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Schoolchildren and teachers walking along the path of East Gota Canal, Motala, Sweden



"Something better is the law of all true living"

Vol. XXIII Takoma Park Station, Washington, D. C., November, 1908 No. 11

Fear as a Cause of Disease, and Faith as a Therapeutic Agent

Lyman B. Sperry, A. M., M. D.



THE subject indicated above is one regarding which there is much ignorance, and also much loose thinking. It demands more careful and more conscientious attention than it has yet received. This article is not an attempt to cover the field; its aim is to make a few simple statements of a few important facts. But little evidence is presented to *prove* the correctness of the statements made. Most intelligent persons may easily verify them by carefully and honestly studying their own personal experiences.

A Physical Universe

I shall assume that the reader is neither a confirmed agnostic nor one of those "foolosophers" who not only deny the trustworthiness of general human consciousness, but also dispute the reliability of the carefully studied experience of mankind. You do not belong to a cult that regards matter as non-existent, and mind as the only reality. You do not believe that the evident material phenomena of this world are only "such stuff as dreams are made of,"—simply "delusions of mortal mind." You prac-

tically believe—you *know*, if you know anything—that we human beings have material bodies, that we really need and actually take material food, that we breathe material air, that we live in material houses, and wear material clothing. You believe that we live in a physical universe, and on the one of its many material planets that we call *our world*. You also believe that in and on and about this material world there are manifestations of various forms of physical energy,—forces to which we give such names as light, heat, electricity, magnetism, vitality. You know that, as a practical fact, these material bodies of ours are constantly and intricately influenced by many and various forms or modes of physical energy,—not only by those that are named above, but also by many others which, though less conspicuous, more delicate, and more complex, are nevertheless highly influential in our lives.

We know that somehow—though we can not explain exactly how—phenomena that we call consciousness, intellect, volition, emotion, conscience, etc., are intimately associated with, if not indeed dependent upon, the various and com-

plex physical organs and functions of our bodies.

As conscious and intelligent individuals, we know that in limited ways we can actually direct the various physical energies of this world; and we can do it in such ways as to render those energies pleasant and useful to our individual selves and to those about us; or, on the other hand, we can so neglect or so direct those forces as to cause them to become injurious to ourselves and to others, even to the point of painful disease and speedy death. One may hurl himself or others over a precipice to certain organic destruction, or he may cast himself or others into a consuming fire, or into devouring waters. There are constantly in and about us many physical agencies or influences, which, although comparatively inconspicuous, obscure, and slow in their action, are just as surely destructive of human health and life as are bolts of lightning, furnace blasts, or engulfing waves. There are also, as we shall see further on, *mental* energies, not usually recognized as having any direct or decided influence over bodily conditions, that are nevertheless as surely destructive, and sometimes as suddenly fatal, in their effects, as are poisons, bullets, lightning bolts, or fiery blasts.

But many forces, both physical and mental, operate so slowly, so silently, so insidiously, and in such obscure and intricate ways, that ordinary observation does not detect them. Human beings have numerous habits and customs that seem right to the minds of ordinary men, although the ends thereof are inevitably the ways of death.

Mental Influences

It is not yet clearly seen by all of us that *mental* activities are as certainly potent factors, either for good or for evil, in our physical lives, as are such physical

forces as gravitation, heat, electricity, food, air, poison, etc. Depraved physical appetites and passions—like gluttony, narcotism, and sexual lust—are conspicuously unhealthful, even unto painful disease and premature death; but certain mental attitudes and passions, such as avarice, vanity, anger, hatred, and all kinds and degrees of *fear*, are just as surely deranging, undermining, and destructive in their effects. Many strong men and women have literally been “scared to death.” More hearts have ceased to beat because of anger or *fear* than because of bullets, strychnia, and arsenic. On the other hand, faith—not credulity, not blind acceptance of others’ theories, but the “assurance of things hoped for”—has vitalized, energized, and kept from sickness and early death, many thousands who have exercised it. But, as a rule, mental activities, both constructive and destructive, operate so slowly, or so indirectly, that few recognize the real conditions, much less the full measure of their influence on health, efficiency, and longevity.

Most people do not look back of the immediate “cause” (by which term they mean the last conspicuous *symptom*) to find the real, the determining, factors in sickness. For example, we say a man died of “kidney disease;” but we do not go back to the important fact that narcotic drugs, worry, a guilty conscience, or perhaps a combination of mental and physical influences, *caused* the kidney disease. Many die of “heart failure;” but what caused the heart to fail? Bad food, impure air, deadly headache-powders or “sleep medicine,” overwork, lust, envy, hatred, revenge, grief, disappointment, fear, anxiety, or a combination of several of them, often depress and derange one’s nerves and vital organs and *cause the heart to “fail.”*

Even that common mental state called

bashfulness,— a confusing and annoying emotion caused by a *mob of little fears*, — is reflected from the cerebro-spinal nervous system over the sympathetic nerves to the blood-vessels of the face, producing a paralysis of their muscular walls; this results in a congestion of blood, a blush, in the areas influenced. Anger, an emotion that is made up largely of fear, produces the same condition in a more intense form, though essentially in the same way. Jealousy, acting in a similar manner but along other nerves, produces congestion of the liver and consequent jaundice. Shakespeare calls attention to it as "green-eyed jealousy." Keen anxiety is apt to cause irritation and congestion of the alimentary canal, and consequent indigestion, colic, diarrhea, constipation, or other "bowel troubles." Indulged grief, prolonged worry, hopes deferred, and all related emotions not only make the heart sad, but often bring on fatal kidney disease. In all such cases the nerve-thrill of the mental emotion is reflected, through the sympathetic system, to the vital organs, and causes some degree of physical derangement.

It is true that some persons are much more susceptible than others to nervous thrills and reflex influences; some are habitually loaded with worry, self-condemnation, and fear, while others are but slightly disturbed by such mental states;

but the general facts above indicated amount to a *universal law*; variations are a matter of degree rather than of kind.

As temporary mental emotion suddenly brings about such marked physical disorders, amounting in many cases to positive illness, what must we expect in the way of disease as a result of chronically depressed or constantly disturbed minds — minds habitually reeking with such an army of fears as is made up of anxiety, worry, envy, jealousy, anger, accusing conscience, grief, and despair? Intelligent people now *know* that mental influence over the various physical functions of the body is as certain as anything in the world; but usually it is so obscured that ordinary persons — taught to look in physical fields for the causes and the cure of disease — but slowly and imperfectly discern the real truth.

The vitalizing power of hope, the uplifting power of love, the sustaining power of confidence, the invigorating power of purity, and the general and special *healing power of faith*, should be more clearly apprehended and more constantly sought. They are not sure cures for *all* sickness, but they are far more potent than most of us believe. Genuine faith is the greatest of all tonics, the surest of all energizing and healing influences.

Oberlin, Ohio, October, 1908.



Winter sport on a Hartford playground

Cultivating a Joyful Spirit

Mrs. E. G. White



NOTHING tends more to promote health of body and of soul than does a spirit of gratitude and praise. It is a positive duty to resist melancholy, discontented thoughts and feelings,—as much a duty as it is to pray. If we are heaven-bound, how can we go as a band of mourners, groaning and complaining all along the way to our Father's house?

Those professed Christians who are constantly complaining, and who seem to think cheerfulness and happiness a sin, have not genuine religion. Those who take a mournful pleasure in all that is melancholy in the natural world; who choose to look upon dead leaves rather than to gather the beautiful living flowers; who see no beauty in grand mountain heights and in valleys clothed with living green; who close their senses to the joyful voices which speak to them in nature, and which are sweet and musical to the listening ear,—these are not in Christ. They are gathering to themselves gloom and darkness, when they might have brightness, even the Sun of Righteousness arising in their hearts, with healing in his beams.

Often your mind may be clouded because of pain. Then do not try to think. You know that Jesus loves you. He understands your weakness. You may do his will by simply resting in his arms.

It is a law of nature that our thoughts and feelings are encouraged and strengthened as we give them utterance. While words express thoughts, it is also true that thoughts follow words. If we would give more expression to our faith, rejoice more in the blessings that we know we

have,—the great mercy and love of God,—we should have more faith and greater joy. No tongue can express, no finite mind can conceive, the blessings that result from appreciating the goodness and love of God. Even on earth we may have joy as a well-spring, never failing, because fed by the streams that flow from the throne of God.

Then let us educate our hearts and lips to speak the praise of God for his matchless love. Let us educate our souls to be hopeful, and to abide in the light shining from the cross of Calvary. Never should we forget that we are children of the heavenly King, sons and daughters of the Lord of hosts. It is our privilege to maintain calm repose in God.

“Let the peace of God rule in your hearts, . . . and be ye thankful.” Forgetting our own difficulties and troubles, let us praise God for an opportunity to live for the glory of his name. Let the fresh blessings of each new day awaken praise in our hearts for these tokens of his loving care. When you open your eyes in the morning, thank God that he has kept you through the night. Thank him for his peace in your heart. Morning, noon, and night, let gratitude as a sweet perfume ascend to heaven.

When some one asks how you are feeling, do not try to think of something mournful to tell in order to gain sympathy. Do not talk of your lack of faith and your sorrows and sufferings. The tempter delights to hear such words. When talking on gloomy subjects, you are glorifying him. We are not to dwell on the great power of Satan to overcome us. Often we give ourselves into his hands by talking of his power. Let us

talk instead of the great power of God to bind up all our interests with his own. Tell of the matchless power of Christ, and speak of his glory. All heaven is interested in our salvation. The angels of God, thousands upon thousands, and ten thousand times ten thousand, are commissioned to minister unto those who shall be heirs of salvation. They guard us against evil, and press back the powers of darkness that are seeking our destruction. Have we not

reason to be thankful every moment, thankful even when there are apparent difficulties in our pathway?

Let praise and thanksgiving be expressed in song. When tempted, instead of giving utterance to our feelings, let us by faith lift up a song of thanksgiving to God. Song is a weapon we can always use against discouragement. As we thus open the heart to the sunlight of the Saviour's presence, we shall have health and his blessing.

"Give thanks unto the Lord, for he is good:

For his mercy endureth forever.
Let the redeemed of the Lord say so,
Whom he hath redeemed from the hand
of the enemy."

"Sing unto him, sing psalms unto him,
Talk ye of all his wondrous works.
Glory ye in his holy name:
Let the heart of them rejoice that seek
the Lord."

"For he satisfieth the longing soul,
And filleth the hungry soul with goodness.
Such as sit in darkness and in the shadow
of death,
Being bound in affliction and iron; . . .
They cried unto the Lord in their trouble,
And he saved them out of their distresses.
He brought them out of darkness and the
shadow of death,
And brake their bands in sunder.
O that men would praise the Lord for his
goodness,
And for his wonderful works to the children
of men!"



Health Culture

W. A. George, M. D., Superintendent Nashville (Tenn.) Sanitarium



AS in the care of any garden we prepare the soil, sow the seed, cultivate the plant, and reap a harvest, so with health,—we reap that we sow. We have a double work. We must not only sow and cultivate the good seeds, but must fight the weeds—the seeds of disease. It is best to keep the garden free from bad seeds; but if they are present, the next best thing is to destroy the weeds as fast as they appear. It is better to avoid the cause of disease; but when it is once fixed in the body, we must stop its progress as quickly as possible by preventing a further cause, and by placing the patient under the most favorable conditions for the return to health.

One may greatly increase the power of the body to resist disease of any kind, especially disease of the lungs, by proper breathing. Sit or stand with the head erect, the chest forward, the shoulders thrown back, and the hips two or three inches farther back than the shoulders. In this position practise deep breathing. A good breathing exercise is to raise the arms sideways to the level of the shoulders while taking a deep breath, letting them slowly sink while breathing out. Another: Stand in good position, raise the arms sideways to a position directly above the head, at the same time raising the heels as high as possible, and take a full breath; then relax, letting the arms drop, the heels sink, and exhale quickly. A few minutes spent after each meal in these simple breathing exercises will not only increase the vital capacity, but will

aid digestion, increase the tone of the muscles, stir up the inactive liver, and call into better action the skin and other excretory organs.

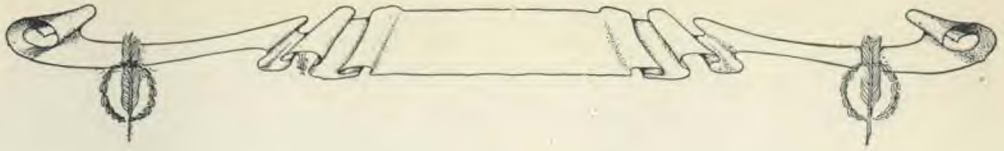
The home, and especially the sleeping apartments, should always be well ventilated, and much time should be spent in the open air.

If we are to enjoy good digestion, and be free from rheumatism and many other diseases, we must remember that we are made of what we eat, and must cultivate a taste for simple, well-cooked foods, and omit from our diet those foods which are sure, sooner or later, to clog the system and overwork the digestive organs.

Eat three or four simple foods at a meal, and nothing between the regular meals. If supper is eaten at all, it should be taken early, and should be small in amount, and easy of digestion. The stomach needs rest at night as much as other parts of the body. Many do better to eat only breakfast and dinner.

The value of good ripe fruit as a purifier of the blood and a regulator of the digestive organs can hardly be overestimated. Many think they can not eat fruit; but as a rule, it is because they make bad combinations. Fruit should not be eaten with vegetables at the same meal. Eat fruit at one meal and vegetables at another.

We should learn all we can about the proper care of the body, read the best books on physiology and hygiene, find out our weak points, and then cultivate good habits, and avoid all that we know is not good for us.



Playgrounds for Children

*Henry S. Curtis, Secretary Playground Association of America, and Supervisor
Washington Playground Association*

THE movement for playgrounds in American cities, which many people think of as a recent fad, destined soon to exhaust its force and usefulness, is a world-movement which, during the last twenty-five years, has pervaded all civilized countries. Beginning in the sand gardens of Germany in 1885, it is now almost universal in German cities, many of the public schools having a curriculum of games as a part of the required course. In this country the work began in Boston in 1886, but not much progress was made till about ten years ago, when the movement was taken up by the city of New York, and carried on there with great success. Since that

time the progress throughout the country has been rapid. American cities now spend more than a million dollars a month on playgrounds. Chicago has spent nine millions in the last four years, and New York has paid as high as a million dollars an acre for at least one of its playgrounds in the most congested part of the city. According to the latest reports which I have, there are 218 cities in this country (and this is doubtless not a complete list) which maintain playgrounds. There were only ninety such cities last year, so that there has been

an increase of considerably over one hundred per cent during the past year.

Many think also of the playground movement as something adapted only to the poor children in congested sections of great cities; but we are now coming to see that the need for play is a universal need, which is felt no less by the children of the rich than by the children of the poor, by the children of the coun-



Board of Education playgrounds, New York City

try not less than by the children of the city. In actual fact we find that the best attended playgrounds are not usually in the poorest sections of the city, but are located in sections inhabited by the middle classes. During the past year, Professor Hetherington, of the University of Missouri, has established school playgrounds in connection with the rural schools in several country districts, and in a number of villages of from five hundred to fifteen hundred inhabitants.

With the new field houses of Chicago, the playground is coming to make provision for the adult as well as the child. The ideal in the minds of the leaders of

nation of undesirable gangs, and become a source of disturbance, and very likely of immoral influences. The playground movement in America has stood primarily



Volley ball, play festival, Pittsburg. Pa.

for directed and better-organized play. Its most essential feature is the play organizer or director. The work which it seeks to carry on is essentially the same as that of the Y. M. C. A., with the exception that there is no religious teaching.

the playground movement is that it is to be for the recreation of all the people, and the social center where the neighborhood life shall mingle, and neighborhood interests be fostered. The conception that a playground is simply a vacant space, or open lot, which can be used by the children as a place to play, is held only by the uninitiated. Playgrounds do not mean this as spoken of in any city. Others think of a playground as a piece of ground equipped with swings, see-saws, giant strides, sand bins, and other apparatus. Playgrounds of this kind, without supervision, have been attempted this year in Duluth, Knoxville, and Pawtucket, where they have all been closed by injunction as public nuisances. Such playground's soon come under the domi-



Outdoor gymnastics for the children in Chicago

The qualities of the teachers employed, or at least desired, are essentially the same as those for Y. M. C. A. and Settlement workers. The purpose of the movement in the minds of the leaders is essentially social and moral. Its possibilities for the im-

provement of vital resistance, the prevention of tuberculosis, and the promotion of character are probably greater than those of any other social or educational movement

at the present time.



Playground, Washington, D. C. at the present time.



The Value of Exercise

L. F. Otis, M. D.



HERE are few things more directly essential to life than exercise. "In the sweat of thy face shalt thou eat bread," was the admonition to Adam, who, as a toiler lived to the extreme age of nine hundred thirty years. When men began to congregate, and devise ways of living at the expense of one another, their days began to be shortened. Without the exercise that brought sweat to the brow, they became an easy prey to disease and untimely death.

When one begins to avoid exercise, he shortens his days. This law seems to run throughout nature. The arm that is kept constantly in a sling withers away. Animals in confinement pine away. Even machinery rusts when idle, more rapidly than it wears out when in use.

There are a number of ways in which exercise benefits the body. The breathing being deeper, the lungs are more thoroughly aerated; and by the oxidation of the poisonous waste matter, much refuse is destroyed besides that eliminated in respiration. The heart beats more vigorously, so that a much larger volume of blood is forced to all parts of the body, supplying every tissue with an increase of oxygen nutriment.

The functions of all the organs are improved. The pancreas and stomach make better digestive juices; the liver makes better bile and destroys more poisons. This increased action enhances

vitality, and thus overcomes disease.

The writer has for some years advocated exercise, especially graduated exercise, in the treatment of tubercular patients. Its use in these cases has given excellent results, so that he felt inclined



From stereograph, copyright by Underwood and Underwood, N. Y.

Pupils of Royal Technical School, Palermo, Sicily

to discredit the popular idea that rest is always essential in the treatment of tuberculosis.

This idea is corroborated by Dr. Paterson, of the Brompton Hospital and Sanitarium at Frimley (England), who finds exercise a very essential factor in the cure of the patient. Some, he says, who do not improve on light exercise, do well on heavy exercise. With this system of treatment, patients are sent

back to their accustomed work, however hard it may be.

In support of Dr. Paterson's views, Dr. Inman has demonstrated that the white blood-cells of the tubercular patient who exercises, in connection with the treatment of fresh air and nutrition, possesses more power to destroy germs than the blood-cells of patients who are without exercise.

That which will cure a disease ought certainly to prevent it; so here is a suggestion to those who have reason to fear tuberculosis. Exercise in the open air every day, eat plenty of nutritious, digestible food, and you can be sure you will be much more resistant to the dread malady.

In other diseases there is as marked a benefit from exercise as there is in tuberculosis. By thorough exercise the patient can throw off the demon of dyspepsia. So we might go through the list of diseases of lungs, stomach, liver, and blood. Nearly all are benefited by exercise. But in giving exercise, bear in mind to graduate it according to the condition and ability of the patient. As he grows stronger, gradually and cautiously increase the duration and severity of the exercise. Avoid sudden, violent exercise, and do not allow the patient to continue to exercise until exhausted.

Winter is no contra-indication to ex-

ercise. There is nothing so vivifying as exercise in the crisp winter air. Winter sports, coasting, skating, walking, running, or cutting wood, are all valuable health-givers. During the winter the air is more concentrated. With a full breath, one takes in more oxygen than during the warmer months, and vitality is thus increased.

Because of this, and of the stimulating effect of the cold, winter should be the most healthful season. But how do we find it? As soon as winter begins, it is one series of coughs, colds, *la grippe*, bronchitis, and pneumonia, to say nothing of other diseases. A very small portion of this can of any right be charged to the cold weather.

With sufficient protection, cold is a vital tonic. Then why this sickness? Insufficient exercise, bad ventilation, overheated houses, overclothing the body, and overeating are the principal causes. And these are really all included in the first. If one exercises, one will breathe, and nature demands fresh air. Then, too, there is little danger of overfeeding a man who is taking the required amount of exercise. One freely exercising in the open air need have little fear of pneumonia or *la grippe*. It is the stuffy, unventilated, germ-breeding rooms, where dependence on external heat causes the internal fires to burn low that invite these diseases.



From stereograph, copyright by Underwood and Underwood, N. Y.

Japanese schoolhouse and playgrounds. The little fellows enjoy their play as keenly as their American brothers and sisters. Note the vine-clad shelter at the left.

HEALTH CATECHISM

L. G. Wagner

No. 3 — Practical Dietetics

WHAT are the essentials of a sanitary kitchen?

Sufficient room, sunshine, fresh air, and scrupulous cleanliness. There is no other place in the house where clean floors and windows, and freedom from dust, flies, and insects, are so important as in the place where the food is prepared. All brooms, mops, garbage pails, and the like should be kept out of the kitchen. All dishes and cooking utensils should be thoroughly cleansed with soap, rinsed with boiling water, and kept under clean cover. Dish-cloths and dish-towels should be washed or changed frequently. If necessary, disinfectants should be freely used; but proper care will obviate the necessity of this substitute for cleanliness. Be sure that there is no chance for the escape of sewer-gas.

What is the real object of intelligent cooking?

To render foods more digestible. Cellulose and other indigestible materials are broken down, and to a certain extent, foods properly cooked may be said to have undergone a preliminary digestion. The skilful development of flavors is also another aid to digestion.

Do cooks usually attain the best results in the preparation of foods?

They do not. Often the palate is the only thing thought of; and in the effort to please a perverted taste, foods are rendered less digestible, or less wholesome in other ways.

Is fat essential as an article of diet? If so, how is it best employed?

Fat most certainly is essential. Its use facilitates intestinal digestion, encourages bowel action, and aids nutrition in a remarkable manner. It is a common mistake of persons adopting a vegetarian diet to use too little fat. The vitality of the tissues fails under such an imperfect diet, and in many cases tuberculosis is the final result.

Fats are best employed cold, as butter on bread at the table. They should not be cooked in with other foods, as the heated fat forms a varnish-like coat around other foods, and prevents the action of the digestive juices until they reach the intestine. A still worse dietetic error is the frying of foods; for not only is the action of the digestive juices prevented, but fatty acids are formed in the process, which serve as irritants to the stomach.

The fats of nuts, olives, grains, and cream mingle freely with the saliva without interfering with its function.

Must food be relished in order to nourish?

In order to have good digestion, it is necessary to relish and enjoy what is eaten. A good appetite and a hearty relish for food act as powerful stimulants to digestion.

Why were spices introduced? What is their effect?

When man earned his food by labor, ate moderately, and not too often, he needed no goods to stimulate his appetite, and simple foods appealed to him. When luxury, confinement, and inactivity came in, with greater opportunity to tickle the palate, delicacies and a variety of spices were utilized in order to tempt the appetite. Indigestion and disease followed as a natural result.

While it is unwise to use highly seasoned foods, it is by no means the part of wisdom to go to the other extreme, and attempt to live on foods that are unpalatable. Such a course will invariably result in indigestion.

What is the effect of sugar?

It is believed that the principal source of body energy is a form of sugar, and that the starches and sugars are eventually turned to this form of sugar in the body. Sugar is widely distributed in nature, and is an important source of nutrition. As found in nature, it is usually in a dilute form. In the concentrated forms of commerce, it is apt to be used to excess, and to prove unwholesome. The candy habit and the sugar-bowl habit are forerunners of indigestion.

What is the effect of overeating?

First, indigestion, then, if the habit is continued, gradual changes in the stomach walls, leading finally to permanent dilation; and auto-intoxication from the absorption of

poisonous products, the result of germ action on the food that is in excess of the digestive capacity.

What is the effect of hasty eating?

Imperfect stomach digestion, and overwork of the intestines. Hasty eating is very apt to be accompanied by overeating, and drinking at meals, both diminishing the efficiency of the digestive juices and entailing disease.

What is the effect of drinking at meals?

Liquid taken with the food checks the secretion of the saliva, dilutes the gastric juice, and delays stomach digestion. Hot fluid relaxes and weakens the stomach. If very cold, it checks digestion until the stomach is again warmed to the normal temperature. For this reason iced foods are injurious.

What is the effect of taking foods soaked in fluids?

To eat habitually of mushes and similar preparations is to throw too much of the digestive work on the intestines, and to invite fermentative processes, with poisoned blood, benumbed sensibilities, drowsiness, headache, and other ills.

What are considered to be bad combinations of food?

Fruit and vegetables at the same meal; fruit and meat; fruit and milk; milk and sugar.

What are the effects of fruit juices?

In the first place, they are efficient germicides. In the second place, they in some way aid in the elimination of waste matter, thus acting as sanitary officers for the body. Athletic crews are learning the great advantages of such fruit as oranges.

Why does indigestion result from the habit of eating irregularly?

Principally, because we are creatures of habit. Let a person sleep at irregular times, day or night, as occasion may prompt, and soon he will find himself losing the power to sleep soundly. The best sleepers are those who have a regular time for retiring, and who allow nothing to interfere with it. The person who eats regularly establishes a hunger habit at meal-times, and then the digestive system is in the best condition for the reception of food. One who eats irregularly loses this powerful aid to digestion.

What is the effect of eating when tired or worried, or while doing close mental work?

Indigestion. Any of these procedures would turn into other channels the nervous force necessary to good digestion. Digestion is best performed when the body is in vigorous condition, and the mind is free from care. A cold bath or hard work, either physical or mental, shortly after a meal, is likely to stop the digestive processes.

Why are late suppers injurious?

Partly because at the end of the day one is tired, and the digestive processes are not apt to be so vigorous as earlier in the day; partly because a loaded stomach during the sleeping hours is apt to disturb both the digestion and the sleep.

How much food is necessary?

One who eats slowly, of simple foods, without unnatural stimulants of the appetite, and without a large variety at one meal, will find the appetite a fairly safe guide in this respect. It is the hasty eating, the large variety, and the desserts that tempt to overeating.

Is meat an indispensable article of diet?

Not by any means. It has been proved repeatedly that man can live in a condition of mental and physical vigor, and to a great age, on a non-meat diet. Man's source of heat and energy is principally the vegetable kingdom; and long experience has proved that from this source come foods capable of building up the most healthy tissues.

Does a meat diet favor disease?

Yes. In the first place, there is always a greater danger of intestinal decomposition and absorption of poisons on a meat diet; and in the second place, a large proportion of animals used for human consumption are afflicted with loathsome and dangerous diseases transmissible to man. Government inspection at its best does not attempt to condemn carcasses in which the disease is in a mild form; and in many places, there is either no government inspection, or it is a mere farce.

Does a flesh diet affect the morals?

Animals which, when fed on a cereal diet, are mild and gentle, become ferocious on a meat diet. Heavy meat-eating tends to alcoholism. It is next to impossible to cure an alcoholic without taking away his meat. Nations or peoples on a vegetarian diet, other things being equal, are gentler than those on a meat diet.

(Concluded on page 503)



A Reformation Needed in Home and School

Mrs. M. C. Wilcox

Steps Already Taken



THE two great molding influences in the life of the child to-day are the home and the school, and the two great factors in these institutions are the parents and the teachers. The home is the oldest institution on the earth. But how sadly has it degenerated! The strong, thinking men and women of our land are coming now to feel that a large proportion of the so-called homes are unfit places, in their present condition, in which to rear the boys and girls who are to be the future makers of society, its laws, and its governments.

From a study of the home and the home life of many children and parents, I am forced to admit that the homes of many are simply stopping-places, where parents and children quarrel, jangle, or fight among themselves, and then go out and present smiling faces to the world. It seems, therefore, from every human view-point, that a move in the direction named is a providential step looking toward a reform.

In February of last year a few earnest, philanthropic women met in the city of Washington, D. C., and organized the National Congress of Mothers, whose aims and purposes are: To raise the standard of the home life; to develop wiser,

better-trained parenthood; to instruct young people in the proper care and training of children; to bring into closer relation the home and the school, that parents and teachers may co-operate intelligently in the education of the child; to interest men and women to co-operate in the work for purer, truer homes. There were also many other excellent points which I will not here name. This movement is certainly a great reformatory work; and whether we join the society or not, our energies should be given to help support it.

Christians May Work Toward the Ideal

It is the duty of every Christian father and mother to work toward God's original plan, and make the home the ideal spot he intended it to be. It is their privilege to say what lines of study their child shall pursue to make his life most efficient in the service of God for humanity; and if he can not study these topics in the public schools, it is their privilege to teach them at home or in some private school.

Every Christian has been definitely called to a distinct work in this world,—a work of love prompted by a desire to lift mankind up both socially and morally, which makes the worker himself a far better member of society. It is more than that philanthropy which cares only

for the material needs of the unfortunate, it will benefit here and hereafter.

The early education of the Christian should be such as to fit him to appreciate his high calling, and to reach the highest possible standard physically, mentally, and morally.

When will parents and prospective parents awaken to the fact that the home life has the strongest influence in shaping the destiny of children? It is our homes that make society, schools, churches, organizations of every kind, the nation, the world. They are, as one writer says, like "springs among the hills.

If the springs are pure, the rivers are clear; if foul, the rivers are defiled. A curse upon homes sends a poisoning blight everywhere; a blessing sends healing and new life everywhere."

We can do no better work for our schools than to purify and reform our homes. We shall feel the need of this more if we try to co-operate with our teachers. Let us work and pray together, and ever keep in view the life and pattern of the greatest Teacher and Reformer who ever walked among men. When we have done all we can do, we can look to him to accomplish the rest.



Let the Children Alone

A Sympathizer



OTHERS, mothers, why will you worry your children so? Let them alone, do let them alone. What if they do stand in the window where the wind blows? They will move on long before they catch cold. What if they do run and jump and squeal? Did you ever see a young animal that didn't? What if they do come dancing into the house on a run? What hurt will it do? What if they do break things occasionally in their efforts to do things? What is a dish worth, compared with a helpful boy or a womanly girl? What is a garment worth, clean and whole, when placed beside a sturdy little man or woman who just must do something?

Obey? Of course they should, but not because they *have to*, not because punishment, or scolding,—which is the cruelest punishment of all,—will certainly follow disobedience or failure to come up to the standard set by a mature

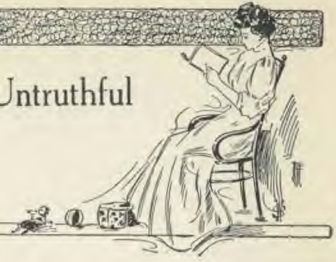
mind. True obedience can be secured only where understanding exists. Think how long it takes you to learn many of the things you do.

Can you put yourself in their place, and feel as they feel? Do you realize that their feeling may be as sensitive as your own—possibly more so? Do you know their little human hearts bleed when cross, harsh words are spoken to them? Do you know how willingly they would obey you, serve you, if you would just treat them as human beings, far more responsible than you give them credit for being? And do you know that they would be far, far more responsible in every way if you would manifest more confidence in them?

Watch them, of course: guide them, and instruct; for the immature, untrained mind is as awkward as the unskilled little hand, but O in a thousand little, wholly unimportant things that they do and want to do, let them be natural, let them alone!

Some Reasons Why Children Are Untruthful

Mrs. M. C. Wilcox



HAVE we any reason to believe, dear mothers, that our Father is not as particular now as in days of old? Does he pass lightly over the sins of overstating, overdraw- ing, and exaggeration? You remember he has said, "He that is faithful in that which is least is faithful also in much: and he that is unjust in the least is unjust also in much;" and that other text that says, "Take us the foxes, the little foxes, that spoil the vines: for our vines have tender grapes."

Then let us seriously concern ourselves regarding this careless manner of expression in our children, and not allow them to go unproved and uncorrected, drifting on with the wild, mad rush of the world, stating things that no one believes, or making statements which must all be discounted.

Who believes one half of the advertisements in our newspapers and magazines? To what place will this old world drift in a few years if these evils are allowed to go on unrepressed? The positive is stronger than the superlative, but who uses it in these days?

Shall our great army of noble, self-sacrificing mothers in America who are longing for the good of their children go on blinded to this evil? or should they stand like faithful sentinels and view their work in its broad, far-reaching effects on the nation and on the world? Let us get our eyes off the present and look for the future good

of our children and our fellow men. We can not measure the influence for good of even one carefully disciplined and accurately truthful child when grown to manhood or womanhood. There is still an admiration for truth in the hearts of all men, and the strength of character it takes to maintain it appeals to every one.

If the mother will begin early, just when the little one is beginning to talk, she may shape his manner of expression, almost as she will, and O, how many times she will have reason to rejoice that she carefully laid the foundation for the expression of simple truth!

There is one more point that I wish to mention before closing this series, and that is accusation. How many a child has been driven to do bad things by simply being accused! The very accusation has very often put the thought into his mind. To be accused of lying when he has been truthful, is a very hard thing for a child to bear; and he often feels that if he is not believed and trusted, what is the use to try? Beware, then, mothers, how you blame unjustly. Be tactful, be wary, be vigilant, and you may be sure you will discover the real truth sooner or later without unjust censure. It is such a nice thing to deal with human mind, to mold and not mar, that we need to study and pray much, and guard against *overdoing* as carefully as *underdoing* our work.

HEALTHFUL COOKERY



AND HOUSEHOLD SUGGESTIONS

Conducted by Mrs. D. A. Fitch, Glendale, Cal.

A Series of Lessons in Healthful Cookery

George E. Cornforth

Introduction

We may live without poetry, music, and art;
We may live without conscience, and live without heart;
We may live without friends; we may live without books;
But civilized man can not live without cooks.
He may live without books—what is knowledge but grieving?
He may live without hope—what is hope but deceiving?
He may live without love—what is passion but pining?
But where is the man that can live without dining?

—Owen Meredith (*Lord Lytton*).



It has been said that “eating is a necessity, but cooking is an art;” and every housewife and mother should be an artist in her work of preparing food for her family. She should indeed regard cooking as one of the finer arts, to which she can afford to give nothing less than the best that is in her.

More than that, cooking has come to be a science which should be mastered by every one upon whose work health, happiness, even life itself, depend. It is a work which deserves and demands the most careful and thoughtful attention. And as the artist expresses himself in the picture he paints, and the writer in the story he pens, so the artist-mother may express herself through the medium of her work for the benefit of her family. And while thus enthusiastically putting herself into her work,

she will gain a pleasure and satisfaction from it which will well repay her for her effort. Then, far from finding housework drudgery, her life in her home will be a pleasure not only to herself but to her family. And while it is frequently true that “those persons whom God hath joined together in matrimony, ill-cooked joints and badly boiled potatoes have put asunder,” the exact opposite of this may and should be true.

I — Starch

“Behind the nutty loaf is the mill-wheel; behind the mill-wheel is the wheat-field; on the wheat-field rests the sunlight; above the sun is God.”—*James Russell Lowell*.

There are three classes of food elements: (1) carbohydrates, including starches and sugars; (2) fats; (3) proteids.

The carbohydrates and fats supply us

with heat and energy; they are to the body what coal is to a steam-engine. The proteids build tissue and repair waste; they are to the body what iron and steel are to a steam-engine.

In our first lesson we shall consider starch and its proper cooking. Some have the idea that starch is not a good food, and this is true to the extent that raw starch or improperly cooked starch is difficult to digest; but three fourths of our food should belong to the first class of food elements.

In order that the food may be absorbed through the walls of the digestive tract, it must be dissolved in water. Therefore cooking should render food more soluble.

Before starch can be used by the body, it must be digested, or turned to a form of sugar. This change is accomplished, or at least begun, by the saliva; hence the special importance of thoroughly chewing foods which contain starch.

Raw starch is insoluble in water, and is very slowly digested. There are several stages, or steps, through which starch passes in reaching that form of sugar which can be taken up by the blood. Cooking should help, and not hinder, this process; and the farther along in this process we carry the starch by cooking, the easier it is to digest.

The most easily digested form of carbohydrate is that found in fruits,—grape-sugar and fruit-sugar,—and in immature grains, or grains in the milky stage; and the more nearly like this form of carbo-

hydrate we can get starch by cooking, the more digestible it is.

Raw starch is the permanent form of carbohydrate, the form in which it does not ferment, but may be stored and preserved. But when a grain of wheat, for instance, is planted, and it sprouts, the starch is digested and turned to sugar,



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Japanese schoolgirls out for a walk. As a rule, they are industrious and conscientious in their work, and nearly all of them will marry and make devoted mothers.

the soluble form, for the young plant to live and grow upon. Our digestive organs have only feeble power to digest raw starch; therefore before we eat starch, we do something to it similar to what is done to the starch in the grain when the grain sprouts; that is, we render it soluble; and the more nearly like the carbohydrate in the sprouted grain we get it, or the more nearly like the carbohydrate of fruits, the more digestible it is.

Boiling liberates the starch from the indigestible woody fiber in which it is incased, so that it is the more readily reached by the digestive juices; but it is still starch. Browning, baking, toasting,

and the like, transform the starch into dextrin, a substance intermediate between starch and sugar. As a rule, if they are not overdone, dextrinized foods are more digestible than boiled foods.

Mushes

If we feel that we *must* have grains cooked in the form of mush, then let us cook the mush thoroughly. With the exception of rice, grains, when cooked as mushes, ought to be cooked from four to eight hours. There is considerable difference in digestibility, and also in palatability, between mushes cooked fifteen or twenty minutes, and mushes cooked several hours.

In order to cook the grains this length of time, they must be cooked in a double boiler. Put the water and salt in the inner cup of the double boiler, and set it over the fire. When the water boils, sprinkle in the grain slowly, stirring continuously, and continue to stir till the grain fills the water, and does not settle. Then place the inner cup inside the outer cup, which has boiling water in it, and keep the water in the outer cup boiling for several hours. In order to cook grains for breakfast in this way, they may be cooked the afternoon before, and warmed up in the double boiler in the morning.

Boiled Rice¹

To cook rice and have the grains

whole and separate, bring to a boil two quarts of water to which one and one-half teaspoonfuls of salt have been added. Add one cup of good rice, which has been well washed. Keep the water boiling, stirring occasionally for exactly fifteen minutes, no longer. Turn the rice into a colander to drain off the



From stereograph, copyright by Underwood and Underwood, N. Y.

School recreation grounds, Ecuador

water. Then set the rice in a steamer or in a moderate oven for three quarters of an hour.

Browned Rice (Dextrinized)

Place the rice in a pan in a moderate oven, and heat it till it becomes a yellowish brown or straw color, not dark brown. Allow it to cool, wash it, add to it three times its bulk of cold water, and cook it in a double boiler one hour. Rice cooked in this way is never one solid, soggy mass, but is always light; it has a delicious toasted taste.

Baked Potatoes

Baked potatoes are more digestible

¹The measurements of teaspoonfuls and tablespoonfuls in these recipes are rounding measurements.

than boiled potatoes, because they are cooked in a dry heat, and at a higher temperature. In fact, the starch of baked potato is the most digestible form of starch.

Macaroni

Never wash macaroni. If necessary, wipe it with a dry, clean cloth. Break it into inch-length pieces, and cook it in eight times its bulk of *boiling*, salted water, from twenty minutes to one hour, according to its age and size, or till ten-

der. Be sure that the water is boiling when the macaroni is put in. This will make the difference between well and poorly cooked macaroni. When the macaroni is tender, drain off the water, and pour cold water through it to prevent it from sticking together. Then add to it cream sauce, egg sauce, tomato sauce, or any other desired dressing. Macaroni may be browned or dextrinized before it is cooked in the same manner that rice is browned.



Health Catechism

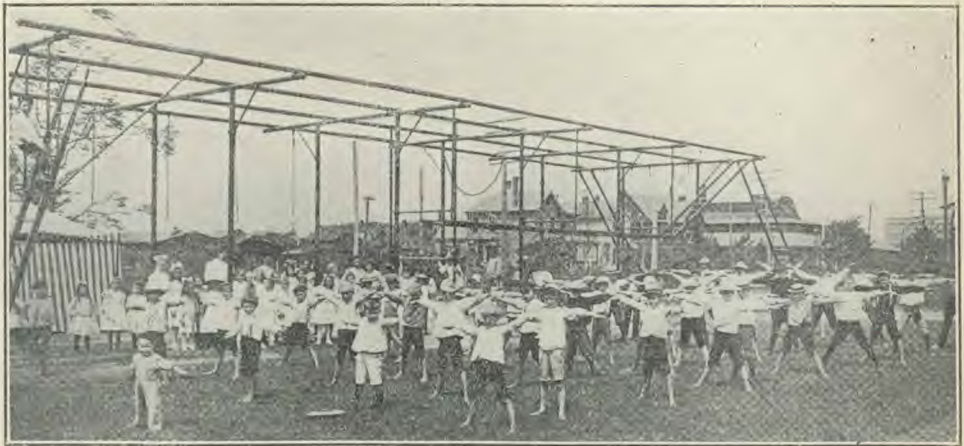
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Is an excessive proteid diet injurious?

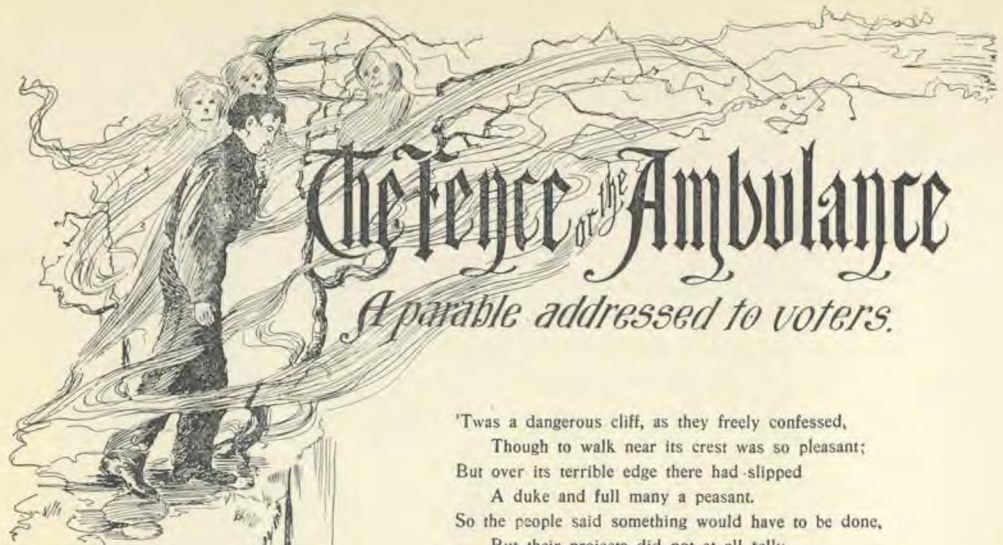
In a diet containing an excess of such foods as beans, peas, lentils, eggs, milk, cottage cheese, and meat, the body usually becomes "clogged" with the surplus nitrogenous waste; and there is a tendency to biliousness, headache, and "rheumatic" troubles.

Is a diet containing an excess of carbohydrate injurious?

It is probable that there is a fairly wide range between the smallest amount of food, and the largest amount consistent with good health. Outside of these limits, there can be no question that the body will suffer in proportion to the amount of variation. While it is probable that most people eat more than the body actually requires without serious inconvenience, yet in that direction danger lies. In some, surplus carbohydrates increase the tendency to fermentation and indigestion. In others, the tendency is to corpulence. In others peculiarly constituted it may be the origin of diabetes, or of other diseases of which we as yet know little.



Playground at Dayton, Ohio, established by the National Cash Register Company for the children of employees.



The Fence at the Ambulance

A parable addressed to voters.


'Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant;
But over its terrible edge there had slipped
A duke and full many a peasant.
So the people said something would have to be done,
But their projects did not at all tally.
Some said, "Put a fence round the edge of the cliff;"
Some, "An ambulance down in the valley."

"For the cliff is all right, if you're careful," they said,
"And, if folks even slip and are dropping,
It isn't the slipping that hurts them so much
As the shock down below—when they're stopping."
So day after day, as these mishaps occurred,
Quick forth would these rescuers sally
To pick up the victims who fell off the cliff
With their ambulance down in the valley.

But the cry for the ambulance carried the day,
For it spread through the neighboring city.
A fence may be useful or not, it is true;
But each here became brimful of pity
For those who slipped over that dangerous cliff;
And the dwellers in highway and alley
Gave pounds or gave pence, not to put up a fence,
But an ambulance down in the valley.

Then an old sage remarked: "It's a marvel to me
That people give far more attention
To repairing results than to stopping the cause,
When they'd much better aim at prevention.
Let us stop at its source all this mischief," cried he,
"Come, neighbors and friends, let us rally!
If the cliff we will fence, we might almost dispense
With the ambulance down in the valley."

WILL SCHAEFER
DEL.

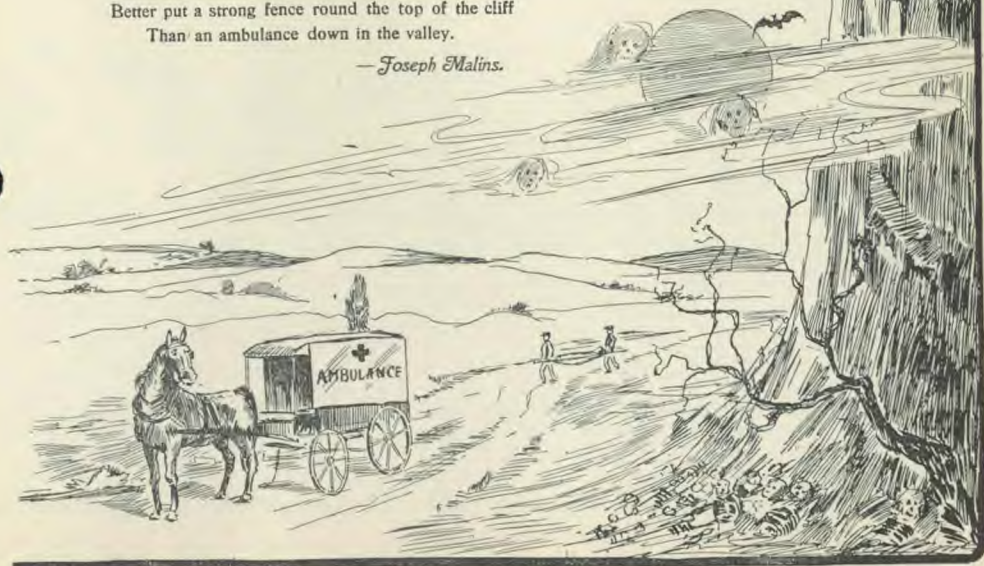


"Oh, he's a fanatic," the others rejoined:
"Dispense with the ambulance? Never!
He'd dispense with all charities, too, if he could:
No, no! we'll support them forever!
Aren't we picking up folks just as fast as they fall?
And shall this man dictate to us? Shall he?
Why should people of sense stop to put up a fence
While their ambulance works in the valley?"

But a sensible few, who are practical, too,
Will not bear with such nonsense much longer:
They believe that prevention is better than cure,
And their party will soon be the stronger.
Encourage them, then, with your purse, voice, and pen,
And (while other philanthropists dally),
They will scorn all pretense, and put a stout fence
On the cliff that hangs over the valley.

Better guide well the young than reclaim them when old;
For the voice of true wisdom is calling,
"To rescue the fallen is good, but 'tis best
To prevent other people from falling."
Better close up the source of temptation and crime
Than deliver from dungeon or galley;
Better put a strong fence round the top of the cliff
Than an ambulance down in the valley.

—*Joseph Malins.*





"But unto you that fear my name shall the Sun of Righteousness arise with healing in his wings [“beams,” A. R. V., margin].” Mal. 4: 2.

Conducted by Augusta C. Bainbridge, 4487 Twenty-third Street, San Francisco, Cal.

No. 9—Destructive Ignorance

Augusta C. Bainbridge

IT was in the days of Isaiah and Hosea that the Lord through his prophets said: “The ox knoweth his owner, and the ass his master’s crib; but Israel doth not know, my people doth not consider;” and, “My people are destroyed for lack of knowledge.” Could he say the same of his people to-day?

Do “my people” know the physician, the druggist, the patent-medicine vender, and the medicine closet in the bath-room, and yet “not know,” “not consider” the words of the Healer himself? Is it a fact that they do not know his will in healing?

Paul says: We “do not cease to pray for you, and to desire that ye might be filled with the knowledge of his will.” Col. 1:9. God has spoken his will through his Word. What we read there, we may *know* is his will to us. Many recognize the fact of divine healing, and yet have no personal knowledge of Jesus Christ, the healer of the body.

Some are waiting for a special revelation to fit their own case. When we learn to know God, we shall find that his revealed will fits all cases. His Word given through the prophets, agrees with the living Word, who healed all who came

to him. Carefully studying that Word we find that he declares himself to be the Healer of his people.

When his people were in Egypt, they forgot (and in Egypt it is easy to forget) that the Lord was their healer; and so when he led them out, he gave them a reminder. “If thou wilt diligently harken to the voice of the Lord thy God, and wilt do that which is right in his sight, and wilt give ear to his commandments, and keep all his statutes, I will put none of these diseases upon thee, which I have brought upon the Egyptians: for I am the Lord that healeth thee.” Ex. 15:26. All through their history we find many who after repentance and confession of sin received healing in answer to prayer. We find other who went not to the Lord, but to a physician. The physician has his place; but God only can heal.

Did healing in answer to prayer end when Jesus died?—No, we know it did not; for Jesus sent out his twelve disciples, commissioned to heal (Matthew 10); then, later, the seventy with the same commission (Luke 10); then, still later, all who “believe” (Mark 16); and after that the church (James 5).

Instances of healing have marked the path of God’s children from that day to

this: and now, under the special blessing of this glorious preparation day, thousands in every land are proving God as the Healer of his people.

All that we can know of the gospel is ours through Christ; and since he was God manifest in the flesh; we have only to study his life to know the will or mind of God in healing. There is a blessed "whosoever" for every soul who will meet the conditions and believe his Word. His will is so plainly given in his Word, that all may know if they will only believe; we know by believing.

If we do not know his will, we may study his Word, asking for light, and he will give it to us. When a father has promised a certain thing to his child, and the child believes him, there is no

"if" in his request for it. But if the father has not promised, or the child does not know the promise, then he must, from the very nature of the case, put an "if" in his request. When our "I will" meets His "I will," the work is finished.

Some do not know how far to use means, or what means to use. Even these the same dear Father will reveal to us, whenever we have a willing mind. We may need a lesson in patient waiting, to strengthen our knowledge of his will, or to strengthen our faith.

Yes, to-day, as yesterday, "My people do not know," and hence "are destroyed for lack of knowledge." Who does not need to pray, "Lord, increase our faith"?



A portion of one of New York's recreation piers. The refining effect of the young women in charge on the "river gang" is incalculable.

THE MEDICAL MISSIONARY AT WORK



Conducted by T. E. Bowen, Takoma Park

The Mussoorie Sanitarium

H. C. MENKEL, M. D.



USSOORIE, located in the Himalaya Mountains, at an altitude of six thousand five hundred feet, has a climate like that of Colorado, with the exception that we have the tropical sun, although it is not nearly so hot as in the plains. We have the rainy season, lasting about four months. The removal of the sanitarium work from Calcutta to this hill station has resulted in a marked blessing to our work. The health of the workers has very much improved, and we are able to secure quicker and more decided results with our patients. India has a debilitating climate at best; therefore, to secure the best results in the sanitarium work, it was necessary to remove the institution to the most invigorating climate we could find. In a most definite manner the Lord has gone before us, and added his blessing. From the very first, nearly every bed has been occupied.

The most marked token of success is the interest manifested by our patients to study the truth. Several of

these are missionaries, who have spent some years in the field, and will materially strengthen our forces if they take their stand with us, which we have good reasons for believing they will do.

We have organized a good health league, which is doing a good work among the people of the station, both European and native. We find that the



Mussoorie Sanitarium — An incoming patient with luggage.

health work makes friends for us. There is a distinct awakening among Christians in India to know what we believe.

The sanitarium is very much in need of appliances with which to work. Is there not some one who feels a desire to help this work at a time like the present, by sending us direct, or through the Washington office, means with which to secure these much-needed appliances?

Medical Missionary Work in Mexico

WITH my family I was sent to Mexico by our old Medical Missionary Board; but on leaving the Guadalajara Sanitarium, I continued in the work on a self-supporting basis. For several years I had much to do with the missionaries and workers of other denominations, nearly all of whom have heard of our special message from me. The principal of one of the leading mission schools accepted the message, as far as she understood it. Three other prominent mission teachers have also accepted some points of present truth. These they are already teaching. I have been successful in getting newspaper articles published, in which our work has been quite fully presented.

At the meeting of the National Y. P. Association three years ago, we organized an interdenominational medical missionary society, of which I have since been the president. Thus our work is

kept before the Protestants in various ways, through the medical missionary work.

During the past two years my work has been more among the natives in rural districts and Indian villages, where many interesting experiences have been encountered, and many friends won. In a future letter I may mention some of these which may be of interest to you.

We greatly need proper help to extend the work where these openings have been made; for I assure you that a semi-pagan Catholic community is not easily persuaded to extend even ordinary hospitality to those of another faith, and a person of eighteen years' experience in foreign mission work has yet daily to learn many things as to the best manner of "entering in."

The medical missionary work here and elsewhere is very important. Recruits are needed for these destitute fields. May God direct the way.

A. ALLEN JOHN, M. D.



This is the way all water is carried to the Mussoorie Sanitarium for baths and treatments.

CURRENT COMMENT



Opinions here quoted are not necessarily all approved by the publishers of LIFE AND HEALTH.

Health, Morality, and the Playground



OUR whole country is in a process of becoming civilized. It is a process that is going on at an astonishing rate, and is, in fact, one of the chief agencies for the spread of civilization among us. We should like to see this process promoted in every possible way, but at the same time we must not forget that it presents to us the new problem of saving to our people their country life. An increasing number, and an increasing proportion, of our people are as hopelessly removed from the real, open country, with all that it means for our national health and vigor and clean imagination, as if they were shut in by a Chinese wall. But the fact remains that we not only need the country, and all that it represents for our national well-being, but every one of our people needs the country and all that it represents. We can not bring the real country to all of them. At the very best we have only found it possible to do a little in this direction. There are three things that are working to this end, and all three need the largest possible encouragement: One is the facilitating of brief visits to the real country, particularly in the summer. Another is the provision of city parks, which, with their fields and woodlands and stretches of water, preserve some of the most beautiful features of the country for city eyes to look upon. The third is the public playground, which offers to city children a chance for some

of the free sports in open air and on mother earth that children in the real country enjoy without knowing how precious a thing it is.

A system of public parks, as well managed in accordance with modern ideas of variety and naturalness in their treatment, is a glory to any city. Such parks offer to the poorest who may be within reach of them, a breath of country air and a glimpse of country greenery. But even under modern management they leave much to be desired, and under a less modern management there is far too much about them that is suggestive of a cemetery.

The part of the modern park which most appeals to the child, and ought to appeal to him, is that part which gives him a chance to do something. For any real lover of human nature—boy and girl nature—the most beautiful thing of all in our public parks to-day is a lot of children hard at play where there is room to play, and nobody cares whether the grass grows or not.

Now that a beginning has been made in provision for playgrounds, and fairly effective means have been employed for the supervision and management of such grounds, the most urgent question seems to be the question of room. There can be no doubt, I think, that this movement is to go a great deal further than it has yet gone. A great deal more ground can be used in this way with incalculable advantage to public health, public morals, and the general efficiency of our people. In fact, I think it would be difficult

to find any point at which, in our largest cities, a dollar will go further in the making of those things for which the city exists, than in the provision and maintenance of playgrounds. I think we shall find a good many more ways of taking city children out into the open country. The development of this side of the movement ought certainly to be watched and furthered in every possible way, but nothing will take the place of a playground near at hand, to which the children can run on short notice, and from which they can quickly return, so that the playground becomes an integral part of the daily life. I think, too, we have reason to expect that the roof playground will become much more general in our city schools. So much clear space lifted high above the street, as is represented by a schoolhouse roof, can not be allowed to go unused. New ways are to be found, too, by which the vacation school, the school garden, and the organized teaching of play, will work together with the public playground for the promotion of playground purposes; but the main thing now, apparently, is more room, and a great deal more room. Public interest and public conscience must be awakened to provide more room.

— *Elmer Elsworth Brown, United States Commissioner of Education, in Charities.*



Playgrounds in the Prevention of Tuberculosis

I BELIEVE it is reasonably established that social vices, voluntary or circumstantial, which are deeply rooted, can not be uprooted except through continuous and systematic effort covering a long period of years, and to the correction of which contributory factors of all kinds must be brought into operation. Practically in almost all such questions the

hope of the future lies in the children, and the weight of the elements which must be considered and brought into harmonious constructive operation is enormous.

It is not at all sufficient that the children be protected during their helpless years from danger, but that they be furnished with sturdy, disease-resisting bodies. The problem of tuberculosis involves a deep conviction as to the principles of living, which, even though it can be inculcated in the youth, would be as rapidly eradicated by their contact with their elders, unintelligent and fixed in habit, unless their knowledge and impulse can be kept alive by special advantages and inspirations.

Side by side with the development of intelligence in the child, must come the magnifying of child importance in the domestic organization. The two factors, child education, growing into mature habit and belief, and child importance influencing family method and proportion, if they could be achieved, would distinctly advance the freedom of the world from the tuberculosis pall. . . .

From the standpoint of tuberculosis under our present light, one thing must be accepted as fundamental. To as great an extent as possible the out-of-door type of life must be substituted for the habitation type. It is not necessary that the reform in type of life be absolute, but it is necessary that it be so pronounced that the conditions of hygienic living shall be established to a degree sufficient to offset the present encroachment of vicious indoor exercise

Proper fresh-air experience as a daily factor in life is the most important single element in the whole question. To accomplish anything in this direction involves a great deal more educative effort than is generally realized. The public is liable to feel that it has done its duty when it has established a wise tene-

ment law, when it has furnished an abundance of parks, when it has dotted the community with playgrounds. As a matter of fact, when all this has been done, the surface of the ground has only been scratched.

The problem is, and it will continue to be, how to implant in the human race, living under modern social conditions and particularly under industrial restrictions, such a hunger for air as will force it to take advantage of facilities which may exist.

The child who prefers to sit huddled up in the corner reading a book, is an abnormal product of civilization, and has as distinct a vice to overcome as has any child with any degree of moral obliquity. The family whose physical discomforts lead it to crave the immediate comfort of warm air, no matter how polluted, and whose economic necessities make it necessary to exclude the external air, is inexpressibly more the proper object of state intervention than if it were being poisoned by food, or drug, or alcohol.

It is not difficult to teach a tubercular patient to sleep comfortably and even eagerly in the open air under conditions most rigorous. Such education, however, is in the form of special pressure growing out of a recognition of great danger and a consequent willingness to co-operate in its avoidance.

Experience will show that to educate a whole family, who are not under the pressure of threatened death, to sleep under these life-giving conditions, is fraught with the utmost difficulty, yet it is safe to say that with comparatively minor change in the habits of living, an enormous gain upon the tuberculosis plague could be made by that simple device.

Protection of the child must be the watchword under which this reform will be achieved. The ideal of a healthy body, the obligation to protect the child

in its susceptible years, the willingness to sacrifice for the child in material ways, have to come as the foundation for general reorganization.

The scope of the playground movement broadens enormously at this point. To provide generously the open spaces necessary to carry on the work is obviously the first duty. To regard this work when done as an end accomplished is scrupulously to be avoided. To learn to regard the playground as an elementary means to a very great end must be the object of our propaganda.

The playground must be made to the child attractive, wholesome, and so unrestricted as to give to every child a proprietary interest. On the other hand, by every conceivable means, the elders must be brought into realization of the privilege and beneficence of the playground, and into an actual co-operation in magnifying the interests of children as a principle of their up-rearing. To bring the unenlightened or even the so-called enlightened parent to value the playground as he values the schoolroom is a colossal undertaking, but unless this can be accomplished, the work will fall far short of its legitimate possibilities.—*Henry Baird Favill, M. D., president Chicago Tuberculosis Institute, in Charities.*



Open-Air Exercise and Health

THE Anglo-Saxon business man or professional man needs not only some exercise, but he needs it in the open air. I am not sure but that the latter is even more important than the former. It is quite true that much of the benefit attributed to exercise belongs to fresh air and forgetfulness of mental competition or business cares. Of all the miserable makeshifts of exercise is bowling, practised as it usually is in an illy-ventilated

basement, artificial light, and dust, and dirt. Your average habitual bowler is a pretty pasty proposition. Better exercise would be found in the same length of time spent in lying on one's back under a tree on the hillside studying the flight of the birds.

This whole matter of exercise and recreation requires orientation. It needs to receive scientific study and to be presented to the people as a part of their education. Witness the unwholesome struggles for recreation and exercise indulged in by the hordes flocking to the summer-amusement places. How utterly deficient in education upon this important subject is this sweating, peanut-eating, gewgaw-bespangled, beer-consuming throng. The poor man, like the rich man, prizes his recreation according to the cost. The sport which costs money is the thing.

I should like to see the rich man's recreations turned to even greater usefulness. There are useful recreations which give as good exercise as the non-productive exercises. A man who plays eighteen holes of golf—even though he indulge in no stronger expletives than "Tush, tush!"—has used enough energy, if turned into useful channels, to cultivate, say, an acre of potatoes or to split enough wood to keep a single family warm through the winter. These are practical and useful employments. To say that a man has taken enough exercise, if converted into foot-pounds, to raise himself perpendicularly five thousand feet, is very scientific; but a man does not want to be raised perpendicularly five thousand feet. He is better off where he is. But we do need potatoes and fire-wood for the winter. Trimming shrubbery, laying walls, mowing grass, digging ditches, making roads, cutting weeds, planting trees, are as good exercise as golf; and all are useful. The best

kind of labor is useful labor, and so is the best kind of play; and the former becomes the latter if entered into in the right spirit. Let us have more useful play.—*New York State Journal of Medicine.*



Winter Underclothing for Children

WINTER underclothing — winter "flannels"—they seem synonymous. For so many generations has it been the rule to change to woolen undergarments on, say, November 1, and to take them off on May 1, that any discussion of the topic may seem superfluous if not heretical.

Undoubtedly there are homes and climates in which such a practise is in strict accord with physiology and hygiene, but in our superheated houses and changeable climate this practise is a mistake for the great majority of children. This is evidenced by the increase in the number of colds at the time when the flannels are put on—about the time when cold weather begins; also inversely by the comparative freedom from colds of those who wear the same light-weight undergarments the year round.

A few general principles in regard to clothing can be agreed upon. The body should be evenly covered. The clothing should be sufficient in its thickness or number of layers to insure bodily comfort without causing evident perspiration while not exercising. If a child is perspiring noticeably when quiet, either the room is too warm, or the child is overclad. Overclothing, by exciting passive perspiration, lowers the bodily resistance, and favors chilling by the slightest current of air, warm or cool.

In winter, children spend the majority of the twenty-four hours indoors, where the temperature is fairly constant, some-

where between 65° and 68° F. Rational management of their clothing would demand that the undergarments be such as are suited to this temperature, which is that of late spring or early fall. Heavy undergarments tend to overheat the child, promote perspiration, make him irritable, and induce him to throw off his outer clothing, and perhaps even open a window and sit down while still overheated. All these things encourage deep congestions and colds.

The most satisfactory as well as the reasonable plan, then, is to have only two weights of underclothing for children—the thinnest gauze or some thin-meshed fabric for summer and a slightly heavier but rather open-woven fabric for the rest of the year. Changes of weather and of outdoor temperature can be met by a change of the outer garments and wraps.

As to the material for underclothing, the weight of opinion is changing to favor absorbent materials, either linen or cotton, instead of wool and silk; for these latter are not absorbent to anything like the same degree. Cotton gauze or a linen towel take up water much more quickly than silk or flannel. A silk handkerchief is useless compared to one of linen. The various forms of meshed underwear have certain advantages over silk and wool garments; they do not overheat the child; they do not promote passive perspiration; they have sufficient air spaces to be good non-conductors, and hence are "warm;" they permit constant free evaporation so that the skin does not remain moist from perspiration to favor chill.

Many children who formerly suffered every winter from repeated "colds" have been entirely cured by substituting air-meshed garments for woolen underwear; and many whole families of children have abandoned silk or woolen for linen or even cotton, with the most satisfactory

results as regards freedom from catching cold.

Of course, along with proper undergarments there must be rational management of the ventilation and the temperature of the living- and sleeping-rooms, and care in adapting the outer clothing to the weather.

Overheated rooms, overclothing of children, and dust,—these three factors produce most of the so-called "colds" of winter and of the changeable seasons preceding and following it.—*Archives of Pediatrics.*

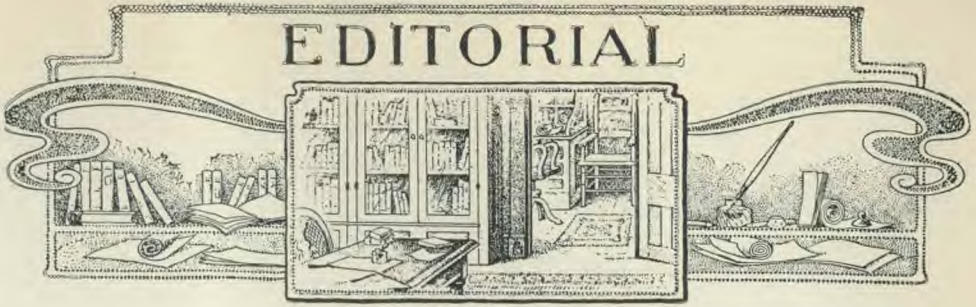


How We Provide for the Children

WE are educating eighteen million children in schools. We are compelling them to be seated much of the time for five hours a day. The rooms in which they are seated are sometimes well ventilated—sometimes not. We are forcing the eyes of children to do the work of reading to a far greater extent than has been attempted in any previous century. We are extensively lessening the kinds of play that children can carry on.

The whole matter of education profoundly affects the health and vitality of city children; and yet, almost without exception, boards of education are prescribing hours of home study, the size of type in the text-books, length of line, with the page that children shall use during their school life, the kind of seats they should sit in, the amount of light they should have, the character and length of their recesses, and a hundred other things which affect their health—without having the advice of competent medical authorities.—*Luther H. Gulick, M. D., in World's Work, June, 1908.*

EDITORIAL



Our Debt to the Child



IT was because Paul had been given a knowledge of salvation, that he confessed himself debtor to all mankind. To him, the admonition, "Freely ye have received, freely give," was imperative, and he earnestly devoted his life to the payment of the debt.

As Paul, in a spiritual sense, was debtor to his neighbor for what he had received, so every man is debtor to his fellows for what he has received—spiritual or physical; so every community or nation is indebted to less favored communities and nations, so every generation is indebted to the generations that follow. "Freely ye have received, freely give," is a duty the Father imposed on the recipients of all gifts, whether these have come from him direct, or through the ministration of others.

We have come to realize that it is the duty of one generation not only to conserve the natural resources, such as timber, not only to make such permanent improvements as shall add to the comfort and convenience of those who are to follow, not only to modify legislation so as to make life more bearable for the great mass of the people, but also to develop in each member of the rising generation those personal attributes which will best contribute to make him a useful member of society.

It was an important step in advance

when man, organized as a government, came to realize his debt to the future to the extent that he made definite provision for the education of every child. Even now this debt is not everywhere acknowledged, for even in countries of the most advanced civilization there are those among the cultured who do not see the wisdom of educating the child at public expense. But free public education is no longer an experiment, and its results have been so satisfactory that no government that has given it a trial is likely ever to abandon it.

But to provide free schools does not guarantee each child an education; for among the poorer and more ignorant and vicious classes are many who feel no burden for the education of their offspring, preferring that the child shall become a wage-earner as soon as possible. And it is just this class that is least likely to give the children the home training that would tend to make them useful citizens. And so, for the sake of the child, and for the sake of society, it was necessary for the state to step in, and say to ignorant and vicious parents, and to factory owners, that the child has rights which must be respected; that he must be given the advantage of at least a rudimentary education. This problem has not yet been satisfactorily settled.



Experience has taught us the great advantage of manual training in the

schools, in that it substitutes for mere book work the development of the whole being. We have learned that training the hand to skilled work also develops certain brain cells, and in some way this stimulates the action of other brain cells not directly connected with the manual work. Pupils who devote several hours a day to well-directed manual work do not thereby fall off in their intellectual work, but prove actually better for it, and at the same time have a practical training that no text-book can give. Mental defectives, who in the grades have been unable to do anything, have, in special institutions, been taught manual work of gradually increasing complexity, with the result that they have showed a marked increase in intelligence. Thus, with constantly improving facilities, and under supervision which is from year to year growing more skilful, the children pursue their studies, and perform their manual-training work; but their recreation — if they have had any — has been taken pretty much at random, with little, if any direction.

And yet, the youngster obtains a large portion of his education during his recreation hours. Any observing person knows that a child is far more intensely *alive* on the playground than in the schoolroom. If he is not, it is because there is something the matter with him. That is where his interest is, where he has an opportunity for self-expression, where he is *doing something*. Undoubtedly, the brain cells are more active and in a more receptive condition on the playground than in the schoolroom. Question the child at night, and you will doubtless find that he remembers far more about his games than about his studies — and you wish it were otherwise.

Now, your child is not abnormal; he

is no degenerate. He is a natural child, and in following his play-instinct he may be more in accordance with nature than those who attempt to curb his animal spirits. An important part of the real education of the child — that which concerns the great truths of life outside the leaves of a text-book — comes to him during his recreation hours — just the time, according to older methods, that he is left without wise direction.



It was another great advance step when communities, led by far-seeing philanthropists, began to provide suitable recreation spots for the children, where they might have the advantage of fresh air, and where their activities could be directed in healthful and uplifting lines.

The purpose of the Playground Association of America is the physical, mental, and moral betterment of the rising generation. By means of playgrounds, conveniently located to every child in our crowded cities, and under competent supervision, it is the purpose to supersede the undirected and often vicious play of the gutter and the back alley by healthy exercise in the fresh air, so that the child who has heretofore had to choose between the stuffy air of a dark hallway and the boxes and tin cans of a cheerless back-yard, may have a clean playground with abundance of sunlight, clean games properly directed, and good companionship.

Often the work of the schoolroom is such that the child comes to regard the instructor as an enemy, whose purpose it is to curb all the natural tendencies of childhood, and enforce activities that are disagreeable. To a certain extent, this is unavoidable, as confinement in-

doors is, and must be, irksome to the healthy child; and perhaps the time will not soon come when, even with the best of teachers, the child will not look forward with eagerness to the recreation and vacation periods. The recreation directors, on the other hand, entering into all the games of the child, and as far as possible following in the line of the child's natural instincts, are loved in a way that the teacher seldom experiences, and the admonitions and suggestions for self-improvement from these directors are far more likely to have a lasting influence on the child than are those of the teacher. Not that the teacher has less interest in the child, or is less careful to instruct in right lines, but that the teacher who works in the schoolroom is handicapped by methods which we are rapidly outgrowing.



Not the least of the advantages of the playground is that it makes for better health. Not only is the child encouraged to be more out in the open air, and to take healthful exercise, but he learns to love the air, and the exercise, and the sunshine, and forms habits that will tend to keep him strong and efficient. He is

constantly learning lessons in practical hygiene (which, by the way, is far better than learning them from a text-book, and never putting them into practise), which cause a reform in his own life, and which to a certain extent penetrate the home, and influence the lives of the parents.

Parents having a good home may feel able to provide for the children in a better manner than to permit them the freedom of the public playground and the danger of chance vicious acquaintances. If so, they should not fail to give the children an equivalent, in the way of a recreation spot in the open air, with opportunity for taking healthful exercise that will at the same time be a real recreation to the child and not a drudgery; and the child should not be left for long periods without suitable companionship and careful direction. Beautifying the home grounds by means of gardening is a task in which the interest of the young can be enlisted, and it has the additional advantage that it encourages outdoor life, cultivates a love of the beautiful, and develops the power of observation, and the habit of correct thinking. The child who early learns to love flower-gardening in the open is not likely to adopt a sedentary mode of life later.



Etching by J. M. Millspaugh.



Fatalities from Gnat Bites.—In North London (England) districts the gnats have been unusually severe this summer, and a number of deaths have followed gnat bites.

Vital Statistics Poorly Kept.—Less than one third of the States enforce registration of births and deaths with sufficient thoroughness to be accepted by the United States Bureau of Census as dependable.

A New and Dangerous Form of Stimulation.—In London the manufacturers of oxygen supply cylinders of the gas regularly to customers who use it by inhalation, for its stimulating effect. Physicians consider the practise, which is rapidly growing, a dangerous one.

School Hygiene in England.—On Aug. 1, 1908, "ended the evil system which till that date allowed the study of hygiene to be optional with those who meant to become teachers." Hereafter, every applicant for the position of teacher must include hygiene as an important study in his training.

Tuberculosis Instruction Through Art.—The Charity Organization Society's Committee on the Prevention of Tuberculosis has distributed broadcast through the Latin Quarter of New York City a colored picture of Venice, containing on the margins in plain type, simple warnings, and instruction regarding tuberculosis, its danger, its symptoms, and the means of prevention.

Mussels and Typhoid Fever.—After four years of investigation, the assistant health officer of Birmingham has reached the conclusion that there are good grounds for the suspicion that mussels carry typhoid fever. Seventy-four typhoid patients in Birmingham had recently eaten mussels, and experiments show that the mussel readily picks up typhoid germs from infected water.

Claim Cancer Cure.—There comes from St. Louis the claim that physicians in hospital service in that city have recently cured two patients of cancer. But as it is the rule for reputable physicians not to consider cancer cured until three years have elapsed, this report would seem rather to be the output of some ambitious reporter.

Doctor Expects to Treat Patients by Wireless.—One of New York's most "saffron tinted" dailies attempts to amuse its readers by recounting the plans of a certain physician, who believes he will be able soon to transmit medicines to a distance by means of electric waves, through the air, after the manner of the wireless telegraphy.

Open-Air Schools in London.—Last year the London County Council operated an open-air school for the benefit of delicate children. The innovation proved so advantageous that this year they have three such schools. The children who are sent to these schools are the victims of bad hygiene and overcrowding, who have such disorders as anemia, enlarged glands, swollen tonsils, adenoids, etc. The children usually seem brighter at the end of the school day than at the beginning. To them, it is a vacation from their home life.

A New Use for the Phonograph.—The phonograph has found use as a means of bringing the political campaign speech to the ear of the village rustic who has no other opportunity to hear the leading political lights; but a more significant use of the invention is in the more important campaign against tuberculosis. It is now the custom to furnish tuberculosis exhibits with a phonograph and records giving in easily understood language the essential points regarding the dangers of tuberculosis, and what should be done by the people in their homes, in order to prevent its spread.

Photographing the Stomach.—A German physician has elaborated a small camera which is swallowed by the patient. The doctor, by means of a string, controls the exposure of a film twenty inches long and one quarter inch wide. The stomach is illuminated by means of a small electric light. But really, this sounds more like the invention of a newspaper reporter.

Woman Doctors Abroad.—Heretofore there has been much prejudice in Europe against women studying medicine, but gradually the prejudice is breaking away, and it is probable that this field will one day be as open to European women as it is to American women. This prejudice is very manifest at the present time in the most important British medical centers.

Transforming Oils Into Powder.—It is said that German chemists have perfected a process by which the disagreeable oils used in medicine may be transformed into odorless and tasteless powders, having the same efficiency as the less agreeable oils, and in a more concentrated form, for the equivalent of a four-ounce bottle of oil will go into a very small vial. Proprietary?

Cancer Cure Not Yet Found.—The Imperial Research Society, which, for six years, has followed every clue as to the cause and the cure of cancer, which has investigated every remedy that promised relief, and every theory that gave promise of shedding light on the subject, admits that the problem is far from being solved.

Sure Cure for Sunstroke.—Some Paris physicians claim they have discovered that sunstroke may be positively cured by the administration of chloroform, either by swallowing, diluted in water, or by inhalation.

Joint Massage by Means of Quicksilver.—In cases where ordinary manipulations would be too painful, one physician takes the inflamed joint—the wrist, for instance—and sinks it in a vessel of quicksilver. The even pressure of the liquid metal on all parts rapidly increases with the depth, so that pressure can be increased or diminished by lowering or raising the part. At the conclusion of a treatment, in which the part is lowered and raised about thirty times, a marked improvement in the joint is manifest. In one case, a badly inflamed joint was normal after four treatments.

Cattle Tuberculosis Dangerous to Humans.—The International Tuberculosis Congress of 1908, at its closing session, by a practically unanimous vote favored the theory, now considered absolutely settled by all but a few scientists, that bovine tuberculosis may and does infect humans; and therefore animal products are important means for the transmission of tuberculosis to humans, especially to bottle-fed infants.

The Cigarette Habit Increasing.—Recent government statistics show that 55,402,000,000 cigarettes were smoked in the United States last year. If we count the smokers at twenty-five million, this will make an average of more than 2,200 cigarettes a year for each smoker; but as a large proportion of smokers do not use cigarettes, the average number of cigarettes smoked annually by cigarette smokers must be much more than 2,200.

Health Week in the Schools.—A movement is on foot to have one week each year devoted to the study of hygiene in all the public schools of the United States. The text will be furnished the State superintendents by the Public Health and Marine Hospital Service. The teaching will be in the line of cleanliness, good nourishment, and other things which will make for the prevention of tuberculosis, typhoid, malaria, etc. That is, it will be a practical, rather than a theoretical, hygiene.

Saloon Men Plan Revenge.—In two Virginia towns which recently voted "no license," the saloon men are indignant because many of their own patrons voted for the closure of the saloons, and threatened to publish their names in the papers. Some of those who had voted against the saloons, it seems, bought heavily of the "wet goods" as the saloons were being closed out, and snap-shots were taken of some of those who voted "dry," and afterward went up for a farewell drink. The lesson is plain. These men recognized in the saloon an enemy which was more than they could cope with. Not having sufficient moral strength to withstand the temptation of the saloon with its associations, they did the only sensible thing—voted it out. Many drinking men, not only in these towns, but all over the country, have, in the interests of their families and of decency, voted against the saloon.

No Jurisdiction Over Leper Colony.—

The fact that Molokai is under territorial and not under federal control, makes it impossible for the United States government officials to comply with the request of Arizona officials to deport to the Hawaiian leper colony a native of Arizona afflicted with the dread disease. The United States can not make the Hawaiian Islands a dumping-ground for its lepers.

The "Personal Liberty" Plea.—Here is the dairyman's version of the saloon-keeper's plea for personal liberty: "We have actually come upon a time when a dairyman has not the right to water his milk or color his butter. It would seem that when a man buys his cows, owns his pasture, industriously pursues his calling, and with a desire to increase his revenue, should use a little pure water in his milk, or yellow up his butter a little, he should not be molested. Our tyrannical government is depriving him of his high and mighty liberties. He is no longer allowed to do as he pleases with his own." It is the old familiar cry, with a few modifications.

Campaign of Health in the War Department.—Not having any Japs or Venezuelans to practise on, the War Department officials have begun a war of extermination against the germ of tuberculosis. Dr. Straub made an investigation of conditions, and the result is that feather dusters will have to go, and also many of the old carpets. It is proposed to make physical examination of the clerks, so that any who are affected with the disease may have proper instruction as to the care of themselves, and the adoption of measures to prevent infection of others.

Benzoic Acid Preservatives.—The United States Bureau of Chemistry, after making a series of careful experiments in order to determine the effects of benzoic acid used in foods as a preservative, issue a statement to the effect that "the administration of benzoic acid, either as such or in the form of benzoate of soda, is highly objectionable, and produces a very serious disturbance of the metabolic functions, attended with injury to digestion and health." Among the evil effects mentioned are, "grave disturbances of digestion," "distinct loss of weight," etc., and the conclusion is reached that "in the interests of health, both ben-

zoic acid and benzoate of soda should be excluded from food products."

Safeguarding the Lives of the Babies.—

Dr. Woodward, health officer of the District of Columbia, has begun a campaign of education in order to save the babies. Knowing that a large proportion of babies die, especially in summer, from diseases due to wrong feeding, the effort is being made to instruct mothers so that they may give the little ones a better chance for life. At the same time the inspectors are doing all they can to see that the milk supplied to the District is pure and clean.

Prevention Instead of Cure.—There is a movement on foot for the establishment of "preventoria," that is, institutions for the prevention of tuberculosis transmission to children. These institutions would receive children from homes where they would be in danger of infection from other members of the family in an advanced stage of the disease, and give them the advantage of right hygienic conditions. It is believed that a large proportion of tuberculosis patients are infected during childhood.

Effort to Control Child Mortality in Brooklyn.—In order to reduce the high child mortality in Brooklyn, N. Y., a vigorous educational campaign has been inaugurated. One of the twenty-five visiting nurses will repeatedly visit the mother of each new-born baby in the tenement district, and give instruction regarding the prevention of disease in the little one. In addition, the matrons and the physicians of the Brooklyn Children's Aid Society render aid when it is needed. Sixteen distributing centers for modified milk have been established.

School Hygiene in London.—A new set of regulations, making it obligatory for teachers of the elementary schools to be competent instructors in the elements of hygiene and physical culture, has been passed by the Board of Education, which declares the present incompetence of teachers in this line a grave defect. Among the topics to be considered are: Indications of Fatigue, Defects of Sight and Hearing (which, when not recognized, often cause pupils unfortunate in these respects to be unwisely if not cruelly dealt with), and Cleanliness.

Daylight Working Hours.—The British Parliament has been considering the advisability of a law making the work-day from April to October begin one hour and twenty minutes earlier, in order to bring all the working hours within daylight. The idea is a good one, but the method is queer. They propose by legislation to have all the clocks set ahead eighty minutes. It would be too much for the conservatism of the British to alter their programs so as to begin work at a different time by the clock. Where custom is king, common sense often has to enter by the side door, and take a back seat.

Progress of Medical School Inspection.—Argentina, Belgium, Bulgaria, England, France, Japan, Sweden, and Switzerland have made national provision for the medical inspection of schoolchildren. In America and Germany, this work has been taken up by certain of the cities, but has not yet become universal. In order to ascertain to what extent medical school inspection has been introduced into the cities of the United States, inquiries were addressed to officials in 148 cities. Only forty-eight replies were received, and of these only

twenty had medical school inspection. So, in this regard, European and South American countries are in advance of us.

Tuberculosis and the Cattlemen.—At some of the meetings of the Veterinary Section of the recent tuberculosis congress, some very interesting statements were made by those who are in position to know whereof they speak. For instance, one veterinarian mentioned a certain breeder of fine stock, who, after a number of his cattle had been tested and reacted to tuberculin, sold them in different parts of the country as **tuberculin-tested animals**, and commented that they were animals that the purchasers might well be proud of. He also hinted that there is often collusion between the veterinary inspectors and the cattlemen, so that in many cases it is impossible to get the truth in regard to how many animals are infected. No cattleman will sell an animal subject to a later tuberculin test. As long as the effect to clear up the tuberculosis among cattle proves a hardship to the cattlemen themselves, and to the dairymen, they will do all in their power to nullify any legislation on the subject.

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All questions must be accompanied by return postage. If the reply is not worth that much to the inquirer, it is not of sufficient value to take up our time in replying. We are glad to answer all reasonable questions of subscribers, but we do not wish to pay two cents each time for the privilege of doing so.

✽

International Congress on Tuberculosis.

—This congress, which convened in Washington, September 28 to October 3, was probably the most important gathering of its kind ever held. As former tuberculosis congresses, whether national or international, have always been followed by a marked increase in the efficiency of the work against this common enemy, it is hoped that as a result of this congress, there will be a notable diminution in the prevalence and in the mortality of the disease.

Women to Aid in Fight Against Tuberculosis.—Secondary only in significance to the tuberculosis congress, is the meeting of the American Federation of Women's Clubs, representing eight hundred thousand members, which met in the hall of the National Museum occupied by the congress. The general sentiment of the meeting, as expressed by one present was, "The scien-

tists have told us what to do and how to do it. Now let us carry their teachings into the hundreds of thousands of American homes which we represent."

Elementary Instruction on Tuberculosis.

—The editor of the *Journal of Education*, Boston, says: "If the teacher and the pupils in the grades are so overworked that there is no time to save human life by specific instruction as to the prevention of tuberculosis, a most important need of the present time is to see if any part of the work can be eliminated to advantage." He has "never seen an elementary school program from which much could not be eliminated without perceptible loss to any child. There is always much of rubbish in processes and methods." He believes that the study of hygiene would be as good mental discipline for the children as the studies ordinarily pursued.

Antitoxin and Diphtheria.—The report of the Metropolitan Asylums Board (London) shows that in the years preceding the introduction of antitoxin, the diphtheria mortality was about one in every three. Now it is about one in every eleven. In the Brook Hospital, during the ten years ending in 1907, 6,556 cases of diphtheria were treated. Of the 250 cases that received antitoxin on the first day of the disease, there was not a single death. Of the 1,513 cases that received antitoxin on the second day, there was a mortality of 4.3 per cent; of the 1,690 that received antitoxin on the third day, there was a mortality of 11.2 per cent; of 1,338 injected the fourth day, 16.9 per cent died; and of 1,765 that received antitoxin the fifth day, 18.6 per cent were lost.

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24 pounds shipped anywhere as sample order for only \$2.40. Retail at 15 cents a pound. 50 to 100 pounds at 9 cents a pound. Wesson's Cooking Oil, 3 gallon can, \$2.40; 5 gallon can, \$3.75. Shipped from Des Moines, Iowa. 8 gallon case, \$5.75; 30 gallons, \$18; 50 gallons, \$29. Wts. 70 pounds, 260 pounds, and 450 pounds, shipped from Chicago. Complete line Iowa Sanitarium Foods. Send for prices.

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IN THE TIMES OF OUR FOREFATHERS

BELOW are given the title-page and two stanzas from the introduction to a quaint little book on health, which shows that three hundred and fifty years ago there was the same need that there now is to caution people against gluttony and drunkenness.

As far as we may go back into the history of mankind, this tendency to excess has been manifested. Pride and fulness of bread ruined Sodom. The drunken feast of Belshazzar and a thousand of his lords enabled the more temperate Darius to take the city and overcome the kingdom of Babylon. Rome, in her simplicity, was invincible; in her wanton luxury, she became the prey to every savage horde. The fall of all great empires can be shown to be connected with the luxury and vice, and consequent degeneration, which naturally accompany the accumulation of great wealth.

The early history of nations is that of hardy pioneers—savages, we may call them—who had little but their own physical strength and courage with which to battle against the elements and their foes. As wealth increased, so did class distinctions; the rich became richer and more dissolute; the poor, poorer and more squalid, till the wretched nation, unfit longer to maintain right government, was finally overthrown by “barbarians” whose simple virtues bore marked contrast to the effeminate vices prevalent in the fallen empire.

A Neme Booke,

entituled

The Governement of Health

Wherein is uttered manye notable Rules for
mannes preservacion, with coudey
symples and other matters, no
lesse fruiteful and profitable;

Collect out of many approved authors
Reduced into the forme of a Dialogue for the
better understanding of thunlearned...

By William Bulleyn

(London, 1558)

Cursed be Bacchus, the father of
drunkenes,

Founder of lothelie luste and lecher-
erie.

Thy Seruautes twain, be intemper-
ance & idleness

Whiche gentle diet and sobernes do
desie,

But sobernes, doth live, when glot-
ony doth die.

Though bakettes doth abounde, eyes
for to please,

Ouercharging the stomake, bringeth
small ease.

The abundance of wine, and luste
of meate,

Feasting in the daie, and riot in the
night,

Inflameth the bodie with unnatural
heate

Corrupteth the bloud, and abateth
the sight,

The synewes wil relaxe, the Artears
have no might

Apoplexia and vertigo, will never fro
the starte,

Untill the vitall blode, be killed in the
harte.

Among the SANITARIVMS

This department has been opened in the interest of rational treatment—or what professional men have come to call “Physiologic Therapeutics.” Physicians and investigators the world over are learning the great value of drugless remedies. From time to time we expect to furnish matter showing the progress of thought in the development of these principles, and also to illustrate in the work of one or more sanitariums how these principles are being applied.

Tri-City Sanitarium, Moline, Illinois

Work and Object

IN no department of human thought have there been greater progress and more brilliant triumphs than in that of medicine. Not only in the abstract and medical sciences, as anatomy, physiology, pathology, and chemistry, has the sum of our knowledge been greatly augmented, but in the more practical phases of therapeutics and hygiene the advancement has been even more marked. As our knowledge of the causes and pathological manifestations



of disease has increased, there has been a corresponding improvement in our methods, both of treatment and of prevention of the great majority of acute and chronic maladies. The use of blisters and bleeding, of charms and incantations, was superseded by a more or less accurate system of medication, which in turn has been augmented by, and in some cases almost entirely

superseded by, the scientific use of the *physiologic method*, as it is sometimes called, or, more commonly speaking, the natural forces, as heat, cold, light, electricity, the X-ray, with massage, physical culture, and a scientific dietary. With this development of new and more successful methods of combating disease, the application of which requires extensive apparatus and numerous trained assistants, has come the demand for fully equipped institutions manned by specially trained physicians and nurses, where to the greatest advantage the efforts of the general practitioner can be seconded, and such cases as can not be satisfactorily cared for in the private home can receive the advantages of institutional care.

Historical

The sanitarium as it now exists in Moline is the result of an educational

campaign by a band of Christian doctors and nurses. In 1900 medical work was started, in a small way, in a rented building; and for two years what was to develop into the present institution was conducted with good success. As the patronage grew, the need of larger and permanent quarters became imperative. Through the generosity of a lady who had a deep desire to assist in benefiting humanity, the present beautiful location was secured.

This gift was seconded by lesser but generous gifts from other public-spirited citizens of Moline. The present building was dedicated Nov. 30, 1903, to the cause of God and humanity. The work is conducted

along charitable and benevolent lines. None of the earnings of the institution can be used for private gain or dividend paying, but must be used for extending its own work,—the work for which it was established.

Training Nurses

A nurses' course, covering a period of three years, is conducted in connection with the institution, which provides the sanitarium with an exceptionally high class of helpers. The course covers not only the usual subjects taught to trained nurses, but also includes thorough instruction in hydrotherapy, massage, hygienic cooking, Bible, and Christian medical missionary methods.

Location

From the windows and verandas of the sanitarium the mighty Mississippi

can be seen in its endless course to the Gulf. As its name implies, this growing institution is situated in a group of three cities,—Moline, Ill., its home; Rock Island, Ill.; and Davenport, Iowa. These cities aggregate in population about one hundred thousand, and for industry and commercial activity another spot of like interests would be difficult to find. Though called the "Lowell of the West," Moline is devoid of most of the

objectionable features of that manufacturing city. The factories are largely segregated along the water front, leaving the greater part of the city for nicely shaded, broad, well-paved and attractive residence streets.



Natural Surroundings

The vicinity of the Three Cities is wonderfully blessed in its supply of nature's beauties. A government arsenal on Rock Island affords one of the most beautiful parks imaginable, filled with over twenty miles of wooded, picturesque drives, kept in their state of natural beauty by the government. The bluffs along the entire river, and especially Blackhawk's Watch Tower, afford views that are a never-ending source of wonder and pleasure to the sightseer; but time and space deny the privilege of describing all the natural attractions within easy reach of the sanitarium.

The sanitarium stands for God and humanity, and its prime object is to lead the mind of the sufferers to the Great Physician, who can heal both body and soul.

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California Sanitarium

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For we are neither young nor trifling. We have been nearly half a century in the piano business, and during all of forty years have been scientifically studying tone and durability in preference to dollar making. This is the reason why the Wing Pianos ring with music.

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Gentlemen--You may ship me on trial one Wing Piano of the above style with stool and scarf, to this address: Town..... State..... with freight from New York prepaid in advance, and send me an order to get it from the railroad depot, **ON TRIAL ONLY. THERE IS NO AGREEMENT BY ME TO PURCHASE THIS PIANO,** but I will allow it to remain in my home on trial for twenty days, and if it proves satisfactory and I conclude to purchase it, I will make an agreement with you to pay you \$..... in the following way:..... The piano to become my property upon completion of full payment as above.
If, however, the piano does not prove satisfactory, I will return it to the railroad depot. I am to be under no obligation to keep this piano. In all respects the conditions are to be the same as if I were examining it in your warehouse. It is distinctly understood that I am to be **AT NO EXPENSE WHATEVER FOR FREIGHTS COMING OR GOING.**
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ANNEX

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