MIND CURE AND OTHER ESSAYS

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PREFACE

Medicine to-day is more distinctively preventive medicine than in any period of its past history. The conquests of epidemics, the lessening of disease and death, have been almost marvelous.

But notwithstanding all these achievements it is believed that one-half the disease that occurs to-day is preventable, that the knowledge and means of prevention are at hand. That we have all this unnecessary sickness and suffering, all this holocaust of death, is largely due to popular error and ignorance. For this reason the medical profession in recent years has directed much attention to the instruction of the people in matters pertaining to health.

The present volume is largely devoted to this line of endeavor. It is devoted chiefly to school life and to prevention of disease by means of the training and instruction of children. Even the first article, entitled "mind cure," and apparently given to treatment and not to prevention of disease, has something of the latter element in it.

PREFACE

For to-day a large part of the world has gone mind cure mad, a state producing an unwholesome mental atmosphere predisposing to disease; and a simple presentation of facts, a statement of how mind cures disease, should clarify this atmosphere, and thereby favor health.

The volume is a series of essays, most of which were originally addresses delivered to educational organizations. In part they are reproduced in their original form, with their manifest purpose and appeal.

The writer will be happy if these efforts to instruct the people help in lessening disease and in maintaining sound bodies and sound minds.

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MIND CURE

A TEACHER once said, "I am the real ruler, for the children rule the parents, and I rule the children." This statement contains more than a modicum of truth. The teacher, through the child, influences public sentiment, especially that of the coming generation. For this reason it is no little thing to the world what she is and what she knows. For this reason it is important that she know much that is not in her text-books. For this reason, too, a course like this, which teaches something of the laws of health and disease, should be of much value to you.

Very often the teacher can be of most service to the public by helping to advance common-sense ideas and methods and to establish sound mental poise. While mental poise counts everywhere in life there are few places where it is needed more

and is more frequently lacking than in matters pertaining to health and disease.

Let me give you an illustration. The discovery of the microbe as the germ of disease has been an untold blessing to the world. It has been a chief factor in the fight against tuberculosis. It has helped to conquer typhoid fever, yellow fever, malaria, and other diseases whose tendency is to decimate mankind.

But the dissemination of the knowledge of microbes has not been all a blessing. Newspaper items, popular literature and common parlance, telling of the millions of microbes in certain foods or the like, tend to influence the public mind and to create paralyzing fears.

The truth is that microbes exist in countless number, that they are found inside the body, in the food we eat, and almost everywhere. Proportionately very few of them are pathogenic, that is, disease-producing germs. The great mass of them is harmless, and many appear to be helpful, if not absolutely necessary for health.

It is hard to say whether the microbes can do as much harm as does the constant dread of them. Not alone does this dread take all comfort from life, but sometimes it tends to impair health more than do the microbes.

In this instance sound mental poise means, first, to know the truth about the microbes; and, secondly, while taking reasonable precaution against infection, to dismiss from the mind the thought of disease and danger.

The teacher is constantly called upon to display mental poise as to health matters in her ruling in the schoolroom. She should guard from overwork the weakly and those with strong nervous tendencies, yet her pupils must work, and some must be prodded to it.

She should guard her pupils even more from emotional disturbances and emotional storms, such as the strain and anxiety of examinations, and the excitement, the pride or the mortification that attend prize bestowals, yet there are pupils who need every spur to action from which they receive only benefit.

Especially should she know how grave may be the effects of punishment through fear, humiliation and the like, yet the teacher would oft be powerless with no means of discipline at her disposal.

The teacher must also bring mental poise as to health matters into her own life. Her work is oft arduous and it ofttimes leads to impaired health. But while she assumes the duties of a

teacher she must work, though she should learn to do so without undue strain upon the emotional life; and she should come to ignore, or not to feel small worries and ills and pains, through interest and absorption in her work.

I am dwelling so much upon mental poise because of the subject upon which I am to speak to you to-day, a subject wherein the lack of mental poise, or not seeing things in their true values, leads a large part of the world astray.

That subject is what physicians usually speak of as psychotherapy. It is the mental treatment of disease, or what we might term mind cure.

That the mind has a great influence upon the body is very apparent. The blush of shame, the rapid pulse of excitement, the pallor and tremor of fright, and a thousand like things are common demonstrations. In fact, by means of very delicate instruments it is seen that the slightest mental act influences bodily circulation. It is but a corollary that the mind plays a large part in causing and curing disease. It has been said that one-half of human ailments is of mental origin.

Let us consider first how mind may cause, and next, how it may cure, disease.

The mental states most injurious to health are the depressing and painful emotions, fright, ter-

ror, grief, anxiety, disappointment and the like. There is scarcely a limit to their disastrous effects. Most commonly they cause mental disease, or functional nervous disorders like hysteria or neurasthenia, but they may cause organic disease of the brain, heart, stomach or other organ, though it is likely that they do so only where there is some special weakness in the affected part. They may also predispose to acute disease, or gravely affect its course or that of surgical operations, by lessening the resistance of the organism to the attacks of the microbes which bring on the disease.

The second great source of disease of mental origin is what we term suggestion, that is ideas, mental representations. The increased rapidity of the pulse when one puts one's finger upon it, the sick stomach at the thought of certain medicines or food, are common instances of such influence. In the same way ideas of disease may give rise to its symptoms; for instance, the sight of tremor may cause tremor, the thought of paralysis may cause paralysis.

How far suggestion may thus produce disease is a difficult question to answer, for we do not always know the cause of ill health, and the source of suggestion is often concealed from us. But

there is no doubt that it is a very common cause; and while the disease does not usually have the gravity of that produced by the painful emotions, it may be very persistent.

Very many of the symptoms of hysteria are due to suggestion. This is true, though to a less extent, of other nervous diseases. Not rarely suggestion produces symptoms in other maladies, even in cases of organic disease.

Suggestion of disease comes from many sources. Seeing its manifestations may give rise to the same symptoms. A case of St. Vitus dance in the schoolroom may give rise to an epidemic of the disease. There have been instances where the appearance of bizarre phenomena of this order has resulted in an epidemic throughout a whole land.

Reading of disease or its symptoms is a very common means of suggestion. The advertisements of charlatans, with their glaring descriptions of bodily disorders and their menace of danger, are common causes of this kind.

Hearing about disease is even a more common cause, for everywhere ill health appears to be a favorite subject of conversation.

Then there is what is termed auto-suggestion, the patient, as it were, suggests the symptoms to

himself. For instance, he is hoarse, this hoarseness suggests to him that he can not talk, and loss of voice follows. Or he has pain in his limb which suggests to him that he can not move it, and paralysis follows. Auto-suggestion is doubtless responsible for many symptoms; and we can easily understand why, in case of organic disease, some of the disability or suffering may be due to the patient's mind. But it is well that all should know that in case of illness not all added or suggested symptoms are due to auto-suggestion, that perhaps more of them are due to what kind friends so often bring to the sick room—the account of illness in others, the forebodings of ill results, or other details equally cheering to the patient.

Perhaps I should add that subconscious suggestion may play a part in causing and prolonging human ailments. You all know something of the action of the subconscious mind. One tries in vain to remember a name and then it comes suddenly after the matter had apparently been dismissed from his thoughts. Or one works over a problem, puts it aside unsolved and awakes in the morning with the solution in his mind. So suggestion of disease, received by the conscious —or possibly only partly conscious—mind may

be forgotten and yet continue its blighting effect subconsciously. Perhaps the suggestion does the more harm, because nothing is known of its presence.

So much as to mind causing disease. Now how does it effect its cures?

The painful and depressing emotions, so productive of disease, do little toward its cure. Occasionally a great shock, fright and the like, results in the sudden disappearance of symptoms; for instance, the house afire causes one paralyzed and bed-ridden for years to get up and walk. Years ago I saw a lady from Alabama who had not spoken aloud for years. She had what we term hysterical aphonia. Some years later her husband died and with the shock of his death her voice returned. Such favorable results are rare. Far more frequently a shock makes the patient's condition worse. It is not a rare occurrence that, with all good will, the ill are thus seriously harmed by their friends or attendants. The nervous patient, having many ailments or complaints, is told by his friends or nurse, or possibly by his physician, that if he does not control himself he will go insane, or worse ill will betide him. These threats—intended, of course, to frighten him into self-possession and health—are likely to rob him

of all self-control, and not infrequently bring on the dire ills that were threatened him.

Whilst the painful emotions help so little in the cure of disease the joyful emotions are, for this purpose, all powerful. Joy is the great tonic of the nervous system. It usually increases the appetite, makes the thoughts flow more freely, and favors all the bodily functions. Joy is the most effective therapeutic agency the physician can employ at the bedside.

One sees very clearly in the sick room the marked differences between the effects of the depressing and of the joyful emotions; for while worry, doubt and fear of the issue, impair the appetite, digestion, sleep and strength, harm the patient and may even lead to a fatal termination; confidence and hope make an entire change in the picture, improve the appetite, digestion, sleep and strength, and in themselves may cure the patient. It is here that the personality of the physician counts so much. The one with an inspiring presence is deservedly more popular, for he has the greater power to cure his patients.

Consciously or unconsciously, the physician is making use of the joyful or of the depressing emotions in the sick room. He is bright and cheery; he gives the patient a careful examina-

tion and thus gains his confidence; he manifests a kindly interest and sympathy for him; he gives a reassuring diagnosis or a favorable prognosis; or he ignores symptoms and thereby manages to make the patient forget them; and by these means he helps the invalid, sometimes gives him more benefit than all the drugs in the *materia medica* could bring.

On the other hand, the physician's mien, his face and words, are depressing; his examination or mode of treatment suggest alarming disease; his face shows the doubt that is in his mind—for many times the case is not all clear to him; or he gives a grave diagnosis or unfavorable prognosis; and by these means he may harm his patient, even give him his death blow.

Naturally the effect in these instances depends largely upon the mental constitution and attitude of the patient.

A second mental state that counts in the cure of disease is mental absorption, which takes the patient's thoughts away from self. It is in this way that entertainments of all kinds help in the cure of disease, and it is because of this that work, regular occupation, is sometimes the best medicine. It is through mental absorption, that Chris-

tian Science often helps the sufferers; for it demands of its votaries that they become missionaries in the cause, and enthusiasm for their propaganda leads them to forget self.

I must dwell longer on the third mental state which helps to cure disease, that is, suggestion. Suggestion counts nearly everywhere, in the ordinary modes of life, in business, in schooling and training and character; and it counts much in the treatment of disease.

As the idea of paralysis may bring on paralysis, so the idea of a cure may cause its disappearance. We have already learned that many symptoms in both functional and organic disease are due to suggestion, and we can readily understand that suggestion may remove the same symptoms. It is not improbable that it may do more than this, that it sometimes removes other symptoms, through altering or improving nutrition.

The physician is constantly making use of suggestion in the treatment of disease, even though he do it unconsciously. The drugs which he gives, the therapeutic applications which he makes, and even the operations he performs are often aided in their effects by suggestion; and sometimes subsequent developments prove that

their beneficial effects—this may apply to surgical operations also—were altogether due to this agency.

Thus the physician uses suggestion unintentionally, and even unconsciously; but sometimes he does so purposely, and he may make it the chief or only mode of treatment. His suggestion may be in words, or by means of the drugs or other remedies which he gives.

Now I want you to see how suggestion plays a large part in the treatment which is not in the hands of the physician. First we will consider primitive people. In all times there have been medicine men among them, mostly men with no knowledge of disease or remedial agencies. The constant presence of medicine men indicates that they must have had results, results which must have been due largely to suggestion.

Again, inert substances often gain a large vogue as cures of disease. Some of you have doubtless heard of the iron ring as a cure for rheumatism, which was at one time much vaunted and often used. Such agencies could only produce results through suggestion.

In all times—to no small extent in our own—there have been heralded healers and holy shrines where disease suddenly disappeared and crutches

were thrown away, another instance of the power of suggestion.

Suggestion, too, is the chief factor in the success of quacks and quack nostrums, and also of various systems of treatment which may have a great vogue for a period and then pass away. Two such systems of treatment are prominently before the American people to-day, osteopathy and Christian science. Of quackery, osteopathy, and Christian science I have more to say.

Quacks and quack nostrums have three aids to success in treatment: first, suggestion; secondly, the fact that diseases are mostly self-limited and tend to recovery with or without treatment—oft-times the patient gets well in spite of the treatment administered; thirdly, the drug may be of definite value in the given case.

The harmfulness of the quack and quack nostrums is due to their vast pretentions, the proclamation of which is evidently made in most instances with fraudulent intent.

Osteopathy also has as aids to success suggestion and the self-limitation of disease. In addition there is the influence of bodily manipulations, for bodily manipulations of any kind may be a source of relief or comfort.

Its harmfulness, again, is due to its vast preten-

tions, pretentions, in this instance, not due to fraud, but based upon a pseudo-science whose teachings are altogether inconsistent with the present state of medical science.

Christian science is a pure mind cure. It embraces several of the elements of mind cure I have given you and others I have not yet mentioned.

Under psychotherapy there have been described various modes of mind cure which are of limited, if not of doubtful, value, and to which I will not further allude; but one mode of which I have not yet spoken is extremely valuable and must have our further attention. It is that usually termed treatment by education or persuasion. It consists in thoroughly acquainting the patient with his condition and his disease, so that he fully understands how far his symptoms have been due to his mind and may be removed in the same way, and how far, otherwise, self-control, will power, and his own acts may help to remedy his condition. The idea is that with this knowledge and understanding the patient will get control of his condition through his insight and self-mastery.

The success of this treatment will depend, first, on the insight of the physician into the case. He must know the nature of the disease, the various

mental elements that play a part in producing it, and also the insight and disposition of his patient and the best way to address him; all of which test his very soul. Secondly, success depends upon the insight of the patient. This is no easy matter, for his tendency is to ignore any relationship between his suffering and his own mind or his own efforts. Thirdly, success depends on the patient's power of self-control. This is often minimal, and needs help from every side.

It is probable that in this treatment by education or persuasion an element of suggestion is always present, just as in suggestion itself there is usually an element of the joyful emotions—confidence, hope.

Christian science effects its cure partly through mental absorption, as already stated, partly by means of suggestion, but largely by education or persuasion. Education, in this instance, does not mean teaching the patient his true condition, but consists, instead, in teaching the peculiar tenets of that cult. The insight of the physician, the insight of the patient, and his power of self-control are all covered by one stride, a faith that should move mountains.

The great source of harmfulness of Christian science, also, are its vast pretentions, in this in-

stance based upon a belief almost fanatical in its intensity.

I must now return to what I said at the beginning of this address, that a lack of mental poise is leading a large part of the world astray in such matters, and that the best service the teacher can give is to help people see things in their true values.

The truth which should be clearly apprehended is that mental healing has a great usefulness in the treatment of disease, but that it has its very definite limitations. That usefulness ceases wherever mental influence does not effect pathological processes. Furthermore, it should never preclude the employment of other therapeutic agencies which favorably influence the disease that is present. The mental healing that claims to do what is manifestly impossible, or that prevents the application of needed therapeutic measures, is a source of harm and danger.

Quackery and osteopathy though to a large extent such in fact, are ostensibly not mind cures, and are a harm only in so far as they bring the wrong treatment to the individual case. Christian science is, and claims to be, nothing but a mind cure, and becomes a special source of harm through the dogmas that it teaches. There is scarcely

anything that illustrates more forcibly than does Christian science the inconsistencies of human nature. What a strange phenomenon that sane individuals should believe that there is no such thing as disease, a belief which is a fruitful source of harm.

If Christian science limited its efforts, so far as treatment of disease is concerned, to cases where only mental treatment is called for, there would be small need to call it halt. But it leads to neglect of medical treatment where imperatively demanded, and, far worse, to the spread of contagious and epidemic disease. If its dogmas were everywhere accepted and lived up to, there would be an undoing of all that modern sanitary science has done for us, which, in the present crowded state of the world, would mean an incalculable amount of disease and death.

I wish to bring these facts home to you. Quackery has cures to its credit, but for all that you should not advocate it because of the harm your advocacy might do. And for the same reason, though Christian science has many cures to its credit, you should not advocate or try it. And you, who have tried treatment by Christian science and have found relief from pain and suffering, or mental peace, and who, prompted by grati-

tude or intense longing to afford relief to others, urge them to try the same treatment, bear in mind your ignorance of disease, its diagnosis and results, and beware lest your zeal lead the invalid into false paths and do irreparable harm.

With Christian science as a religion, I have no concern, and do not speak; but I wish to allude to its relation to health in another direction. Its teaching should naturally lead to indifference to danger, to ignoring of ailments, and, in a way, to hardihood and courage, a state of mind which adds to comfort, happiness and manliness.

Again, I must say, if this were the only result of Christian science one should not call it halt. But there would also be the ignoring of all danger which, as I have already attempted to show you, would open the way to all disease and to the veritable destruction of mankind.

Nor is there need of Christian science for hardihood and manliness. The right training—of which, it is true, there is a great lack—should lead one to brave danger, to ignore trifles, and usually to bar thoughts of ill health. But this does not preclude a reasonable degree of judgment and prudence in building up health and avoiding the causes of disease.

This right training, which recognizes the truths

of nature and is based upon them, has a more solid foundation and must have a more wholesome influence on manhood than a teaching which, one would suppose, could scarcely be accepted except by the hysterical and fanatical, and whose tendency is to make an hysterical atmosphere.

This brings me to another ill influence of Christian science, what I have just termed an hysterical atmosphere. This is an influence not exerted by Christian science alone. The recent movement of the church into the field of psychotheraphy, the so-called Emmanuel Movement, hypnotism, especially when flaunted before the public, and other medical acts, whether of the profession or otherwise, which tend to arouse a morbid interest, all tend in this direction.

The medical profession usually does its work quietly, aiming not to make disturbance or uproar. This mode of procedure is especially desirable in the management of nervous maladies. The heralded marvels of Christian science, of Worcesterism, of hypnotism and the like, fix the excited minds of the populace upon the nervous maladies and thus tend greatly to multiply them. This is one of the modes in which Christian science harms the community.

It is not altogether with pleasure that I have

addressed you upon a subject upon which some of you may have strong prejudices or convictions. I have done so because teachers influence public sentiment, because I know each one of you has a circle of influence, and so far as in me lies I would make that influence a wholesome one for the health and the tone of the community.

PREVENTION OF NERVOUS DISEASE—TRAINING THE CHILD

In the field of preventive medicine there are two distinct problems, that of the seed and that of the soil; in other words, the cause of disease, and the affected individual.

To-day there is a great fight against tuberculosis. When the idea of its contagiousness first became prevalent the chief thought in the mind of physicians and laity was how to destroy or escape the germ, a thought often fraught with cruel treatment and injustice to those already afflicted. But it soon became manifest that something more is necessary for the development of the disease than the mere presence of the germ. Otherwise, so prevalent, so almost ubiquitous is the latter, the human race, at least the civilized part of it, would have come to an end long ere this. That something, so essential, is the constitutional condition, the predisposition of the patient. Chiefly those individuals, who have not in themselves the power of resistance when the op-

portunity of infection arises, become the prey of the disease germs.

Prevention, therefore, consists as much in strengthening the power of resistance of the individual as in limiting the opportunities of infection. Food, pure air, sunshine, sleep, exercise, are chief agents in preventive medicine.

Not rarely nature prepares a special armor to protect the individual. I refer to acquired immunity. In most of the infections the occurrence of the disease in the individual tends to protect him from recurrences of the same malady. The presence of the germ has led to a reaction of his blood and tissues which safeguards him from future onslaught of the same organism. It is unusual to have more than one attack of smallpox, scarlet fever and the like.

The fact of living where a disease is always prevalent tends to confer a degree of immunity on the individual even when he has not had an outbreak of the disorder. Where malignant forms of malaria prevail, and in the home of yellow fever, the native is in much less danger than the stranger to the soil.

There is also an hereditary immunity, an immunity conferred where generations have been subject to the disease. This is true, for example,

of tuberculosis. Fearful as this scourge is to civilized man, its effect is insignificant compared with that upon a people amongst whom it appears for the first time. The latter are in danger of complete extermination if the disease once gets a fair hold upon them.

But while nature often provides special protection in the forms I have just been describing, there is a large class of diseases in which such immunity is not conferred. I refer to nervous diseases. For a prior attack, or living in the midst of such disease, or its existence in the ancestry, instead of conferring immunity on the individual, increases his vulnerability and tends to add to the frequency and severity of such disorders. Therefore there is the greater need of building up in the individual the power of resisting the special causes of nervous disease.

It is of the prevention of nervous diseases that I am to speak to-day, a subject the more important to you as teachers because both in their development and in their prevention the condition of the school plays so large a part. I shall quote largely from a paper of mine which recently appeared in the International Clinics.

The prevention of nervous disease consists in the prevention of other disease and in the build-

ing up of vigorous health. The trend of modern life partly favors such prevention, partly has a very reverse influence. The infectious diseases play no small part in the production of both organic and functional nervous disease. Sanitation has achieved much in the way of removing or lessening these infections, and thus in lessening the cause of nervous disease.

But influenza, productive of so many nervous disorders because so widely prevalent, yet evades the sanitarian, and many of the common infections still play havoc with life and nerves. Syphilis, the cause of so many organic nervous diseases, alcohol and excesses of all kinds play their part in the present as in the past. Diseases of blood-vessels and Bright's disease, which so often lead to brain disease, are perhaps on the increase. The cause of this, as of the increase of nerve disease itself, is largely in the mode of modern life.

The rapidly multiplying factories, the marvelous growth of cities, the high tension of modern life, all tend to increase disease, especially nervous disease, a tendency that is only strengthened by the great care given to the weakling and his multiplication among men. Against all this the physician can only contend by preaching saner

modes of life, above all a simpler life with simpler needs.

Among the most common causes of nervous disease are the accidents of life; the many injuries, railroad or whatever they be, and especially what arouses the depressing and painful emotions; for cankering care, grief, terror, anger, disappointment, humiliation, and the like, unfortunately only too often produce serious nervous disorders. Even here the tact and experience of the physician may do much to ward off threatened disease in the individual case.

But the one fact that confronts us in relation to all the aforementioned causative factors is that, whatever the exciting cause, nervous disease is most likely to occur in those predisposed to it. This predisposition may be the result of intrauterine disease, or of disease or injury in early years of life, but mostly it is an hereditary taint. It is, therefore, the duty of the physician to do what he can to lessen the marriage of the unfit. But we can not hope to achieve much in this direction, and the problem remains with us what to do with the multitude of beings who come into the world with the heritage of nerve weakness.

I believe that in the whole field of medicine there is no greater appeal to the services of the

physician, no higher call of duty, than in helping to ward off disease in these little ones and assisting them to grow into healthy men and women.

We may say then, that prevention of nervous disease consists essentially in the proper training of the child. For this reason it is paramount that the physician devote much thought to the subject of training, especially to that of the child predisposed to nervous disease.

The subject of training is as large as human nature, and on this occasion I can only touch upon such aspects of it as confront us prominently in the history of the predisposed. Let me approach the subject by taking up a common instance, an hysterical woman and her child. The mother constantly parades her symptoms before the child. Now the instinct of imitation, which in education and training is the most powerful influence upon the child, is prepared to arouse similar manifestations in the child. Furthermore, such a child is ofttimes delicate, is likely to present some ailment or complaint, and the latter is just as likely to meet with expressions of sympathy or alarm which only fan the flames. There is already the tendency to self-consciousness and hypersensitiveness in the child, which the mani-

festations of sympathy unduly exaggerate, preparing it for the outbreak of nervous symptoms. Such a child—this is, of course, true of other children also—should be taught to bear trifling ailments patiently.

A little one in the environment we are depicting is likely to have a further handicap in the mode of discipline to which it is subjected,—sometimes neglect, injustice, or cruel harshness; sometimes overindulgence, flattery and the like; and again —and this is the worst of all—vacillations between these extremes. No worse environment could be found for the child, no surer foundation for future nervous disease.

When these conditions can not be remedied the physician should use his influence to remove the child from the parental roof. But a presentation of the facts to the parents may lead to changes for the better. The mother may succeed in controlling her manifestations of disease, which would be a great benefit to herself as well, and undertake the training of her offspring.

Now what is the proper training of such a child? We must remember the common tendency to egotism, undue self-consciousness and hypersensitiveness, and the oft-resulting morbid introspection; and one of our main objects must be

to combat them. No hot-house culture, balls, theaters, etc., which lead to sentimentality and undue sensitiveness. Flattery, the foolish extolling and exhibiting of the child's supposed shining qualities, overindulgence, all that tends to make the child vain, self-conscious, and selfish, are very harmful. The spoilt child not only loses in character, but becomes an easy prey to "nerves." Neglect and harshness are also prone to cause hypersensitiveness, and lead to morbid brooding.

It is fortunate that strong emotions are given an external discharge in tears, in words, in actions, or what may be. Their undue harboring produces an unpleasant mental state that may lead to unfortunate traits of character, or weaken the nervous system. Emotional conditions which are cherished in secret, and end in morbid brooding, may prove disastrous to the nervous system.

Great outbreaks of passion occur in some children, which may not be without serious consequences. I have succeeded in removing this condition in a number of instances by trifling measures, partly suggestive, partly disciplinary. In case of a paroxysm the parent was instructed to

be quiet and calm, instead of greatly excited as hitherto, and to press upon the child a dose of some badly tasting drug, as milk of asafetida, assuring the child the medicine would strengthen its nerves, so that it could conquer itself and not have attacks in the future.

The question of punishment of children is often a serious one. There may be in it the element of injustice (or it may appear so to the child) with its damaging effects, and in addition the element of fear. Fear often plays havoc with the nervous system of the child. Certainly punishment has often proved disastrous to nervous children. There can be no doubt, I believe, that punishment is always unfortunate when given in anger, when it is likely, too, to be the expression of anger. To the child it should never mean but one thing—necessary discipline. Upon some nervous children it were well that any punishment should be inflicted with greatest caution; but it may be said of all children that they should see behind the punishment the parent's love. Love counts more than all else in training a child to character, health, and life.

The best means of combating directly the tendency to hypersensitiveness and introspection is

to keep the child busy and its thoughts away from self; above all, to build up a strong, unselfish nature.

In addition to what I have already mentioned, we often find in these children a tendency to make too much of the trifling ills of life, impatience, perhaps lack of cheerfulness, and the beginning of that worrysome disposition which is a source of constant unhappiness, and which predisposes to nervous disease. Let us consider how to combat and conquer these tendencies which may mean so much to the child.

I have already spoken of teaching the child to bear trifling ailments uncomplainingly, rather than encouraging it to make much of them. There are also many things which are disagreeable to the senses, or painful, or a mental or physical trial, which the child should be taught to bear. Such a habit might be built up by special effort, by gymnastic training in that direction, if I may so speak. I mean the child should be taught to bear hardships, to be courageous to have a rugged, hardy nature, by doing things that are unpleasant or painful, or difficult, or courageous. A child might in the beginning be led to such acts, which it would instinctively shirk, by mere encouragement, or by telling their purpose, or

through the emulation of the acts of companions, or by firing it with the story of one of its heroes, or from the love, or for the benefit of one of its loved ones. And the more frequently it has done such an act, be it to bear pain, to do something it dislikes doing, or to conquer its timidity in doing a bold deed, the more easily such things come to it, and the better for its future life and health.

In the regulation of the activity of the nervous system no function counts more than inhibition; and in life and character no trait counts more than self-control, and none is of more value in preventing nervous disease in the predisposed. All that I have said of the cultivation of other traits may be said as well of self-control. But we can not begin with the latter at too early an age. The modern method of training a child from the moment of birth, not heeding its every cry, appears to be a lesson in self-control and not unlikely counts in future training. The earliest conscious lesson of this kind is teaching the child obedience, an extremely valuable lesson to it. At the same time obedience should never mean complete subservience to the will of others, which only weakens character.

I must not omit mentioning such great factors

in health as pure air, out-of-door life, nourishing food, abundance of sleep, and freedom of the play impulse, but their value is so patent that I need not linger here and will pass on to a subject which plays so large a part in the health of the child—the school.

The school should be a benefit to the child physically as well as mentally, so that it comes out of it with increased health and vigor. But the more common experience is rather the contrary, that is, that it mars its health. This is especially true of the neuropathic child, the one with an hereditary taint. It needs the training as much as does the vigorous child and, if that be given in a way befitting it, only good should come therefrom. But this training should be given under lower pressure, if I may so speak, with less tax upon both mind and body than the strong child easily bears.

Let us consider some of the ills to which the school child may be subjected: First, there is the ventilation. Too often—probably this is the rule—the air is very foul. Even under the most favorable circumstances the air is likely not to be so good as it should be, so difficult is proper ventilation. For this reason, if for no other, long hours in the schoolroom are unfortunate.

School hours, too, often lead to grave faults in diet; a breakfast hastily swallowed or none at all, cold or unsuitable food for lunch, often miserable "truck" eaten between meals; and the same hurried hours may lead to the child's neglecting his bowels and becoming constipated. All these are strong factors in causing physical ailment, poor nutrition, and subsequent nervous disease. One should bear in mind, too, the bad habits children acquire from one another, seriously endangering their future health.

The undetected and uncorrected defects in the eye, astigmatism, etc., the presence of adenoids and other physical defects help to the development of nervous symptoms, while unsuitable desks and benches too often lead to spinal curvature.

These and many other factors in school life which I will not take the time to mention often play havoc with the child's health and come into prominence in studying the prevention of nervous disease. But I wish to dwell rather upon some faulty methods in the school which seriously threaten the predisposed child.

Overwork, though in itself not usually so harmful to adults, may do serious damage to the impressionable organism of the growing child.

There is a prevailing opinion that our schools burden the child's mind more than is good for it. We should be especially careful not to tax the mind of the neuropathic child excessively.

Many of our best educators believe that the schools have too long and continuous hours of work, and mistakes are often made in giving the child work at home in addition. Shaw says a child should not take work home before his seventh school year. The child is often burdened, too, by the parent's giving it music and extra studies at home. Great harm is often done in this manner. On the contrary, some housework at home often benefits the child. The principal of a Massachusetts school said that those who do some housework at home are more thorough in school. Such assistance at home often helps to health and character.

Almost as important as the amount is the kind of work done. Pestalozzi, the father of modern education, taught that education consists in developing what is in the child, not in crowding his mind with a mass of information. This truth seems often to have been lost sight of since. Many years later Herbert Spencer said that the child was injured by being thwarted in its natural inclinations, coercing its attention to books,

and giving it subjects before they are understood.

I believe the best educators of the day are trying to come more and more to Pestalozzi's ideas of giving only subjects which accord with the child's inclinations and development. Young children learn languages easily, but they should be taught by speaking them, not by teaching the science of language. Pestalozzi did not even teach the young children to read, but rather to observe carefully and then to describe accurately what they saw, thus exercising them in language and the power of observation.

And so young children should be taught concrete number relations, and not the rules of arithmetic; to draw freely with the pencil and not to write with the pen. All this is to teach the child what it can fully understand and what accords with its inclinations. To-day it is becoming almost universally recognized that nature study and manual training are especially suitable subjects for young children. Such abstract studies as grammar should rarely be taught before the child is fourteen years old.

A prominent educator says that that work leads to the wholesome development of the child which maintains its interest, fosters the spirit

of inquiry, and satisfies its love of activity. The true test of the work is that it gives joy to the child's heart. The suitable choice of work is especially important to the neuropathic child. For subjects which do not accord with its mental development and which it does not understand, are a special strain upon its nervous energies and may become disastrous.

It is not alone the school work that counts with the child's health, but ofttimes even more the emotional conditions which arise in the schoolroom. Many of these are exceedingly harmful to the child. Prominent among causes of such conditions are the examinations to which school children are subjected. It has been observed that a large proportion of children lose weight during examination. The worry and strain produced often do untold mischief. To a large extent such examinations can and should be abolished.

Then again children are often unduly stimulated by bestowal of class honors, prizes, etc. The excessive work entailed often leads to exhaustion, and, besides, the prize may weaken character by increasing pride and vanity. Such emulation does harm to many in an opposite manner,

by the disappointment of failure and the deep mortification of conscious inferiority.

I believe that there can be no doubt of the correctness of these views. At the same time children vary greatly in their dispositions and needs. Some can not be guarded too carefully from praise and flattery, while others need constant encouragement. Some children are benefited by the very measures I am aiming to discourage. Here, as elsewhere, the best results are to be secured by the exercise of the tact and insight of the wise teacher in the individual case.

Another frequent source of harm to nervous children is the punishment inflicted upon them. The mortification and humiliation thereof, as well as the fright and fear, may play havoc with the child's nerves. In this instance the influence is not only in the discipline, but also in the teacher who applies it.

Pestalozzi lived with his school-children. They came to love, almost to worship him. He said he could punish without doing harm in the way of producing bitter feeling or otherwise, for his pupils knew it was the hand of love that was laid upon them.

The teacher means so much to the child, not

only in the effect of the discipline upon it, but also in her understanding of all its needs and possibilities. There is very much, indeed, for the child's mind and health in selecting the right teacher. But, even then, there is so much in the teacher's duties that overtaxes her that she is not always in condition to exert the best influence upon the child.

It will be a great blessing for teacher and pupil alike when the importance of the health and education of the children shall so impress itself upon the public mind that abundant means shall be forthcoming, and good and sufficient schools, and enough teachers, so that the latter will not be overburdened, nor the schoolrooms overcrowded. It will, furthermore, be a blessing to the neuropathic, in whose behalf I am now writing, if, by methods of grading or classification, those children who would be benefited thereby are put upon shorter hours, less straining work—upon a lower-pressure system, as I expressed it—than the average child.

It may be well to speak briefly of some other educational influences inside and outside of the school. The cultivation of the esthetic part of our nature is a very important part of education. The appreciation of all that is beautiful in the

world adds so much to life. At the same time, it is well to bear in mind that too much devotion to music has wrought damage to many a weak, nervous system; and to force its study upon one with no inclination for it, is an injustice to the child, if it does no further harm.

The literature a child reads has great influence upon its mind and health. That which gives food to its imagination and arouses high ideals is a blessing. But unfortunately not all is of this character. Much of it is weak, some is unseemly, altogether unfit for a child, and some inspires fear to a hazardous degree. I suspect it is not generally appreciated how much fear harms the nervous, both young and old. From the story of the foolish nurse girl to appall her charge, from the fear inspired by punishment in home and school, and too often by the stories of religion, from horror of the stories in the sensational newspapers, and from the unavoidable accidents of life, there is everywhere abundant opportunity for its blighting effects.

There is another factor in reading that also counts for much; that is, suggestion. Now that our attention has been called to the effects of suggestion in medicine, our daily experience but increases our knowledge of its power. It counts

in training as well as in causing and curing disease.

What power suggestion may have in training is well illustrated by an instance recently under my observation. A child, aged thirteen years, was brought to me by a probation officer of the juvenile court. The school teachers could do nothing with him and he was pronounced incorrigible. The officer brought him to me because she had heard of operations being performed on the brains of incorrigibles, and she wished to know if anything could be done for this child. After examining the child carefully, I spoke to him of the satisfaction there was in getting along with teachers and companions, and of the joy there was in having the love of all. I then gave him some tablets with instructions to take one three times a day. I assured him that they would strengthen his nerves so that he could conquer himself, show the fine qualities that were in him, and help him to gain the love and admiration of all. From that moment he was a changed boy, and there has been no complaint of him since. The teacher may, and doubtless often does, influence the child through suggestion. The simplest and probably most efficient mode in this instance, is through encouragement and assurance of success.

The subject is too large for me to do more than allude to a few things, which seem to apply rather to adults. The daily papers are a most prolific source of disease by means of suggestion, especially the advertisements of nostrums and quacks with their painful detail of symptoms, and the sensational description of disease, whether of given individuals, or taken from hospital lectures, or the like.

But even more baneful than the newspapers is the habit of making sickness and the sick room the common topic of conversation.[1]

Such suggestive influences as just stated, produce their blighting effects more upon adults than upon children, but they are not altogether without effect on the latter. Children, unfortunately, read the daily papers more than they

[1] I think it would be a blessing if physicians would take greater pains to impress upon the community the mental tortures often inflicted upon the sick and nervous by speaking much to them about their illness, or about illness in general; and, not rarely, even by the simple question, "How do you feel?" which may bring their condition so vividly to their minds. Not less a source of mental torture is the advice so freely given to the sick on every hand, advice to try a given remedy, to change physicians, and the like. The harm is only partly in the fact that the advice may be taken to the patient's detriment. The state of mind produced, indecision, uncertainty, etc., is sometimes lamentable. Even the physician scarcely appreciates the loyalty of the patient who has clung to him throughout.

should be permitted to do, and subjects of conversation which appear to fall upon their ears unheeded are often silently and insidiously producing results as pernicious as they are unrecognized.

The influences I have just mentioned are hard to combat. They leave no trace on the normal, vigorous individual, and to ward off their ill-effects on the weakly we must aim—which is the whole purpose of our training—to build up vigorous health.

TREATMENT AND PREVENTION OF ALCOHOLISM

THERE are three institutions which receive the inebriate for treatment, the hospital, the insane asylum, and the prison. To intelligently consider what should be his treatment we must study those effects of alcohol which lead him to become an inmate of these institutions.

The effects of the moderate use of alcohol are still a matter of discussion. Neither experiments upon animals nor clinical observations have fully cleared up the subject, and very different views are held. Some believe that alcohol is always harmful; others, that it is mainly a benefit and, to a degree, a need of mankind. Doubtless the truth lies somewhere between these extreme views.

But there are no differences of opinion as to the effects of the excessive use of alcohol. The passage of large quantities of alcohol in the blood to the various organs produces a state of irritation or disease in those organs. The alcohol comes first, and in largest quantities, to the liver.

As a result we often find a contracted or, what is termed, a hobnail liver. Much of it goes to the kidneys and often causes Bright's disease. It also affects the other organs, but chiefly the vascular system, that is the heart and blood vessels, and the nervous system.

In addition to causing disease in these various organs and systems of the body, alcohol predisposes to various general diseases, especially to the infections. The latter are due to invasion from without, invasions by an army of microbes which poison the human system by the products of their activity. Now the human body is fortified by countless minute bulwarks, the white blood cells, which arrest these microbes at their entrance into the system, and neutralize their effects. Alcohol tends to lessen the number of these little protectors, the white blood cells, so that they can not so well prevent the entrance of hostile microbes, or, if the latter have gained admission, can not so well resist their advance. In other words, the alcoholic is more likely to fall a prey to infectious disease than is the normal individual, and he is also more likely to succumb.

It is especially its effects upon the nervous system, above all upon the brain, that cause alcohol

to be such a scourge to mankind. The immediate results of large quantities of alcohol upon the brain are due to the direct poisoning of the brain cells, and are manifest in the symptoms of intoxication. The more prolonged and more profound mental disease, delirium tremens, is probably not due to alcohol poisoning alone, but also to a complicating infection, for which the weakening effect of the alcohol upon the digestive organs and the nervous system paved the way.

The permanent mental disease and final dementia, to which chronic alcoholism sometimes gives rise, are due to organic changes in the brain, somewhat of the same character as those found in the liver and kidneys.

There is a striking difference in individuals as to the harm done them by alcohol. Some can take large quantities for prolonged periods with impunity, others are injured by what is considered moderate drinking. External conditions may play a part. Thus, those who are ill fed, overworked, or drink because steeped in wretchedness and misery, are more likely to be injured than those who live in comfort and drink for pleasure. But chiefly it is the predisposition of the individual, his nervous make up, that counts. Those with weak nervous systems, nervous dis-

ease, or brain defect, are especially prone to be injured by drink. They are likely to be injured by smaller quantities, and also to be less able to resist the seduction of alcohol than is the normal being.

I will mention some classes to whom these statements apply.

The epileptic is seriously injured by alcohol; his convulsions increase in number, his mind is likely to get rapidly worse, and not rarely he is seized with mental attacks of great violence in which the most fearful tragedies may be enacted.

Cases of beginning paresis and many with other forms of insanity as well as individuals who might be spoken of as potential lunatics, are easily injured by alcohol.

Cases of serious injury to the head, whether or not definite mental symptoms have as yet appeared, not rarely take to drink, and become at times incurable therefrom.

The imbecile and the weak-minded easily become the slaves of drink, and form no small part of its victims.

Furthermore, individuals with a special tendency to nervousness, and nervous diseases, cases of arterio-sclerosis and of beginning mental in-

capacity, as well as degenerates in general, belong to this class.

It is generally estimated, that from 20 to 30% of the inmates of insane asylums owe their presence in those institutions to the use of alcohol. No small part of this number belongs to the classes we have just been describing. This is also true of many cases committed to inebriate asylums or to other institutions on account of habitual drunkenness. The English Inspector of Inebriates, who is brought in close touch with all the inebriates under legal restraint in England, stated that in his opinion the majority of them are naturally defective, that they have weak judgment, or imperfect control over their impulses, or are lacking in moral sense.

Alcohol plays a larger part in sending men and women to prison than to the insane asylum. A former prosecuting attorney of our police court stated to me, that of some 15,000 cases which appear in that court annually, from 90 to 95% are directly or indirectly due to drink. An official of the Ohio penitentiary informed me that 75% of their inmates are intemperate, and it is altogether likely that in fully as large a number alcohol has some causal relation to their crime.

How does alcohol lead to crime? No small

number of crimes is committed in alcoholic debauch, when judgment is in abeyance, consciousness blunted, and passion in complete control. But alcohol may play a like rôle apart from intoxication. It hastens motor reactions, and makes emotion more imperative, while it lessens the power of inhibition. All of this tends to remove the check we hold on our passions, impulses, and forbidden desires, and thus favors crime. Nor do these physiological effects count the less, because those with a weakness or defect in their mental or nervous organization most easily fall a prey to alcohol, a class whose usual birthright is a lessened power of self-control. On account of this loss of control of passion and impulse alcohol is a prime cause of the great spread of social disease, one of the chief menaces of the modern world.

We come now to the treatment of the inebriate. I need not refer to the medical treatment of a debauch, or of more prolonged alcoholic disease, such as delirium tremens, or to asylum treatment of alcoholic insanity. Alcohol has weakened the subject's will power and given him a craving for drink which he can not resist, so that he is continually drinking, or in imminent danger of doing so. The great purpose of treatment is to

lessen the craving for stimulants, and to restore the will power, so that the individual may abstain from drink and be restored to health. To achieve this purpose there are three special needs: First, the physical health must be restored, for the weakened will power is due to loss of tone in the nervous system and can only be fully regained with the return of the nerve tone. Secondly, there must be reinvigoration of the patient's mental and moral fiber. And thirdly, there must be sufficient length of time devoted to the treatment otherwise we will see relapse after relapse.

To restore the physical health we must use all the hygienic measures at our disposal; good food, out-door exercise, and yet sufficient rest, abundant sleep, regular habits of life, occupation, entertainments, etc. What part do drugs play in the cure? They may help to relieve or to remove symptoms, and combat complications, as well as to build up the general health and tone up the nervous system. In so far they help to cure the patient. But no drug has any specific effect; and claims that certain medicines will in themselves cure the drink habit, are always fraudulent.

At an early period, before the treatment could

yet succeed in reëstablishing health, the patient may need moral support from outside to enable him to resist the temptation to drink. The personality of the physician or friend may succeed in infusing into him the spirit that will support him until further help comes. Religious fervor, the enthusiasm aroused by a temperance movement, signing the pledge, and like influences may suffice to give him the necessary moral support.

The drug treatment that has been instituted may add to the patient's moral force through suggestion, that is, by giving him the thought that it is going to cure him, and full confidence that it will do so. This force which we term suggestion, plays a large part in life, especially in medicine. It may aid the drug treatment of the inebriate, and give him for the time complete self-mastery, which in fortunate cases may remain permanently.

It is because of suggestion that quack remedies and quack institutions have such a vogue in the treatment of inebriates, and that the latter turn to them as their means of salvation.

The quack understands how to make the most of this mental power. He proclaims with trumpet blasts that he has discovered a sure cure. He has the infallible remedy. He may state that

this remedy is the noblest metal, gold, thus making a strong appeal to the patient's imagination, though in reality gold has no value whatever in this treatment. Then prominent names are given, attesting that the remedy is infallible. Such statements raise the patient's hopes to the uttermost. His going to the institution voluntarily is already an act of will, a first step toward gaining its full power. And now, in addition to confidence, hope, suggestion of a cure, other influences come to his aid; pride in himself and in what he is undertaking, fear of the disgrace of a backsliding, and various other inspirations to pride and self-respect which the institution aims to implant in his heart.

By such means the quack has his successes, and it may appear that one should, therefore, not decry his methods. But it can scarcely be doubted that here, as elsewhere, fraud should not be countenanced; that in the end it harms the cause it appears to help. The quack has necessarily many failures; and on account of his vast pretentions, these failures tend to discredit all treatment and all efforts.

The treatment so far outlined presupposes a certain readiness of response on the part of the patient, that is, that there is as yet no profound

weakness of his nervous system. If such efforts do not avail, if the patient fall again and again, the alcohol is bound to exercise its destructive effects and may put him where no cure is possible. The welfare of such a patient demands that he should soon be put under restraint, where alcohol is beyond his reach. Such restrictions are needed at an earlier period by the weak-minded, and by those in whom there are already organic changes in the brain or who have mental disease, as well as by many others who have little or no self-mastery.

The restriction of personal liberty is intended simply for the purpose of keeping the patient from drinking and thus giving him the opportunity to fully recover his health and his self-command. Therefore, at the same time that restrictions are put upon him, he should be put in a position most favorable for regaining his physical and moral health.

There is a common mode of restriction of the personal liberty of the inebriate in vogue to-day. It is by means of the police court and the prison. And what is the result? A writer who has had much experience in these matters says that the legal treatment by the lower courts of cases of inebriety is fully as fatal as are the saloons them-

selves, that the hosts of inebriates who are forced into the station house and the jail are transformed into legions of incurables who never desert or leave the ranks.

The sanitary conditions and hygiene of the prison do not tend to build up the physical health, so necessary for the cure of the inebriate; neither does the prison tend to build up his moral health. The sentence of the court robs him of his self-respect. His associations in prison sap what pride of character may have remained with him and only hasten his steps toward the saloon when the prison doors are again open to him. That appears to be the history of our own workhouse. The "drunks" leave it but to return again. A few months ago there was a woman in the workhouse, who had been living in Cincinnati twenty-three years, and who was now serving her eighty-fifth term for drunkenness. Some years ago a woman died in an insane asylum in London who had been convicted for drunkenness four hundred times before she was finally committed to the asylum.

Such treatment of the inebriate tends to make him a disgrace to himself, a terror to his family, and a care and a danger to the State. It helps to scandalize and demoralize the public and fill the

prisons, as well as to foster the pauperism, disease, insanity, and crime, which alcoholism brings in its wake.

It is for these reasons that inebriate asylums, whose purpose is both the care and the cure of the inebriate, are such an imperative need of the State. Such institutions should embrace in their arrangements and methods all that builds up the physical, mental, and moral man.

They should be in the country with pleasant surroundings where their inmates are farthest removed from temptation to drink. While medical treatment, baths, suitable discipline, the knowledge that they are under the direction of a guiding mind, are very important for the health and the moral tone of the patients, the most essential part of the treatment in most cases is suitable occupation. This will usually be gardening and farming, but, especially for the winter months, there should be opportunity also for all kinds of handicraft and artistic work. There should be entertainments, too, social gatherings, lectures, all that is an intellectual, moral, and religious stimulus. Buildings and grounds should be designed so as to have a pleasing effect.

The inmates shold be divided into two classes

—the institutions themselves should be thus divided; the one, the mild, the curable cases; the other, the supposed incurables. The latter would include the weak-minded, and those with mental and manifest organic brain disease.

The inebriate should be detained in the institution long enough to insure his cure. Often, perhaps usually, that would mean from one to three years. Of the second class, the supposed incurables, many should never have unrestricted liberty. It has been suggested that on leaving the institution the inmates should be urged to join a temperance organization.

Such institutions should be established and supported by the State, and the Law should provide that those requiring it could be brought to the institution for treatment. The needs of such treatment are becoming well recognized, and efforts are being made in that direction on many sides. But as yet nowhere do we find fully adequate provisions for the care and the control of the inebriate.

Ohio does nothing in the way of caring for its inebriates, further than imposing a fine for drunkenness. Inebriate asylums should be instituted if it were only for their economic value for

they might be made nearly, or altogether, self-supporting, and inebriates are in many ways a great expense to the State.

The trend of modern medicine is toward the prevention rather than the cure of disease, and nowhere should this count more than in relation to alcoholism.

To study modes of prevention we must necessarily study the causes of drink. These lie partly in the individual himself, partly in external conditions.

We have already learned that a large part of the inebriate class is weak-minded or has some other defect of the nervous system. The defective nervous system may have been an hereditary gift due to mental, nervous, or other disease in the parent. I wish for a moment to speak of the influence of alcoholism in the parent in producing the same condition in the child. That sequence, an alcoholic parent and an alcoholic child, is very common. Often it is an hereditary gift; the child receives a defective nervous system; or it receives only a weak will, so that it has little self-control; or, possibly, it inherits a craving for drink. But there can be little doubt that, for the larger part, the son's taking after his father is because of his environment. I need but call attention to the

presence of two powerful incentives to drink,—example, and the presence of wretchedness and misery in the household.

Of the external causes of drink probably the one most universally active is poverty. The poor man drinks because his food is badly cooked—perhaps his wife never learned to cook—or because he has insufficient food; he drinks to still the pangs of hunger. He drinks because there is discomfort and wretchedness at home; he drinks to drown his sorrow. He drinks because his social instincts draw him to the saloon, because the place attracts him. He drinks because he is poor, and he is the poorer because he drinks.

To relieve this condition is one of the greatest problems that confronts humanity.

Apart from poverty, states of misery due, for example, to domestic unhappiness, to losses of fortune, or to the monotony of life, so common to idle and well-to-do women, often drive to drink.

The individual's occupation is very often the cause of the drink habit. This is true of callings where there is great temptation, for instance, the saloon, the stage, etc.; or where business success is in the balance, as to the salesman who succeeds best when he drinks with his customer. It counts even more in occupations where the workman

thinks he can work better with the help of alcoholic drinks, an opinion upheld by tradition and long custom. While alcohol blunts sensibility and lessens skill, it often gives a deceptive sense of added muscular power. For this reason when the work demands only coarse muscular power and not skill, especially when the workman is underfed or illy nourished or the work is straining, a habit is formed of beginning the day with a drink, and as the help of the latter is only temporary, following it by a number of others. There is, therefore, very much drinking and much harm done among those doing unskilled but hard labor.

The remedies here are raising the standard of living—for doubtless it was underfeeding and overwork that gave rise to the tradition that drink was needed—legislation for the purpose of making it more difficult to get alcoholic drinks, and education.

The drink habit is not rarely the result of taking alcoholic drinks for the relief of sickness or pain. This is especially common with those taking "bitters" or "patent" medicines whose active principle is alcohol. The danger is the greater because one does not know what he is taking. So frequently has inebriety followed the habit of taking Peruna—and among people, too,

who are strong prohibitionists—that a physician facetiously dubbed the condition perunitis. Now that it is becoming difficult to obtain the common alcohol drinks in many localities, there is the great danger from these preparations advertised as medicines. They are pushed forward the more by those who make money by them. The utter greed—inhumanity I might say—of some of these proprietors was shown during the epidemic of yellow fever in New Orleans. While physicians and city authorities were making the fight of their lives to control the disease by destroying the mosquito, a fight in which they were so successful, this nostrum was advertised to the people not only as a cure but as a preventive. The attempted deception under such conditions is too monstrous for words.

The pure food law, especially if supplemented by State legislation, should do much to lessen this source of evil. Education should do more.

Convivial drinking at social gatherings, festivals and the like, is also a common cause of inebriety, especially in the predisposed. The one factor here which counts so much and is, unfortunately, so common in American life is treating. Education appears to be the only remedy for this great evil.

I have had occasions to mention repeatedly legislation and education as remedies for the drink habit. I wish to add something on these subjects.

Very much has been attempted by legislation to control the sale of alcoholic drinks. I will only mention closing the saloons Sundays and at given hours on week days; State ownership or control; high license; punishing drunkenness; local option; and prohibition. To-day the question of prohibition is prominently before the American people. There are decided differences of opinion as to the ultimate results of this measure even among those who fully recognize the evil effects of alcoholic drinks and who are trying to do all in their power for the amelioration of these evils.

There are disinterested and impartial observers who believe that prohibition will be a failure, that law-breaking and, in so far, contempt of law will follow it; that it will lead to an increase of the consumption of the distilled liquors at the expense of the lighter alcoholic drinks; and especially that it will result in the sale of impure liquors, of all the most deadly to mind and body.

We need not accept these preconceived opinions. Prohibition is now on trial, and on so ex-

tensive a scale that actual experience should soon tell us what it can accomplish. We may safely prophesy that it will be a success or otherwise as it accords with the sentiments and wishes of the American people.

Mere legislation does not lessen human frailty or curb human passion. To be effective, Law must be expressive of popular sentiment and sustained by it. Education counts for much more in changing the habits of a people than does legislation. It may impart knowledge that influences the judgments and actions of life, or wholesome fears that tend to curb passion, or ideals that are mainsprings of character and conduct. Doubtless there is much more known about alcohol by the people to-day than was known some generations ago, and there is also improvement in their habits. But there is need of much more instruction and an urgent cry for it. Even in Germany, where alcoholic drinks appear to be deemed almost as essential as food, there is an insistent demand that physicians instruct the public as to the harm done by the abuse of alcohol. Such teaching must necessarily be more effective when it is supplemented by such aids as playgrounds and nature work, which supply abundant opportunities for the exuberant activities of youth; and

by other attractions than the saloon which may meet the social needs of adults; and when the standard of living is such that there is a less urgent cry for stimulants.

Let us turn our attention to teaching children in the schools. For quite a number of years every State in the Union has had a statute enforcing the teaching of the effects of alcohol on the human system. There is much difference of opinion as to the good done by this teaching, some believing it useless, others that it has accomplished great good. It has been suggested that the prohibition wave now passing over America is due to this school teaching. While the latter may have played a part in this popular movement, a greater factor, no doubt, was the fact brought home to the heart of the people of the evil influences of the saloon, and the unholy alliance between brewer, saloon, and corrupt politician, which has done so much to poison public and private life.

The different opinions of the effect of school teaching are doubtless on account of actual differences in results, due partly to the teachers, partly to what is taught.

Lack of results is, doubtless, often due to the teacher. She may be lukewarm or not in sym-

pathy with the teaching, or she may feel herself unfitted to cope with the situation. For just where the teaching is most needed, where the environment brings strongest temptation, the antagonism of parents and people and the discouraging mental attitude of the child are likely to bring forcibly to the teacher's mind that she is not well grounded in the knowledge she wishes to impart. She scarcely knows what is truth, half truth or no truth, and, therefore, is illy prepared to remove doubts from the child's mind and infuse into it the right knowledge and the right spirit.

This instruction may count very much in the life of the individual, and should, therefore, be given by one thoroughly qualified both by training and spirit. Often this is best done by a physician. He should be one able to inspire the youth with the desire to fight temptation. To do that he must not only teach the truth about alcohol, but also make the pupil feel that he is doing so.

I shall take the liberty of outlining something of what in my opinion should be taught to school children.

The child should be told something of the disease, insanity, crime, misery and race degeneration which alcohol brings in its wake. He should

know that such results are usually due to its being taken to excess, but that excess means very large quantities in some instances, very little in others. Above all he should know how easily one becomes a slave to alcohol, that some become so almost at once. In this connection he should be taught the danger of treating, the ofttimes grave results to him who gives and to him who takes.

The child should be informed also of the dangers of quack nostrums. He should really be taught the dangers of quacks in general, for there are few greater dangers to society, and suitable teaching in school seems the best way of remedying this evil.

It is above all necessary that the child know how dangerous is alcohol to the young, that children who drink are duller and stand lower in their class, that alcohol is far more dangerous to the bodily and mental health of the child than it is to the adult, and that it mars his development. He should be informed that the Law forbids the sale of drink to minors, because this danger is so universally recognized. This lesson is so important because if the child can be kept from drink there is less danger for his future. The great majority who drink begin to do so before they are twenty or thirty years of age.

The effect of parental alcoholism is also an extremely important lesson, for the meaning of heredity and parental responsibility, if impressed upon the child, may appeal strongly to his heart. The story of the effect of parental alcoholism is a very tragic one,—I need only give some figures taken from the report of one of the great hospitals of Paris. Of 410 children born of alcoholic parents 108 were epileptics; of 2554 idiots, epileptics and hysterics, 1053 were born of alcoholic parents.

It is well, too, to impress upon the child's mind certain facts which will give him ideals tending to keep him from drink. For instance, that it is usually believed that the Japs were victorious in the late war because their soldiers were sober while the Russians were much given to drink; that in college athletics alcoholic drinks are forbidden while in training; and especially he should be informed of the attitude of employers toward drink. The knowledge has been forced upon the employer that skill, efficiency, and often safety, are dependent upon strict sobriety. With modern life and methods, positions requiring special skill and mental alertness are multiplying, so that there is a constantly greater demand for men who do not drink. So it can well be brought home

to the youth that if he is ambitious to make something of himself in life, it behooves him not to lose his opportunities by acquiring the drink habit.

I may have been needlessly prolix in these statements about school instruction, but I wished to bring out that the need of the child is not the increase of his knowledge of physiology, but the possession of the live facts of alcohol, facts that will give him the necessary knowledge, wholesome fears, and helpful ideals, that will aid him to guard and guide his own life.

SOCIAL DISEASE—WOMAN'S PROBLEM

Social diseases are so wide spread, affect such an enormous number of people, so seriously injure their health and lives, and have such disastrous influence upon their progeny, that a great American surgeon said that they were deteriorating the whole human family. I have termed social disease woman's problem, for there are strong reasons that it should be so considered.

It is woman's problem because of her husband. His illness, disability or death, is the wife's burden. How many tragic scenes does this bring before us! There is scarcely a darker picture than that of paresis—so called softening of the brain—in which there is a slow but sure loss of every attribute of mind, of every manly quality. The only lighter shade it presents is that death ends it all.

It is woman's problem because of herself. Social disease brings suffering, disability, and death; it brings discord, mental distress, insanity and more; and she is the chief victim. Much of the life-long invalidism of woman is due to this

disease, though the cause is usually concealed from her. Most of the pelvic diseases, most of the operations done upon the pelvic organs—and they are legion—most of the deaths from such diseases and operations, are due to the same cause. For almost the mass of women life would have a better meaning, and this world would be a different home, were it not for social disease.

Social disease is woman's problem because of motherhood and childhood to which it is almost a Gorgon's head. Most of the involuntarily childless marriages and most miscarriages are from this cause, and when a child is born into the world the presence of hereditary disease is likely to cause its early death, or leave it defective in body or mind, or both. The disease produces also 80% of the blindness of infancy.

Social disease is woman's problem because of her son. As he grows her uneasiness and anxiety grow with him. She watches his every movement, fearful because of the temptations and dangers that encompass him, and times beyond number she sees her worst fears realized.

Social disease is woman's problem because of her daughter. This is the saddest part of our story. The son need not run into danger. If he will he can practically safeguard his life so

far as this disease is concerned. Not so the daughter. If she marries she runs into mortal danger. That this is a sinister fact bears no gain-saying. So wide spread is social disease, so secret the lives of men, that there is nowhere a guarantee of safety. The men who are a source of danger—and their number is legion—may be divided into three classes. The first class is indifferent to the danger which they are bringing. Such men are worse than brutes. It is to be hoped that their number is not large. The second class is simply ignorant. Their number is large. The third class—their number, too, is not small—might be termed innocent. They had believed themselves perfectly well. Perhaps that assurance had been given them by their physicians, for it is unfortunately true that social disease, whether it be of a purely local character or constitutional in type, may lurk in the system years after all symptoms have disappeared, and as there is no trace of the disease, the patient is pronounced to be well.

Be the explanation what it will, it is a lamentable fact that social disease is very common among married women though, fortunately for their peace of mind, they are usually not informed of its true nature. I can but reiterate the fact that

they are the chief victims, usually the innocent victims.

I have said enough to show that social disease is woman's problem. The tragic scenes at home, the menace to herself, the fear for her son, the threatened doom of her daughter, tell this. They tell, too, that her whole heart must be in its solution, and that she should work night and day until that solution is an accomplished fact.

What is the solution of this problem?

The answer to this question I believe is to be found in a single word—education. Undoubtedly ignorance is accountable for many of the sins against the sexual functions. It is a common experience of physicians, when patients come to them for the results of bad habits, which unfortunately are exceedingly common, to hear the bitter complaint that they never had been informed of their harmfulness or they never would have contracted such habits. Ignorance is also responsible for many cases of social disease and the ruin of many a girl and young woman. The policy of the past, the so-called conspiracy of silence, the concerted efforts of society to conceal all knowledge of this kind, is responsible for this ignorance. The folly and harmfulness of this policy is beginning to be recognized and on

many sides efforts are being made, even organized efforts, to remove this ignorance and give suitable knowledge. Large societies have been formed in nearly every land for the diffusion of such knowledge. Lectures are given in universities, in the army and navy, and in factories and elsewhere to working men and working women. These efforts have doubtless effected much good, and they promise much more when such measures are carried out more extensively.

And yet mere knowledge is not a sufficient safeguard from these dangers. Social disease is acquired in countless instances by those fully aware of its nature and its perils. It has been said that fear is the protecting genius of the human body, and doubtless, wholesome fear, inspired by the kind of knowledge of which we are speaking, will lead to the protection of hosts of people. But at the same time there are hosts whom it will not protect. Ambition, wealth, and manifold other things, often lead man to defy danger. In case of the strongest passions of the human heart, knowledge, the fear of consequences, may restrain, but usually something else must be the decisive influence. Ideals, moral principals, the power of self-control, and the special bent of mind are the controlling factors. For most men, life's

associations, temptations, and personal experiences have created a mental attitude wherein the behests of passion become imperative. The only sure safeguard is an opposite mental attitude, one distinguished by pure thoughts and a pure heart, which enables the individual to pass safely where others might fall. This mental attitude is to be acquired by means of the right training and education from childhood. So the solution of the problem in which we have such deep concern is to be found in the training and education of the child, so far as that pertains to our present subject.

It requires but a mere glance to see that this training is usually just the reverse of what it should be. The young child soon has a curiosity to know something of the origin of life, a desire that should have due consideration. Soon it wishes to know more of the mysteries of life; and later new instincts arise, when it needs further instruction and the forming of wholesome habits of body and mind. But all this is very different from the treatment usually accorded it. Its desires and needs are met by absolute silence, or, worse than silence, a veil of mystery is thrown over the subject, which only stimulates the inquisitive mind. But knowledge comes to the

child; it comes from the companion of the gutter or worse sources, and is usually largely false and perverted knowledge which tends to produce an unwholesome state of mind. Furthermore, as the facts given it are whispered in secret, facts which usually are received by its elders with the hush word, they become associated in its mind with both mystery and shame. The consequence seems almost inevitable. The facts are cherished in secret, and thereby dwelt upon the more. Life is full of scenes which arouse sensual imagery, and maintain and intensify the mode of thought to which the child is tending. The result is the prurient mind.

This is one of the most unwholesome and injurious influences in life. It directly incites to sins against the sexual functions, and makes it hard or impossible to combat them. But, quite apart from this, the prurient mind is a great cause of disease, one of the most prolific the world affords.

The proper training should give the child the knowledge which rightfully belongs to it. This tends to create a pure mind and to safeguard its future. The first lesson given to it should be where babies come from, a lesson which should be given tactfully and wisely. Later, through

story of plant and fish and bird, it should be taught that living beings need both a mother and a father, and should thereby come to know the purpose and sanctity of the reproductive organs.

The parent in giving these lessons has great opportunities for the future protection of the child. In thus telling it the most intimate facts of life she is likely both to deepen its love and to gain its full confidence, so that it is likely to come to her and not go elsewhere when seeking further knowledge of the same kind. Especially will this be true if she impresses upon the child that this is personal and confidential knowledge. Thereby it may be taught not to discuss these matters with others, to look with reverence upon the whole subject, and to shun those who treat it with levity. When the child's curiosity is satisfied its mind is not likely to dwell much upon the subject, a gain of incalculable value.

An important practical question is, when should the first lesson be given. The usual answer is, when the child begins to crave such knowledge, which is mostly at six or eight years of age. But it must be remembered that the great object of this whole course of instruction is to guard the child from harm. Its first impressions are often

the strongest, and it may depend upon this first knowledge, whether it comes to look upon the mysteries of life as exalted and sacred, or as shameful and unclean. Now as the parent's instruction is for the purpose of giving high views of life, it should be given before the child can receive ideas from others which have a harmful influence. Very often this means teaching the child before it goes to school, whatever its age may be.

The home instruction should at later periods include other subjects in addition to those already mentioned. Girls should be instructed as to the menses and motherhood, as well as to have respect for themselves and exact it from others. Boys should be informed of seminal discharges, and the dangers of the quack. All should be warned as to bad habits, should be told enough of social disease to know its danger, and should be taught to avoid bad associates, and the need of pure thoughts.

If every parent would wisely give this instruction our problem would be solved. In truth, nothing else can fully substitute such parental lessons. Unfortunately, few parents are willing to do this duty, and still fewer can do it wisely. It is for this reason that the solution of our prob-

lem must be sought elsewhere, that we must apply to the schools where instruction can be given to all. This universal teaching should confer a benefit upon each individual, which parental instruction can not give. It matters not how wisely the latter may be given, when the child moves among others it is still in danger, for if their tone be low it can scarcely help being contaminated. If, on the other hand, school instruction raises the tone of its associates, this great source of contamination is eliminated.

Even if the parent believes that the son can be fully guarded in spite of his associates, there is still the case of the daughter. The great menace of danger to her is because of her marriage, a menace which will always remain unless the tone of the whole community be elevated—the very purpose of school instruction.

The various lessons to be taught have already been mentioned. They may be summarized as lessons in self-knowledge, self-reverence, and self-control. Even greater care is needed in giving them in school than is demanded of the parent. The early lessons should be given in the way of biological training, and all lessons should be given so as to appear to be a natural part of the course of learning. For the effort must be,

while giving all necessary information, so to give this knowledge that the child's mind does not dwell particularly upon it, and especially that the facts assume no emotional garb. Sometimes the instruction will call for special grouping of pupils in which their disposition, rather than their ability or knowledge, must be considered. Sometimes there may be need of individual instruction.

Such great care is necessary because the instruction may do harm as well as good. Knowledge may be seductive instead of deterrent. Very much depends upon the wisdom of the teacher, upon her fully understanding the nature of the pupils, and especially upon her knowing how to infuse the right knowledge and the right spirit.

We can not demand or expect from the general teacher all the acquirements and insight that this teacher should have. There should be special teachers for this work, who have been specially prepared for it. There is systematic instruction of this kind in the Michigan State Normal College at Ypsilanti by Prof. Jessie Phelps, that is, instruction which should help the teacher who undertakes to do this kind of work, but I do not know of its being done elsewhere. It is almost a fundamental need for the solution of our

problem that teachers receive such instruction in normal schools and universities.

There is yet another fundamental need, that is the creation of a public sentiment demanding this school instruction and the preparation for it. To meet this need may be the most difficult of all. I want you to know this, and to know also how important it is, and for this reason I am going to give you some of my personal experience, though it is not altogether pleasant to me to do so.

Some years ago Dr. Nora Crotty and myself gave a course of sex instruction to the higher grades of the fifth district school. The success was remarkable so that superintendent, principal, teachers and parents were delighted, and none doubted the good that could be done by such teaching. On the strength of that result I urged the superintendent to give Dr. Crotty a regular appointment for that work, as she was well fitted for it. On another occasion I spoke to a member of the school board on the same lines, promising to help where I could, that is to give talks to the boys without pay, if Dr. Crotty were given this position. But my efforts were in vain.

I have not said this in the way of criticism. Very likely I would have done likewise were I in

their place. They probably believed that they would not be upheld in such a course by public sentiment, and perhaps were wise not to begin an undertaking which would meet with popular antagonism.

Now another instance. Last year the Robert Clarke Co. published a book for me entitled "Education in Sexual Physiology and Hygiene." Just a few words about this book to show that it was a serious work and deserved consideration. A prominent clergyman wrote to me, "You deserve universal gratitude." Another wrote, "You are a pioneer whom many will rise up and call blessed in time to come." The book appeared to be doing pioneer work, for the booklist of the American Library Association said that it was the first attempt in print toward a course of school instruction on this subject. The very fact of its doing pioneer work should have drawn the attention of the educational world to it quite regardless of the question of its merit.

The book was sent to many prominent educators, only four of whom acknowledged receiving it. It was also sent for review to all the prominent educational journals of America. Only a few of them gave it any notice and then mostly only a cursory one. These acts could not have

been because the importance of the subject was not recognized. Quite recently at a large educational convention a distinguished educator spoke of the great prevalence of wrong-doing among school children, and of the great need of sex instruction, in which statements he doubtless expressed what is common knowledge and prevalent views among educators.

This silence of the educational world I can only interpret as fear to touch the subject, or the belief that the time to do so is not yet ripe. In other words public sentiment is believed to be so much against such instruction that educators will not interest themselves in it.

I believe the antagonism to such teaching is to be found among the educated rather than among the uneducated classes. At least that is indicated by my own limited experience. The fifth district school, where the aforementioned course of sex instruction was given, is in a very poor district. In this instance very many of the parents gave the teachers their heartfelt thanks because of what had been done for their children. No word of objection was heard on any side.

Another experience was quite the reverse of this. The principal of a high-toned private

school, knowing I had spoken to the boys of the fifth district school, requested me to speak to his boys on the same lines. At first I demurred as I did not wish to do so for various reasons; then I said I would take the matter into consideration. Some weeks later, when Dr. Helen Putnam was to lecture on sex education and we were very desirous of giving her a large audience, I said to this principal that I would speak to his boys if he would use his efforts to get his teachers and the parents of his pupils to attend Dr. Putnam's lecture. He was much embarrassed and finally confessed that he had spoken to the directors of his school about my talking to the boys and had received instructions that those talks should not be given.

Now permit me to repeat the propositions set forth in this address. Social disease is woman's problem. Its solution is to be sought in education. The best education for the child, that most likely to favorably influence its future life, is home instruction wisely done. To practically eradicate or greatly lessen social disease, education must be universal, and that means it must be given in school. If this instruction is to do only good and not harm it must be given by teachers thoroughly qualified to do so. For such teachers

there should be special preparation, which should be given by normal schools and universities. In order that all this be done the antagonism in the public mind must be eliminated and a public sentiment created demanding this teaching.

I wish you not only to understand these propositions but I am very anxious that you should be fully convinced of their truth, for my purpose in coming before you to-day was not to deliver an academic address, but to enlist your interests and your efforts in this cause and to get practical results.

You have a great influence in the community. As a united body you can almost make public sentiment, and introduce such measures as you wish. Do you ask what I would have you do for the solution of this problem? I would have you teach everywhere that there is great need of sex instruction in school, but that it should be given by the right teacher and in the right manner. I would have you preach this doctrine with all your heart, in season and out of season.

But I would have you do more than this. I would have you use your influence to introduce this instruction into the school, for the demonstration of the teaching and its beneficial effects are the surest means of making public sentiment

in its favor, and besides we would have the results.

I would urge, first, that you try to have generally introduced such teaching as Dr. Crotty and I gave in the fifth district school. If done wisely, by competent physicians, there is no fear of its doing harm. Unfortunately there is little the physicians would tell these children of which they do not already know something. The chief object of the course would be to correct perverted ideas, to give higher ideals, and to warn of dangers. If this instruction is given not in a perfunctionary manner, but by those whose whole heart is in the work, it should do untold good.

I believe there would be an indirect effect of such a course of instruction, which is of incalculable value, that is the lessening of the danger of contamination of the very young. This danger is usually from the older children and should be removed through the higher ideals which have been given them. And with the elimination of this danger it will be a far simpler matter to choose the time and mode of giving this whole course of instruction.

But I wish also to enlist your interest in a course of instruction in the primary grades, a more difficult and delicate matter, also a far more

important one. It will require, first, finding the right individual, one whose gifts and interests specially fit her for the work. If she be one who has studied at Ypsilanti she may already be fully prepared for it. Otherwise she should seek light from every side and, I doubt not, her experience and observations soon would enable her to do good and effective work. It is altogether likely that her work and her success would be an object lesson and example to others and would become a nucleus of widely extended school instruction of this kind.

I will be glad, indeed, if my words lead you to make these efforts. If you do you doubtless will be successful, and this address will have been the most valuable and beneficial act of my life.

This paper was presented to the governing board of one of the women's clubs of Cincinnati with the request that I might read it before that organization, but the privilege was not accorded me. This fact shows even more clearly than do those mentioned in the paper how difficult is progress in this very important field.

DEFECTIVES

DEFECTIVES is such a large subject that in this address I shall limit myself to a consideration of some general principles which may be of interest to teachers.

I will say something first of the moral qualities of the mental defective.

The lowest grade, the idiot, has all varieties of disposition, from the most pleasant to the most brutal, but we have little concern with him to-day.

As to the imbecile, it is now well-known that the ranks of the criminal are largely recruited from his class. A distinguished French physician, Solier, describes the imbecile as an essentially anti-social being having only vicious qualities. Doubtless everyone of you knows imbeciles to whom this description does not apply. It applies really to but the smaller number. There is a class of imbeciles apparently without moral instincts, with no moral susceptibilities, to whom the term "moral insanity" has been applied and who usually become criminals.

In general, though, it is true of the imbecile, as it is of the normal being, that if he becomes a criminal it is largely due to his environment. But there is a difference. It is common for the normal child to have undesirable qualities, to be cruel, to lie, to steal, etc., so that he has even been spoken of as a semi-criminal. But as he gets older his growing insight shows him the futility of the criminal life, and furthermore his whole training and environment tend to suppress these traits.

The imbecile has not the insight of the normal child. He is more a creature of impulse, and has less power of self-control to keep the lower instincts in subjection and give reign to the higher ones. Moreover his environment, instead of suppressing seems rather to cultivate his ill qualities. He is likely to meet with rebuffs both at home and among his companions, to feel and to resent the injustice meted out to him; and he is more likely than the normal child to fall into bad companionship, by which he is easily influenced. So when he becomes a criminal, we may usually say it is due to his environment, though it is true he is made of clay that is easily molded.

Now I want to say a word about environment and the moral defective who is without intel-

lectual defect. It is not uncommon to find in the same family, and apparently in the same environment, some children with fine characters and others who are morally defective. We probably do not fully appreciate that, with different natural gifts and instincts, the same environment may produce different results, and that the moral defective is just as much the product of his environment as is the child with a fine character. I am at times consulted in behalf of children with defects of disposition or character. In a number of such instances I have taken the little ones away from home and placed them among strangers where they were welcomed into the family circle, and always with the most gratifying results. These children were taken away not because there was any fault in their homes, but with the thought that the new environment would more nearly accord with their special needs, a view apparently justified by the results.

I have long thought that such efforts should be made on a larger scale, that the class of children who are now sent to the House of Refuge, should be sent to care-taking families instead. Such families could doubtless be found—they should be carefully investigated to see that they meet the needs of the case—if the city paid them for

the care of the children what it now lays out in that institution. Such an arrangement would have a double advantage: firstly, the children would be sent to a place more fitting for them; secondly, they would probably be sent at an earlier age, when the possibilities of reform would be greater, for surely both parent and Judge of Juvenile Court would be willing to consign these children at a more tender age to such families than to the House of Refuge. It is true such efforts would often be failures; but it is true also that many would become good citizens who otherwise would be found behind prison walls, or preying upon society.

Everyone should know that penal institutions for the young, reformatories in name, are so in name only. The tendency is that those who enter them young and ignorant offenders, come away thoroughly informed and hardened criminals.

It is probably impossible to do away with such institutions altogether. The aim should be to give them as many of the favorable and as few of the unfavorable features of penal institutions as possible; but, above all, no child should be sent to them who can find elsewhere suitable care and guidance.

A few words about the education of the mental defectives; and first, of the idiot. Excepting the lowest grade, the idiot is amenable to educational efforts, though they are mainly in the way of his motor activities, that is, teaching him to do something. But this also exercises, and accordingly educates, his senses and his intellect. To obtain the best results certain fundamental rules must be observed. The first effort must be to develop his power of attention, which in the case of some is almost nil. But at the same time there is great danger from overstraining his attention. Secondly, his lessons or tasks must be such as are within his grasp. Usually, at least in the beginning, they are such as call into play coarse muscular activity, rather than finely coördinated movements, that is, skilled acts. Thirdly, his exercises should be such as give him joy, and afford him a sense of pride in achievement.

The idiot needs education badly, but this is not without its dangers. His defective brain is more susceptible to degeneration and disease than that of the normal individual; and overtaxing it, as by overstraining his power of attention, or through tasks that are beyond his capacity, is likely to cause mental deterioration, if not an outbreak of mental disease.

The school teacher has no practical interest in the education of the idiot, for he does not appear in the common schoolroom, or is there only by sufferance, yet I have spoken of his education because those principles, whose necessity is so manifest in the training of his simple mind, are equally important in the training of the imbecile, and should not be lost sight of in the education of the normal child. It is as important to the imbecile as it is to the idiot that his power of attention be not overstrained, and that his lessons accord with his capacity, otherwise he, too, is in danger of mental deterioration or mental disease.

And now as to the normal child. The power of attention is to a degree an index of the mental power. I may add, it is also an index of mental failure, for the first symptom of such failure is a lessening of this power. It has been suggested that school children be classified by their power of attention, the duration they can maintain active attention, rather than by their age. At least this mental attribute should be carefully considered in assigning their tasks, if they are not to be harmed by their school work.

It is equally important that their lessons should accord with their mental development. For-

merly there were grave faults in the schools in this direction, but they have been largely done away with, as there has been much study of the child's needs. Yet these faults are not altogether absent. It is not always fully appreciated that all children do not develop equally and alike. Many great men were considered anything but promising in their school days. They may have been slow in development. It is more common that a child ranks well in some studies, while he can not grasp others. Apparently he is slow to develop in certain directions. We have learned that while the nerve elements, the nerve cells and nerve fibers, appear in the brain at an early period, they do not become fully developed until later; that some parts of the brain develop sooner than others; and that a part only performs its function, or performs it well, when it has attained to its full development. It may be in the case of these children who can not grasp some of the studies, that the part of the brain in a manner related to these studies has not attained its full development.

Stanley Hall said that it is a crime and a danger to force knowledge upon unwilling minds that have no love for it. There is doubtless not the same degree of danger in forcing knowledge

upon these children as upon the idiot and the imbecile, but, probably, it is not without harmful effects. At least it is an injustice to them. It is probable that they are often classed as backward children.

And now we come to the subject of the backward child. The term backward child is a classification of the schoolroom. In medicine we divide mental defectives into the idiot, the imbecile, and the feeble-minded. The division is a purely arbitrary one. There is no sharp dividing line between the one class and the other, just as there is none between the feeble-minded and the normal. The backward child is the one who can not keep up with his fellows. According to reports from various parts of America 10% of those in the public schools are backward children. Their number is so large that the subject is one of great importance.

Now who compose the class of backward children? A part of them we have probably already seen in those who are slow to develop in certain directions. Another part probably is the underfed. It is said that sixty to seventy thousand of the school children of New York are underfed. What is true of New York is certainly true, to an

extent, of other cities, and insufficient nourishment may cause mental dullness.

Another part is composed of those who have sensory defects, imperfect hearing or vision. Such children may be so placed in the class that they do not receive the benefit of instruction, fail in their lessons, and so fall behind. It is said that in the majority of cases these defects are not recognized by the teacher, but in this day of the medical inspection of schools this cause of backwardness should be eliminated.

Then there are the cases dulled mentally by physical defects, such as enlarged glands, hypertrophied tonsils, adenoids, anomalies of refraction and the like. Such conditions are very common in children, and often call for treatment, or for surgical operations.

But right here I would like to utter a word of warning. There is a tendency to run into extremes in speaking of medical matters. One hears such exaggerated statements about adenoids and the like, statements that in the end can only do harm. It is well to remember facts like these. One has headache, is fitted with suitable glasses and the headache disappears. Later, when the health has become invigorated, the

glasses are discarded, and discarded with impunity. In other words, the state of health counted for more than did the anomaly of refraction. And I would impress upon you that hygienic conditions, those life influences that tend toward wholesome living, here as elsewhere, count for more than the surgeon's knife.

But even if these cases of backwardness we have just been considering should be eliminated, if the underfed should receive sufficient food, and those with imperfect hearing and vision be properly seated in the schoolroom, and physical defects be remedied, and those slow and irregular in development be given due consideration, and due consideration be given also to other conditions of ill health that impair the mental activity, there would still remain no small number far beneath the others in mental grasp and capacity. These belong to the imbecile or feeble-minded class.

Now what should be done for such children? This is an important question, for as we have seen, if the schooling does not accord with their needs it is likely to injure them mentally and physically. It is important, too, because the criminal comes largely from the children of this class who have been neglected in childhood. And it is important for the child already badly handi-

capped in the battle of life that the school should develop all there is in him.

One thing is clear, he should not be in the common schoolroom. This is best for the other children, and it is best for him.

It is best for the others, because he tends to retard their progress. But this is comparatively a trifling consideration. It is best, too, for moral reasons. As we have already seen, the imbecile is more likely than the normal child to have undesirable qualities. He is also likely to be older than the other children in the class, and with the desire for leadership instinctive in the human heart, may be led to impart to them evil information, such as fascinates his hearers. For like reasons older children in the class are often a source of harm, even if they are not defective mentally. I am told that in the Cincinnati schools there are often older children in the class who come from outlying districts where they had little schooling. For instance, colored children come from the South, where they received no school education, and enter into the class with younger children, and often become a source of contamination. The teacher should bear these facts in mind when there are older children in the class so that their characters be carefully studied.

It is best for the defective child himself not to be in the common schoolroom, first, because of the danger of studies not in accord with his mental development; secondly, because the teacher's attention is probably largely taken up by the brighter child, whereas he himself needs much individual attention; and thirdly, because his failures in the class, the rebukes of his teacher, and the taunts of his companions are likely to spoil his character and finally drive him from the school. A school devoted to his needs should eliminate these sources of harm. It should do more than this. It should afford him that joy and sense of pride in achievement, without which he can never make the most of himself.

Already efforts have been made on many sides to have appropriate schools for defectives and even some steps have been taken to prepare teachers for such work, a very essential part if the movement is to be altogether successful. The more fully and thoroughly all this is done the better for the defectives, and the better for the community.

MEDICAL INSPECTION OF SCHOOLS AND THE SCHOOL PHYSICIAN

Medical inspection of schools, which had been long in vogue in various countries of Europe, was introduced in America in 1894. This occurred in Boston during the prevalence of an epidemic of diphtheria. Its value was soon manifest and it has since been pretty generally adopted.

Its chief purpose has been the control of infectious disease. The common infections, measles, scarlet fever, diphtheria, whooping cough and the like, are spread largely by means of the school. The child comes to the schoolroom in the beginning of the disease before its character is recognized, or it returns to school before all danger of contagion is over, or, in mild cases, it continues to go to school throughout the duration of the disease, and in all these instances it tends to give the disease to other school children with whom it comes in contact.

There are other contagious diseases, such as contagious skin disease, and contagious inflam-

mations of the eye, which may spread from child to child and rapidly go through the school.

Medical inspection aims to detect disease of this character at the earliest possible moment, to segregate the child, and supervise its home so that others do not spread the infection, as well as to keep the patient isolated until all danger of contagion is over.

This is the object of medical inspection, and to a large extent it has been attained. It has done very much to lessen the infectious diseases. Yet it will doubtless achieve much more when greater care is exercised to detect disease in its incipiency, and to keep the patient isolated for a sufficient time, and when it is possible to get control of disease carriers.

It is only within recent years that we have learned that there are many individuals who, though well themselves, carry the germs of a given disease with them and infect others. As yet such disease carriers have not been much under control, and they often play no small part in increasing the illness in a community.

Medical inspection, at its best, will doubtless often abort epidemics and will rob the infections of childhood of more than half their terror.

As I have already stated medical inspection

has been devoted mainly to the detection and prevention of the contagious diseases. But there is great need of it in many other directions, a need which as yet has not received the attention which is its due.

The eyes of school children present many defects which should be early detected and remedied, or, as far as may be, prevented. In some places a large proportion of the children have myopia or nearsightedness. This often handicaps a child and not rarely, when unrecognized, has led to its receiving unjust treatment at the hands of the teacher.

Other common defects of the eye are hypermetropia, or farsightedness, and astigmatism. These conditions often lead to symptoms of ill health, pain in the eyes, headache, or more marked nervous manifestations. The defects in part are due to school life; the manner or the degree in which the room is lighted, imperfections in blackboard, paper or print, desks and seats, the manner the child holds its head in reading, overwork, and the like.

The ears, throat, and nose of school children also deserve much consideration. Deafness handicaps the child, and when unrecognized often leads to unjust treatment. All these conditions,

including adenoids, may lead to impaired health, and otherwise mar the child's progress in school.

Curvature of the spine is frequently found in school children and is supposed to be largely due to faulty seats and desks. As far as may be the condition should be remedied at the earliest possible moment.

Very many school children have bad teeth, not rarely to the extent that nutrition and the general health become affected.

In addition, and independent of the conditions already mentioned, there is much ill health —at least a condition of health that is below par —that should be detected and remedied. Not a small part of this is due to school life itself, to bad ventilation, imperfect heating, draughts, dust, illy directed gymnastic training, overwork, undue emotional strain and the like.

Medical inspection might succeed in detecting other causes of ill health and help to eliminate them, such as underfeeding or improper food, the use of stimulants, bad habits, and insufficient sleep.

The great need of careful medical inspection of schools was impressed upon me some years ago when I supervised an examination of some Cincinnati school children. This was an exam-

ination of one hundred and thirty backward children undertaken for the double purpose of determining as far as possible the causes of backwardness and of remedying faults and defects if found.

We aimed to make the investigation a thorough one. Distinguished oculists, aurists and laryngologists, neurologists, dentists and others, took part in it. The eyes, ears, nose, throat and teeth, were examined in every instance, and when called for, further examinations were made. The homes were visited to learn their condition and to obtain the family histories. The teachers gave a report of the intellect, character, disposition and habits of each child.

The children were from eleven to fifteen years of age. One-third of them were Americans, one-third foreigners, and one-third colored.

More than 75% of them needed treatment for ears, nose or throat; more than 38% needed glasses; more than 85% had teeth which needed attention. Other pathological conditions or defects were found in much smaller numbers.

Large as was the number of defects found in these children, further investigation did not indicate that they were the chief cause of their backwardness. Though adenoids were found in

a large proportion of cases they did not occur with greater frequency in the dull than in the bright among them. Furthermore, a large number of normal school children was examined for the sake of comparison, and it was found that they had adenoids in about the same proportion.

Adenoids are a frequent occurrence in children and may handicap them in various ways so that they should have suitable treatment. At the same time there have been very exaggerated statements of their ill effects, especially in the way of mental impairment. It is for this reason that I wish to emphasize the fact that while present here in large numbers there was no evidence of their playing a large part in producing the backwardness.

Various factors, in addition to the defects already noted, doubtless helped to produce the backwardness. Many had very poor homes, and perhaps were underfed. In some the probable cause was insufficient school attendance for various reasons. A very small number belonged to the imbecile class. But apparently the great cause of backwardness was the type of mind,—one to which the ordinary school curriculum is not well adjusted. It may be that it is a lower type than the ordinary one, but it is not abnormal. It is a

type of mind that can deal with the concrete rather than with the abstract, with things rather than with ideas, and one to which the common school work does not appeal. That this was the chief cause of the backwardness of these children was proven by the fact that when placed in special rooms with special teachers and given school work adjusted to their needs, the larger number made rapid progress. This progress took place notwithstanding that few of the children submitted to treatment of their physical defects, though such treatment was urged by the physicians.

As already stated, this examination was a very careful one. I think it clearly demonstrated two important facts; the one, how much the child's progress in school depends upon the school work being adjusted to its needs—this applies most of all to the child who differs from the average; the other, the great need of thorough medical inspection of schools. In my report of this examination to the Board of Education I made the following suggestions on the subject of medical inspection.

"The need is of physicians devoted to the work of systematic examination of school children. But to gain all that this should mean, they should be physicians specially prepared and thoroughly

qualified for this work. For it demands expertness in examination in many directions not acquired by the ordinary practitioner, judgment in many questions of treatment which the ordinary experience does not give, and it should afford opportunities for help in school life and school work as yet given nowhere.

"The need of special training of school physicians is shown in a striking way by the results of examinations in schools of New York city. Some medical examiners would find a large number of children with defects, others only a small number, the differences being as great as three to one, and that, too, when they were examining children in the same school. In some instances where two physicians examined the same children one would find twice as many needing medical attention as would the other. Such discrepancies in their observations show a marked difference in the expertness or judgment of the medical examiners. To the children it is an injury alike whether, on the one hand, defects have been overlooked that require treatment, or, on the other, treatment is ordered for defects which should be ignored. For the school physician should be conservative, and knowing the sensitive nervous system of the child and what time and nature does

for physical defects, should be influenced by this knowledge in selecting the cases that require medical attention.

"The facts just mentioned are but a proof of what is otherwise very manifest, that there is urgent need of special training for school physicians. To-day there is no special training of this kind, but it could readily be given, and would be if there were demand for it. I shall take the liberty of stating wherein in my opinion should consist such training, and what should be the functions or duties of school physicians.

"This training should give him a full knowledge of school hygiene, a subject not now entered upon the college curriculum. It should make him an expert, at least so far as the common defects are concerned, in the examination of the eyes, ears, nose, and throat, which to-day is only true, as a rule, of those physicians who have devoted their lives to these specialties. He should, of course, be qualified to make other physical examinations, and to recognize readily the infections and other diseases of childhood. He should be taught also what his medical training does not do to-day, the psychology of childhood. He should learn the differences in children and how they are affected by training and environment; should know the

neurotic and the defective child and their needs, and know also what tends to lead the child, or the mass of children, towards a criminal life.

"His duties would be to pass upon questions of hygiene, to make the requisite medical examination of school children, to be coördinated in the work of physical training, gymnastics and athletics, while in other and even larger ways he should be of assistance in school work. Instead of being a hindrance to the discipline of the schoolroom as might be feared, his efforts should be altogether helpful in this direction. He could help in classification and determining at an early period what children needed individual attention, children who might, otherwise, be blocking the progress of the school. He might help to solve the problem of the dullard: Is it a case of impaired health needing medical treatment; or is he slow in development; or are the mental processes slow; or is he merely unable to express himself, though otherwise intellectually capable, possibly concealing in himself the future master of men? And he often might help the teacher to decide whether a case of headache, restlessness, obstinacy or the like was due to overwork, bad ventilation, insufficient food or sleep, or to special impairment of health.

"The school physician, through his close touch with the children should be looked up to as a friend, and have a large influence upon them in matters of health and morality. Among his other duties he might well give them talks that would implant in them health ideals—never hypochondriacal tendencies. Through these ideals and the influences of his personality those who needed medical treatment would readily be led to seek it. It should be his duty to give instructions about alcohol and tobacco, and, at the suitable time, to teach the physiology and hygiene of sex for the purpose of making pure thoughts and protecting from future disease.

"One of the most distinguished physicians in connection with educational institutions has recently declared that notwithstanding the great damage the vision of school children is constantly undergoing, no standards have been adopted based on adequate research, as to paper, type and printing of school books, and none can speak authoritatively on the subject from the special study of conditions existing in America; that though physical defects are so common in school children nowhere are experts employed to seek their causes, or modes of prevention; that while nervous diseases are increasing among school children, no-

where has there been special study of their relation to school work; that while overwork seriously clogs development, nowhere is the course of study, and the amount of school and home work under guidance of experts who have investigated these matters. And he adds that to decide in these matters requires special experts. For instance, he says 'no oculists, no group of oculists, at the present time possess the information needed to answer the questions that arise in connection with the vision of school children under school conditions. It is a speciality within a speciality.'

"What he says of the eye specialists is doubtless true also of other specialists, for school life has its own problems. But the training of which I have spoken and the large experience which would soon come to school physicians should supply the special experts prepared to grapple with these problems and competent to solve them. Such a corps of recognized experts should also have a decided influence on the community. Through the children they should educate and influence the parents in matters of health, and be a power in eliminating many factors in public and private life which are harmful to the child.

"The employment of such physicians means ex-

pense—it means much time and good men—but scarcely any other outlay would bring equal returns, returns in health and character and all that counts for good citizenship."

A SCHOOL FOR TRUANCY

For some years a school for truants and incorrigibles has been in successful operation in Cincinnati. The usual attendance is from forty to forty-five boys, eleven to fourteen years of age, three-fourths of whom are day pupils, while the others live altogether at the school.

The character of these boys, and the danger they may become to the community are strong reasons why great care should be exercised in their education and training, and should lend special interest to a study of the school.

At the time of the examination of the backward children, described in a previous article, a like examination, and even a more careful one, was made of these boys. The eyes, ears, nose, throat and teeth were examined, and there was a neurological examination of each boy. The teacher reported as to intellect, habits, disposition and character, and a physician made an investigation of home conditions. As in the case of the backward children, many physical defects were found;

and, as in those cases, the children did not submit to the treatment advised by the physicians; nor did there appear to be any considerable relation between the physical defects and the moral or mental deficiency of the child.

The boys presented in rather large number certain physical peculiarities which are termed stigmata of degeneration, such as asymmetry of the face or skull, or other abnormalities about the features or elsewhere. These stigmata indicated that a fair proportion of the boys were defective, or what is ordinarily termed degenerate.

The school, its mode of study and work, and its discipline, had a very decided effect upon these boys. The physician, who visited the homes of the boys, often heard from the parents both that the boys were much attached to their teachers and that their conduct at home was much better since they had been attending the school.

In the following statement Mr. A. J. Willey, the principal, gives an interesting account of the boys, the work and the results.

"The following facts and conclusions are based on close observations of the pupils who have attended the school two months or more in the last two years.

INTELLECT.

Average 35%.
Below average 65%.
Given to abstract thought 20%.
Not given to abstract thought 80%.

CHARACTER.

"Destructiveness:—Very few show any disposition to take care of anything. This is from want of training more than from wantonness. They will destroy anything, no matter how costly or no matter to whom it may belong, if it interferes at the moment with their enjoyment. Certain forms of wanton destruction, such as cutting the desks, marking the building, etc., are almost unknown in the school.

"Lying:—This is very common; practically all of them will lie to escape punishment, to shield companions, or to secure the punishment of one who at the time is in their bad graces.

"Obstinacy:—Very few are afflicted with this fault. They rather are given to the opposite failing, and change with every wind that blows. They have not enough *obstinacy* to give them a *constancy of purpose.*

"Stealing:—This is very common. With a very

large number the only deterrent is the fear of being caught rather than any normal compunction concerning the act. They will steal things for which they have no earthly use.

"Indecency:—This is remarkable for its absence. During a period covering almost two years the school has handled one hundred and fifty boys. Only once has this sin cropped out; a boy drew a vulgar picture on the blackboard. It is somewhat difficult to account for the entire absence of this fault. It may be that the fact that there are no girls in the school has something to do with it. The boys often use profane and vulgar epithets in their quarrels with one another, but apparently it is a street habit without any thought of the significance of the language used.

DISPOSITION.

"Almost without exception the boys are of a happy, care-free disposition. They are willing to work but have not been taught application, so that their 'willingness' soon dwindles away into idleness and mischief.

"About ten per cent. might be classed as serious in disposition; not more than five per cent. moody or depressed; the rest or about eighty-five per

cent. 'happy-go-lucky' and care-free. Nearly all of them will within half an hour after the severest punishment be as happy and cheerful as though nothing unpleasant had ever occurred.

CAUSES OF ASSIGNMENT.

"Sixty per cent. were committed to the school for truancy; forty per cent. for incorrigibility and other causes. Of the truants two-thirds came through the Juvenile Court, one-third through the Superintendent of Schools without the intervention of the Court.

CAUSES OF TRUANCY.

"About half of the truancy is due to bad home conditions, the most pronounced of which is poverty. The children are kept at home so much, because their help is needed or because of insufficient clothing, that their interest in school is killed. Often both parents are compelled to work all day, leaving the children to get themselves ready for school, get their own lunch at noon, and amuse themselves on the street as they please after school until the parents come home from work. Other home conditions causing truancy are indifference, lack of control, and sometimes greed. Parents will encourage them to stay out

of school for the few cents a day which they can earn.

"The other half is caused by failure of the school as organized to reach and interest the child. He does not like school, therefore, he plays truant. The reasons why he does not like school are various. He does not like study. He does not like his teacher. He has fallen so far behind his fellows that he is in a class where the children are much smaller than himself and this humiliates him. Many children can not stand the necessary restraint of the ordinary schoolroom. Books do not interest them.

METHODS IN THE SCHOOL.

"All, without regard to age or attainments, have one hour in the workshop, one hour in the gymnasium, and three hours in the schoolroom every day. The morning session is broken by two short recesses, so that they never spend more than one hour at continuous work.

"The work in the shop is confined at present to working in wood with an occasional turn in half-soling their shoes. We hope in time to extend this to include other forms of hand work.

"They are given much reading. Supplementary books in history, geography and literature

take the place of the school reader entirely. Formal lessons in geography, history and language are given daily.

"The schoolroom work is confined to the essentials, and emphasis is laid on the commercial side. A good deal of attention is paid to drawing and writing.

"The classes are small and most of the work is individual.

DISCIPLINE.

"We allow them all the freedom possible. We insist upon gentlemanly behavior, and we try to secure it from properly cultivated motives rather than from forms and drills.

"Punishments are made to fit the offense as nearly as possible, always taking into consideration the disposition of the boy. Punishment is never inflicted on suspicion, but when deserved it is given without delay and with considerable severity.

RESULTS.

"Of the truants, 5% have proven incorrigible and had to be sent to other institutions where the means of confinement were better than with us.

All the others have improved and about 40% of them might be classed as completely cured.

"As to the incorrigibles we find most of them are so, much for the same reasons that others are truants. They are dull, fall behind, fail to understand the work, and form idle habits thus becoming a torment to the teacher and to the class. Without regard to their classification in grades, we put them to work at tasks within their grasp and keep them busy. They become interested as a rule, and the problem of discipline is solved.

"Somewhat to our surprise the school has become very popular. The boys do not want to be sent back to their own schools. On several occasions when we have dismissed a boy with instructions to report at his home school the parents have begged us to keep him. We hear from the parents very frequently that their boys behave so much better at home and show such a willingness to help their mothers that they come to us to express their surprise and approval. Many boys learn their first lessons in obedience here, apparently, and when they carry the results into their conduct at home the parents notice the change.

"For some time after the school was started the

lawless spirit was so rampant and fighting and disorder characterized their conduct to such an extent that the presence of a teacher was necessary at all times, and even then it was sometimes necessary to use physical force to restrain them. Gradually a better spirit was created so that now their behavior is about on a par with that of any other set of school boys. We are gradually working up a system of self-government.

DETENTION DEPARTMENT.

"Of the 40 boys committed by the Court to this department during the past year, 23 are still members of the school, but only 9 are held; the other 14 are on parole—that is, they attend the school during the day but are allowed to live at home.

"The following table shows where they now are:—

Committed to the Department.....		40
Still held in detention.....	9	
On parole attending school.....	14	23
Quit school and went to work.....	5	
Committed to other institutions.....	12	17
		40

"Of the 12 committed to other institutions only 3 were removed for truancy. That is to say we

failed to hold but 3 out of the 40. The other 9 were removed for various causes, chiefly because they had no homes, or improper ones.

"The Detention Department measured by its effect upon the boys has been an unqualified success. Only a very few has it failed to benefit. Almost all who have remained under its influence for some time have gone out under parole with a complete change in their ideals and in their attitude towards organized authority. And most of them have lived up to their expressed intention to 'make good.'"

EUGENICS

The forces of nature, which lead to the evolution of species, are both ruthless and beneficent. They are ruthless in destruction and beneficent in retaining and improving the best. These forces are at work in Darwin's "Natural Selection," and are implied in Herbert Spencer's "Survival of the Fittest."

Nature affords an overproduction of living organisms and there is a consequent struggle for life. The weak fall by the wayside. The strong, or those best adapted to existing conditions, survive. Variations are constantly occurring in these organisms, some harmful, some beneficial to them. As the result of the struggle, by means of natural selection, because of the survival of the stronger or fitter and of those with the more favorable variations, there is an evolution of higher types of vegetable and animal life.

Natural selection has had a like influence upon the human race. Physical weakness with its lessened ability to provide sustenance, disease, which to a large extent selects and roots out those

who are constitutionally weak, famine, the brutal in man, which tends to push the weak brother to the wall, all these have contributed to the elimination of the feeble and the increase of the strong and have been a chief factor in the upward progress of the race.

But man, through his powers of intellect, has, in a manner, controlled and directed the forces of nature. He has made new arrangements and sometimes subverted her manifest purpose. Prompted by the springs of his higher nature, he has often succeeded in eliminating the ruthlessness of natural selection, but he has at the same time missed its beneficence.

It needs but a glance to see what man has done and what are the results. He has made incubators that the faintest spark at birth be not extinguished. He has provided the best medical care that disease shall not lessen the span of life. He has given unstinted charity that the weakling be cared for even to old age. He has shortened the hours of labor, improved hygienic conditions of home and workshop, supplied playgrounds and other sources of amusement, that the handicapped be placed upon almost an equal footing with the rest.

And while he has by such means prevented the

elimination of the weakling he has at the same time arranged that the latter should multiply at the expense of the strong. Ruskin said that the improvident, incontinent, selfish and foolish marry and have like offspring, while the wise, patient, unselfish and pure remain unmarried. How much truth there is in this statement is everywhere manifest. In fact the whole framework of modern society seems built up to encourage such tendencies. Behold the celibacy of priests and other scholastics, the attempted building up of strong families through primogeniture, the economic conditions necessitating the late marriage of professional classes, and the like. Then, again, the first class, the improvident, marry early, the second class, the provident, marry late, and early marriage means a larger number of children, more rapid multiplication of families, all in all a much more rapid rate of increase.

There is another consideration of importance that it is well to note. The facts that many die young, that others do not marry, and that some families are much larger than others have led to the computation that 20% of one generation brings forth 75% of the following one. How much does it, therefore, mean if a large and gradu-

ally increasing part of this 20% belongs to the undesirable classes!

Karl Pearson, the great British student of eugenics, gives a striking instance in which philanthropic legislation has led to the decrease of the better type of citizen while permitting the increase of the less desirable. In a large manufacturing district of northern England the birthrate is just one-half what it was sixty years ago. The decrease began with the passage of child labor laws, and became greater as those laws became more stringent. Before the passage of these laws the child became an economic asset to the parent soon after it was eight years of age. This age was gradually increased until finally the child was of no economic value until he was twelve years of age and only of limited value until he was sixteen. These facts show clearly that the economic value of the child largely influences the birthrate. During these years there was no decline of birthrate in other districts where more undesirable classes formed the mass of the community.

Careful statistical studies in some other lands have shown a gradual increase of the less desirable classes at the expense of the more desirable. These observations, and others which bear in the

same direction, have led to a fear of the gradual deterioration of society, and of the nations of the earth. However optimistic we may be, however exalted our views of the destiny of man, such fears are not without basis in the pages of history. The nations of the earth have arisen, reached their zenith, and passed away. By many careful students of the subject their death is believed to be due, not to fortuitous conditions, but to racial deterioration. Take Athens in her prime with a people of the highest cast of intellect the world has seen. The intellectual supremacy was probably due to the selection and inbreeding of a gifted people. At the time they were in a manner isolated and did not mingle their blood with others. Then came the day of their glory and immoral living. Their accomplished women became avowed courtesans and infertile. Immigration introduced another and inferior blood, and soon the whole Athenian people was of an inferior stock, and its intellectual supremacy was over.[1]

In the same way has been explained the decline

[1] The great prevalence of malaria in Greece at the present day has led to the suggestion that it was this disease, infecting the mass of the people, which had robbed her of her power and her glory. But it appears to me that the above explanation, given by Galton, is more likely to be the correct one.

and fall of Rome. War and other influences led to the lessening of the superior type of man, while many factors led to the introduction and more rapid multiplication of inferior types and thereby to the deterioration of the Roman people.

Very likely the fall of many empires of the past had a like cause. We find similar changes in more modern times, notably that of the Spanish people, with the extermination or expulsion of her best blood.

With such warnings from the past it is not safe to ignore the dangers of the present. They appear to be very menacing and very near. It was these pressing dangers which led Galton to ground the science of eugenics, the science of improvement of the race through improvement of the stock. And now I wish to study with you some of the problems of this science.

To understand the problems of eugenics we must have clear ideas of what heredity means to an individual and to a race, and what is the influence of environment.

The study of heredity is most interesting and most valuable. It has always been known that individuals inherit qualities of their parents, but Galton was first to make clearly manifest that ability and other native qualities are definite gifts

of inheritance. After a long study of the subject and a great number of careful observations he formulated a law of ancestral inheritance which is this: An individual receives one-half of his qualities from his parents—one-fourth from each parent; he receives one-fourth of his qualities from his grandparents—one-sixteenth from each one of them; he receives one-eighth of his qualities from his great-grandparents, and so on with nearly mathematical accuracy. Galton's law has been accepted by other students of heredity, though not necessarily expressed in exactly the same figures or proportions.

A second important law of Galton's is that of filial regression. It might be considered as complementary to that of ancestral inheritance, but, like the latter, it is based upon a large number of careful observations. The law of filial regression is that the son tends from any strong characteristic of the parent toward that of the average of the race. The degree of the tendency (true of large numbers, but not usually of the individual) has been worked out to an exact mathematical formula, too complicated for me to repeat here. As just stated the law of filial regression is, in a way, the complement of the law of ancestral inheritance, for the offspring in-

herits not only from the parents but also from a long array of ancestors, and the large number of the latter tends to bring him nearer the average of the race.

The fact that the large ancestry represents such a mosaic of qualities is one reason—though there are others—why, knowing the parents, one can not foretell the qualities of the child. Yet his large inheritance from his immediate parents is common knowledge. Partial proof of this are the results of some studies of Galton as to parentage of exceptional children, that is those with superior qualities. He found that one-half the children of exceptional parents were exceptional, whereas of ordinary parents only one-twentieth of the children were exceptional.

A question of greatest importance confronts us here. What qualities do we inherit? Naturally we inherit native or inherent qualities be they physical, temperamental, or intellectual. So mental capacity, special gifts of intellect, and moral tendencies may be as much the gifts of inheritance as are form or stature. But what of acquired characters?

As the stature and form, length of span, and other physical states are transmitted from ancestors to descendants, would a physical state which

the individual acquired also be transmitted, say the muscular development of an athlete, or of a blacksmith, or that of the latter, if blacksmithing was carried on from father to son for generations? As mental capacity is transmitted would a great acquired power, the result of the best masters and schools, fortunate environment and untiring industry, be an endowment for the children? As moral tendencies are undoubtedly inherited would a training which brought a fine character out of what I will call bad material mean a native inheritance for the offspring? In other words would those physical, mental, or moral traits acquired by the individual during his life, be transmitted to his children as qualities native to them? I think we can unhesitatingly answer no.

The question of the transmission of acquired characters is an old one and has been variously answered. But in recent times, under the leadership of Galton and Weismann, scientific men appear pretty generally to accept the view that acquired characters are not transmitted. While we may hesitate to accept this statement in its entirety both because such great leaders in thought and science as Darwin and Herbert Spencer believed otherwise, and because some

facts in nature appear more easily interpreted by the inheritance of acquired characters, I believe for practical purposes we should be governed by this teaching, for the facts of life accord with it.

It has well been said that the individual stands in far greater danger than the race. In the non-transmission of acquired characters nature is showing herself kinder to the race than to the individual. While we may oft deplore that one can not directly endow his children with the products of his labors and his virtues, it is fortunate indeed that he can not directly endow them with the product of his vices, otherwise, it would appear, the race long ere this would have come to an untimely end. Everyone has seen parents the most unpromising bring into the world most worthy offspring. Those parents gave their children qualities that were inherent to them and not those which they had acquired.

To help understand the inheritance of only native qualities it may be well to give Weismann's theory of inheritance which is now receiving rather general acceptance. His theory is that of continuous germ-plasm. The human body is evolved from what Weismann terms the germ-plasm, which comes partly from the ovum of the mother, partly from the spermatozoon of the

father. Through growth and development there is gradually differentiated from this germ-plasm the cells, tissues and organs of the living being. Now in this process of growth and development not all of the germ-plasm grows into these parts of the new being, but a fraction of it remains unchanged, and this is the germ-plasm of the next generation. And in the same way as the parent gave the child some of his own germ-plasm for its keeping, that child gives to its child, and so on through unending generations. And so, in a way, the germ-plasm that gives rise to a child to-day is but a part of the germ-plasm that existed throughout the ages, and the child has the same qualities as the parent or ancestors because it is the same being. That this is not the exact truth, that the individual is not the same being, nor even just like his pregenitor is because he is the product of countless progenitors, because there may be growth or change in the germ-plasm representing him, which accounts for variations that are constantly occurring in living organisms, and because qualities of the progenitors may not find a favorable environment in the new being and, therefore, do not have expressions.

Weismann's theory was to help us understand why acquired characters were not transmitted.

The germ-plasm is a thing apart from the rest of the organism, more protected, less given to change. It is true it may be somewhat affected by changes going on in the rest of the body, for instance by grave nutritional disturbances; but yet those changes in the body produced by function and environment do not give such a definite stamp to the germ-plasm that the character is transmitted to the offspring.

Some concrete instances will give us clearer ideas of native and acquired characters, of what is and of what is not transmitted. Unusual height or unusual shortness may be transmitted but not the great muscular development that comes from much exercise, nor the wasted muscles which come from disease. Great mental capacity may be transmitted, but not the mere product of culture. A musical parent is likely to have a musical offspring, but the musical accomplishment which is altogether the result of hard labor will give no gift of music to the child. Cheerfulness, kindliness, courage and other native qualities may be inherited; but a good character, the result of a hard struggle, or a bad character produced by bad environment, will not be transmitted as native qualities to the child. An anatomical abnormality, a sixth finger or toe may be

transmitted to the offspring, but an artificial mutilation will not influence the structure of the offspring.

The question of inheritance of disease is one which has received much attention and will especially interest us.

It is only rarely that there is direct inheritance of disease. This occurs in some cases of organic nervous disease, some paralytic conditions, and conditions of muscular wasting, as well as in feeble-mindedness and imbecility. Sometimes the hereditary disease is the transmission of peculiarities of structure. For instance, hemophylia —the disease of bleeders—is due to thinness of blood vessels and lessened blood coagulability. This condition has the peculiarity that it occurs chiefly in males, and is conveyed to the son through the mother, who is herself not affected by it.

In most instances where the hereditary element appears in disease the latter is not directly transmitted but the individual has inherited some constitutional weakness making him more susceptible, or, as usually expressed, he has inherited the predisposition to disease. This is true of many cases of insanity and nervous disease, of tuberculosis, and some other constitutional maladies. The patient has a certain susceptibility

and it requires environmental conditions to develop the disease.

In the case of tuberculosis it requires the presence of the tubercle bacillus. Very rarely does this germ find lodgment in the individual before birth, so that prenatal tuberculosis is very uncommon; and when the disease occurs after birth it may be that the environment—the presence of a great number or of specially virulent tubercle bacilli—was alone the responsible factor. That is, heredity is sometimes held responsible where it really played no part.

The patient may be born with a disease—we speak of it as congenital—which is in no sense hereditary. It is merely the result of infection from the parent, in the same way as the sick parent may give smallpox or other infectious disease to his children or to others. The only difference is that in this instance the child is infected while still within the uterus. The rare cases of prenatal tuberculosis are to be thus explained, as are also most cases of so-called hereditary syphilis and other infectious diseases that occur during uterine life.

There is another factor that may count with the offspring, that is the general state of nutrition and the blood state of the mother, and to a

lesser extent that of the father. The child *in utero* receives its sustenance through the mother's blood and any great change in her condition, through disease, poisons, or the like, may affect the health and development of the fœtus. Indeed the germ-plasm itself may be thus affected. The latter is protected, as we have seen, and is usually not directly influenced by bodily changes, yet, it is not altogether independent of its host and may, though less commonly and to a lesser degree, be affected by the condition of that host.

So, very great changes in the individual produced by disease or poisons may cause changes in the germ-plasm and affect the offspring. Some cases of hereditary syphilis may be due to weakened germ-plasms in father or mother and not to infection with the germ of syphilis.

Poisons also may act in this way, especially alcohol. The large number of defectives among the offspring of alcoholics is well known. This state of the offspring may be due to the fact that the parent is a degenerate—true of a large part of alcoholics, as extended observations have shown—or that the fœtus *in utero* has been poisoned by the mother's blood, or that the alcohol directly poisoned the germ-plasm. It may be impossible in a given case to determine in which

of these ways, if not in all of them, the harm was done, but there can be no doubt that alcohol is the great racial poison.

And now we must speak about environment. While heredity means much so does environment. No hereditary gift could be realized without a fitting environment. There could be no life, or growth without due nourishment. At times we may look upon environment as the chief factor. While in health and character heredity counts so much the result is largely due to how the individual is brought up. I have said that hereditary mental and nervous disease usually means not that the disease, but that the predisposition to it, is inherited. The right kind of life and training may entirely avert such disease and bring up a healthy and capable being. The same is true of tuberculosis and other diseases. Vices of character often have a hereditary basis, a brain defect or a less grave cerebral state, and here, too, the right training and environment may bring out a fine character.

There is a growing tendency to benefit by these favorable possibilities which environment offers to us. Through public and personal hygiene nervous and mental disease is often averted, and careful training and education have

often prevented the defective or incorrigible from becoming criminals.

We can scarcely give enough credit to those who by their careful study and arduous labors have thus lessened disease and crime. At the same time we can not close our eyes to the fact that such results have been gained at an enormous cost, and that there would have been a vast saving had the defective and predisposed never been born. Nor are we now taking into account, what is of far greater consequence, the heritage they leave to their progeny.

Let us try to have a clear idea of the comparative value of heredity and environment, or, as Galton terms them, nature and nurture. We have just seen that, when the heredity is unfavorable, through environment we may avert much that is bad and make much that is good. For the finished product heredity and environment take part as it were in inverse ratio. When heredity has done much, there is little demand made upon environment; when heredity has done little, environment has a long steep hill to climb. In the latter instance so difficult is the task that one can well appreciate the many sayings on the subject, as, that man is born good or bad, that creatures are born not made, that progress is a question of

breeding rather than teaching, or that an ounce of heredity is worth a ton of environment.

Considered from every side there scarcely seems room for doubt that our main reliance for the vigor and permanent progress of the race must be upon heredity rather than upon environment.

We must bear in mind that man has yet another inheritance besides that which he receives through the blood of his forebears. It is a social inheritance, the product of tradition, convention, institutions, literature, and law. Its value is incalculable. It is the treasury of the ages, the accumulation of knowledge and power for one and all. It may be said that the school boy to-day knows more than did Aristotle.

But this inheritance is also a burden and a tax. It is a tax upon the individual and upon the race. The institutions and social needs call for a degree of capacity, intelligence, and moral power, and if these are not equal to the demand there is a danger that the weight of that inheritance will crush its possessor. That has often been the fate of individuals, and it might well be that of a race. The greater this inheritance, the higher the civilization, the greater is this danger, a danger to be averted by increasing capacity and power.

The mere social inheritance, culture in itself, does not confer this power. There have been vast accumulations of knowledge since the palmy days of the Athenians, yet their brain capacity far exceeded that of the civilized nations of to-day. It can not be too strongly stated that accumulations of knowledge do not make brain capacity. Study and work will develop the capacity which is in the individual, but they do not make that capacity. Nor do his study and work enable him to transmit anything more to his offspring than his native powers. Whatever his opportunities or culture an individual will only reproduce his native qualities, be that weakness or strength. Weak forbears, weak progeny; strong forbears, strong progeny.

This brings us to the heart of our subject, the needs of our race. We have already seen that the influences of the present are such as naturally tend to race deterioration, and that careful students of the subject believe that such deterioration is actually taking place, and have grave fears for the future. So this is our eugenic problem—what can be done to arrest this deterioration, to make a gradually better and better race?

We have learned that throughout the vegetable and animal kingdom progress has been through

natural selection, through the weeding out of the weak and the multiplying of the strong. Nature is brutal but it is efficient. We have learned that progress in the human race has been brought about in the same manner. It was assisted by the brutal in man. In other words progress was due to a selective death rate, death of the weak.

Now all this is changed. Everywhere one sees help given to the weak that they do not perish, nor would anyone call halt to this movement. Rather would we see the helpless receive more than is already given them. We can, therefore, no longer look to a selective death rate for race progress. We must rely instead upon a selective birth rate. The race must progress upward because a gradually larger number of the superior type of man and a smaller number of the inferior come into the world. In other words the great problem of eugenics is to regulate marriages and births.

I may speak of three distinct modes of selective birth rates, which I will term surgical, economic and educational.

The first mode is making propagation impossible by direct surgical procedures upon the individual. Already in several states of the Union the legislatures have enacted laws legaliz-

ing the sterilization of criminals and degenerates. Whether public sentiment will ever permit this kind of treatment to such an extent that it will have decided eugenic influence, lessen degeneracy and improve the race, only time will tell. This surgical procedure loses much of its repulsive nature when it is known that it may be made a very trifling operation, and that bodily mutilation is altogether unnecessary. The only effect it need have upon individuals is to make them sterile, a condition which is constantly occurring as the result of many processes of disease.

The chief classes in whom such treatment might be called for are the epileptic, imbecile, insane, alcoholic, pauper, and criminal. But if such measures are to be enacted on a large scale there should first be very careful and extended investigation and study, both for the better understanding of heredity in general, and that there be more exact and definite knowledge in the case of degenerate classes as to what is the stamp of heredity, and what is due to example, home influence, social ostracism or like causes. For these purposes, as well as for many others, a large gathering of reliable vital statistics and their careful study are crying needs of our times.

A second mode of selective birth rate I termed

economic. We have learned from the study of conditions in industrial districts of England that the birth rate is an economic question, that with the introduction of child labor laws, and the lessened earning capacity of the child, the birth rate diminished, but where charity supported the children there was no decrease in their number.

As then birth rate is largely an economic problem it would appear to be only a question of properly directing economic forces. The aid through legislation, philanthropy and the like, should at least in part be directed into channels where it will assist families of the right kind. In some instances financial aid to mothers, reward for nursing their children and the like, have led to the lessening of infant mortality. Though these measures had not been eugenic ones, that is for the purpose of improving the superior type of the race, they show what such efforts may accomplish.

Karl Pearson, the British eugenist beforementioned, suggests fit parentage should be endowed at the expense of unfit parents and childless men and women. He also suggests a general system of insurance to which state, employers, and workmen contribute, containing provisions for invalidity, for motherhood, and for each child, the provision being specially made for

the fit, rather than for the unfit. In reference to pension for old age he says that the workman wants most aid when his children are young and wholly dependent upon him, and that if he brings up strong, healthy children he has something to depend upon in old age. On the other hand if the State provides for his declining years he has less need to bring up children or that those children should be capable ones. He believes that not only state measures, but also educational and philanthropic foundations, should be directed toward helping the fit rather than the unfit.

It will call for large experience, careful study and great wisdom, to enact measures of this kind which will act eugenically, that is, increase the birth rate of the more desirable part of the community, and at the same time favorably influence the morale of the individual.

The third mode of selective birth rate I have termed educational. It was suggested by Galton as a partial solution of the eugenic problem, but it may turn out to be its full solution. It is that by means of education and through the social forces, knowledge, convention, public sentiment, public conscience, etc., only the fit should wed. Nor is this an impossible dream, for the study of society in the past and the present shows that

conduct and even the affections and attachments are largely controlled by these social forces. Marriage between brother and sister is altogether a thing of the past, while caste, rank, and class not only rule marriage lines but also to no small extent, guide the heart's yearnings. All this shows clearly what has been and can be done.

Already one hears on many sides that health certificates should be made a requisite for marriage, a measure which has been enacted into law in some states.

If there be a fully educated public sentiment as to the needs of the race, if the public eugenic conscience is thoroughly aroused, why should it not be that marriages should be largely, if not altogether, along eugenic lines, that the fit should multiply and the unfit lessen or disappear?

We have been considering the solution of the eugenic problem from the side of selective birth rate, but it presents another aspect which can not be ignored. There are diseases and poisons which menace the stability, if not the existence, of the race, so that racial welfare demands their elimination. Chief among them are syphilis and alcohol. It is true that both of them, especially alcohol, might be looked upon as aids to natural selection, as assisting in the elimination of the

weak. But they attack the strong, also; they breed more than they weed; they help to sap the vital strength of the race. They are great causes of its deterioration. I believe the final means of their elimination must be through education.

If the position which I have assumed is not an erroneous one it will be seen that, in its final analysis, the solution of the problem of eugenics is education. It is education that will lead to radical measures of sterilization, if such measures are ever generally adopted, and more education that will lead to their being used aright. It is education that will lead to suitable economic measures, whether legislative or philanthropic, and more education to their being applied wisely and well. The same education may in time arouse the eugenic conscience and incite to eugenic marriages, while education of special kinds must largely remove the dangers of syphilis and alcohol.

Because of this great power of education we must impress upon the public mind the dangers that menace the race, and discuss early and late the problems of eugenics. If we do so we may begin to see, instead of deterioration, the upbuilding of the race. Both our effort and our hope would be the lessening of sickness and suf-

fering and crying misery, of the mentally and bodily defective, the debauched, the criminal, and the insane, and the approximation of that utopia where high intelligence, health, strength, virtue and beauty prevail.

THE HISTORY OF A BOOK

THE recital of the trials and tribulation of a book, whose purpose was to do some good in the world, will, probably, interest the writer more than the reader. Nevertheless it may do something to attract attention to a cause which needs help badly, and certainly deserves it.

The title of this book is "Education in Sexual Physiology and Hygiene." Its aim is to impress upon parents the need of sex instruction of their children, as well as to create a public sentiment demanding such instruction in school. Its slogan is that the instruction should be so given that it can do no harm.

In the Spring of 1908 Dr. Nora Crotty and I gave a course of sex instruction to school children, from twelve to sixteen years of age, in a very poor district of Cincinnati. This came about through the teacher's applying to the superintendent for such instruction on account of the moral tone of her school.

The results of this experiment were remarkable. There was a decided moral uplift, and

superintendent, principal, teachers and all were very much gratified. Many parents came to the school to thank the teacher for what had been done for their children.

About the time this course was finished a friend, who knew my interest in these matters, informed me that the Ladies' Home Journal was giving some space to this subject, and he also sent me a clipping from that journal containing an article by Judge Julian Mack, entitled "What I have learned from hundreds of girls," which had just appeared. This suggested to me the writing up of our recent school experience. The thought which occurred to me was, that its recital in a journal so extensively read as the Ladies' Home Journal, might lead to like efforts in many places, with equally good results.

Accordingly I wrote an article with the title "An Experiment in Moral Teaching in School" and sent it to that journal. The article contained a brief statement of the history of this experiment, and told the results observed by the teachers. It also gave in full the four talks I had given to the school children. After a seemingly long period of waiting and hoping it was returned with the statement, "We have retained your manuscript for an unusual length of time

hoping that in some way or other we could use it, but I regret to say that after careful consideration it does not fit in with Mr. Bok's plans."

I now tried other popular journals, sending the manuscript to nearly every prominent magazine known to me, but none accepted it. Sometimes it was returned with the usual printed circular containing the words "Not available," but, mostly, a personal note accompanied it, often with words of appreciation. The effort was always a failure notwithstanding that in one instance a strong letter from the superintendent of schools, from the Judge of the Juvenile Court, and from others who had been interested in the experiment, accompanied the manuscript and told of the good the teaching had done in Cincinnati.

During this time a friend, who had read the manuscript, urged me to have it published in book form, and as others repeated this advice I made the effort to do so. As this essay in itself would have made a very small volume I put with it a number of others, most of which had been given as popular addresses. There was this element of unity running through the series of essays, that the fundamental idea in each was prevention of disease.

Before sending this volume of essays to a pub-

lisher I submitted it to a clergyman prominent in social work, who is also a distinguished author, and upon whose judgment I felt that I could rely.

He returned the manuscript with a letter saying: "Your essays have many charms. They are simple, direct, sincere and strong. Their style is excellent. They touch upon the most vital things of life. In every quality which I think to be of value they excel. I urge you to submit them to a publisher."

With this encouragement I sent the manuscript to a publisher. It met with the same success as did the original article. It was afterward sent from publisher to publisher but in vain, and this, too, notwithstanding that I offered to bear the expense of printing it.

Subsequently I made an entire change in the volume, I retained the article, "An Experiment in Moral Teaching," and added an address on the same subject given to college boys, as well as some general dissertations on the great need of sex education and modes of giving it to children. This, constituting a much smaller volume than the other, was submitted to publishers. It appeared as if the fortune of this volume was to be the same as that of the other; but, at last, a publisher in my home city, whom I had frequently

consulted during the progress of these many negotiations, without, however, submitting the manuscript to him, offered to publish the book if I would bear all expenses. He probably made this offer, not as a business venture for himself, but because he knew how much this whole matter was in my heart.

The book having been published, the next problem was to have it read, I had hopes that it would be a help to parents in instructing their children, and to teachers in their schools; and if this hope were realized the book might do good so far as it was read by parents and teachers. But its chief aim was to create a public sentiment demanding sex instruction in school, and this purpose could only be attained if the book were widely read. Therefore, not only its publication but also a large circulation was essential to success.

It was not to be advertised so the only means of making it known to the public was through reviews in the press. Accordingly the book was sent by the publishers to the leading newspapers and periodicals in America. It soon became manifest that if no special efforts were made, the failure of the circulation would be as complete as were the early efforts at its publication, for of

all the papers and journals to which the publishers had sent the book, only one or two gave reviews saying enough about it to awaken any interest in the public mind. I, therefore, made special efforts. I aimed to place the book for review in the hands of those who would be interested in the subject. As its aim was to improve health and morals, it was natural that I should apply to physicians and ministers of religion.

With the aid of a friend better acquainted with the religious world than myself, books were sent to men in different parts of America with the request to review them in publications in their neighborhood providing they thought them worthy of such efforts. In most instances there were responses, usually enthusiastic in tone, followed here and there by the appearance of a careful review. That more reviews did not appear was at least in part because editors declined to publish them. For instance a physician wrote to me: "I am unable to get the —— —— to accept a review of your book. They question the 'propriety' of it. At the same time they publish daily in their advertising columns the most suggestive and demoralizing matter imaginable." I know of others who received like rebuffs.

But in the meantime, a number of religious and other periodicals had also reviewed the book. The tone of the reviews, especially those of the religious press, was usually very commendatory. They contained such expressions as, "A book of supreme importance," "A great moral uplift," "A brave and helpful book," "An act of social service," "A new gospel of health," "An invaluable service to humanity," "It is a matter of sorrow that this book was not written and widely distributed sooner," "A fine example of how to teach sexual physiology without doing harm"; and the great national medical journal, *The Journal of the American Medical Association,* said of it: "It ought to be in the hands of every parent and teacher," a statement repeated in many press comments.

Most of the reviews were favorable though not all were enthusiastic in tone. One was decidedly not commendatory. It said, among other things, "Leaves much to be desired . . . . . too much vagueness, and altogether too much timidity." This review was written by a physician, himself the author of a book which, though constructed on altogether different lines, had the same purpose as my own, that is, the prevention of social disease. His criticism may have been due to funda-

mentally different views of some physiological and moral principles; perhaps, also, to great differences in the tone of our books. His contained graphic descriptions of cases of disease, while I thought it best for the purposes of my book to omit such descriptions altogether.

I was much disappointed in the reception of the book by the educational world. While some prominent educators went out of their way to write me letters of appreciation and to prophesy its future usefulness, I could not see that the book attracted much attention or was put to much use. The disappointment was the greater because the book appeared to be doing pioneer work, for the book list of the American Library Association said of it: "The first effort yet in print toward a school course on this neglected subject." It said, also, "excellent."

The history of the book was not without painful incidents of a more nearly personal character. I will mention one.

Having learned that a public library had two copies of the book which were in constant use, so that those wishing to read it were kept waiting, I presented it some extra copies. The librarian declined to accept the gift and returned the books. I can only interpret this act as a compli-

ance with the general prejudice against all writing of this character, quite regardless of the purpose and bearing of the book. Its purpose is not only conservation of health, but also moral uplift, and I do not see how it can do harm to anyone. The San Francisco *Chronicle* said of it: "Its influence can not fail to be good"; the *American Friend* said: "It can be productive of nothing but good"; the *Presbyterian Advance* said: "It will accomplish great good wherever it is read"; and like views were expressed by press comments on many sides. This was, also, the universal opinion of the many who spoke to me about it.

While the publishers have been well satisfied with its sale, considering the purpose of the book and my hopes for it, I need scarcely tell how great has been my disappointment, both in the extent to which it was reviewed and in its circulation. Yet, if reliance is to be placed upon what I have heard, it has done and will do good, and, therefore, I am glad that it was published. But could I have foreseen its history, the manifold and time-robbing efforts I was called upon to make, the many demands upon others, the bitter disappointments, and sharp heartaches, the likelihood is

that this knowledge would have quenched the burning ardor which prompted all these acts, and that the book never would have seen the light of day.

EDUCATION IN SEXUAL PHYSIOLOGY AND HYGIENE

A PHYSICIAN'S MESSAGE

By

PHILIP ZENNER, M.D.

Professor of Neurology in the Medical Department of the University of Cincinnati

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SEXUAL PHYSIOLOGY AND HYGIENE.

The Boston Evening Transcript: The author has endeavored to impart all necessary knowledge in such a way as to create a pure mind. That he has succeeded is not only clear from a reading of these chapters, but from the fact that these talks were printed by the Board of Education of Cincinnati, and distributed among principals and teachers. One can not read these talks without realizing that the man giving them, understands the difficulties under which he must labor, and that he is doing this work as a labor of love. His methods may be learned from the talks to the school children and the college boys, and also from the special talks to teachers and parents, explaining the best method of discussing this difficult subject. The book will be a great help to many a sincere parent who knows he should do something for his children in this matter, but fears to begin, lest he should do more harm than good.

The Journal of the American Medical Association: This book brings to the people the mature thought of one of the ablest members of the medical profession on a subject of fundamental importance to society. It teaches what ought to be taught in families as well as schools. It ought to be in the hands of every school teacher and parent.

The Lancet-Clinic: The book gives instruction to parents and teachers how to impart knowledge to the young with the least risk of doing harm. It contains valuable suggestions to physicians who wish to instruct along these lines. It is absolutely clean throughout, appears to fill a long-felt want, and is the best book of the kind the reviewer has seen.

The Catholic Telegraph: This book, designed to assist parents and teachers, is admirably adapted to fill a long-felt want in the home and school. Parents and teachers are frequently at a loss just how to present the subject in a way that will be productive of only good results. Every mother is anxious to protect her children from disease and from the contraction of habits destructive to morals and health. To these mothers Dr. Zenner's message will prove helpful. The subject is handled in an extremely delicate manner. He sends the message forth in clear, simple, concise language that cannot be misunderstood or misconstrued.

The Chicago Medical Recorder: Of books designed to instruct youth upon matters of sex, this work of Dr. Zenner is one of the best. In giving much needed information on this subject in as plain language as possible Dr. Zenner has at the same time a book which contains not a word or sentence that could be objected to by the most fastidious.

San Francisco Chronicle: This little book is worthy a wide circulation among parents and teachers of children for its influence can not fail to be good.

The Herald and Presbyter: This volume is by an intelligent, capable, and conscientious physician, and contains suggestions to parents and teachers of great value.

Western Christian Advocate: We wish to commend this book most heartily and unqualifiedly to all parents and teachers as a guide in this most important field. The book is admirably conceived and expressed. It is one of the best manuals in its department we have ever seen, and we hope it will have a wide circulation, and do untold good.

The Chicago Tribune: **We wish there might be more books like that of Dr. Zenner. He calls it a message from a physician to the people. It might be called a wise man's epistle to the ignorant.**

The book is divided into three parts. The first is a message to children; the second a message to college boys and young men; the third a message to parents and teachers.

Probably no thoughtful and conscientious parent has brought up children to the age of puberty without being perplexed by the question of sex education. That the child in some way or other will get accurate or inaccurate information is inevitable. The parent should decide when this instruction is to begin, how and by whom to be given, and how far carried. In the wisdom of this decision lies the prevention of pruriency, impurity, and immorality. Having this in mind, we know of no better guide than the first part of Dr. Zenner's book, supplemented by part three. The first is made up of four talks to public school children, with explanations and comments. The fourth talk, which was given to the boys alone on "The Origin of Life," is a model. Beginning with reproduction and sex in plant life, he passes to the same function in fishes, then in birds, and thus to higher animals and man. The reasonableness of it all and the simplicity with which it is done insures purity. Then follow a few paragraphs on the importance and dignity of the reproductive organs, and a few cogent reasons why they should be shown no disrespect. There the matter is dropped. For the child, in elaboration lies confusion. When the time comes for more detailed information, the comments in part one and the advice in part three will show parent or teacher how to proceed.

The two talks to college boys convey just such information and advice as every adolescent boy should receive. In knowledge alone lies safety. And this knowledge the author gives so naturally, so directly, that pruriency is at once neutralized, and the reader is led to the high plane of the author. Would that every young man might know the few essential things about himself and social diseases, that he might receive the few sage warnings and that he might take unto himself the ideals and conception of manliness contained in these two talks. Countless miseries might be avoided; miseries not only of the man himself, but of future wife, children, and associates.

The third part of the book consists of five very brief, clear, earnest, pregnant essays on the prevention of social evil and teaching of sexual physiology and hygiene. They are full of common sense and helpful suggestions.

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