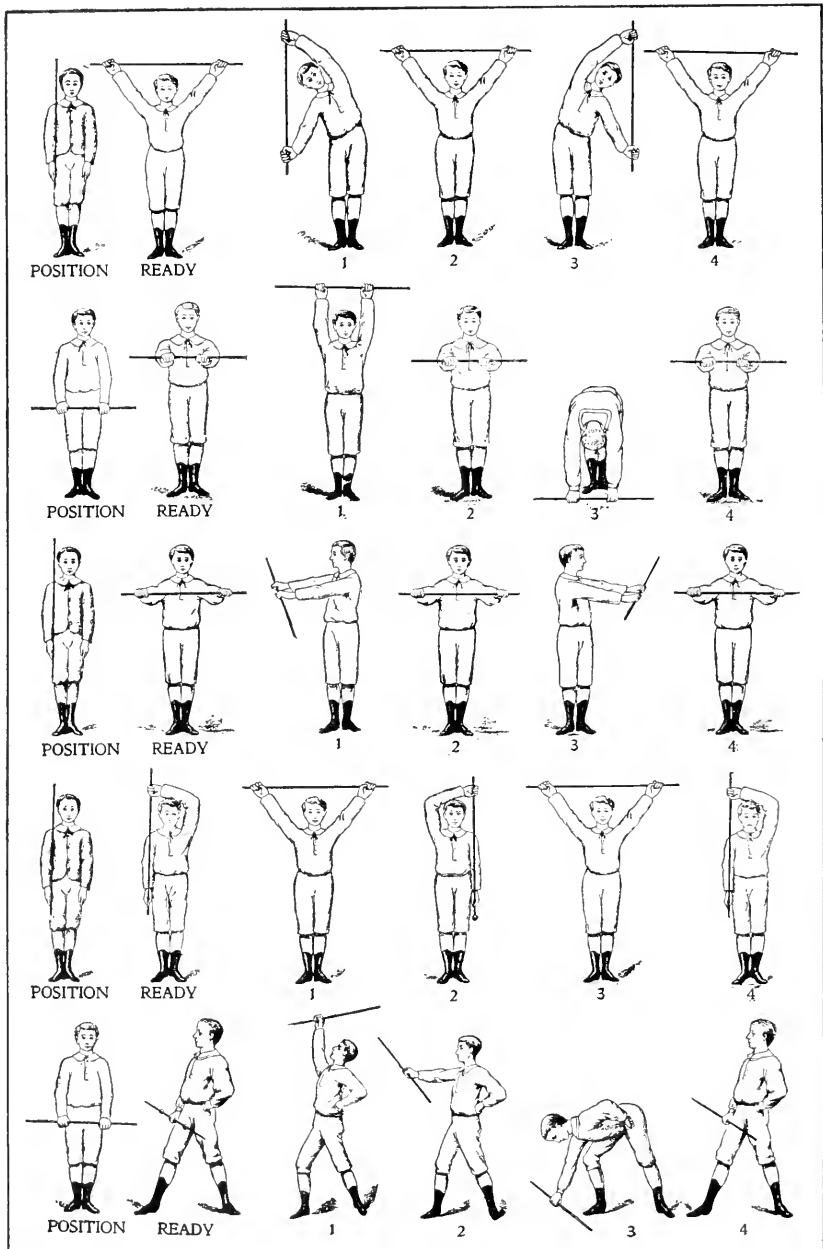
EXERCISES FOR THE CHEST AND TRUNK 669
(From "Ladies' Guide in Health and Disease," by J. H. Kellogg, M. D.)



SWEDISH GYMNASTICS

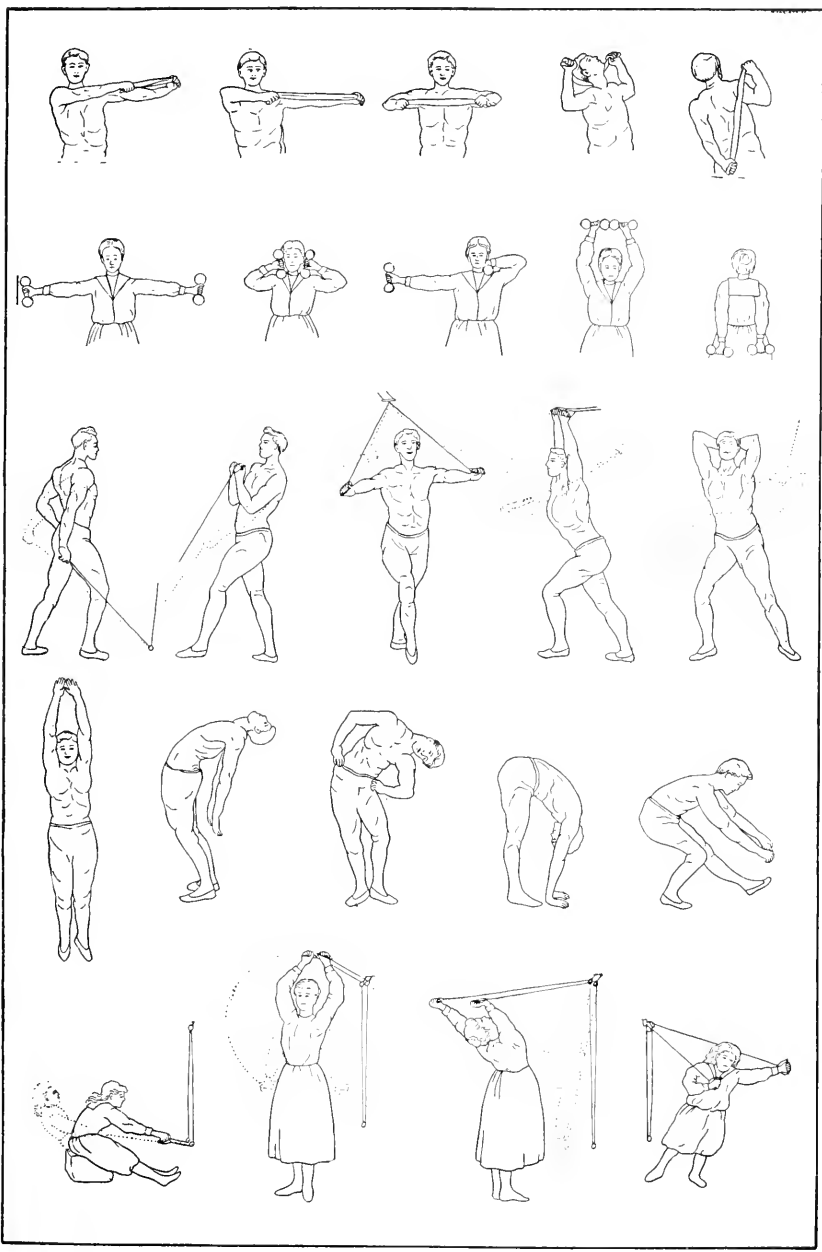
(From "Swedish Movements or Medical Gymnastics," by Dr. Hartelius, of Sweden.)





WAND DRILL

(From "Gill's Calisthenic Exercises.")





674-a

HEALTHFUL RECREATION



674-b

PRISCILLA AT THE SPINNING WHEEL

and fame and all that men seek after. "A sound mind in a sound body" is as necessary for assured success in life in the twentieth century as when the sentiment was first inscribed upon the gates of the temples of ancient Greece.

Necessity for Unrestrained Action.—A muscle tied up is rendered as helpless as though it were paralyzed. It will be observed that when a muscle acts, it does so by swelling out in thickness, while contracting in length. From this it will be evident that if a tight band is put around a muscle in such a manner as to prevent its expansion or increase in thickness, it cannot possibly act. Hence, a fundamental requisite of healthful muscular action is entire freedom from restraint. Unrestrained action is indispensable to complete action and perfect development. When a broken arm is done up in a splint for a few weeks, upon removing the bandage it is usually found that the arm has shrunken in size; the muscles have wasted, partly in consequence of pressure, and partly on account of the enforced inaction of the muscles. The very same thing happens whenever pressure is brought to bear upon the muscular tissues.

THE TOBACCO BONDAGE

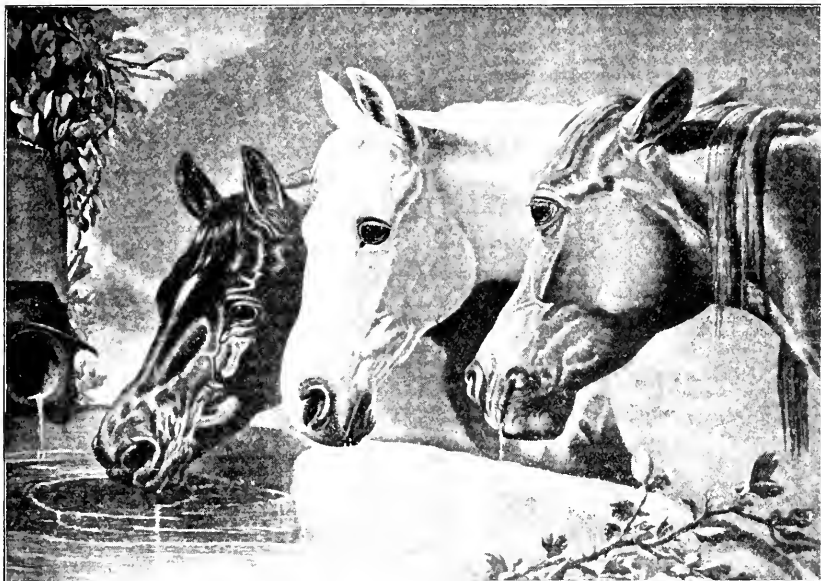
The following forcible article on the subject of tobacco-using was contributed by Hon. Neal Dow, in response to an invitation of the author, to the columns of his journal, *Good Health*, some years ago, but is so excellent as to be deserving of a more permanent record than the columns of a monthly journal. It is well worthy of thoughtful perusal:

"I do not think there is in the world a more absurd

custom than that of the tobacco habit. There are many things about it worse than the absurd, but this particular feature is in my mind now. The Chinese women have crippled feet, which renders it almost impossible for them to walk; it is not their fault, the deformity is inflicted upon them in childhood. The natives of some barbarous countries are tattooed, the operation inflicting upon them great and protracted pain. The natives of some other countries have flattened heads,—a wrong imposed upon them from their infancy. Some African tribes knock out the two upper front teeth of every male, and others have the front teeth filed like those of a saw. There are many other deformities found among savages, but none of them so absurd as the tobacco habit.

“Here is a minister, possibly a doctor of divinity, smoking a cigar; there is a reason for it, there must be; what is it? Ask him. He will say, ‘It’s a great pleasure.’ Is that true?—No, it’s false; it is not in any proper sense a pleasure. Then why does he practice that disgusting habit?—Because it is a necessity to him, not because it’s a pleasure. How a necessity?—Because if he could not smoke, he would be in great torment.

“The hard drinker does not take the alcohol because he likes it, but for the same reason that the tobacco slave takes that drug; viz., if he did not, he would be in agony. The alcoholic slave has brought himself by degrees into his wretched condition, precisely in the same way that the tobacco slave has lost his liberty, but with far more excuse, or rather with far less liability to the contempt of men of independent minds and independent ways of life and action. Why?—Because all alcoholic drinks can be easily made extremely pleasant to the taste of beginners in the down-



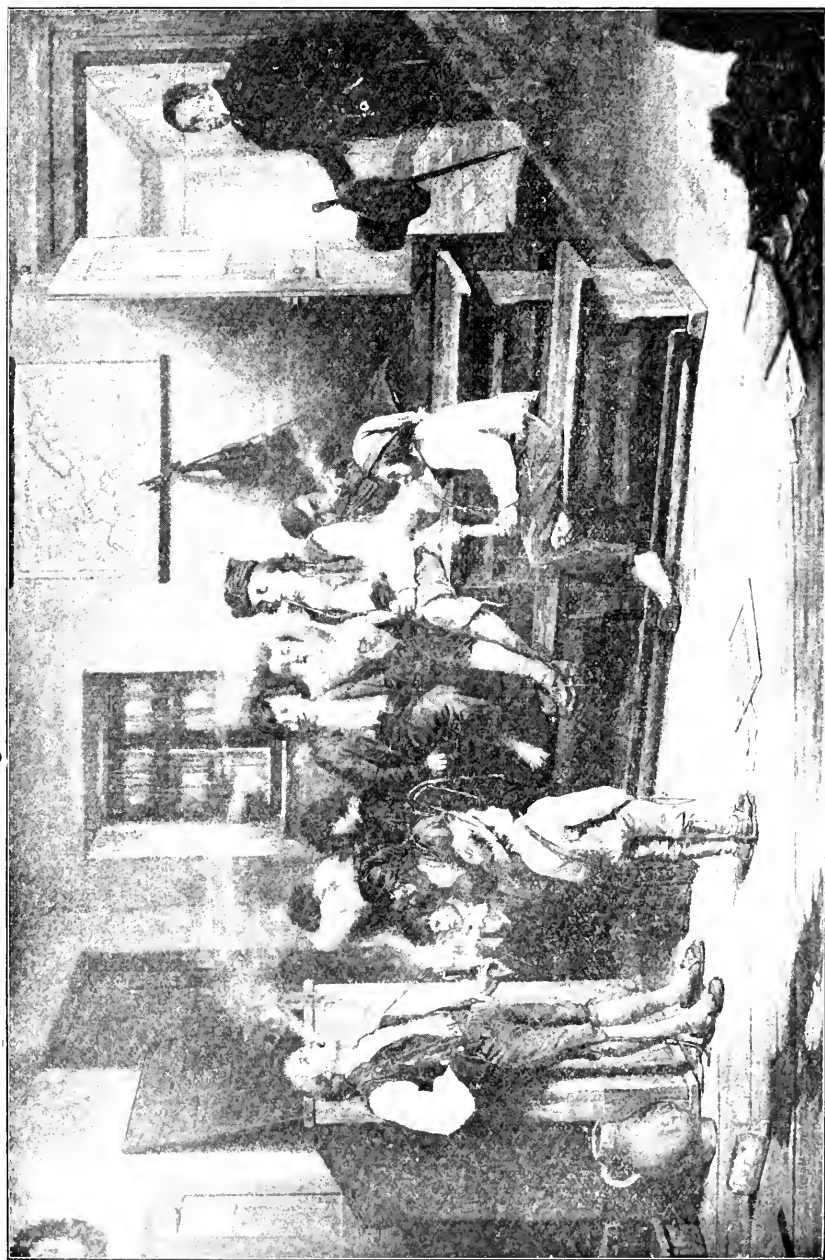
NATURE'S BEVERAGE

677-a



DRINKS THAT POISON AND ENSLAVE

677-b



ward road, which is never the case with tobacco. This is so loathsome and disgusting and repulsive to the system that in acquiring the tobacco habit, the novice is desperately sick for days, sometimes for many weeks. There is scarcely any other sickness so dreadful as that caused by the tobacco to beginners. There is dreadful vomiting, with splitting headache, livid lips, parched tongue, and eyes like those of dead fish.

“Then why do these poor fools persevere?—Because they are such very poor fools as to believe it to be manly to smoke or chew! Why?—Because others do it. Men or boys, even of independent minds, judge for themselves as to what is right and proper or otherwise, and will not be led into any habit or way of life blindly, simply because others do it.

“But now the young man has ‘conquered his prejudices’ and has ‘learned to smoke.’ What has he acquired by it?—Nothing but the tobacco habit. Is there no good in it whatever, no pleasure?—None; it is simply the tobacco habit which has such a mastery over its victim that he must yield to its demands under the penalty of intolerable pain and suffering, pains so great that it is very difficult for the strongest men to endure them.

“I called at a gentleman’s office one day, and found him smoking. I said to him:

“‘What would you give if you had never learned to smoke?’ He paused a moment, and replied:

“‘Every dollar I have in the world.’

“‘Then why do you not abandon the habit?’

“‘I cannot now do that; I could not endure the suffering it would cause me.’

“Ask any man of forty years, and he will tell you he is very sorry he learned to use tobacco, but cannot

now abandon the habit. A friend of mine was a tobacco slave for many years, and had made frequent vain attempts to emancipate himself. At last, he resolved that, come what might, he would be a wretched slave to tobacco no longer. He told me afterward that the struggle with the habit was more fearful than he could describe, and added that all the money in the Bank of England would not tempt him to endure the like again.

“Can a smoker be an honest and honorable man? Can he? I do not answer, I ask the question. In the street, on steamboats, in public places, in railway cars, everywhere, in fact, except in smoking cars or in smoking rooms, we have a right, all of us, to the free, fresh, pure air. This is as much our right as the purse in our pocket. No one has more right to take it from us than he has to pick our pockets. Has he? I ask the question. It’s my view that he has not. Am I mistaken? To pick a pocket is stealing, robbery; what is it to take away the pure air from another, and to put stinking, poisoned air in its place?

“To sit beside another at the table, and sprinkle his food with cayenne pepper or cover it with mustard, or flavor it with asafetida,—what would such a procedure be called? What word is there in our language by which to characterize it? How would that differ from infusing a disgusting stench into the air for others to breathe? To flavor or poison another’s food in that way would be called an intolerable abomination, and the doing of it would expose the party to a summary expulsion from decent society. But the poisoning of the air which others must breathe is so common a thing to do, so many persons practice it who would not pick a pocket or poison other people’s food, that most persons do not look upon it in its true light.

“I have often seen in the streets, ladies and others walk very slowly or stop upon the sidewalk to allow the smoke to pass on out of smelling distance. I have also seen people cross the street to avoid the stench of tobacco, which to many persons is intolerable. Have these people an undoubted right to the free, fresh air as they walk the streets? Then what term are we to apply to the act of poisoning—for tobacco smoke is a poison—the air for them to breathe? How may we justly stigmatize those who do it?

“‘But people *can* endure the tobacco smoke, they *can* pass along the streets in spite of it. Then why make a fuss about it?’ Yes, so they *could* pass the sidewalks somehow, if piled up with boxes, bales, and barrels, and intersected with ditches and holes; but for all that, people have a *right* to unencumbered passage ways. Am I wrong?’”

A HEALTHY SMELL

Some years ago we had occasion to request a gentleman to give attention to the condition of his backyard, which was in great need of the services of a scavenger, containing, in addition to a very foul barnyard and a much-neglected privy, the carcasses of two dead horses buried a little beneath the surface. We expected that only a gentle hint would be necessary to secure prompt attention to the matter, as the party was almost a fanatic on the subject of diet. Imagine our surprise when this radical advocate of vegetarianism and many other good reforms retorted, “Some people’s noses turn up at every little smell. Why! a barnyard smell is the healthiest kind of a smell, and I have always been told it was good for consumption.”

There was a time when such notions seem to have been generally prevalent. A few hundred years back, the streets of London were in a worse condition than the backyard referred to,—a cordial invitation for the Great Plague, which came in due time. According to an eminent European authority, personal cleanliness was for a thousand years so universally disregarded “that scarce a man, woman, or child throughout Europe made a practice of daily ablution. During this carnival of filth, again and again the Black Death ravaged European countries. In the reign of Justinian, as Gibbon records, a large proportion of the human race was swept away by an epidemic which, with but slight intermissions, raged for fifty years. In Constantinople, one thousand grave-diggers, in constant employ, could not hide away fast enough the victims of this dreadful disorder. We have all been made acquainted, through the ghastly picture drawn by Boccaccio, with the fearful plague that desolated Florence in the fourteenth century, and by Defoe, with the ravages of the Great Plague in London.”

When spring approaches, it is important to be on the lookout for possible sources of air contamination when the winter ice is melted, and the conditions favorable for decomposition are developed. Let every nook and corner of the house, the cellar, the backyard, and the entire premises be thoroughly inspected so as to eradicate every possible source for germs to germinate and multiply. The germ question has come to be an intensely practical one; and everybody ought to know enough about it to be fully awake to the danger from this source, and anxious to take every precaution to escape injury themselves and secure safety to others.

CLOTHING OF CHILDREN

A point of primary importance in regard to the clothing of children, which mothers should ever bear in mind, is the fact that frequent changes are necessitated by the almost constant changes of temperature in this climate. The weather of a temperate climate is always subject to changes, which will be recognized, and should be as far as possible anticipated, by the careful mother. Children possess very little power to resist the influence of cold or heat. Their vital functions, while very active, are more easily disturbed than those of older people, hence they are more susceptible to injury from change of weather than older persons. Mothers should be constantly on the lookout for changes which may involve the life of their little ones. The fashion of putting on flannel undergarments at the beginning of the cold season of the year and putting them off again at the beginning of spring, is a pernicious one. There is no time of year when flannel clothing is more imperiously required than in the cool, damp days of spring and the occasional cool days in summer. Clothing should be adjusted to the weather of each day independently. In the wintertime, an unusually cold day demands an additional supply of clothing; in summertime, an unusually hot day may require an opposite change of garments. In the spring and autumn, particularly when the weather is very changeable, it may be necessary to change the clothing two or three times a day in order to meet the exigencies of the weather.

Children should never be allowed to suffer for the want of a change of this kind simply because the needed garment has been soiled or must be saved for Sunday

wear, or for any other trivial reason. If a child cannot be properly clothed, it should be sent to bed and kept there until the proper garments can be provided for it. The excuse which mothers often make for carelessness in this particular, that "they have been too busy" to make the necessary garments for the little one who has outgrown its old clothing, is no justification for such neglect; and it will generally be found that the required time has been worse than wasted in the preparation of unwholesome dishes which will have no other influence than to deprave the taste and to undermine the health of husband and children, or in the entertainment of fashionable friends who are themselves squandering, in the discussion of the latest fashions or the most recent scandal suit, valuable time which belongs properly to their children.

The clothing of the child at night is also a matter of importance. As a rule, flannel nightgowns should be worn, as by this means the little one avoids the chill often given by coming in contact with cotton or linen sheets, and is better protected from the chilly night air if, as is often the case, it becomes uncovered in the night by the displacement of the bed covers through its restlessness.

POPULAR MEDICAL EDUCATION

For some years in the past there has been much discussion among prominent physicians respecting the propriety of encouraging the education of the common people in medical subjects. Among a certain class of the profession there has been great opposition to the popularization of medical subjects, it being claimed

that more harm than good would result by so doing, since unqualified persons would thereby be led to undertake the management of cases which required the educated judgment and skill which are possessed alone by the physician who has had a long course of training in the schools and an extensive experience at the bedside. We have long believed that this objection was based on a partial or prejudiced view of the subject, and that a consideration of its various bearings from a more liberal standpoint would lead candid thinkers to a different conclusion. It would not be urged that because every one cannot become proficient in all the abstractions of modern theology, the masses should be kept in utter ignorance of religious theories, notwithstanding the possibility that such knowledge might be used in an unwise manner under some circumstances. Every man who desires to do so has as good a right to learn all he is capable of comprehending of the science of medicine, as well as of the science of mathematics, astronomy, law, or any other department of human knowledge.

We are glad to be able to quote the following very sensible paragraphs on this subject from an address read before the Michigan State Medical Society, by Thomas N. Reynolds, M. D., of Detroit, Mich., Professor of Materia Medica and Therapeutics and of Clinical Medicine in Detroit Medical College, and visiting physician to St. Mary's Hospital:

“In view of the fact that there is still in the world the most extraordinary misconception with regard to the true functions of medicine and medical men, it may not seem wholly unfit that we should somewhat briefly advert to it here.

“As it existed among the people in earlier times, it

amuses us now perhaps more than it surprises us; and when we recognize it still here and there among those in lowly favored circumstances of life, it usually makes little or no impression upon us; but when we so often see it among the refined and cultured of our time, we are sometimes led to inquire why it is. But this misconception is not confined entirely to the laity or to the crude charlatan, but more or less pervades the educated and legitimate fraternity itself; and it is no uncommon thing to see among the younger members of our profession men confidently attributing to medicines particular cures that they never produced. And even the older practitioners, with quite an abiding faith, sometimes prescribe remedies that serve little more than to mutually satisfy the mind of the patient and the doctor that the necessary and essential thing has been done in the premises.

“This undue credit to the effect of the drugs prescribed, when it occurs among medical men, probably arises mostly from the habit and routine of always prescribing in certain approved manners in certain kinds of cases; and when improvement takes place, forgetting to allow sufficiently for the healing power of time and nature herself.

“As nothing but hard-earned experience and frequently disappointed hopes in his scientific prescriptions will ever thoroughly convince the young practitioner of their frequent inutility, so nothing but the proper kind of education on these matters will ever convince the people of their frequent too great confidence in the efficacy of drugs alone.

“To this end the study of anatomy, physiology, hygiene, and particularly the laws of life, with the influence thereon of habits, conditions, and surround-

ings, should enter largely into, and be assiduously carried all the way through, the education of the young, even if it be to the exclusion of almost no matter what other branch besides. And if the use of drugs be referred to at all in their education, it should be with a special care that they be taught the facts as they are,—that the essential and useful drugs are really few, and their administration rarely necessary; that in the aggregate in the world it is probable enough that more harm is being yearly done by their indiscriminate and unskilled use than there is good by their timely and judicious employment.

“Physicians can do much more than is usually done in this direction by their individual influence in practice. Each physician should constantly endeavor to establish in the minds of his patrons the fact that they should seek intelligent opinions and skilled advice more than prescriptions. And even at an occasional risk of losing patronage, when medicine is not required at all, he should dare to say so, and give the right advice instead. Doctors should be educators more than physic-mongers. Whatever time the occasion demands should be taken to fully explain the trouble for which persons present themselves, and the best regulation of living to be adopted under the circumstances; and for this opinion and advice alone, when kindly given, they should, and generally will, expect to pay.

“If imposition and quackery are ever removed or lessened at all, it will be in exact proportion to the amount of correct information and thorough enlightenment the people may obtain on this entire subject; for it can never avail very much that a few educated and honorable practitioners labor to bring the comparatively few whom they reach, up to a reasonable and

correct estimation of the practice of medicine, while the masses remain unable to discriminate between the imaginary and what is real in it, or between the artful and unscrupulous pretender and the genuine medical man. As long as there is a general and popular demand for the different forms of quackery, there will always be found an ample supply; and legislation, though necessary and good as far as it goes, can never entirely prevent it. The early and continued education of each individual on the subject is the only successful remedy.”

THE HYGIENE OF OLD AGE

At no period of life is a careful observance of the laws of health of so imperious importance as in advanced age. The vital machinery is worn and weakened, the vitality at a low ebb, and it is of paramount importance that all unnecessary hindrances should be removed, that every removable obstacle to the healthy performance of the bodily functions should be taken out of the way. Thousands of lives are annually sacrificed through the mistaken idea that hygienic rules which are acknowledged to apply to young persons and adults are not to be observed by those in advanced age. For example, many popular writers maintain that while the use of wine as a beverage by youth and adults cannot be condemned too strongly, it is necessary for the aged, as a means of stimulating the declining forces.

Another writer condemns bathing by the aged, because, it is claimed, it uses up the animal heat.

The error of the first theory is apparent when the

fact is recalled that stimulation lessens, instead of reinforcing, vital strength, thus weakening the hold on life, and shortening its duration. The fallacy of the second theory is equally apparent when we take into consideration the fact that in old age the wastes of the body are greatly increased. The discharges from all the outlets of the body are more heavily laden with organic impurities than during youth and adult age. The breath is laden with the poisonous products of disintegration, and the perspiration with effete matter. It is for this reason that a sudden obstruction of any of these outlets is so speedily followed by fatal results. If frequent bathing is neglected, the skin becomes obstructed, and the kidneys are overworked. The urine becomes irritating in character, and inflammation or congestion of the bladder is likely to be the result. We have met scores of cases of irritable bladder in elderly men which could be traced, in a great part at least, to neglect of the bath.

Old persons should recollect, that the bath is particularly necessary for them as a sanitary measure. As the waste of the body preponderates over the repair, the skin, if unwashed, soon becomes covered with a film of the most intensely poisonous and readily decomposable matter. A few days' accumulation is enough to produce a condition not only in the highest degree detrimental to the individual himself, but offensively injurious to all persons of acute olfactory sensibilities who may be closely associated with him.

It is true that cold bathing may be, and generally is, in a high degree injurious to aged persons; but bathing in water at or near the temperature of the body cannot be more productive of harm than putting on a clean suit of clothes. Cleanliness is enforced by one of the

first laws in the "code of health," and is binding at all times and at all ages. The greatest enemy of health is dirt; and the worst of all kinds of dirt is that which arises from the destructive processes at work in the body.

MOUTH-BREATHING

Few persons are aware that this practice, so very common, is specially harmful, and many will be surprised when we say that it is exceedingly detrimental to health, even dangerously so. It is generally due to obstructions in the nasal cavities, either through thickening or swelling of the mucous membrane, or the existence of polypi or other morbid growths. Sometimes it is due to habit merely. A child catches cold. The nasal passages become obstructed, necessitating mouth-breathing during sleep, when respiration is involuntary, and hence less forcible than during the waking hours. The cold is soon recovered from, but the habit has been contracted, and is continued even to adult years, or during an entire lifetime.

Enlargement of the tonsils is also a common cause of mouth-breathing.

Habitual mouth-breathing ultimately results in serious disease of the throat and larynx. It is also the cause of the peculiar malformation of the chest known as "pigeon's breast."

The remedy consists in the application of such measures as will remove the obstructions, if present. Polypi must be removed. Morbid growths must be removed or destroyed. Catarrh, if present, must be cured. If mouth-breathing is a habit merely, as is often the case,

especially with children, care should be taken to instruct the child to breathe through the nose, and when it goes to sleep the lips should be gently closed. By perseverance, the habit may be cured.

In many cases, mouth-breathing is due to obstruction of the nostrils by morbid growths. These cases require the attention of a physician who has made a special study of this class of diseases.

COFFEE AND DYSPEPSIA

M. Laven, a French medical authority, in a paper read before the Societe de Biologie, and published in the *Rev. Med.*, states that "coffee, instead of accelerating the digestive process of the stomach, as is often supposed, rather tends to impede it. When thirty grams of coffee, diluted in one hundred and fifty of water, are given to a dog, which is killed five hours and a half afterward, the stomach is found pale, its mucous surface being anemic, and the vessels of its external membrane contracted. The whole organ exhibits a marked appearance of anemia. Coffee thus determining anemia of the mucous membrane, preventing rather than favoring vascular congestion, and opposing rather than facilitating the secretion of gastric juice, how comes it that the sense of comfort is procured for so many who are accustomed to take coffee after a meal? A repast, in fact, produces, in those whose digestion is torpid, a heaviness of the intellectual faculties and embarrassment of the power of thinking; and these effects, and the disturbance of the head, are promptly dissipated by the stimulant effect which the

coffee produces on the nervous centers, as shown by experiments with caffeine. Coffee and tea, when taken in excess, are a frequent cause of dyspepsia; from the anemic condition of the mucous membrane's being periodically renewed, a permanent state of congestion is at last produced, which constitutes dyspepsia. Coffee exerts both a local and a general action, operating locally by means of its tannin, by diminishing the caliber of the vessels, but acting on the general economy by exciting the nervous centers and the muscular system. It renders digestion slower, and is only of good effect by relieving the feeling of torpor after meals."

The evidence against the use of tea and coffee is accumulating so rapidly that there can be no longer any doubt as to the impropriety of using these articles as common beverages. They must be put in the same category with opium, alcohol, tobacco, and other harmful drugs.

ABOUT WATER FILTERS

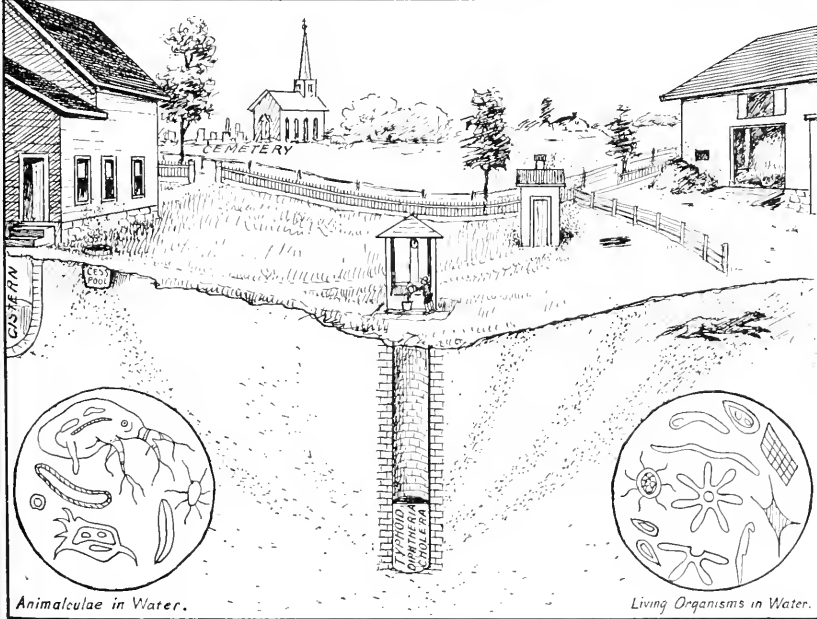
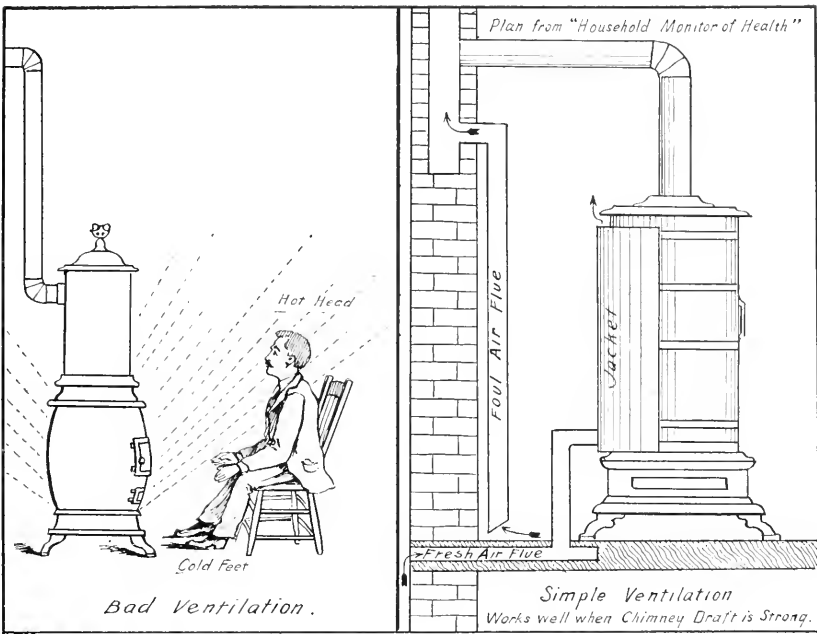
Some time ago a friend wrote us asking the following questions respecting water filters, the answers to which may be of practical interest to many others:

Questions.—1. Is hard water rendered soft by filtration?

2. How may a cheap and efficient filter be constructed?

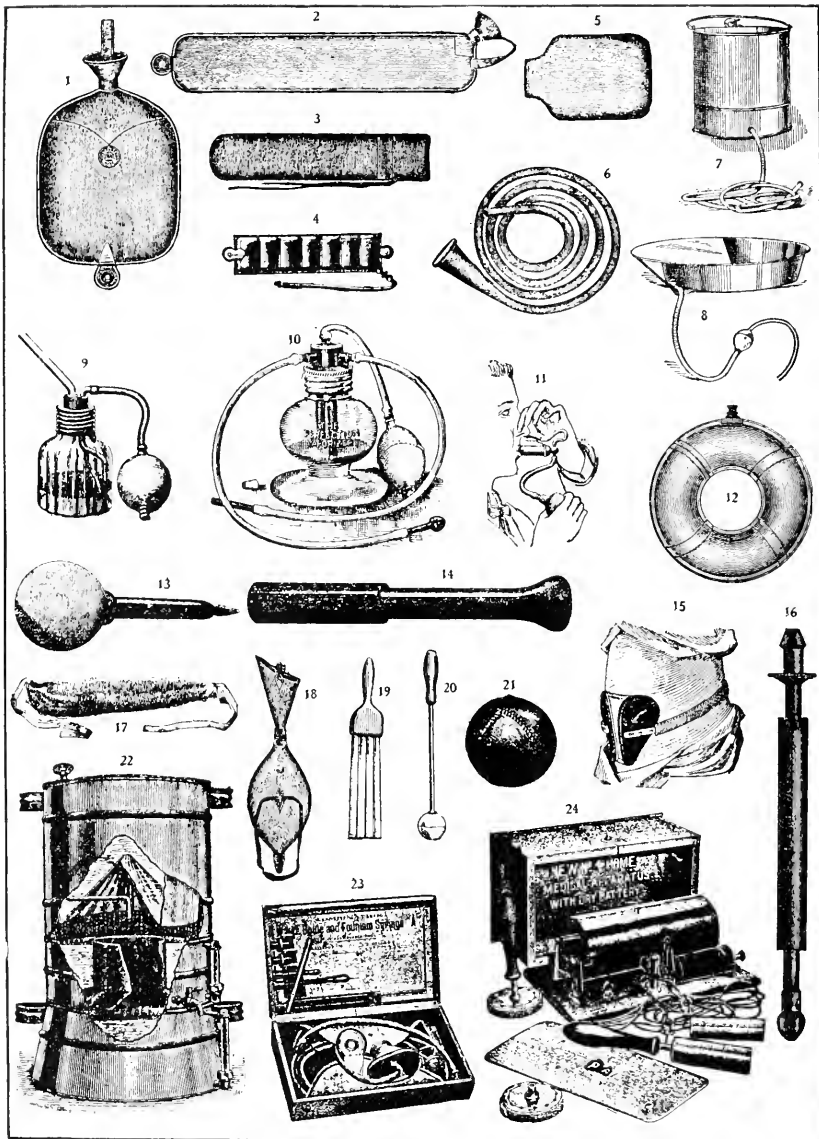
3. How should a filter be taken care of?

Answers.—1. The hardness of water is not removed by filtration. If a charcoal filter is employed, some of the mineral ingredients of the water will be retained



AIR AND WATER CONTAMINATION

(From Dr. Kellogg's "Home Hand-Book of Domestic Hygiene and Rational Medicine." 1600 pages.)



HELPFUL APPLIANCES FOR THE HOME.

(1) Rubber Hot-Water Bag. (2) Spine Bag. (3) Throat Ice-Bag. (4) Head Bag. (5) Chest Ice-Bag. (6) Stomach Tube. (7, 8) Perfection Douche and Bed Pan. (9) Atomizer. (10) Vaporizer. (11) Pocket Inhaler. (12) Air Cushion. (13) Ear Syringe. (14) Lung Beater. (15) Abdominal Supporter. (16) Rectal Irrigator. (17) Natural Flesh Brush. (18) Rubber Urinal. (19, 20) Muscle Beaters. (21) Cannon-Ball Massage. (22) Sanitary Water Still. (23) Combined Water Bottle and Fountain Syringe. (24) Home Electric Battery.

in the filter, but no very considerable proportion. The use of hard water will very soon spoil the best filter made, by the deposit of lime.

2. A cheap filter can be made by the following method:

Take a large flower pot or earthen vessel, make a hole one-half inch in diameter in the bottom, and insert in it a sponge. Place in the bottom of the vessel a number of clean stones of sizes varying from that of an egg to an apple. Place upon this a layer of much smaller stones and coarse gravel. Then fill the jar within two inches of the top, with equal parts of pulverized charcoal and sharp sand, well mixed. Place loosely over the top of the jar, a white flannel cloth, allowing it to form a hollow in the middle, into which the water can be poured. Secure the edges by tying a stout cord around the outside of the jar. By keeping a suitable vessel under the filter thus made, and supplying rain-water when needed, very pure water can be obtained. It can be kept in a cool place in the summer. It will be necessary to renew it occasionally, by exchanging the old sand and charcoal for fresh. The flannel and sponge must be frequently cleansed.

3. Such a filter, if allowed to become empty every day, or every other day at least, ought to last several years. Water which has a distinct odor should never be passed through a filter. Filtration will not purify such water.

BARRICADING AGAINST FRESH AIR

In some parts of the country, particularly in the New England States, the houses of most of the wealthier classes are furnished with double windows, and

every other device for the purpose of keeping out the cold air of winter. Apartments are made as nearly air-tight as possible; and in these close, unventilated rooms, hermetically sealed up, thousands of persons annually spend several months of the year, regardless of the fact that with the air which they respire day and night, they are inhaling debility, disease, and death. The life-giving oxygen, which a beneficent Creator has supplied in lavish abundance "without money and without price," moans anxiously around these sealed-up houses, seeking in vain for even one small crevice through which to find entrance, to carry life, energy, and purification to the suffocating inmates.

Let a person from the pure, crisp, outer air, enter one of these magnificent dens of disease. Beautiful carpets cover the floors, fine works of art adorn the walls, luxurious furniture abounds in every room, and no luxury that wealth can buy is wanting; but oh! what a smell! One is tempted to protect his olfactories with a handkerchief, and beat a hasty retreat; but courtesy demands that he should suffer martyrdom, and so he sits down with as much complacency as possible, but involuntarily turns wistfully toward the window now and then, hoping to discover some little crack or crevice through which one breath of pure, unpoisoned air may enter. But in vain. In each breath his keen sense of smell discovers ancient smells from the kitchen, odors of decomposition from the cellar, moldy dust from the carpet, and worst of all, the foul exhalations from half a dozen human bodies,—lungs, skins, stomachs, decaying teeth, etc. On the window-panes little streams of organic filth are seen running down to form pools upon the window-sills. On all the outer walls the same sort of condensation of fetid matter is

taking place, but is rendered invisible by absorption by the porous paper and plaster, where it undergoes putrefactive changes, sending out foul and putrescent gases to add still further to the contamination of the poison-laden atmosphere of the close and musty rooms.

Better by far, from a hygienic standpoint, was the old-fashioned log house, with its huge fireplace and its capacious throat, breathing up great volumes of air, and here and there a chink between the logs, with loosely fitting window-sash, and door jambs too large for the doors, extending an invitation for God's pure, life-giving oxygen to come in with its energizing, vitalizing, purifying, beautifying, health-giving potencies. If every house were provided with an efficient, automatic, ventilating apparatus, double windows would offer no disadvantage to health. But when windows are the chief means for the admission of fresh air as well as of light, in the majority of houses, they may well be looked upon as dangerous, and deserving of the most vigorous condemnation.

PURIFYING THE BLOOD

One of the most erroneous of popular notions is that the blood can be purified by swallowing some bitter stuff or nauseous medicine. Dr. Bacon, the modern substitute for Shakespeare, announced a theory many years ago, that everybody should be bled in the spring, and treated with purgatives, because the blood became so vile during the winter that it was necessary to purify it by emptying the blood-vessels. This was undoubtedly one way, and a robust person might suffer no real harm from the treatment; but it would be very difficult

for a feeble person to overcome the debility, and furnish a new supply of blood. The idea was good, but in such a radical change the process of cure was so effective that it many times killed the patient. "Cured to death" might truthfully be written on a great many tombstones.

The modern idea that the blood is to be purified by antidotes, is wholly unphilosophical. It is absurd to think that you are going to make the blood pure by putting something impure into it. The blood may be purified, but it must be by getting something out of it. The best way is to set to work nature's five great purifiers; the lungs, skin, liver, kidneys, and bowels,—the five great excretory organs of the body. If a man's blood is impure, it is because he has been taking something impure into it, or because he has not been using the excretory organs sufficiently to keep the impurities worked out. The first step would be to stop putting impurities into the blood, if that is what is the matter. People who live grossly, eating flesh meats, pastry, etc., and perhaps swallowing such things as tea and coffee, wine and beer, and may be tobacco, are constantly overtaxing the excretory organs. Living a sedentary life is another way to encourage the deposit of impurities in the blood, there not being sufficient muscular exercise in such cases to assist in throwing off the waste particles of the body.

To make the skin more active, take a hot bath once, twice, or three times a week. If vigorous, one can stand a Turkish or vapor bath every day for a while. Do anything to get up a sweat; drink hot water, and wrap up in warm blankets. A good vapor bath can be taken in any ordinary bath-tub, by putting a slat bottom in the tub, or a board with holes in it, so as

to allow a space at the bottom of the tub which will be free for a running stream of hot water. Lie down on this slat bottom, cover the tub with heavy blankets, and you will have as good a vapor bath as need be given. A Swedish shampoo, or a soap and water bath, or scouring the skin off with a brisk "salt glow,"—any or all of these ways are good for getting up a healthy action of the skin.

Next endeavor to make the lungs work so vigorously as to increase the supply of oxygen. A person walking at the rate of three miles an hour breathes three times as much air as one who is sitting still; and one walking at the rate of four miles an hour, breathes five times as much as one sitting still. When sitting, one breathes only about twenty cubic inches—about two-thirds of a pint—at each inhalation, the furnace door of the body being almost closed; but as just noted, even moderate walking triples the capacity for taking in air. With every breath, we throw off a certain amount of impurities; at the four-miles-an-hour pace we may not throw off five times as much waste matter as when sitting still, but we will approximate that amount, perhaps about four times as much. Another advantage in deep breathing is that the oxygen taken into the lungs goes into every nook and cranny, and gets alongside every nerve and fiber of the body,—everywhere this clogging material is lodged,—and carries it out. It is a great house cleaner; it sweeps down the cobwebs, and shakes the curtains. That is why the skin looks clearer and fresher. Let a person whose skin is dingy, dirty, and sallow, go out of doors and take regular and vigorous exercise. The fresh supply of oxygen thus gained will very soon tell upon the appearance of the skin.

The liver may be set to work, and by the same means the bowels and the kidneys can be made more active, and that is simply by the frequent drinking of pure water. The old German water-cure doctors found this out almost a hundred years ago. Old Dr. Pressnitz, of Graefenberg, used to recommend from twelve to twenty glasses of water a day, to be taken in connection with mountain climbing. There were beautiful springs along the mountain side, and walking and climbing, his patients would drink from six to twelve glasses before breakfast, and the dose could be repeated two or three times in the course of a day. Water is the best means of all for cleansing the stomach, liver, and kidneys. Every part of the body is permeated and cleansed. When we take water into the stomach, it is absorbed, and by the muscular action of the diaphragm this pure water is drawn into the body, and carries impurities out.

It is very interesting to notice how all these remedies co-operate: warm baths to make the skin active; exercise to make the lungs more active; and hot-water drinking to increase the activity of the kidneys, bowels, and liver. The warm baths take some of the fluids out of the blood. Persons may lose even two pounds—that means two pints of water—through the skin in a hot bath. This excretion carries with it a large quantity of impurities, and this makes a person thirsty, and increases the amount of water-drinking, which supplies the water taken from the blood, while the water-drinking promotes the sweating,—action and reaction constantly. By exercise the lungs are made to act more vigorously. This increases the action of the diaphragm, and that squeezes the liver and presses the old bile out of it; and this, again, augments the

water-drinking. Again, exercise induces perspiration, and that in turn also increases the water-drinking. Each means helps the others all the time, and in this way the blood is readily purified. But it cannot be done by a "tonic," or "blood-purifier." Every one of the nostrums advertised under these various names contains from six to fifty per cent of bad whisky or alcohol, and yet the great majority of people depend upon them as purifying agencies, instead of upon the natural ones enumerated.

SMOKING A CAUSE OF CONSUMPTION AND BRIGHT'S DISEASE

One of the most celebrated European specialists recently called attention to the fact that consumption is becoming exceedingly prevalent among cigar-smokers. The reason for this is evident. The fact that persons of feeble or diseased constitution are frequently employed in the manufacture of cigars, coupled with the enforced confinement in a close and foul atmosphere, renders this class of laborers especially liable to consumption. It is not an uncommon thing to see two or three loud consumptives in a single cigar factory. Of course, the mouth and lips are constantly soiled with the expectorated matter; and when the cigar-maker puts on the finishing touch to the cigar by moistening it with his lips, he infects it; and the man who smokes the cigar thereby becomes vaccinated with the disease. It may not be a matter to be so greatly regretted, that the race of cigar-smokers should be killed off, although it must be admitted that, through igno-

rance, many excellent men are addicted to the practice; but the nonusers of cigars are interested in this matter almost as much as those who smoke, for the reason that the person suffering from consumption will be a source of infection to others. We have, in more than one instance, been able to trace consumption in a wife to the care of a consumptive husband; and so the smoking husband might easily infect an unoffending wife, from whom the disease might in turn be communicated to innocent children. Cigar-smoking must be regarded as one of the most dangerous as well as one of the most loathsome practices tolerated among civilized people.

Dr. Auld, of Glasgow, also raises a warning voice when he states an important fact which seems to have been heretofore overlooked; viz., that tobacco may be a cause of organic disease of the kidneys. As is well known, the appearance of albumen in the urine is the leading symptom of Bright's disease of the kidneys. Dr. Auld finds that the use of tobacco is often accompanied by this symptom, and lays it down as one of the results of chronic nicotine poisoning.

This eminent physician has done the world a valuable service in calling attention to this important fact. He also states that, according to his observations, tobacco is responsible for a very large number of functional disorders not commonly attributed to it. He finds that tobacco poisons both the nerve centers and the nerve ends, causing muscular twitching and various other nervous symptoms.

Dr. Auld makes the important observation that when these symptoms are found present, it is not necessary merely to moderate the use of the drug, but it must be wholly discarded; otherwise, a cure cannot be effected. This is contrary to the advice of most physi-

cians, who commonly prohibit only what they term excess. We have for many years observed, however, that half-way measures will not do in these cases. Tobacco must be discarded wholly and forever.

The amount of nerve energy and vital force that is being squandered by the use of this drug is beyond estimate. If the sum total of human life and strength sacrificed to tobacco could be represented in figures, the aggregate would be astounding. Tobacco is unquestionably one of the worst of all the curses of civilization. It certainly is equaled only by two vices—inebriety and immorality. The mischief done by opium, cocaine, and other vice-drugs is enormous, but incomparable beside the far-reaching evils justly attributable to the use of tobacco. Thousands of men are kept in a state of chronic lethargy by its narcotic influence. Millions of consciences are benumbed by its subtle spell. Countless multitudes of children are born with weak nerves and feeble constitutions, as the result of the chronic nicotine-poisoning of parents.

The use of the vile drug by civilized man is one of the enigmas of modern civilization. The old Greeks and Romans, who shaped the foundations of our modern civilization, used neither tobacco, tea, nor coffee, nor strong liquor. If they had indulged in these stimulants as do men and women of the present day, it is safe to say that by the present time the human race would have been deteriorated to the vanishing point, with the possible exception of those savage tribes who may have been preserved by their isolation from the influence of these destructive agents. Unless a radical change for the better can be effected within a few generations to come, the condition of the then existing race at the present rate of deterioration, is fearful to con-

template. Extinction would come at last as a beneficent act of nature, who desires only the survival of the fittest.

TEA AND INDIGESTION

The popular idea that tea, coffee, cocoa, wine, and other beverages commonly used at meals, promote digestion, has been clearly proved by reliable physiological experiments to be an error. According to J. W. Frazer and W. Roberts, all these substances interfere with digestion. Tea, coffee, and cocoa retard the digestion of proteids, although the action of coffee is somewhat less intense than that of tea. The volatile oil, as well as the tannic acid of tea, was found to have a retarding effect upon peptic digestion. It is well that this fact be known, as the idea has become prevalent that tea is harmless if the infusion is quickly made, so as to obtain the volatile oil without so great a quantity of tannic acid as is dissolved by longer infusion. Wine also retards peptic digestion, as was clearly shown by W. Roberts. This effect of wine and other alcoholic liquors was so marked that Sir William Roberts concluded, as the result of his experiments, that wine and other alcoholic liquors are chiefly useful as a means of slowing down the too active digestion of the modern civilized man, thus acting as a safeguard against what he terms "a dangerous acceleration of nutrition." However much the digestion of the average Englishman may require slowing down, the average American certainly does not need to put brakes upon his digestive apparatus.

Both Roberts and Frazer also showed that the effect of wines and tea is inimical to salivary digestion.

Tea, even in a very small quantity, completely paralyzed the ptyaline of the saliva, while wine promptly arrested salivary digestion. Salivary digestion was not formerly considered a matter of very great consequence, as it was supposed that the action of saliva upon the digestion of food was quickly suspended in the stomach by the secretion of hydrochloric acid; but the observations of Ewald and others, which have been confirmed by the author in the chemical examination of nearly three thousand stomach liquids, indicates that salivary digestion proceeds in a normal stomach so rapidly as to cause the complete disappearance of starch by the end of the first hour of digestion. Many cases of intestinal dyspepsia are doubtless due to the failure of salivary and peptic digestions in the stomach.

FOOD COMBINATIONS

Many persons suffer from indigestion, not because they eat too much, or because they eat indigestible articles of food, but by reason of the fact that the several articles of food taken together do not make natural and wholesome combinations. The principle involved in the question of the proper combination of foods is simply this,—different articles of food are digested chiefly or entirely in different portions of the alimentary canal; for instance, meat is chiefly digested in the stomach, while the digestion of milk takes place almost entirely in the small intestines. Fats and cane sugar are digested only in the intestines. Vegetables require considerable digestion in the stomach as a preparation to intestinal digestion. Fruits, if well disintegrated, leave the stomach, as a rule, within an hour or two

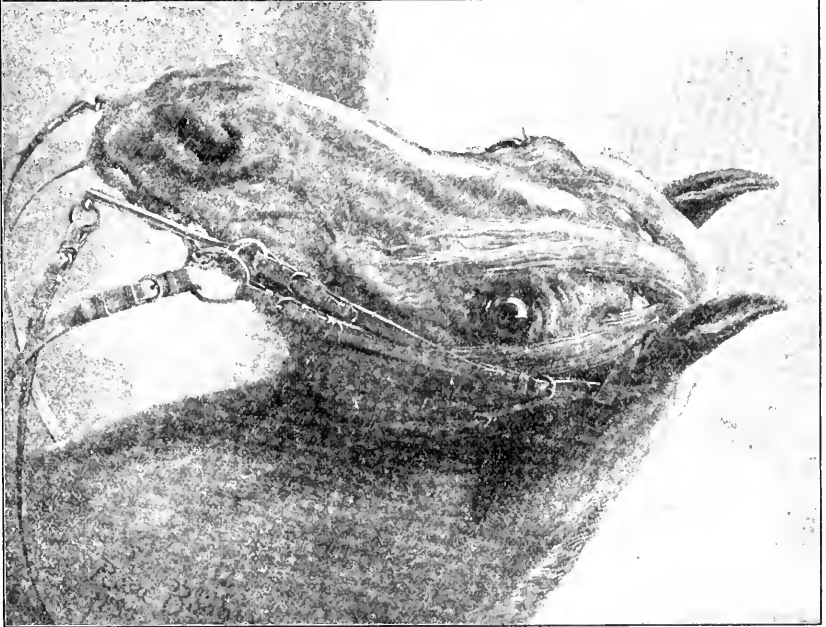
after eating; while meats and vegetables require from three to five hours for the completion of stomach digestion in persons whose stomachs are in a normal condition; a still longer time is required when the digestion is very slow. Milk is digested in one and one-half hours. Boiled rice and other well-cooked grains are digested in one to two hours.

While it is well to introduce a considerable variety of foodstuffs into the bill of fare, it is not wise to take too many different kinds of food at a single meal. The gastric juice which is best adapted to the digestion of one food may be ill-adapted to the digestion of another. Food containing a considerable amount of protein, for example, requires a large amount of very active gastric juice, while liquid foods containing a considerable amount of fat, such as milk, cream, buttermilk, or rich gravy, require very little gastric juice and diminish the amount of gastric juice produced by the stomach. It is evident, then, that the combination of two kinds of foods might result disastrously, one food failing to digest because of a deficiency of the necessary digestive fluid, and the other remaining a long time in the stomach after it should have passed on for treatment in the small intestine. This is one of the causes of biliousness, and it is for this reason that fats are generally known to be productive of "biliousness" when taken freely. The eminent physiologist, Pawlow, has proven by experiments upon animals and human beings that different foodstuffs require different sorts of gastric juice for digestion, and especially made clear the importance of simplicity in dietetic habits.

Persons who suffer from hyperacidity should avoid the use of strongly acid fruits and starchy foods, and



THE MAN EATER



THE GRAIN EATER



if care is taken to thoroughly Fletcherize or masticate the food so that every morsel enters the stomach in a liquid or semi-liquid state, it will not be found necessary to give other attention to the matter of combinations than has been indicated above.

Mustard, pepper sauce, and all other condiments, together with pastry, fried meats, soda biscuits, hot breads, and cheese, are likely to disagree with wholesome food, and are unfit for the human stomach.

CUTTING OFF SUPPLIES

The eminent Dr. Tronchin, of Paris, considered abstinence from food as the best of all remedies for disease, probably because he regarded most disorders as the result of overfeeding, a conclusion with which we heartily agree, at least if bad feeding is included. "Good generals," said Dr. Tronchin, "always attempt to cut off the enemy's supplies. I put my patients on spare diet at once, and bring the enemy to terms by famine." The great Napoleon seems to have had the same idea. "When I am not well," said Napoleon, "I fast, bathe, and rest. If I am taken sick while I am resting, I exercise. If taken ill while hard at work, I rest; but in all cases, I fast. I find that is all I need."

A STRONG DIET

Those who imagine that grains and farinaceous foods are what is commonly called a "light diet," or are lacking in the elements calculated to produce bodily strength and vigor, will be surprised at the following quotation:

“The Japanese have made a race of strong men—a race of wrestlers. These wrestlers often weigh 200, 300, and 400 pounds. At the Imperial hotel, in Tokio, they brought their champion wrestler to my room. He was prodigious in size and as fat and fair as a baby. He was a Hercules in strength, but looked like an overgrown cherub of Correggio.

“ ‘What do you eat?’ I asked.

“ ‘Rice—nothing but rice.’

“ ‘Why not eat meat?’

“ ‘Meat is weakening. (Beef is 70 per cent water. Rice is 80 per cent food.) I ate lean beefsteak once, and my strength left me. The other man ate rice and threw me down.’

“My courier said: ‘This wrestler is the Sullivan of Japan. No one can throw him.’ ”

Remenyi, the celebrated Hungarian violinist, attributed his superb health and vigor at fifty-nine years of age, to his total abstinence from alcoholics of any description, from tobacco, and from a meat diet. At this age he was fairly in his prime, with a face as free from lines and wrinkles as an ordinary man of thirty-five.

THE ENEMA

We ought not to leave this subject, without saying one word with reference to the use of the enema. In cases in which the bowels do not regularly and completely discharge their contents, the water enema constitutes a very natural and comparatively harmless means of aiding nature. It must not be regarded as a substitute for the natural process, but should be used

only as an emergency method. When habitually employed, it not infrequently becomes ineffectual, so that a daily movement cannot be secured, even by its aid, the difficulty being as great as before this means was used. This is one of the difficulties which arise from the abuse of this simple measure of treatment. Patients suffering from habitual headache, especially nervous headache or sick headache, are often living in a state of constant poisoning, as the result of the absorption of toxic substances from retained fecal matters. For such cases, the enema is a measure of great value. It should be administered in such cases two or three times a week, and should be taken thoroughly.

For an ordinary enema, one or two pints of water at a temperature of about 80° is sufficient; but in cases in which the colon has become greatly distended, and in which there is a tendency to the accumulation of fecal matters, a large enema taken in a peculiar fashion, and which we have termed, for convenience, a coloclyster, is preferable. For the coloclyster, two, or in some instances even three, quarts of water are required. The patient should lie upon the right side, so that the water may be led by gravity to enter the first, or ascending, portion of the colon. In some cases it is better to have the patient take the knee-chest position. To assume this position, the patient first kneels, then inclines the body forward until the thighs are perpendicular, and the upper part of the chest in contact with the couch. In this position the entrance of the water into the colon is facilitated, and a larger quantity can be received while the water is flowing into the colon. Gentle manipulation of the bowels with one hand will aid in filling the colon, and in loosening and softening hardened masses.

The use of the colocolyster is seldom required more than two or three times a week. It may sometimes be used daily for a week or two, in cases in which an extensive accumulation has existed for a long time, and when the bowel contents are extremely fetid in character, or in cases of jaundice. The temperature of the water employed in the enema or colocolyster should usually be about 75° to 80°. When employed for dysentery or cholera, the temperature should be 105° to 110°. In some cases of acute inflammation of the lower bowels, cold enemata of a temperature of 60° or even 40° may be usefully employed. Enemata are best administered with the fountain or siphon syringe, though any good syringe may be used.

CONDENSED COMMENTS

THERE is a most intimate relation between health and morality. We have long held that a great share of the crime among civilized people might be fairly charged to bad physical conditions, which, by impairing the physical health, lower the nerve tone, and then the moral tone, so that there is not a proper appreciation of moral principles and obligations. Is not this a means of explaining those strange lapses from rectitude on the part of men whose character has previously been for a lifetime above reproach, which now and then so startle and shock the moral sense of the community? A writer has suggested that the unhappy condition of John Calvin's stomach may have been the real cause of the burning of Servetus; and there is probably no doubt that many a poor fellow has swung from the gallows because he committed a crime in a fit of indigestion.

ONE of the most mischievous errors current in modern times is the popular notion that a man may transgress all the laws of health with impunity, and then swallow a few drops of medicine, and antidote all the results of his evil habits. Diseases are far less frequently cured by remedies than most people, and indeed many physicians, suppose. When a sick person gets well, it is usually because he has reformed from his evil ways, and nature has ceased to punish him for his physical sins. Nature cures whenever there is a cure. It has been suggested by a very wise physician that it may be that remedies hinder as often as they aid in recovery. And it may be that patients get well in spite of the remedies which are applied outside and inside, almost as often as by the aid of them.

IN case of extensive burns, death occurs probably not so much as the result of destruction of the skin, as from the absorption of poisonous matters formed by the germs developing on so large a denuded surface. The best means of preventing this is the application, from the beginning, of antiseptics. It is important, however, to select an antiseptic substance which, while destructive of germs or capable of preventing their development, is, at the same time, not poisonous to the system in quantities in which it is likely to be absorbed. A very excellent remedy for this purpose is thymol. The following ointment possesses great value as a remedy for burns, on account of its emollient healing properties:

| | |
|--------------------------|-----------|
| Bismuth subnitrate | 20 parts. |
| Yellow vaseline..... | 80 parts. |
| Thymol..... | ½ part. |

A thick layer of this ointment should be applied to

a piece of gutta-percha tissue, and laid over the burn. The application should be changed once or twice daily.

WHEN we hear a man extolling this or that remedy for disease, and claiming that he has been cured in some magical way of a disorder generally conceded to be incurable, let us remember that there is a very great difference between *being* well and *feeling* well. There is a very large class of remedies the sole effect of which is to make a sick man feel better, but which have no real influence upon the progress of a disease, unless it be to hasten it by using up the patient's vitality, and deluding him into foolish expenditures of strength under the belief that he is well, when he is really no better, but only *feels* better.

THE best means to avoid the infection of a contagious disease when unavoidably exposed, are the following: Always have good ventilation in the room. Never stand between the patient and the fire, but always between him and a fresh-air inlet. Never while in the room swallow any saliva; and after leaving, rinse out the mouth, blow the nose, and wash the hands and face. Keep up good general health by good food, exercise, and temperance. In addition to these recommendations, it is well to filter all the air you breathe while in the sick-room by tying a handkerchief over the mouth and nose.

IF a seed or other foreign substance has gotten into the ear, do not try to remove it by introducing a knitting-needle or by any similar means. The only safe plan is to syringe the ear with warm water, leaning the head to one side so the object may drop out if loosened. If a pea or a bean has been in the ear so long that it has swelled, and hence cannot be dislodged by syringing, it may be contracted by holding alcohol in the ear for a short time. If an insect gets into the ear, pour in a little oil, which will suffocate it, when it may be removed by syringing.

TEST FOR IMPURE WATER.—Discard as dangerous, water which will not stand the following test:

Dissolve in two tablespoonfuls of cistern water which has been thoroughly boiled, unless distilled water can be obtained, twelve grains of caustic potash and four grains of permanganate of potash. Add two drops of this solution to a teacupful of the water to be tested. If the water is very impure, the pink color at first produced will very quickly disappear. If the color disappears within fifteen minutes, the water is too impure for safe use.

THE Hindoo devotee who, in blind zeal for his religion, holds out his arm until the muscles shrink and shrivel up, leaving the arm but a useless appendage of the body, violates the law of nature which demands exercise for health, no more than does the student who shuts himself up with his books until his limbs grow lank and thin, and his fingers bony with physical idleness; and the latter acts no more wisely in sacrificing himself upon the shrine of learning than the other in deforming himself to appease the wrath or win the favor of Buddha.

WHEN the sun begins to circle low in the Southern sky, thousands of invalids prepare for their annual pilgrimage to the "Sunny South," not stopping to consider that dampness and malaria, and sultry days in midwinter are vastly greater enemies to health than frost and snow. The fear of cold is getting to be almost a mania. Cold weather is a blessing. The winter toning up is an advantage which no one can afford to miss unless absolutely compelled to forego it.

THOUSANDS of people are cured at mineral springs of rheumatisms, neuralgias, "biliousness," and a dozen other diseases which result from dissipation and gormandizing, not by the bad tasting minerals and worse smelling gases in the water, but by the water in spite of its impurities. More water drinking at home and less beer guzzling, tobacco smoking, and French cookery would cure a vastly greater number, and ruin the mineral water business in six months.

If troubled with sleeplessness, eat an early and

light supper of easily digested food; or, better, eat no supper at all. Do not engage in exciting conversation or amusements during the evening. At an early hour, prepare to retire determined to sleep. Just before going to bed, soak the feet ten minutes in a pail of hot water, cooling it a little at the close.

CLOTHING should be adjusted to the weather of each day independently. In the wintertime, an unusually cold day demands an additional supply of clothing; in the summertime, an unusually hot day may require an opposite change of garments. In the spring and autumn, when the weather is very changeable, it may be necessary to change the clothing two or three times during the day in order to meet the exigencies of the weather.

NOXIOUS gases and disease germs are usually associated together,—a fortunate fact, as it enables us to detect the dangerous character of an infected atmosphere without the trouble of a chemical analysis. It is possible for the air to be swarming with disease germs without an offensive odor's being present; but the reverse is seldom true, and it is perfectly safe to say that a foul-smelling atmosphere is a dangerous one.

NEVER allow cold water to enter the ears, and do not let the cold wind blow in them. If they must be exposed to cold air or water, protect them by a little wad of cotton placed in the ear. Care should be taken to remove the cotton as soon as it is no longer needed, as much mischief sometimes results from leaving portions of cotton or paper in the ear.

CAREFULLY prepared statistics show that mental labor is conducive to longevity. The active mental worker who takes reasonable care of his health, has greater chance of long life than the man who devotes himself to muscular pursuits. Mental labor is stimulating to all the vital powers, and conducive to the best health.

“HEALTH is wealth” is a trite maxim, the truth of which every one appreciates best after having suffered from disease. Indeed, health is a most priceless treasure. When deprived of it, we are willing to exchange for it everything else we possess; yet when well, we squander it ruthlessly, regardless of consequences.

WHEN a man has a bilious attack, and vomits bile, he feels sure there is something the matter with his liver; whereas, instead, he has bile enough and to spare, and all he needs is good hygiene, a proper dietary, and plenty of water inside and outside.

PAIN stands as a lighthouse to warn navigators on the sea of life whenever they are approaching the shoals of overfed idleness, the rough breakers of neglect and general disregard of nature’s laws, or the giddy whirlpool of passions stimulated and gratified.

A PERSON whose constitution has once been thoroughly broken by any chronic disease, cannot expect to become perfectly sound and well again. He may enjoy excellent health with proper care, but will not be able to endure hardships or irregularities as before.

QUACKS thrive upon the ignorance and gullibility of the people. The only remedy for quackery lies in the education of the people in those medical facts and theories, which will lead them to see that there is a scientific foundation for rational medical practice.

AVOID sleeping in damp beds and cold bedrooms. A person had a great deal better sit up by the kitchen fire and doze in his chair, than commit himself to the horrible embrace of cold, clammy sheets, and run the risk of sowing the seeds of an incurable illness.

A QUIANT old Dutch physician who flourished nearly two centuries ago, had great faith in the mechanical cure of disease. It was a favorite saying of his that more patients would be cured by climbing a bitterwood tree, than by drinking a disgusting decoction of its leaves.

HEALTH-GETTING is a process of development, like the growth of a tree, or the raising of a crop of grain. We must sow the seeds to-day, in right habits of life and a correct regimen, and weeks, months, or years hence we shall reap the harvest.

NEVER clean the ears with a pick or with the twisted end of a towel. The ear-wax dries and falls out of itself. Efforts to keep the ear free from wax increase the difficulty by irritating the membrane, and causing it to make more wax.

IT is a mistaken idea that foods made rich with fats are the most nourishing. Really "rich" foods are those which contain a large proportion of the essential food elements in a condition in which they may be easily assimilated.

PHYSICAL culture is a sovereign remedy for most human maladies. When the vital status is raised, the morbid conditions engendered by neglect and ignorance are left out, and the individual exists on a higher physical plane.

NEVER sleep in a room which has been for weeks unused, unaired, unwarmed, and secluded from sunlight, until the bedding has been thoroughly aired and dried, and the air of the room thoroughly changed by ventilation.

THE Autocrat of the Breakfast Table says each of us is an omnibus, in which ride all our ancestors. The man who carries in his "bus" a drunkard or a libertine, is a proper subject for most profound sympathy.

EATING between meals is a gross breach of the requirements of good digestion. The habit many have of eating fruit, confectionery, nuts, sweetmeats, etc., between meals, is a certain cause of dyspepsia.

As a rule, lying on the side is the best position for sleeping. Which side is a matter of indifference, unless a meal has been taken within two or three hours, in which case the right side is preferable.

EVERY individual should consider the hour for meals a sacred one, not to be intruded upon under any ordinary circumstances. The habit of regularity in eating ought to be cultivated early in life.

LIQUID of any kind, taken at meals, in large quantities, is prejudicial to digestion, because it delays the action of the gastric juice, weakens its digestive qualities, and overtaxes the absorbents.

THE whole body should be clad in soft flannel from neck to wrist and ankles nearly the whole year round. A thin linen or cotton garment is best worn next the skin, summer and winter.

DISEASES are seldom inherited, but tendencies to disease are often transmitted from parents to children. By beginning early in life, these inherited tendencies may be extinguished.

CELLARS should be kept clear of decaying vegetables, wood, wet coal, and mold. The walls should be frequently whitewashed, or washed with a strong solution of copperas.

LYING in the shade when perspiring, or sitting in a draught in the same condition, is as likely to give a person a cold in August, as getting the feet wet in December or March.

EXPOSING the body to the air and light, and briskly rubbing the skin with the hand, is the best substitute for a water bath, and is almost as efficient for cleansing the skin.

THE man who says, I can eat or drink anything, nothing hurts me, is on the high road to physical bankruptcy. By and by he will complain that everything hurts him.

A MAN who has a perfectly healthy skin is almost certain to be healthy in other respects. In no way can the health of the skin be preserved but by frequent bathing.

COMMON sense teaches us that a feeble horse must

be lightly loaded; so a weak stomach, suffering with slow digestion, must have as light and easy work as possible.

NEVER employ water which is procured from a suspicious source, as a well in a barnyard or near a vault or cesspool, or from a cistern not recently cleansed.

THE old supposition, that running water into which impurities have been cast, purifies itself while running twenty miles, is an error. Such water is never safe.

HARDWOOD floors, covered, so far as necessary or desirable, with loose rugs which can be daily removed and shaken, are far more conducive to health than carpets.

A PAIN in the back seldom indicates disease of the kidneys, as most people suppose; and it may be controlled by simple measures carefully and thoroughly applied.

COMBUSTION is the best means of disposing of garbage, and relieves the scavenger of an additional burden, and the milkman of a temptation to economize.

THE feet cannot be kept warm unless the blood circulates freely in the extremities; and that will not be the case if the boots, shoes, or stockings are tight.

AIR is food for the lungs as bread is food for the stomach. More millions of people die from want of lung food than from a deficiency of other aliment.

A TIRED stomach is a weak stomach. When the stomach feels "faint and tired" at night, as many people complain, what it wants is not food, but rest.

Do not eat when tired. The idea that simply by the taking of food the stomach or any other part of the system will be strengthened, is a mistake.

THE royal road to health leads not by the way of big pills or little pills, purgatives or patent medicines, but by the homely road of correct habits.

ALL the medicines in creation are not worth a farthing to a man who is constantly and habitually violating the laws of his own nature.

ONE may purify the blood more in a single day by breathing pure air than by taking sarsaparilla or any other blood-purifier for a year.

HALF the men and women who complain of sleeplessness, have done nothing to entitle them to the use of "nature's sweet restorer."

CORRECT habits of eating and drinking are of the utmost importance if we would keep the body in a state to serve us well.

NEVER bathe when exhausted, or within three hours after eating, unless the bath be confined to a very small portion of the body.

IF the bath be a warm one, always conclude it with an application of water a few degrees cooler than the body temperature.

ALWAYS let the light fall upon the object viewed, from over the left shoulder, if possible; it should never come from in front.

THE nourishing quality of any food depends upon its digestibility as much as upon its nutritive elements.

FOR poor sleepers, a half hour's exercise, taken a short time before retiring will often act like a soporific.

NEVER use the eyes when they are tired or painful, nor with an insufficient or dazzling light. Lamps should be shaded.

TEA and "temper" are so often found associated as to afford good grounds for believing that they are closely related.

SUNSHINE is one of nature's most potent remedies. It cures more diseases than the whole category of patent medicines.

THE simplest food is, as a rule, the most healthful.

SIMPLE HOME REMEDIES FOR COMMON MALADIES

SPRING BILIOUSNESS

BILIOUSNESS is not, as most people suppose, a disease of the liver, but pertains almost altogether to the stomach. It is chiefly the result of overeating, eating too freely of sweets, pastry, fats, and highly seasoned dishes. The cold, tonic air of the winter months antidotes the bad influence of these digressions in diet to some degree; but as the warm, relaxing weather of spring comes on, the stomach begins to fail more perceptibly in its efforts to accomplish the unnecessary and injurious labor imposed upon it. Indigestion is the result. By and by, the poor stomach gets so far behind in its work that it is altogether overwhelmed and disabled, and the difficulty culminates in a bilious attack, which is nothing more nor less than a cessation of work on the part of the stomach. The overworked organ needs rest. A bilious attack can always be prevented by giving the stomach rest, by fasting a meal or two before the final crash comes. No organ in the body will endure more abuse and still patiently continue its work, than the stomach; but finally forbearance ceases to be a virtue, and the faithful servant rebels against abuse. Correct and properly regulate the diet, and there will be no trouble with bilious attacks at any season of the year.

DIET FOR DIABETICS

It may be safely said that physicians of experience are agreed that in the treatment of this disease, by far the most important measure is the regulation of the diet. Sugar, starch, and all foods containing them, should be, as far as possible, excluded from the dietary. This requires that the patient should abstain from the use of sugar in any form, from bread, potatoes, peas, beans, rice, oatmeal, cornmeal, and other grains, chestnuts, and all other farinaceous articles of food. Sweet fruits also must be avoided with equal care. The diet should consist chiefly of meat of different kinds, including fowl. Greens, green beans, lettuce, yellow beets, asparagus, cucumbers, and radishes may also be eaten. Most acid fruits may be taken in moderate quantities, such as lemons, oranges, strawberries, peaches, and currants. In many cases, skim-milk, sour milk, or buttermilk may be taken without increasing the proportion of sugar, and hence without injury. Several eminent physicians claim to have cured a number of cases of this disease by means of an exclusive milk diet, the patient being confined to this one article of food for several weeks. The milk should be carefully skimmed. The quantity required per day is from two to three quarts. By the employment of a diet free from sugar or starch, sugar may in many cases be made to disappear from the urine. When this is the case, it may be looked upon as a very favorable indication, and often, so long as the patient continues to abstain from those kinds of food which occasion the production of sugar, the disease will be held in check. Many so-called gluten flours and gluten breads are manufactured and sold to persons suffering from this disease, which are shown

by chemical analysis to contain no more gluten than the best whole-wheat flour. It is, in fact, impossible to make a flour which will contain much more than the ordinary percentage of gluten obtained in whole-wheat flour, as it is impossible to separate the starch and the gluten by any process of milling.

The gluten flour containing 40% of gluten meets all ordinary requirements. Bread prepared from gluten and bran is especially to be commended in these cases because of the need of combating constipation.

NERVOUS DYSPEPSIA

Americans are a nation of dyspeptics, and most physicians will readily assent to the assertion that fully half of the dyspeptics belong to the class commonly known as nervous dyspeptics. A chronic nervous dyspeptic is all but incurable, not because of the intrinsic obstinacy of his malady, but because the disease is more than half in his mind. We do not mean by this remark that he is an imaginary sufferer, but that the disease affects his mind in such a manner that the mental malady becomes the major part of the disease. He thinks of his stomach before he eats, while he eats, and after he eats. He will not let the poor organ escape from his mental vision for an instant. He talks of his afflictions with every sympathetic friend who will listen. He considers his digestive machine the wickedest of stomachs, the very incarnation of cruelty, and in view of his daily martyrdom, wears a long face perpetually, and especially at home, where he entertains his wife and children with his groans and lamen-

tations, and, if possible, makes nervous dyspeptics of them, so that they can the better appreciate his sufferings. If by any chance any of his symptoms disappear, straightway he goes to work to resurrect them, and he invariably succeeds. He would not have one of those precious symptoms get away for anything. He feels sure that no one appreciates properly his agonies of mind and body, and it is probable that his view of the matter is quite correct. Fearing that his malady is not considered so grave as it should be, he sometimes exaggerates a little, not with the slightest intention of telling a falsehood, but simply to add picturesqueness to the monotonous desert of his existence, to heighten the interest of his friends in his distressing case. Evidently the philanthropic purpose of his mendacity seems at times to render it excusable.

Treatment.—The diet must be plain, unstimulating, nutritious. Toasted wheat flakes, toasted rice flakes, granose biscuit, toasted rice biscuit, granuto, granola, and other thoroughly dextrinized whole-grain preparations are especially to be commended. Pepper and other condiments must be avoided. A diet of fruits, grains and nuts, and fresh vegetables is essential to the best results.

Fomentations and the various other local applications for the relief of pain must be employed as necessary. In many cases fomentations over the stomach will be found very useful, though in some cases the nervousness will be aggravated by this application. Wearing the abdominal bandage is a very excellent means of increasing the activity of the stomach, and also of promoting sleep. Patients of this class usually need a great amount of rest, and judgment must be used in advising exercise. A change of occupation is

essential in many cases, even after a cure has been effected, in order to prevent a relapse. We are certain, however, that a change of this kind is often advised when a change of diet is all that is required.

CONSTIPATION

The matter of first importance in the treatment of constipation is the diet. The abundant use of fruit is one of the most excellent means of preventing and curing this disease. One or two oranges before breakfast; a couple of apples at breakfast; the free use of steamed figs, stewed prunes, and all other fruits, are means to be recommended in nearly all cases of chronic constipation. There are, of course, some cases in which fruits must be avoided. In these cases coarse grains serve a useful purpose—cracked wheat, oatmeal, graham or bran bread, bran cakes, peas, beans, lentils, asparagus, green peas, string beans, and similar vegetables which are easy of digestion, but which contain a considerable amount of woody or indigestible substance, may also be advantageously used. Coarse vegetables, however, must be avoided in cases where there is marked dilatation of the stomach. Granola, toasted wheat flakes, granose biscuit, granuto, and especially bran gluten biscuit are of great value in the treatment of constipation. Meltose marmalades, bromose, yogurt and colax are also highly valuable food remedies. A glass of cold water before breakfast is a prescription which has cured many cases of constipation. The free use of water, taken one or two hours before each meal, is a means of value.

Exercises of various kinds, particularly such as

bring into active play the muscles of the lower part of the trunk, are essential in the treatment of many cases of intestinal inactivity. Walking three to five miles a day, especially a brisk walk before breakfast, is sufficient to secure regularity of the bowels in many persons.

The exercises of the Ling system, known as Swedish gymnastics, we have found of special value in the treatment of this class of cases at the Battle Creek Sanitarium during many years. Horseback-riding and bicycle-riding are also of very great value.

Various passive exercises are indispensable in cases of feeble persons, such as massage of the bowels. This is best taken lying upon the back with the shoulders raised and the knees drawn up. Pains should be taken to knead the bowels in the direction of the colon, beginning low down on the right side. Kneading may be done with the hands placed flat upon the abdomen or with closed fists. The movement should be begun at the lower right side of the abdomen, passing up the right side, then across just beneath the ribs, then down to the left groin, one hand following the other in such a way as to force the contents of the colon along.

A cannon ball weighing five or six pounds, covered with leather, rolled along the course of the colon from right to left, is of service in many cases. Weighted compresses, consisting of a quilted compress containing shot of sufficient size to cover the whole abdomen, are very useful. The patient should lie with the compress upon the abdomen for half an hour; kneading of the compress may be practiced at the same time, or the cannon ball may be used outside the compress. Shot bags may be used in much the same way as the cannon ball, and with equally good effect. The

bag should contain five to ten pounds of rather fine shot. Such exercises as raising the limbs when lying upon the back, first one and then the other, then both together, are of special value. Exercises of raising the hips are also useful. Raising the head and legs may be practiced at the same time, making a very vigorous exercise, which is of great value. Breathing exercises, which bring into full play the diaphragm and abdominal muscles, are a most excellent means of restoring intestinal activity.

Measures of treatment of a hygienic character are of far greater utility in these cases than drugs of any sort, for the reason that they do not, like drugs, lose their efficiency in a short time, requiring larger and larger doses and finally failing to act.

Introduction into the rectum of a small quantity of cold water, half a pint or pint before breakfast, to be retained until after breakfast, is a measure of value. A small, cold enema taken at the regular time for the bowels to move, is better than a large warm enema, as it is a more powerful stimulant to intestinal activity. A small amount of cold water introduced into the rectum at night upon retiring, is a useful measure in cases where the intestinal contents are dry and hard; half a pint or a pint is a sufficient amount. In some cases in which the stools are large and the rectum irritable, an ounce or two of olive or almond oil introduced at night or before breakfast is a useful measure.

If the full enema (see page 710) is required, in obstinate cases, care should be taken not to render its use habitual.

It must not be forgotten that regularity in attending to the demands of nature is a matter of the utmost consequence in these cases, both as a preventive and

a curative measure. In some cases the inability to evacuate the bowels is due to weakness of the abdominal muscles, it being sometimes necessary to aid the bowels by pressure of the hands. We have had several cases in which there was inability to evacuate the bowels when sitting in the usual position, but no difficulty when a crouching position was assumed.

Some cases of constipation tax the skill and ingenuity of the physician to the utmost, and cannot be relieved by such simple measures as can be undertaken at home.

HOW TO BREAK UP A COLD

During the winter months, a cold is one of the most common of accidents. An ordinary cold is usually cured in from two to six weeks, but not infrequently a hard cold leaves behind it relics, recovery from which may require months or even years. Sometimes a fatal disease finds its beginning in a neglected cold. One of the best means of breaking up a cold, especially if taken by getting the feet wet, is to take a hot mustard footbath, which may be made by adding a tablespoonful of ground mustard to two gallons of water as hot as can be borne, in an ordinary footbath or a wooden pail. The bath should be continued fifteen to thirty minutes, or until the skin is well reddened and tingling.

While taking the footbath, swallow one or two pints of hot water or hot tea of some sort,—catnip, winter-green, cinnamon, or almost any herb tea will answer the purpose. It is, of course, the hot water that produces the effect, so that it is a matter of small consequence what is used as flavoring.

After the footbath, dry the feet quickly, go to bed,

and have applied over the part in which the cold seems to have settled, a towel wrung out of cold water, sufficiently dry so that it will not drip, and cover it with several thicknesses of flannel or sheet cotton, so as to keep it warm during the night.

If the seat of the cold seems to be in the lungs, the compress should be applied over the chest, and also the back of the shoulders. The compress should be large enough to cover the whole surface of the chest, that is, the whole of the upper part of the trunk, or that portion in which the ribs lie.

If the attack is a severe one, so that a serious illness is threatened, the patient should stay in bed for one or two days, or in bad cases for a longer time, as may be indicated. The footbath and the hot drink should be repeated each day until the patient is relieved, and the cold compress renewed night and morning.

In case the compress becomes cold during the night, it should be covered with oil muslin or rubber cloth, so as to prevent evaporation. If the bowels are inactive, empty them by means of a large colocyther of hot water, as hot as can be borne. The diet should be sparing; it should consist of fruits and grains. Hot water should be taken plentifully. At least two or three quarts should be taken in the course of twenty-four hours.

DILATATION OF THE STOMACH AND DYSPEPSIA

The investigations of Bouchard, Glenard, Trastour, and other eminent French physicians, as well as extended observations made by the author, have demonstrated very clearly that dilatation of the stomach is

one of the principal causes of dyspepsia, and this condition is to be found in a very large proportion of all cases of chronic indigestion.

The causes of dilatation of the stomach are over-eating, distention of the stomach by gas, and the formation of acids in the stomach, which set up a chronic catarrh and cause weakness of the muscles of the stomach. Tight-lacing and wearing belts have the same effect. Blacksmiths usually tie their apron strings tightly around their bodies, throw off their vests and suspenders, so as to give freedom to their arms, and thus their clothing is suspended by their apron strings. One of these men, whom we examined, had a badly dilated stomach. A military officer, who carried a heavy sword in his belt, had a prolapsed stomach and kidney. We have found the same thing in hunters who sustained their clothing by a belt; also in farmers who wore belts. Once in a while we have found a similar condition in women who have worn tight bands around the waist. Statistics recently gathered show that seventy-five per cent of the invalid women who came under our care last year had prolapsed stomachs, and thirty-three per cent of them had movable kidneys, in consequence of restriction of the waist. This is one of the most mischievous infractions of the laws of health with which we are acquainted.

In the treatment of persons suffering from dilatation of the stomach, one of the most useful of all measures is washing the stomach by means of a very soft and flexible tube, one end of which is swallowed by the patient. The stomach tube is also useful in investigating disorders of the stomach. Within the last few years the author has, by the aid of this instru-

ment, made a very careful study of the digestive process in more than 2,500 different persons suffering from various forms of indigestion. The patient is first given a test breakfast consisting of a measured quantity of bread and water. At the end of an hour the contents of the stomach are withdrawn by means of the tube, and a minute chemical analysis is made. By this means it is possible to determine exactly the nature of the disorder of digestion from which the patient is suffering and the extent of the disease, and from this information a very exact prescription may be formulated. In very many instances the condition of the stomach is found to be the result of germs in the stomach. By washing the stomach thoroughly, so that these enemies are removed, the condition of the patient is at once improved. So accurately may the condition and treatment of such cases be determined by this method, that it is usually possible to say to a person who has undergone an examination of this kind, "Take the treatment and diet prescribed, and in less than a week you will be a great deal better, and in due time, by perseverance in the use of the measures ordered, you will be restored to good health. Of course it is not always possible to restore the patient to perfect health, but a vast improvement may be expected in all cases where the patient is not suffering from some malignant or other structural disease.

A person whose stomach is dilated should avoid all coarse vegetables, and such fruits as have a hard, firm flesh, as raw apples, pears, etc. But he can eat all of the grain preparations, and most cooked fruits. Small fruits having a soft pulp are good, such as strawberries, blueberries, peaches, oranges, and grapes. Baked apples are also excellent food.

Cane sugar used in the ordinary form of preserves, sweet desserts, confectionery, etc., is often productive of serious mischief. It is one of the most common causes of sour stomach, not, however, through fermentation as was formerly supposed, but through irritation of the gastric mucous membrane. The use of cane sugar should be, as far as possible, dispensed with. Sweet fruits, such as stewed raisins, prunes, figs, dates, etc., may be substituted.

Butter should be eaten very sparingly, and other animal fats should be avoided altogether, for the reason that fats hinder the secretion of gastric juice and delay the passage of food from the stomach, as shown by the experiments of Pawlow.

Meat should not be eaten by a person with a dilated stomach. The muscles of the stomach being in a relaxed condition, the stomach cannot empty itself of food, and hence no food should be taken but that which can be readily dissolved and rendered a pulp.

Peas and beans are hard to digest, unless the skins have been removed. This may be done by a colander, or they may be purchased ready prepared.

A person with a dilated stomach has necessarily a slow digestion, and for this reason should take the food that is most quickly digested.

Another important point is to give the stomach as long an interval between meals as is required by the food for digestion. There should also be a little time between meals, after the food is digested, for the stomach to rest. An interval of five to seven hours should be allowed between meals, that the stomach may have time to digest all the food properly, and then to rest a little before any more is introduced. This may give

rise to that "all-gone" feeling so many complain of, and there may be an unpleasant feeling in the stomach as the walls fall together; but if the practice is persevered in, the feeling will soon pass away.

Numerous experiments have been made for the purpose of determining the length of time required for the digestion of various articles of food. Among the most interesting and important of these was a series of experiments made by Beaumont, a physician in the employ of the American Fur Company. The subject of these experiments was Alexis St. Martin, a hunter in the employ of the Fur Company, who had been injured by a gunshot in such a way that when the wound healed there remained a permanent opening in his stomach, through which the progress of the digestive process could be easily watched. Dr. Beaumont made digestive experiments with St. Martin for several years. Some of the results obtained by him are recorded in the following table:

| | H. MIN. | | H. MIN. |
|---------------------------------------|---------|---------------------------------------|---------|
| Rice boiled..... | 1 00 | Custard, baked..... | 2 45 |
| Sago, boiled..... | 1 45 | Codfish, cured, dry, boiled..... | 2 00 |
| Tapioca, boiled..... | 2 00 | Trout, salmon fresh, boiled..... | 1 30 |
| Barley, boiled..... | 2 00 | Bass, striped, fresh, broiled..... | 3 00 |
| Milk, boiled..... | 2 00 | Salmon, salted, boiled..... | 4 00 |
| Milk, raw..... | 2 15 | Oysters, fresh, raw..... | 2 55 |
| Venison steak, broiled..... | 1 35 | Soup, beans, boiled..... | 3 00 |
| Turkey, domestic, roasted..... | 2 30 | Soup, barley, boiled..... | 1 30 |
| Turkey, domestic, boiled..... | 2 25 | Soup, mutton, boiled..... | 3 30 |
| Goose, roasted..... | 2 30 | Green corn and beans, boiled..... | 3 45 |
| Lamb, fresh, broiled..... | 2 30 | Chicken soup, boiled..... | 3 00 |
| Oysters, fresh, roasted..... | 3 15 | Oyster soup, boiled..... | 3 30 |
| Oysters, fresh, stewed..... | 3 30 | Beef, with mustard, etc., boiled..... | 3 00 |
| Beef, fresh, lean, rare, roasted..... | 3 00 | Beef, fresh, lean, fried..... | 4 00 |
| Beef, fresh, dry, roasted..... | 3 30 | Beef, old, hard, salted, boiled..... | 4 15 |
| Beef, steak, broiled..... | 3 00 | Pork, steak, broiled..... | 3 15 |
| Beef, with salt only, boiled..... | 2 45 | Pork, fat and lean, roasted..... | 5 15 |
| Eggs, fresh, hard boiled..... | 3 30 | Pork, recently salted, fried..... | 4 15 |
| Eggs, fresh, soft boiled..... | 3 00 | Mutton, fresh, roasted..... | 3 15 |
| Eggs, fresh, fried..... | 3 30 | Mutton, fresh, broiled..... | 3 00 |
| Eggs, fresh, raw..... | 2 00 | Mutton, fresh, boiled..... | 3 00 |
| Eggs, fresh, whipped..... | 1 30 | Veal, fresh, broiled..... | 4 00 |

| | H. MIN. | | H. MIN. |
|---|---------|------------------------------------|---------|
| Veal, fresh, fried..... | 4 30 | Cake, corn, baked..... | 3 00 |
| Fowls, domestic, boiled..... | 4 00 | Dumpling, apple, boiled..... | 3 00 |
| Fowls, domestic, roasted..... | 4 00 | Apples, sour and hard, raw..... | 2 50 |
| Ducks, domestic, roasted..... | 4 00 | Apples, sour and mellow, raw..... | 2 00 |
| Duck, wild, roasted..... | 4 30 | Apples, sweet and mellow, raw..... | 1 30 |
| Butter, melted..... | 3 30 | Parsnips, boiled..... | 2 30 |
| Cheese, old, strong, raw..... | 3 30 | Carrot, orange, boiled..... | 3 15 |
| Soup, marrow bones, boiled..... | 4 15 | Beet, boiled..... | 3 45 |
| Hash, meat and vegetables, warmed..... | 2 30 | Turnips, flat, boiled..... | 3 30 |
| Beans, pod, boiled..... | 2 30 | Potatoes, Irish, boiled..... | 3 30 |
| Bread, wheaten, fresh, baked..... | 3 30 | Potatoes, Irish, baked..... | 2 30 |
| Bread, corn, baked..... | 3 15 | Cabbage, head, raw..... | 2 30 |
| | | Cabbage, head, boiled..... | 4 30 |

RHEUMATISM

This disease is generally regarded as a disease of the joints. This, however, is an error. It is a disease of the whole body. The special manifestation of the disease, when in an acute form, is most common in the joints, but the muscles are not infrequently affected, and the nerves also sometimes suffer from the same morbid condition which gives rise to the painful symptoms in the joints and muscles. Inflammations of a kindred character also not infrequently attack the delicate membrane which covers the lungs and lines the chest, and also that which covers the brain.

The condition which gives rise to the symptoms to which the term rheumatism is commonly applied, is a poisoned state of the blood and tissues. The direct cause of this poisoning is a disordered state of the liver, or of the stomach and liver, for both organs are most commonly affected. Professor Bouchard, the eminent French physician and physiologist, discovered, many years ago, that the stomach is found to be dilated in the majority of cases of rheumatism. In consequence of this dilatation, the food remains in the stomach too long, and undergoes decompositions of various

sorts, resulting in the production of poisons, which, when absorbed into the system, are carried to the liver. It is part of the duty of the liver to destroy these as well as other poisons which are naturally produced within the body. The enormous quantities of poisonous substances which are carried to the liver, after a time overwork it to such a degree that it becomes incapable of performing its work completely, and these poisons accumulate within the body. Then the delicate membranes which line the joints, cover the muscles, form the nerve-sheaths, line the cavities of the body, and cover the vital organs which they contain, soon begin to suffer from the irritating effects of these poisonous substances, and rheumatic symptoms of various sorts make their appearance.

Prevention.—It is evident that the prevention of rheumatism consists, first, in the avoidance of whatever will tend to introduce into the system, or to cause the production within the body, of an abnormal amount of poisonous substances which must be destroyed or removed by the liver and other excretory organs. This requires (1) an abundance of exercise; (2) frequent bathing; (3) a pure diet; and (4) the free use of water.

Exercise is nature's means of introducing into the body a large quantity of oxygen, by which these poisons are destroyed, and of stimulating the circulation, by which they are carried out of the body. The liver cannot destroy poisonous substances without the aid of oxygen. Frequent bathing is a means of maintaining activity of the skin and removing those poisonous substances which are thrown out upon the surface of the body, and thus encourages tissue cleanliness. A pure diet is one which excludes such substances as cheese, game, meat which has acquired a high flavor

by being kept long after the animal was killed, and such irritating substances as mustard, pepper, pepper-sauce, and other condiments; also such indigestible substances as pickles, preserves, pastry, fried foods, rich gravies, and similar unwholesome viands. A free use of even fresh meat is objectionable, as it readily undergoes decomposition in the stomach, thus giving rise to those poisons which are most likely to produce rheumatism.

Overeating must also be mentioned as a cause of rheumatism, by introducing an excess of material into the body, which, not being employed usefully, becomes waste matter and a clog and hindrance to the vital functions.

Treatment.—A severe case of rheumatism, of course, requires the attention of a skilled physician. A few hygienic suggestions may, however, prove of value. In fact, the writer has cured many cases of rheumatism by the simple means which will be outlined, and without the administration of medicine.

1. Abstinence from food for a few days,—three or four days at least. If the patient finds it inconvenient to abstain entirely from the use of food, which is doubtless preferable, fruits or fruit juices may be freely used without special detriment.

2. Drinking frequently of distilled or pure water. A little lemon or other fruit juice may be added to the water if desirable. Popular prejudice against the use of lemons or other acid fruits in rheumatism is unfounded. The amount of water taken should be considerable. Our usual prescription is a glassful of water every hour, when the patient is awake.

3. Absolute rest in bed.

4. For the first three days, continuous sweating,

which may be induced by wrapping the patient in blankets wrung out of hot water, to be changed three or four times daily; by fomentations to the spine, or other similar means. Rubber bags filled with hot water, bricks heated and wrapped in moist flannels, heated bags of sand or salt, or any other means of communicating heat to the body may be employed. The bowels should be thoroughly emptied daily by a large enema of hot water. The enema may be given twice a day with benefit, at the beginning of the disease. In many cases, it will be found that there is a large accumulation of fecal matter in the bowels. The removal of this source of poisoning of the body will, in itself, prove a valuable means of recovery in many cases.

SUNSTROKE

Symptoms.—Sudden pain in the head; fulness and pressure at the pit of the stomach; sometimes nausea and vomiting; weakness, especially in the legs; dizziness; sight dim and indistinct; objects appear of one color, usually blue or purple; sometimes convulsions or delirium; insensibility; stupor; snoring or moaning respiration; pulse frequent and weak; skin dry and hot; face flushed or pale.

Causes.—The affection known as sunstroke is produced not only by exposure to the sun's rays, but by exposure to great heat from any source. Persons employed in glass-works, laundries, and in similar occupations, are subject to sunstroke or heatstroke, as well as those who are exposed to the sun's rays. It generally occurs, also, in persons who are debilitated by great fatigue, or who have ceased to perspire. The

affection is much more frequent in persons who are addicted to alcoholic stimulants than in others.

Treatment.—When a person falls with sunstroke, he should at once be carried to a cool, shady place. His clothing should be removed, and cold applications should be made to his head and over the whole body. Pieces of ice may be packed around the head, or cold water may be poured upon the body from a waterpot. The shower pack is by far the best remedy known for this affection. The great source of danger is the high temperature, which sometimes rises to 110° F. In addition to the measures suggested, the ice pack to the spine and the cold enema may also be employed. In case the face is pale, hot applications instead of cold should be made to the head and over the heart, and the body should be rubbed vigorously.

COLIC—ENTERALGIA

Symptoms.—Gripping pain in the bowels, especially about the navel; pain, spasmodic in character, generally relieved by pressure; no tenderness of the bowels; frequent vomiting; bowels usually constipated, and frequently flatulent; no fever; pulse generally slower than usual; skin cold.

The term colic is properly applied to a spasmodic muscular contraction of the walls of the intestines, but on account of the difficulty of distinguishing the two conditions, it is often also applied to a neuralgic affection of the intestines known as enteralgia. The disease is usually caused by indiscretions in eating, as of unripe fruit, stale or decaying vegetables or other food, certain kinds of fish, or by taking cold, etc. The

disease is often a very painful one, leaving the patient much prostrated, but is never fatal. The application of hot fomentations or dry heat to the abdomen, and the use of large hot enemata, rarely fail to give speedy relief. In cases of chronic enteralgia, such as are sometimes met with, nothing is so effective as the use of electricity in the form of a mild faradic current or galvanism.

CHOLERA MORBUS

Symptoms.—Vomiting, soon followed by purging; watery, acrid, or acid discharges from the bowels; colicky pains, cramp in the feet and limbs; hiccough; rapid and feeble pulse; cold skin, often bathed with clammy sweat; voice feeble and hollow.

This is a germ disease which bears a rather close resemblance to Asiatic cholera, although by no means so grave a malady. It is sometimes attributed to excessive eating, but although the disease most frequently occurs in hot weather, it is generally excited by errors in diet, as the use of cheese, unripe fruit, etc. Sometimes the disease assumes an epidemic form, a large number of persons being attacked at about the same time. Attacks most frequently come on during the night, the first symptom being a feeling of pressure at the pit of the stomach, which is shortly followed by nausea and vomiting. The matter vomited first usually consists of undigested food. After a time, a pale yellow or greenish fluid, intensely acrid, bitter, or acid, is vomited. Gripping pains in the bowels are also present. The discharges from the bowels are at first pulpy in character, but soon become liquid, enormous quan-

tities of fluids passing from the body. The result of this great discharge of fluids is a rapid shrinking of the tissues, giving to the features and other parts of the body a pinched appearance. The nose is pointed, the eyes sunken, and the skin appears dry and shriveled. It is always cold, and sometimes covered with a clammy perspiration. The discharges from the bowels sometimes have the appearance of thin rice-water or thin gruel, which gives the disease a close resemblance to cholera. The depression of the patient is very great, the voice becoming hollow, and sometimes being lost altogether. Notwithstanding the serious aspect of the disease, it usually subsides in a few hours, the patient making a rapid recovery. Sometimes, however, the discharges become involuntary, the pulse disappears, and the patient finally dies of exhaustion.

Treatment.—At the beginning of the affection, give freely of warm liquids to facilitate evacuation of the stomach. A large hot enema should be administered after each evacuation of the bowels. The addition of tannin, one dram to a quart of water, is serviceable.

When the vomited matters no longer show traces of food, efforts should be made to stop the vomiting. Give the patient bits of ice the size of a bean to swallow every few minutes. At the same time apply hot fomentations over the stomach and bowels. If the patient suffers much from cramp, give a warm bath. Do not be alarmed if the vomiting and purging are not checked at once. If the case is an unusually severe one, or the patient is far advanced in years, or a young child, a physician should be called at once. It is especially important in this disease, to withhold milk and all its preparations. The first food taken should be farinaceous. Preparations of gluten and granola

may also be recommended. Perhaps the most wholesome of all foods for such a case is rice, either boiled rice, toasted rice flakes, or toasted rice biscuit. Rice is recommended in this disease because of the small amount of alkaline salts which it contains, which renders it the least irritating and taxing to the kidneys of any known food. The best authorities now agree that no food at all should be given for one to three days. Water should be administered freely—three teaspoonsful every hour—but no food of any kind should be given until the stools improve in character. When the fecor of the stools disappears, then rice water or barley water may be given in small quantity. In some cases, the white of an egg dissolved in water given in spoonful doses seems to be very well tolerated. Rice gruel is one of the very best foods which can be given in cases of this sort. It is highly important to withhold milk for some days. Buttermilk is tolerated much more readily than ordinary milk. A number of French physicians regard buttermilk as almost a panacea in cases of this sort. Yogurt buttermilk is to be preferred to ordinary buttermilk. Yogurt buttermilk may be prepared from Yogurt tablets by adding the tablets to boiled milk and keeping it at a temperature of 105 or 106 degrees for ten or twelve hours. When the bowel trouble has ceased, a larger variety of food may be taken, such as toasted rice flakes, toasted rice biscuit, gruel prepared from toasted rice meal, boiled rice, zwieback or breakfast toast, granola, granuto, malt honey or meltose, granose biscuit, granose flakes and ricoco; and later, when the bowel action is well established, malted nuts may be used to great advantage. The use of malted nuts may be continued for months.

It is an excellent substitute in cases in which milk does not agree well.

CHOLERA INFANTUM

Symptoms.—Vomiting and purging, sometimes almost incessant; spasmodic pain in stomach and bowels; great prostration; bowels bloated or sunken; other symptoms mentioned in connection with the preceding disease.

Recent investigations have shown that cholera infantum is probably due to poison produced by a germ or germs known as tyrotoxinon or other similar poisons. This poison was first found in cheese by Professor Vaughan, of the University of Michigan.

Treatment.—The treatment should be essentially the same as that described for cholera morbus. The application of cold to the stomach is also very beneficial. When the child cannot swallow ice, ice water may be given in very small quantities every few minutes. A matter of very great importance in the treatment of cholera infantum is giving the stomach entire rest. No attempt should be made to feed the child for at least twenty-four hours. There will be no suffering for want of food if it is withheld as long as the stomach is in such a condition.

This poison is readily formed from milk, but not so readily developed from other substances; hence the necessity of withholding milk in these cases until nature has had time to rid the alimentary canal of the poison-producing germs.

CROUP

Symptoms.—At first, those of a slight cold or catarrh,—slight fever, hoarseness, cough, running at the nose; after a few hours, fits of coughing, increased hoarseness, and harassed respiration, spasm of the muscles of the throat; characteristic symptoms now appear,—brassy, ringing, or barking cough, accompanied with a crowing sound, increased fever, embarrassment of the respiration, irregularity of the pulse, features expressive of distress, patient worse at night and better toward morning; in fatal cases, drowsiness increases, breathing becomes more embarrassed, lungs congested, skin covered with cold sweat; finally, coma, asphyxia, and death.

Causes.—The causes of croup are not thoroughly understood. Many physicians now believe it to be identical with diphtheria. It is well known that in many cases, at least, croup is contagious, and hence should be treated as a contagious malady like diphtheria, scarlet fever, or smallpox. It occurs most frequently in children from two to six years of age, more often in boys than in girls. The disease is characterized by the formation of a false membrane in the larynx and trachea. It sometimes also affects the pharynx. The danger to life is from suffocation.

Treatment.—The old treatment, by applying anti-mony, mercury, and blisters, was in the highest degree unsuccessful. According to Tanner, one-half the persons treated by this plan died. The disease is a very severe one and sometimes difficult to manage, but with proper treatment from the first, few cases will prove fatal.

Apply hot water to the throat by means of sponges

or flannels wrung out in hot water, as directed for acute catarrh of the larynx. If relief is not quickly secured, exchange the hot applications for cold ones, and if some relief is obtained, keep the cold constantly applied. If necessary, use ice compresses. This measure must be employed thoroughly to be of any value whatever. Early in the disease, it may prevent the formation of the false membrane. If it is not used early enough or with sufficient thoroughness to accomplish this, measures must be employed to secure an early separation of the false membrane from the mucous membrane of the larynx. For this purpose hot and cold applications should be applied to the throat, and the patient should be made to inhale the vapor of hot water, as hot as can be borne and as large a portion at a time as possible. The vapor may be inhaled through an apparatus for the purpose, or from a teakettle or teapot. A paper cone may be arranged in such a way as to conduct the steam to the patient's mouth. A very excellent method of generating steam for this purpose is to slake lime in a teapot, and have the patient inhale the vapor through the nozzle. We have used this method on several occasions with complete success. The vapor of warm vinegar is also sometimes useful. Among the most serviceable remedies for causing separation of the false membrane may be mentioned lime-water, vinegar, and a strong solution of chlorate of potash taken by means of an atomizer. The chlorate of potash solution should be hot when taken, and the patient should inhale it a large part of the time.

It is of the greatest importance that the temperature of the room in which the patient is placed should be carefully regulated. The air should also be kept thoroughly saturated with moisture by boiling water

or by means of slaking lime. The latter method has been frequently employed with success, the lime being placed in a tub near the center of the room or near the patient, and water applied to it. Sponging of the hands, feet, arms, and limbs is also recommended for this disease.

If the patient becomes so greatly exhausted that he loses the ability to cough, although the membrane may be separated sufficiently to allow expectoration, means should be adopted to restore the patient as much as possible. Dr. Niemeyer recommends placing the patient in a warm bath and pouring cold water on his head, the back of the neck, or spine, for the purpose of exciting increased nervous activity, particularly to excite cough, thus enabling the patient to throw out the loosened membrane. In case all other measures fail, and suffocation seems impending, as shown by increased difficulty in breathing, blueness of the skin, etc., the surgical operation of laryngotomy or tracheotomy should be performed. This consists in making an opening into the larynx or trachea and passing in a silver tube through which the patient can breathe. Life has many times been saved in this manner.

INFLUENZA—CATARRHAL FEVER—LA GRIPPE

Symptoms.—Chilly sensations and flashes of heat; cold in the head, with copious, irritating discharge; eyes red and tearful; tickling in the throat; hoarseness; soreness of the throat; dry, irritating cough; pain and difficulty in breathing; great weakness; high fever; sleeplessness, or unnatural drowsiness; duration of disease three to ten days.

This is a disease which often affects whole cities or states at the same time, often making its appearance with great suddenness. Not infrequently lower animals are affected at the same time with human beings. The disease is undoubtedly infectious, though not contagious. It is rarely fatal, recovery usually occurring within a very few days, although local irritation of the air passages and general weakness may continue for some time.

Treatment.—Warm blanket packs, vapor baths, hot-air baths, fomentations to the lungs, and cool or tepid sponging, with cool compresses when there is considerable fever, are the most important measures of treatment. The inhalation of hot steam should be tried when there is much bronchial irritation. When the nasal passages are obstructed, much relief will often be obtained by rubbing the nose with sweet oil or vaseline. The Perfection Vaporizer and antiseptic throat solution, B. C. M. E. W., will be found of great value. Compound tincture of benzoin, 6 dr.; oil cinnamon, oil wintergreen, oil eucalyptus, menthol crystals, each, 1 dr.; alcohol, 15 dr.

ALCOHOLISM

Moderate drinkers do not escape. “Chronic alcoholism” is the disease which fastens upon them, and its symptoms are as distinct as those of any other disease. Gout and rheumatism are the special patrons of the moderate toppers, the wine-bibbers. Neuralgia is another comforter of small tipplers. General nervous debility and dyspepsia also find a great proportion of this class among their victims.

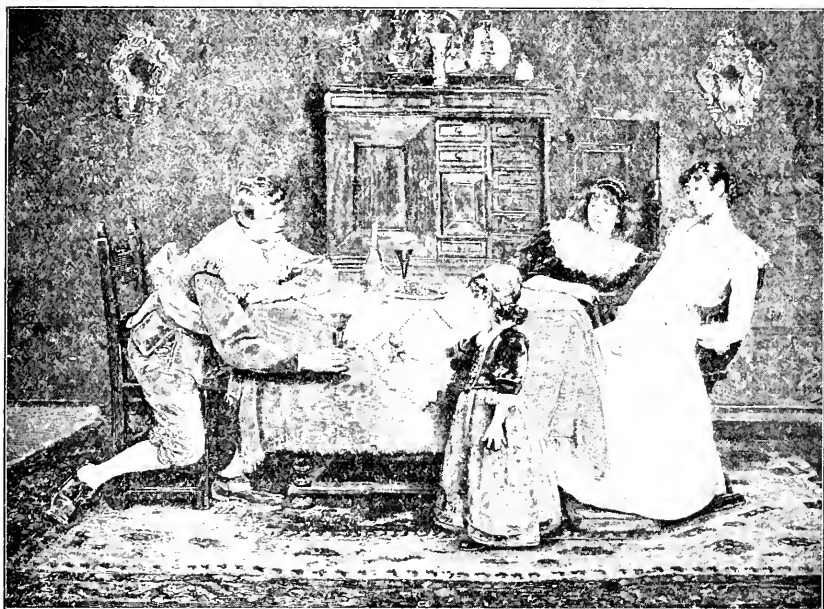
It is quite useless for moderate drinkers to suppose that by using alcohol in small quantities they escape its evil effects. It is a poison in all doses. As Dr. Smith says, "In whatever dose, the direction of the action of the alcohol must be the same."

Says Dr. Chambers, "The action of frequent divided drams is to produce the *greatest amount of harm* of which alcohol is capable, with the least amount of good." It may be said, without exaggeration, that moderate drinking occasions all the ill effects of intemperance; for every drunkard begins his course as a moderate drinker.

James Miller, in his work on alcohol, says, "Alcohol to the working human frame is as a pin to the wick of an oil-lamp. With this you raise the wick from time to time, and each raising may be followed by a burst of brighter flame; but, while you give neither cotton nor oil, the existing supply of both is, through such pin-work, all the more speedily consumed."

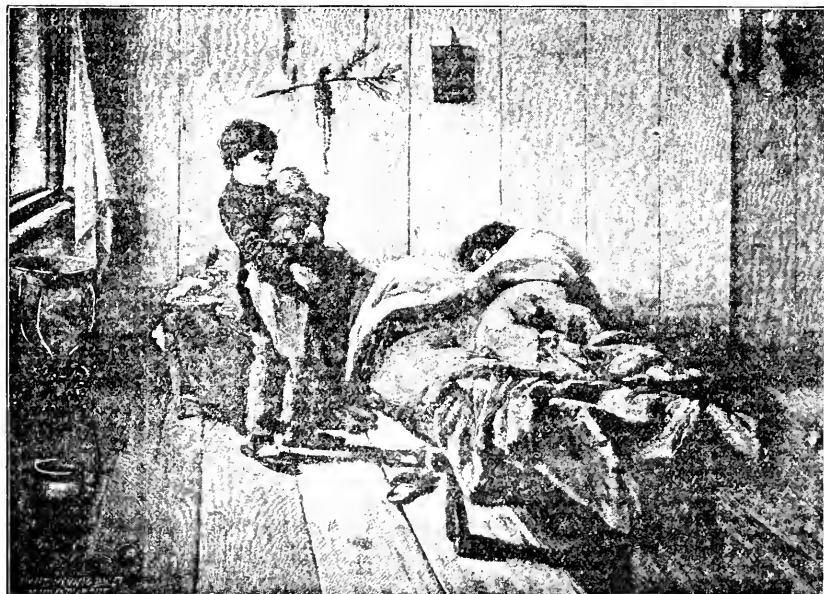
The effect of the constant action of a small quantity of the poison is far greater than that of excessive, but only occasional, quantities. Hence the habitual moderate drinker, even of wine, beer, or hard cider, is much more subject to chronic nervous disorders and degenerations of various sorts than the man who goes on a spree once in two or three months.

Hereditary Effects of Alcohol. — The drinker himself is not the only sufferer from his vice. Indeed, it seems in many cases that he is not the greatest sufferer. He may even live out his threescore years and ten, in apparent defiance of the laws of nature and the warnings of friends; but look at his children. Says the eminent Dr. Parker, "The hereditary influence of alcohol manifests itself in various



SOWING THE TARES

749-a



THE DRUNKARD'S HARVEST

749-b



Healthy Stomach.



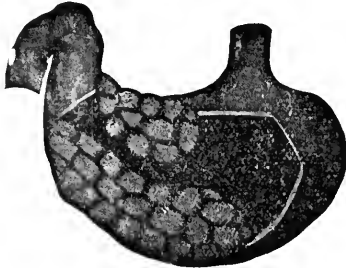
Moderate Drinker's Stomach.



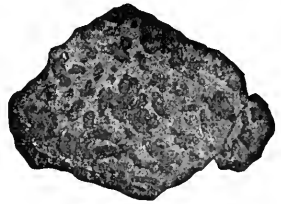
Drunkard's Stomach.



Delirium Tremens.



Cancer.



Gin Liver.



Drunkard's Ring.



Smoker's Cancer.

ways. It transmits an appetite for strong drink to children, and these are likely to have that form of drunkenness which may be termed paroxysmal; that is, they will go for a considerable period without indulging, placing restraints upon themselves, but at last all the barriers of self-control give way, they yield to the irresistible appetite, and then their indulgence is extreme. The drunkard by inheritance is a more helpless slave than his progenitor, and the children that he begets are more helpless still, unless on the mother's side there is engrafted upon them untainted stock. But its hereditary influence is not confined to the propagation of drunkards. It produces insanity, idiocy, epilepsy, and other affections of the brain and nervous system, not only in the transgressor himself, but in his children, and these will transmit predisposition to any of these diseases."

Effects of Alcohol upon the Character.—The ultimate effects of alcohol upon the character are well shown by its immediate effects. As the cerebrum is gradually brought under the influence of the drug, the will becomes dormant and the leading characteristics of the mind become predominant. A man under the influence of liquor shows out his real character. The restraining influences of culture and education are lost, and those tendencies and properties which have been held in check by force of will, assert their sway, and all that is low and beastly in the individual comes to the surface. It is this that causes individuals to commit, under the influence of drink, crimes which they would never have perpetrated in their sober moments. It is rare indeed that a premeditated murder is committed without the murderer being under the influence of drink. He feels the need of something to paralyze

the voice of conscience and make powerless the moral force of education, of natural regard for human life; and alcohol does just that.

The Cure of Intemperance.—The only cure for a drunkard is total abstinence. A person who has once been greatly addicted to the use of alcohol cannot use it in moderation. A person who is suffering from any of the functional diseases induced by alcohol must relinquish all stimulants if he would recover. Substitutes in the shape of tobacco, strong tea and coffee, even of soda water, are dangerous. Tobacco produces a desire for liquor in one who has been accustomed to drink. Tea and coffee have similar effects, though in much less degree. The drinking of large quantities of fluid of any sort is injurious, as it produces a relaxed state of the stomach which causes a craving for stimulus. The "cinchona cure" of the appetite for liquor is worthless. The only plan which affords a way of escape from the haunting clamors of appetite in a person trying to reform is that proposed by Mr. Napier, who a few years ago read before a learned society in England a paper giving an account of the cure of a large number of cases of drunkenness by the adoption of a vegetarian diet.

LIMIT OF THE PERIODS OF INCUBATION AND CONTAGION IN INFECTIOUS MALADIES*

Diphtheria.—The average incubation period is two days, more rarely four days, and occasionally seven days. The virulence of contagion is very great. In-

* For description and cure of these and other diseases not treated in this work, see "Home Book of Modern Medicine," by J. H. Kellogg, M. D.

fection may occur at any period of the disease, and the disease may be communicated by contaminated clothing or any other objects, for several months after exposure.

Measles.—The incubation period of this disease varies from four to sixteen days. The danger of contagion exists during the whole course of the disease, but disappears very rapidly after convalescence. Danger of transmission of the disease through the clothing probably exists only a short time after contagion.

Rotheln (Rubella).—The incubation period of this disease is very variable, the average being about eighteen days. The contagion is most active just before the appearance of the eruption, and during its development. The contagion period continues for a short time after the eruption is fully developed.

Mumps.—The incubation period is the same as that for rotheln. Contagion is greatest during the first three or four days.

Smallpox.—The average incubation period is twelve days; the minimum, nine days; the maximum, fifteen days. Contagion may occur at any period of the disease. Infection may occur through personal contact or through the clothing.

Chickenpox.—The incubation period is fourteen to twenty days. It is less contagious than smallpox, and is greatest during the period of eruption.

Scarlet Fever.—The incubation period is very short, rarely reaching six days. The contagious elements persist a long time after recovery, lasting three months at least.

Typhoid Fever.—The average period of incubation is twelve to fourteen days; sometimes nine days; occasionally twenty-four days. Contagion may occur at

any period of the disease, and even during two weeks after recovery. The contagious elements in the discharges or clothing remain active at least two months.

ACCIDENTAL POISONING

General Treatment.—Whatever treatment is employed should be applied with the utmost promptness and thoroughness. As a general rule, the first thing to be thought of is an emetic. A teaspoonful of ground mustard, or an equal quantity of powdered alum in a goblet of warm water, generally acts with promptness. If neither alum nor mustard are at hand, a teaspoonful of salt may be taken in the same way, or tepid water alone may be employed, and if taken rapidly and in sufficient quantity, vomiting will be very likely to occur. In case it is not produced promptly, the throat should be tickled with the finger or a feather. An eminent physician has recommended the following as a general antidote for poisons. It renders insoluble such poisons as zinc, arsenic, digitalis, etc., and so makes them inert. A saturated solution of sulphate of iron, two ounces; calcined magnesia, two ounces; washed animal charcoal, or bone-black, one ounce. The iron solution should be kept in one bottle, and the calcined magnesia and charcoal in another. When wanted for use, add the contents of the two bottles to a pint of water, shake, and take three to six tablespoonfuls.

Specific Methods of Treatment.—Nearly all cases of poisoning may be successfully treated by means of some one of the following methods, the particular application of which is pointed out in the alphabetical list of poisons which follow them:

Method 1.—Give the patient at once a teaspoonful of ground mustard or powdered alum in a glass of warm

(not hot) water, giving afterward several glasses of warm water. If vomiting is not quickly produced, tickle the throat with the finger or with a feather. Repeat the vomiting until certain that the stomach is completely empty. If the poison is of an irritating character, give milk or white of egg after vomiting.

Method 2.—(ALKALIES).—Give two or three tablespoonfuls of vinegar in half a glass of water, or the juice of two or three lemons; then give three or four tablespoonfuls of olive oil and a large draught of milk. Do not give emetics nor use the stomach-pump. Ammonia, a volatile alkali, when inhaled, should be antidoted by the inhalation of the vapor of hot vinegar by means of a vapor inhaler or an ordinary teapot.

Method 3.—(ACIDS).—Give a teaspoonful of baking soda in a glass of milk or water. In the absence of soda, give a teaspoonful of soft soap or an equal quantity of shaved hard soap, magnesia, or chalk. Give white of egg and plenty of milk; but do not use emetics nor the stomach-pump.

Method 4.—(METALLIC POISONS).—Give white of egg, either clear or stirred in a little cold water, and a mustard or alum emetic. After patient has vomited freely, give plenty of milk or white of egg, or a thin mixture of wheat flour and milk. Do not wait to get the egg if it is not convenient, but give emetic at once and egg afterward.

Method 5.—(NARCOTIC POISONS).—Give two or three tablespoonfuls of powdered charcoal. If a supply is not ready at hand, take a coal from a wood fire, quench it, fold in a towel, and crush as fine as possible with a hammer or mallet. Next apply Method 1, or excite vomiting while the charcoal is being prepared. After the patient vomits, give charcoal again

freely. It will do no harm in almost any quantity. Apply ammonia to the nostrils, give strong tea or coffee, and make alternate hot and cold applications to the spine. Also apply friction to the surface, and arouse the patient by walking him about, if possible. When the respiration becomes very weak, artificial respiration should be resorted to.

Method 6.—(COMPOUNDS OF ARSENIC).—Apply Method 1, and soon as possible give the sediment, or precipitate, obtained by adding ammonia or soda to tincture of muriate of iron. The precipitate should be thrown on a towel and rinsed with clean water two or three times. The tincture of iron can be obtained at any drug store, and should always be kept in the house whenever arsenic in any form is kept. It is well to give milk and white of egg freely after the patient vomits.

Method 7.—Apply Method 1, then give strong tea or decoction of oak-bark, or infusion of tannin.

Method 8.—Pour cold water on the head, make alternate hot and cold applications to the spine, and resort to artificial respiration. Hot fomentations over the heart are useful to excite this organ to increased activity when it is flagging. Artificial warmth, friction to the surface, and the inhalation of ammonia are also useful measures. In case of asphyxia from anesthetics, the patient should be held with the head downward, while artificial respiration is being practiced.

Method 9.—Apply Method 1, and then make cold applications to the head, hot and cold applications to the spine, and surround the patient with hot bottles or hot-water bags, or administer a hot bath or a hot blanket pack. Apply a hot fomentation over the heart. Make patient drink copiously of hot drink of some kind.

POISONS AND THEIR ANTIDOTES

| NAME OF POISON. | ANTIDOTE AND TREATMENT. | NAME OF POISON. | ANTIDOTE AND TREATMENT. |
|---|--|---|---|
| Acid, Acetic..... | Method 3. | Chlorine Gas..... | Method 8 and inhalation of ammonia, ether or alcohol, and steam. |
| Acid, Muriatic or Hydrochloric | Method 3. | Caustics (See Acids and Alkalies) | |
| Acid, Nitric | Method 3. | Chloral | Method 5. Artificial respiration with head down. |
| Acid, Sulphuric | Method 3. | Chloroform | Method 5. Artificial respiration with head down. |
| Acid, Hydrocyanic or Prussic | Method 8 and inhalation of ammonia and chlorine from moist chloride of lime. | Chloride of Iron | Method 1, magnesia, plenty of tea. |
| Acid, Citric..... | Method 3. | Chromium | Method 1, magnesia or chalk in milk, white of egg. |
| Acid, Oxalic | Method 3. Give also powdered chalk or plaster, sweetened lime-water, and milk. | Cocculus Indicus | Method 5. |
| Acid, Arsenious | Method 6. | Colchicum | Method 5. |
| Acid, Carbolic | Method 3. | Copper and its compounds | Method 4. |
| Aconite | Method 5. | Copperas | Method 1, magnesia, large drafts of tea. |
| Alcohol | Method 5. | Corrosive Sublimate .. | Method 4. |
| Aloes | Method 1. | Cotton Root | Method 1. |
| Alum | Method 1. | Creosote | Method 3. |
| Ammonia | Method 2 and inhalation of steam for several hours. | Cream of Tartar | Method 1. |
| Anæsthetics | Stimulants, artificial respiration. | Croton Oil..... | Warm-water emetic, milk, and white of eggs. |
| Antimony | Method 7. | Cyanide of Potash | Method 8 and inhalation of ammonia and of chlorine from moist chloride of lime. |
| Arsenic and its preparations... .. | Method 6. | Deadly Nightshade ... | Method 5. |
| Atropia | Method 5. | Digitalis | Method 5 with fomentations over the heart. |
| Aqua Fortis | Method 3. | Elaterium | Method 1 |
| Aqua Regia | Method 3. | Ergot | Method 1. |
| Barium and its compounds | Method 1 and Glauber's or Epsom salts. | Ether | Method 8 with the head down. |
| Belladonna | Method 5. | Fungi | Method 9. |
| Bitter Almonds, essence or oil of | Method 5 and inhalation of chlorine from moist chloride of lime. | Fool's-Parsley..... | Method 9. |
| Bitter Sweet | Method 1. | Fox-glove | Method 5 |
| Bismuth | Method 4. | Gases, poisonous... .. | Method 8. |
| Blue Vitriol | Method 4. | Gambose | Method 1. |
| Bromine | Inhalation of ammonia and vapor of alcohol. | Garden Nightshade .. | Method 5. |
| Calabar Bean | Method 5. | Gelsemium | Method 5. |
| Calomel | Method 4. | Green, Paris. | Method 6. |
| Camphor | Method 1. | Green Vitriol | Method 1, magnesia and copious drafts of tea. |
| Cantharidea | Method 1. | Hartshorn | Method 2. |
| Carbolic Acid | Method 3. | Hellebore | Method 5. |
| Carbonic Acid Gas .. | Method 8. | Hemlock | Method 5. |
| Carbonic Oxide Gas .. | Method 8. | Henbane | Method 5. |
| Castor Oil Seeds | Method 5. | | |
| Coal Gas | Method 8. | | |

| NAME OF POISON. | ANTIDOTE AND TREATMENT. | NAME OF POISON. | ANTIDOTE AND TREATMENT. |
|--------------------------------------|---|--------------------------|--|
| Hydrochloric Acid | Method 3. | Phosphorus | Method 1 and skim-milk. Do not give oil. |
| Hydrocyanic Acid..... | Method 8. (See Cyanide of Potash) | Poke | Method 5. |
| Hyocyanus | Method 5. | Potash..... | Method 2. |
| Indigo | Method 1. magnesia in milk. | Potash, Bitartrate of .. | Method 1. |
| Iodine, | Method 1 and starch or flour paste. | Potash, Bichromate of | Method 4. Also give chalk or magnesia. |
| Iodide of Potash | Method 1. | Potash, Cyanide of..... | Method 8 (See Cyanide of Potash). |
| Iron, Chloride and Sulphate of | Method 1, magnesia and plenty of tea. | Potash, Nitrate of .. | Method 1. |
| Jalap | Method 1. | Potash, Sulphate of .. | Method 1. |
| Laudanum | Method 5. | Prussic Acid | Method 8. Inhale ammonia and chlorine from moist chloride of lime. |
| Lead and its comp'nds | Method 4 and Glauber's or Epsom salts in tablespoonful doses in milk. | Pulsatilla | Method 5. |
| Litharge | Method 4 and Glauber's or Epsom salts in tablespoonful doses in milk. | Quicklime | Method 2. |
| Lime | Method 3, large doses of sugar | Rhubarb | Method 1. |
| Lobelia Ind'n Tobacco | Method 9. | Red Precipitate | Method 4. |
| Lunar Caustic | Method 4. | Savine | Method 9. |
| Mercury, its comp'nds | Method 4. | Silver Nitrate of | Method 4. |
| Monk's-hood | Method 5. | Soothing Syrups | Method 5. |
| Morphia | Method 5. | Soda Caustic..... | Method 2. |
| Muriatic Acid | Method 3. | Spigella | Method 5. |
| Mushrooms | Method 9. | Stramonim. | Method 5. |
| Narcotica | Method 5. | Strychnia | Methods 1 and 8, inhalation of chloroform. |
| Nicotine | Method 9. | Sugar of Lead | Method 4, Glauber's or Epsom salts in tablespoonful doses in milk. |
| Nightshade..... | Method 5. | Sulphate of Copper | Method 4. |
| Nitrate of Silver | Method 4. | Sulphate of Iron | Method 1, magnesia and tea. |
| Nitrate of Potash .. | Method 1. | Sulphate of Zinc | Warm-water emetic, plenty of milk. |
| Nitrate of Mercury | Method 4. | Sulphureted Hydrogen | Method 8. |
| Nitre | Method 1. | Sulphuric Acid | Method 3. |
| Nitric Acid | Method 3. | Sulphurous Acid Gas | Method 8. |
| Nitro-Benzol | Method 9. | Tartaric Acid | Method 3. |
| Nitrous-Oxide Gas | Method 8. | Tartar Emetic | Method 7. |
| Nitro-Muriatic Acid ... | Method 3. | Thorn-apple | Method 5. |
| Nux Vomica | Methods 1 and 8. Inhalation of chloroform. | Tin, compounds of. ... | Method 1. |
| Oil, Pennyroyal..... | Method 1. | Toadstools | Method 9. |
| Oil, Savine..... | Method 9. | Tobacco | Method 9. |
| Oil, Tansy | Method 9. | Veratrum | Method 7. |
| Oil, Vitriol | Method 3. | Verdigris | Method 4. |
| Oleander | Method 9. | Vermillion | Method 4. |
| Opium and its comp'ds | Method 5. | White Lead | Method 4. Glauber's or Epsom salts in tablespoonful doses in milk. |
| Oxalic Acid | Give pulverized plaster or chalk, or sweetened lime-water, and milk. | Water Hemlock, | Method 5. |
| Paris Green | Method 6. | White Vitriol, | Warm water emetic, milk. |
| Peach-plits | Method 9. | White Precipitate | Method 4. |
| Pearlash | Method 2. | Wolf's-bane | Method 5. |
| Potato Balls | Method 9. | Yew | Method 9. |
| Potato Sprouts | Method 9. | Zinc, Chloride of | Method 1. |

OBSTETRICS, OR MIDWIFERY

WE shall not attempt to enter into the technicalities of this subject, as this is forbidden both by the object of this work and the space which can be properly devoted to it. We wish, however, to especially emphasize the fact that the art of midwifery is one which is worthy of the very highest skill and ability. The once popular notion that it is something that should be left entirely to nurses and old women is in the highest degree pernicious. While childbirth is a function which, when naturally performed, is attended by little risk to either mother or child, and requires but a very moderate amount of skill or knowledge to meet all the necessary requirements, yet various accidents, irregularities, abnormal conditions, and unexpected deviations from the natural course of events are likely to occur at any time, without previous warning, being often of so serious a nature as to threaten the life of both mother and child. To meet some of these emergencies, the very highest skill and the fullest knowledge are often required. Hence this essential art should not be left in the hands of the ignorant; and it is important that the public should be informed upon the subject sufficiently to at least appreciate the necessity for, and the full value of, skill and experience in this department of medical science.

In cases in which the pain begins and ends with the menstrual flow, relief may generally be obtained by dilatation of the neck of the womb, an operation which

is devoid of danger when performed under the aseptic conditions which are now so thoroughly understood.

Having mentioned in a previous chapter (page 484) the essential points relating to the hygiene of pregnancy, we pass immediately to the consideration of—

LABOR, OR CHILDBIRTH

The duration of pregnancy is generally from 278 to 300 days. At the end of this period, labor, or parturition, occurs, the process by which the new human being is brought into the world. This process sometimes begins suddenly, but generally gives indications of its approach for some days or at least hours.

The symptoms of the approaching conclusion are, gradually increased irritability of the bladder, with much difficulty in standing or walking, and a change in form of the abdomen, which results from the settling down of the womb, leaving the waist smaller, but increasing the prominence of the lower portion of the abdomen a short time before the labor is to begin. Also the external parts become swollen, and there is a leucorrhœal discharge of a thick, clear matter somewhat resembling the white of an egg. Uterine contractions, quite painless in character, are also indicative of the approaching crisis. These contractions at first occur at irregular intervals. When they become regular, the labor has begun. The pains usually begin in the back and sacrum, and extend to the front part of the abdomen. What are termed false labor pains arise from colic, constipation, or irritation of the bowels. They differ from labor pains in being irregular. The term pain, as used in obstetrics, is applied to the spasmodic

uterine contractions which take place, together with the pain incident to the same.

Presentation and Position.—The term *presentation* has reference to the particular part of the body which presents at the mouth of the womb. The term *position* has reference to the location of the presenting part in the passages of the mother. The most usual presentation is the head. Occasionally the other extremity of the trunk takes precedence, forming what is termed a “breech presentation.” In still other cases the body lies crosswise of the outlet, a presentation which must be modified in some way before the infant can be born.

There are various modifications of each of these classes of presentation, that is, other parts of the head may present. In a perfectly natural labor, the vertex of the head is the presenting part.

Stages of Labor.—The labor is divided into three stages:

1. Dilation of the mouth of the womb. This is indicated by cutting pains felt mostly in the back, contractions taking place in the womb only, and gradually growing more and more frequent until the neck of the womb is fully dilated.

2. Expulsion of the child, by means of stronger contractions, in which the abdominal muscles contract, as well as the uterus.

3. The expulsion of the after-birth.

The average length of labor in women who have previously borne children is about six hours, the first four of which are occupied in the first stage, and the latter two in the second stage. The after-birth is often expelled at once after the expulsion of the child, but is more often retained five to thirty minutes.

The first and second stages of labor are generally considerably prolonged. Some women, especially those who have broad hips and are well adapted to childbirth, pass through the process of labor in a much shorter space of time, in some cases not more than thirty minutes or an hour being occupied. In women who have not borne children before, especially those who are somewhat advanced in life, labor is often greatly prolonged.

Various obstacles frequently arise to delay the process; such as, inactivity of the womb, rigidity of the neck of the womb or of the perineum, and contracted pelvis.

Management of Labor.—In the first place, the services of a competent attendant should be secured. The attendant should, if possible, be a thoroughly trained physician. This is a field in which woman as a physician can fill a very useful sphere. Under no circumstances, except in emergencies, should the important process of parturition be placed wholly in the hands of a midwife whose qualifications, such as she may possess, are wholly derived from experience at the bedside, no matter how large may be the number of cases she has attended. No one person could by practical experience alone in a lifetime acquire all the knowledge necessary to meet the urgent emergencies which are liable to arise at any time in childbirth. The science and art of obstetrics have been developed by a very slow process, and as they exist at the present day, are the result of the combined experience of physicians during the last two thousand years. Thorough theoretical knowledge is indispensable as a foundation for practical skill. This, of course, must be supplemented by actual experience.

As soon as the first labor pains make their appearance, the physician should be promptly notified, and also the nurse, if the latter is not already present. The room in which the patient is to be confined should be a light, airy, and pleasant one. But few persons should be allowed to be present, and these should be such as are desired by the patient, and no others.

So far as consistent, all her wishes should be complied with, so that she may be in a pleasant state of mind, no mental influence present as an obstacle to prevent the completion of the process in which her physical and nervous powers will be taxed to the uttermost. No remark of a discouraging nature should be uttered in the presence of the patient, but hope and confidence should be inspired.

During the first stage the patient need not go to bed. In fact, it is better that she should sit up, as the sitting posture favors the progress of labor. This need not be required, however, if the patient prefers to be in bed. During this stage the patient should quietly allow nature to carry on the work without any attempt to hasten matters by "bearing down," as she may often be encouraged to do by ignorant friends. These voluntary efforts are of no consequence until the neck of the womb is fully dilated. The patient should be allowed to drink cold water or weak lemonade as freely as desired; but stimulants should not be given, as they produce a feverish state of the system without giving any real strength. Hot teas are also better withheld. If the bowels have not moved freely, they should be relieved by a full enema.

During the first stage, the bed should be made in readiness. The feather bed, if in use, should be removed and replaced by a moderately hard mattress.

Over this should be placed a large rubber cloth three or four feet wide and six feet long. This should be covered with a comfortable, and a sheet placed over all.

At the beginning of the second stage the patient should go to bed, and her clothing should be drawn up under her arms, so that it will not be soiled, the lower portion of the body being protected by a sheet or petticoat. The patient may lie on the left side or on the back. If the fetus is strongly inclined toward the right side, the patient should lie upon the left side. During the severe pains which characterize the second stage of labor, the back of the patient should be supported by firm pressure with the hand. The knees should be drawn up, and fixed in such a position as to give them support during the pains. The nurse should take hold of the hand or wrist of the patient to give her an opportunity to make firm traction during the pain. In the intervals between the pains, if the patient is exhausted, she should be allowed to sleep, if possible, in order to recuperate her strength. When the face becomes hot and flushed, it should be bathed with cool water. As the termination of labor approaches, as indicated by the increasing severity and frequency of the pains, which at this time often become almost continuous, a large pailful of hot water should be brought to the bedside, together with a large pan, to be ready for any emergency. A siphon syringe should be filled with hot water and held ready for use. A bottle of camphor should also be at hand, and a strong cord, made of silk or linen thread twisted and well waxed, with a pair of scissors, should be in readiness for prompt use.

As the head of the child presses severely upon the perineum, the efforts of the patient should be re-

strained, to avoid rupture by giving the tissues time to dilate. As soon as the head passes out, the cord should be felt for, as it is sometimes wound around the neck in such a way as to interrupt the circulation as the strain is brought to bear upon it. It also sometimes happens that knots are tied in it, which being tightened by the strain may cut off permanently the supply of blood from the child. If the body is not speedily expelled, the child may be withdrawn by making traction with the finger placed in the armpit.

As soon as the child is born, the hand of the nurse should be placed upon the abdomen of the mother in such a way as to grasp the upper part of the womb, firm pressure being made for the purpose of securing contraction of the organ. This pressure should be continued until the after-birth is expelled and the bandage applied.

The child should be brought to the edge of the bed as soon as it is born, and examined. Generally it utters a cry immediately, which indicates that its lungs are filled with air. In case it does not cry, but breathes feebly, or only gasps, the hand should be dipped in cold water and placed upon its chest, or the chest may be slapped with the hand. This will generally be sufficient to start the respiration. If the child is limp and pale, and makes no efforts whatever at respiration, it should be immediately inverted, being held with the head downward, and hot flannels should be wrapped about it. Efforts should be made to excite respiration by compressing the chest at intervals of a few seconds. Care should also be taken to see that the mouth is cleared of mucus, though this is not likely to be necessary, unless the child has begun to breathe just as the head is being born and has drawn

mucus into the throat. If the face has a purplish appearance, the child should be placed at once in a warm bath, temperature 105° , or as hot as can be safely used without injury to the skin, and cold water should be dashed upon the chest. Artificial respiration may also be employed at the same time. These measures should be continued for some time, and should not be abandoned so long as any evidence whatever of the action of the heart can be obtained.

As soon as the child breathes freely the cord should be tied in two places; the first about two inches from the body, the other about three inches. The child should then be laid upon its side, not on the back, as the side position favors the escape of mucus from the throat.

Washing and Dressing the Child.—If the birth is a premature one, having occurred before the infant fully developed, its movements will be slight and feeble, its cry will be very faint, and the countenance will have a peculiarly old expression. Such a child requires extra care and warmth. It should be carefully wrapped in soft cotton. Great care will be required in rearing it, as at first it will be too weak to nurse, and must be fed with a spoon. It should not be washed and dressed for some time, and should be kept very warm. Care should be taken in washing the child not to expose it to cold, producing blueness of the surface, as is often done. The fact should be remembered that the infant during all its life thus far has been accustomed to a temperature of nearly 100° , and being wholly without protection when born, and keenly susceptible, it must suffer quite severely from cold.

The best plan is to place the child in a warm bath, the temperature of which is about blood heat, and then

rub it gently with a sponge dipped in warm, weak suds made of castile soap. If the surface is covered with curd-like matter, as is sometimes the case, it should be smeared with a mixture of equal parts of egg and sweet oil beaten up together. After the bath, the surface of the skin should be anointed with a little olive oil or vaseline. If some portions of the curdy matter seem to be firmly adhesive to the skin, no violent efforts should be made to remove them, as they will dry and disappear in a short time without further attention. After being thoroughly washed, the child should be carefully examined to see that it possesses no deformity. The outlets of the body should receive particular attention, as in some cases the anus or urethra are closed.

The best method of dressing the cord is this: Grasp the cord with the thumb and finger close to the body, cutting it off at ligature. Squeeze out all its contents by pressure with the thumb and finger of the other hand, keeping a firm grasp upon it with the thumb and finger first applied so as to prevent hemorrhage. Now apply another ligature about an inch from the end of the stump. By this means the cord will be very greatly reduced in size and may be much more easily dressed than when treated in the usual way. Make an opening through the center of a properly prepared layer of antiseptic cotton, large enough to lay over the cord. Slip this over the cord, then fold up the edges around the cord, lay flat upon the abdomen, and cover with a proper bandage. When treated in this manner, the stump of the cord will usually separate in four or five days, and the resulting raw surface will quickly heal. It is generally customary to next apply what is termed the belly-band. This is not so important

as many suppose, if indeed it is needed at all, which we very seriously doubt. If applied, it should not be drawn too tight, and should be fastened with tapes instead of pins. The best material to use is very soft flannel. When the dressing is completed, the infant should be placed in a warm bed; but its head should not be covered, as it needs an abundance of air. The infant, when thus properly dressed, generally sleeps several hours. When it awakes, it should be applied to the breast. Although the milk is not yet formed, the efforts of the child to nurse will promote the secretion and will also benefit the child, as the first secretion furnished by the breast, a watery fluid known as *colostrum*, has a slightly laxative effect upon the bowels of the infant, freeing them from their dark green contents, which is termed *meconium*.

The Binder.—After the child has been born and its immediate wants attended to, the binder or abdominal bandage should be applied to the mother. The binder consists of a double thickness of strong muslin cloth or a large linen towel. It should be applied in such a way as to give the mother the least possible amount of inconvenience in the application. In fastening, it should be drawn so as to fit the body snugly and should be pinned from before downward. The bandage is generally applied more tightly than is necessary, the serious consequence of which is not infrequently prolapsus of the womb. In case there is any marked tendency to hemorrhage after the birth, a folded towel should be laid over the womb beneath the bandage. The soiled clothing should next be removed. The patient should be washed, and wiped dry, and a dry, clean sheet with old cloths for absorbing the discharges should be placed beneath the patient. Care

should be taken that the patient is warmly covered. A slight shivering will often occur, but this is generally from nervousness. If the patient has lost much blood or is very weak, the head should be placed low; only a very small pillow or none at all should be used. The patient should now be allowed to rest. Simple drinks may be allowed at pleasure, but stimulants are rarely called for. The patient will generally fall asleep if allowed to do so, and will awake after two or three hours, very much refreshed. Food may be taken at regular times, but should be simple and unstimulating. Milk, toast, oatmeal porridge, and occasionally soft-boiled eggs, should constitute the chief diet. Beefsteak and other meats are better avoided.

Attention should be given to the bowels and bladder. If the bowels do not move by the second day, an enema should be administered. Either tepid water or flaxseed tea may be employed. The bladder should be emptied within a few hours after labor. If there is inability to urinate, a warm fomentation may be applied over the bladder between the thighs, or a warm douche administered. This will usually bring relief, especially the latter measure, the patient being directed to urinate while the douche is being given. If these simple measures do not succeed, it will be necessary to use a catheter. The bladder should be relieved two or three times a day.

The first day, the discharge from the womb is of a bloody character; after this, it gradually becomes watery, and in from three to five days it becomes thicker. This is termed the *lochial* discharge, and generally continues from one to three weeks. It is often checked for a day or two at the time when the milk secretion begins. In order to prevent the discharge

from becoming offensive, as is sometimes the case, the vaginal douche should be taken at least twice a day; and when the discharge is very profuse, more frequently. The water employed should be quite warm, and should contain a teaspoonful of carbolic acid dissolved in a tablespoonful of glycerine or alcohol to the quart of water. The injection of hot water not only cleanses the parts, but stimulates complete contraction of the tissues, and thus prevents danger from hemorrhage, and hastens the process by which the organ returns to its natural size. A solution of permanganate of potash in the proportion of a teaspoonful of the crystals to a gallon of water, is also an excellent injection for use when the discharge is offensive. The carbolic acid solution should be thoroughly shaken before it is used. When blood reappears in the discharges after a few days, it is an indication that the process referred to is not taking place regularly and satisfactorily. This is generally the result of the patient's getting up too soon.

To Check the Secretion of Milk.—In some cases it becomes desirable that the secretion of milk should be checked. This is especially important in cases of still-birth. The most effective measure for checking the secretion of milk is to require the patient to abstain from the use of fluids of any sort. The food should be of a solid character. The thirst may be relieved by taking small quantities of ice. This should be continued until the fourth or fifth day, when there will usually be no further difficulty. The breasts should be partially relieved of their contents by the breast-pump or other means, but should not be entirely emptied. The application of the ice-pack or cold compresses to the breasts is also an excellent means for

diminishing the secretion. It is also a good plan to apply to the breasts two or three times a day a mixture of equal parts of sweet oil and spirits of camphor, and to keep the breasts constantly covered with a cloth saturated with spirits of camphor.

To Promote the Secretion of Milk.—This must be accomplished chiefly by regulation of the diet and attention to the general health, especially to the improvement of the digestion. The patient should make free use of liquid food, particularly fresh milk, sweet cream, oatmeal porridge, graham gruel, and other whole-grain preparations. Teas of various kinds are of little consequence and do not increase the quantity of milk, except by the addition of water. The use of wine, beer, ale, and other alcoholic stimulants is a practice to be in the highest degree condemned, as it not only deteriorates the quality of the milk, but makes the child liable to various diseases. An eminent physician declares that in many instances in which beer and ale are used, the infant is not sober a moment from the time it begins nursing until it is weaned.

Gentle manipulation of the nipple in imitation of the act of milking is in many cases very efficacious in promoting the secretion of milk. By this means, the secretion has been produced in women who had never borne children, and even in young girls and men in such a quantity as to enable them to perform the part of wet-nurse with entire success.

A more complete treatise on these and various other phases of this subject, including the use of anesthetics, and "Antiseptic Midwifery," may be found in the "Home Book of Modern Medicine," by J. H. Kellogg, M. D.

FEEDING AND CARE OF INFANTS

THE fact that fully one-third of the human family perish before the age of five years is sufficient apology for devoting a brief section to the consideration of this subject. Notwithstanding the immense number of physicians, nurses, and mothers who have had much experience in the rearing of children, the amount of accurate information on the subject of infant care and feeding possessed by the general public is very meager. We shall endeavor to summarize as precisely as possible the most reliable information to be gathered from experience and research on this subject.

INFANT DIET

Carefully collected statistics show beyond room for reasonable doubt that the most active cause of infantile disease is improper feeding. This cause is particularly active during the warm season of the year, which occasions the immense number of deaths from various digestive disorders at this period. The careful observance of the following suggestions will rarely fail to secure immunity from disorders of the digestive organs:

1. Milk is the natural and proper food for children from infancy to the age of twelve or eighteen months. Starchy foods cannot be digested, owing to the fact that the digestive element of the salivary secretion is

not formed in sufficient quantity during the first few months of life to render the child able to digest farinaceous foods, such as potatoes, rice, fine-flour bread, and the like.

2. As a general rule, an infant should be fed once in two or three hours during the daytime, and once at night, until one month old. After this time it should not be fed at night, and it should not take its food more frequently than once in three hours during the daytime until four months of age. Between four and eight months, the intervals should be gradually prolonged to four hours. After this time the fourth meal should be gradually dropped, so that at twelve months the child takes its food but three times a day.

3. If the child is deprived of its natural food, a healthy wet-nurse should if possible be secured,—at least until the child is two or three months old. When a suitable wet-nurse cannot be secured, milk from a goat or cow constitutes the best food. Care should be taken in the selection of cow's milk, that being preferred which is obtained from a cow which has calved two or three months previously. The health and care of the cow, particularly the character of her food, are matters of importance which should receive attention, as there is no doubt that consumption is frequently communicated to infants from cows whose lungs have become diseased through confinement in close stalls with foul odors, and deficient and improper food. Cow's milk should be diluted at first to one-half the proportion being gradually increased as the child's stomach is strong enough to bear it. Pure water, lime-water, barley-water, and thin well-boiled and strained oatmeal gruel, may be used to dilute the milk. The object of the dilution is, first, to render it more nearly like

mother's milk in the proportion of nutriment which it contains, and second, to render it less liable to form hard curds in the stomach, which are very likely to occur when the milk is taken undiluted.

4. Cow's milk, or other fluid food, is best given to an infant with a proper nursing bottle. The best forms of nursing bottles are those which are furnished with rubber caps. The cap should be removed and well cleansed with boiling water in which soda or saleratus has been dissolved in proportion of a teaspoonful to a pint each time the bottle is used. Both the nursing bottle and the rubber nipple should be kept immersed in a weak solution of soda when not in use. They should also be scalded the second time just before the child is fed. Cow's or goat's milk should be boiled fifteen minutes before feeding, to destroy all germs.

5. The diet of the mother while nursing is of very great importance, as anything that disturbs the system of the mother will more or less affect that of the nursing infant. Her food should be nourishing, simple, and wholesome. Stimulants of all kinds, whether in the form of alcoholic drinks or irritable condiments, should be carefully avoided. Pastry, desserts, ice-cream and confectionery, and all similar articles, should be wholly avoided. The best diet consists of oatmeal porridge or milk and the various whole-grain preparations, eggs, and, with those accustomed to meat, a moderate allowance, together with an abundance of ripe fruits. With reference to increasing and diminishing the mother's supply of milk by regulation of the diet, see paragraph on this subject elsewhere. Vegetables, such as cabbage, turnips, and carrots, together with peas, beans, and onions, which are very likely to produce colic in the child, should be carefully avoided.

6. Feeble infants, especially those who are born prematurely, should be fed a little more frequently than others, and require extra care.

7. The interior of a child's mouth, as well as its lips, should be carefully wiped free from milk or other food after feeding, a moist cloth being used for the purpose.

CAUTION RESPECTING INFANT FEEDING

1. Too frequent feeding is a very common practice, and is one of the most active causes of colic and various forms of indigestion in children. Many mothers wonder why the children do not grow fleshy notwithstanding they have a voracious appetite and eat nearly all the time. The simple reason is that the food taken is not digested and assimilated on account of the weakened and disordered state of the digestive organs. Frequent feeding at night is not only unnecessary, but exceedingly harmful. After the first month or two, infants require no food at night.

In order to break children of the habit of eating in the night when the mothers have been in the habit of nursing them at all hours of the night as well as the daytime, a little warm water may be given in the nursing bottle instead of food. This will often satisfy the child's cravings so that it will go to sleep.

2. Overfeeding is a much more frequent error than the opposite. Very frequently children are allowed to take too much at a time. This is the most common cause of vomiting in infants. Fortunately their stomachs are so constructed that the surplus of food may be easily expelled; but sometimes this is not the case, and often very serious disorders of digestion result.

3. The child should never be allowed to sleep at the breast, nor with a nursing bottle to its mouth.

4. The child should never be put to the breast to stop its crying. Children cry in consequence of disturbances of the stomach much more often than from hunger. The child will often nurse as though hungry when the stomach is already full of undigested food, being induced to do so by the pain or discomfort which it suffers. Children often cry in consequence of the irritation of pins, but no matter whether any other cause for crying should be found or not, the child should not be nursed except at its regular hours.

5. No other food but milk, except such fluids as are used to dilute cow's milk, should be used until after several teeth have made their appearance. As a rule, bread and other farinaceous food cannot be digested before the age of seven or eight months. Meat should never be given to children until after they have acquired a sufficient number of teeth to masticate it thoroughly, and then should be allowed only in very small quantities once a day. Young children are very much better off without meat. Convulsions in children are often due to the use of meat.

6. Children should never be given sugar-teats, candies, sweetmeats, cheese, nor pastry. The habit many nurses have of feeding an infant sugar and water every hour or two, during the first one or two days of its life, is a practice which cannot be condemned too strongly. The same may be said to be the cause of colic and other disturbances. Catnip tea and similar other decoctions used at this time, are exceedingly harmful, not only disturbing the stomach and giving the child discomfort, but preventing the natural desire for food and depriving the mother of the benefit to be derived

from suckling the child. Placing the child early to the breast is one of the best means of preventing "gathered breast" and securing a plentiful supply of milk. The practice that many people have of taking young children to the table and feeding them bits of almost everything on the table cannot be too strongly discounted.

8. As a general rule, menstruation and pregnancy, either of which may occur during nursing, are likely to affect the child injuriously, and demand weaning. As a general rule, a woman should discontinue nursing upon the occurrence of conception or pregnancy. Three lives may be affected injuriously by a neglect of this rule.

9. In the warm season of the year special care must be taken of children that have been weaned or that have been raised on the bottle, to avoid feeding sour milk or milk that has become slightly changed by standing. In very hot weather, milk sometimes begins to sour in a very short time. This is especially the case when milk pans or cans have not been cleansed as thoroughly as they should be. If either the mother or nurse in charge of an infant would obtain a "test paper," which can be found at any drug store, and always test the child's milk when there is any possibility of its being sour, many cases of illness and death would be prevented. The process of testing is a very simple one, it only being necessary to observe that when the milk is acid the blue paper will be turned red, and when it is sweet, no change will occur.

10. Another danger to which children are exposed is the use of milk which has been poisoned by standing in pans made of tin adulterated with lead. This danger is now becoming quite a serious one. Infants are more

susceptible to injury than adults on account of their weakness and little vitality.

11. Many mothers have sacrificed their children by attempting to rear them upon the various patented baby foods sold in the stores. A majority of these foods are starchy preparations which contain little or no nourishment valuable for infants. Some of them, particularly the various preparations made according to the directions of the eminent German chemist, Professor Liebig, are useful, but not more so than well boiled oatmeal or graham gruel with the addition of cow's milk.*

12. Sexual excesses have a very damaging influence upon the nursing infant.

13. A nursing mother should never give way to fits of anger or depressing emotions of any sort, but endeavor to improve and sustain her general health in every possible way by proper diet, daily exercise in the open air, abundance of sleep, avoidance of overwork.

Weaning.—Under this head it is important to call attention to the following points:

1. The proper time for weaning a healthy infant is at about one year of age. Very weakly children sometimes require longer nursing. The custom practiced by some women of prolonging the nursing period to two years or more is injurious to mother and child.

2. The process of weaning should be conducted gradually. At the age of eight or ten months the child may be fed bread and milk, or oatmeal porridge once

* Directions for feeding infants whose digestive organs are very badly disordered are considered in the "Home Book of Modern Medicine," from which, by permission of the author, Dr. J. H. Kellogg, the publishers of "Plain Facts" have borrowed this chapter on the "Care of Infants."

a day, this article being substituted for mother's milk. As it grows older, these foods may be increased, and some other articles, as perfectly ripe fruit, with now and then a portion of a baked potato, simple soups, etc., may be given. Graham bread should be invariably used in preference to fine-flour bread. If necessary, the coarsest of the bran may be sifted out. By the adoption of this plan, at the end of twelve months nursing may be discontinued altogether.

From this time, the diet of the child should still consist chiefly of graham bread and milk, baked potatoes, ripe fruit, and equally simple articles of food. Meat, coarse vegetables, butter, tea and coffee, mustard, pepper and other condiments, pastry, preserves and sweets of all kinds, rich puddings and sauces, dessert, and all articles difficult of digestion, should never be given to young children; indeed, the world would be vastly better off if these articles were never taken either by older children or adults. When the child is costive, oatmeal porridge as a principal article of diet is an excellent means of regulating the bowels. In making oatmeal porridge the milk should not be boiled, but sterilized and added after the porridge is done.

3. As a general rule, children should not be weaned in hot weather, as slight changes in diet are often sufficient to produce serious disturbances at this season of the year.

GENERAL CARE OF INFANTS

The Bowels and Bladder.—The first movement of the bowels of a newly born child is of a green color. After this, the discharges should be uniformly of a bright yellow color. If the bowels have a slight tend-

ency to constipation, they should be thoroughly kneaded several times a day, especially while the child is taking its morning bath. The cold compress worn about the bowels is also advantageous. Giving the child one or two teaspoonfuls of cold water half an hour before nursing is also helpful. Care should be taken that the bowels and bladder move properly.

Clothing.—The legs, arms, and neck, as well as the trunk, should be thoroughly clad with a soft flannel gown, in addition to which a woolen bandage should be placed about the trunk. Care should be taken in placing the binder, not to draw it too tight, as this is one of the most common causes of prolapsus of the rectum, a not infrequent condition in young children. The child should not be clothed too warmly, as debilitating perspirations may be induced. The temperature of the room should be kept at about 68° or 70°, and a proper degree of moisture should be supplied by keeping a vessel of water upon the stove, or keeping the water-pan of the furnace supplied with water. Too much clothing should not be worn upon the head nor about the neck, as these parts are thereby rendered unnaturally sensitive and more liable to cold.

Bathing.—The daily bath is of great advantage to children, and is soon much enjoyed by them. As a general rule, there is no danger that the child will be weakened in the slightest degree by taking a tepid bath every morning before its breakfast. The temperature of the water employed should first be about that of the body, but it should be gradually lowered, so that after a few weeks it will not be over 80° to 90°. Many physicians recommend a still lower temperature. It may be said that the cooler the water employed the more thorough is the protection against taking cold.

No fears whatever need be entertained that the child will contract a cold by taking a cool bath. The whole surface of the body should be thoroughly rubbed. It is also well to anoint the skin as often as every other day with some fine unguent, as olive or cocoanut oil, or vaseline. Fine castile soap should be used in the bath every day or two.

Sleeping.—A healthy child sleeps nearly five-sixths of the time during the first few weeks of its life. The infant should be taught to go quietly to sleep while lying in its crib, without rocking, petting, or carrying in the arms. If the child is taught correct habits at the start, it will give much less trouble than if humored and petted until it makes unnecessary demands. The face of a child should never be covered during sleep, as it, like older people, needs an abundance of fresh air. As a general rule, it is better that the infant should not sleep in the same bed with an older person, even its mother. In cold weather, when it needs additional warmth, one or two large bottles filled with warm water may be laid beside it. Its crib should be well padded upon the inside so as to protect the child from injury from the hard framework.

Exercise.—Although it is unnecessary that infants should be constantly carried about, which is injurious to them as well, it is important that young children should be taken up several times a day and carried for a few moments. This is especially true in the case of very feeble children. If allowed to lie too long upon the back, congestion of the lungs may be occasioned. After an infant is a month old, it may be safely taken out in pleasant weather at any season of the year, provided it is properly protected. In cold weather it is better that the child should be carried in the arms in-

stead of being drawn in a cart, as there will be less liability of its getting chilled. It should also be exposed to the sun daily, or as often as possible. Care should be taken to protect the infant's eyes from the glare of sunlight.

Nurses should use caution in carrying infants not to hold them always upon the same arm. The neglect of this rule sometimes results in deformity. Children should not be urged to walk too early, or before the limbs are sufficiently strong to support the body well.

Teething.—During this troublesome period children require special care, as the digestive organs are more liable to become disordered than at any other time. The child is often fretful and restless; and if it escapes being treated for worms half a dozen times, although innocent of harboring any such vermin, it is unusually fortunate. Teething is generally held responsible for every disease which occurs during the period of cutting the teeth. It is probable, however, that the process of teething is really responsible for only a small part of what is charged to it. Lancing the gums is seldom called for. The tissue covering the teeth is not sufficiently tense to require cutting to allow them to protrude. In fact they do not tear their way out, but the tissue covering is gradually absorbed. About the only occasion for lancing the gums is the occurrence of infantile convulsions. Rubbing the teeth with very hard substances is also questionable treatment. All the rubbing required will generally be performed by the child itself with the finger or thumb.

Bowel Disorders.—There is always an enormous increase in the mortality rates during the summer months, the result of the great prevalence of

bowel disorders in children at this season of the year, partly due to the depressing effects of heat, but chiefly to infection of the intestine with putrefactive germs, the most common source of which is cow's milk.

The bacterial examinations of cow's milk sometimes show 100,000,000 germs to the teaspoonful, and even more. Milk inspectors are ready to pass a specimen of milk as commercially pure that contains no more than 800,000 germs to the teaspoonful, and even so-called certified milk is permitted to contain 40,000 germs to the teaspoonful; so it is apparent that there is abundant opportunity for infection of the intestines of bottle-fed children. The greatest care should be taken in the feeding of children, during this season of the year. If cow's milk is used, certified milk should be obtained if possible. When certified milk cannot be obtained, the milk should be sterilized and should be supplemented by fruit juices. One or two oranges daily, between feedings, will supply certain elements which are destroyed by sterilizing or cooking the milk.

An acute attack of intestinal disorder in a young child is best treated by withholding all food. The child should receive nothing but water for two or three days. Barley gruel, or still better, rice gruel, may be first given, either with or without a little buttermilk or whey. Buttermilk may be increased as the symptoms subside. Whenever the bowel discharges of a young child become offensive, attention should be given at once to the feeding. A diet of buttermilk and rice, particularly of Toasted Rice Flakes or Rice Biscuit, is well suited to such a case and will probably prevent a more severe attack. Yogurt buttermilk is best. When this is not obtainable, Yogurt Tablets or Yogurt Cheese may be used instead.

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