

Life & Health

THE NATIONAL HEALTH MAGAZINE



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JANUARY



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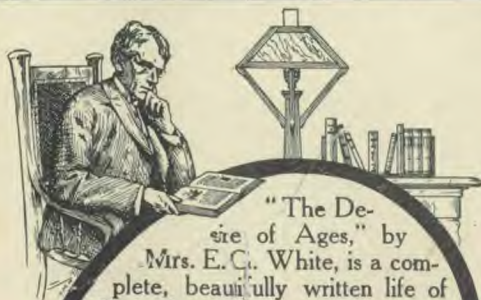
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This Issue



NO problem is of more importance than that of the prevention of unnecessary baby funerals. At no age is the death-rate so frightfully large as during infancy; and the only thing necessary to save infant life in very many cases is proper instruction to the mother. Sometimes she may need more substantial help. In France, they find it pays to furnish nutritious meals free to mothers who, without help, might be forced to live on unnutritious food; and we have found that it pays to make it possible for the mother to obtain for her baby, clean, healthy milk at a moderate price.

Ample space has been taken in this issue of LIFE AND HEALTH to acquaint our readers with the movement which has been inaugurated to save the baby lives.

The experience, as related in "How I Fought the White Plague," of a man condemned by the tubercle bacilli to die, but determined to live, should be an incentive to others in a similar plight not to give up, but to make a brave fight for life.

Dr. Ingersoll has furnished, in simple language, a very practical article on the most common and most important of skin diseases, *eczema*.

George E. Cornforth, chef at the Melrose Sanitarium, has resumed his series of articles on healthful cookery. The inquiries we have had recently for articles on cooking indicate the general interest in this subject. Mr. Cornforth is not only an excellent cook, but he is an experienced teacher of scientific, healthful cooking, and his articles prove of value in any household.

We have not all had an opportunity to fly. Possibly some of us feel unreconciled. A perusal of Mr. Lome's article should help us to bear with contentment our lot on the land, for a joy ride in a flying-machine has its drawbacks.

The February Issue

F. W. Fitzpatrick, in "Liberty and Plus," will give a most important message to parents regarding the training of children.

H. T. Musselman, editor of *Youth's World*, will give the last regular article of his series on The Boy, under the title, "Purity and the Boy's Preservation." This is also a most solemn appeal to parents on the most important subject relating to the rearing of children, and the author has delivered his message in plain language.

The advantage of pure, cold air in the schoolroom, even in winter, has been so apparent through the success of schools already established, that prejudice is being overcome; and now it is being recognized that even healthy children thrive better, and make better progress in their work, under outdoor conditions. P. Harvey Middleton will furnish an illustrated article on open-air schools.

Perhaps no one has a better opportunity to study economy than the college student who is earning his own education. Every cent must be made to count. What is wise economy in the matter of nutrition? One who has made a success from the standpoint of finance, health, and education, will tell LIFE AND HEALTH readers, under the title, "The Science of Right Living," how he did it.

Mr. George Wharton James must have been in one of his happiest moods, if with him any moods are happier than others, when he wrote "Laughter and Song in God's Out-of-Doors," which will appear in the February issue. Mr. James has a message; it is that we cease our artificial indoor life, and live more in communion with nature,—not necessarily on the desert or in the Grand Canyon, but right where we are.

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1911

AIM: To assist in the physical, mental, and moral uplift of humanity through the individual and the home

Published Monthly

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A FEW HEALTH BRIEFS

Night air is the only air at night. Why shut out the clean night air, and breathe the dirty night air of the house?

❖

We hesitate to use the laundered sheet that is not fully dry,—“clean damp,”—but we get into a bed which has not been dried out after absorbing body exhalations,—“dirty damp.”

❖

Superstition says that colds are caused by exposure—to drafts; that cold air is the favoring cause.

❖

Science says that colds are caused by exposure—to germs; that hot, stuffy rooms are the favoring cause.

❖

Every one believes in ventilation in summer; but when real cold weather comes, some cast the gospel of ventilation to the dogs.

❖

Ventilate, but do not neglect to breathe deeply; it does little good to ventilate your house if you neglect to ventilate your lungs.

❖

Deep breathing has been proved scientifically to have a good restraining effect upon the progress of tuberculosis even after the disease has started. Tuberculosis advances most rapidly in parts of the lungs little used.

❖

As a preventive, deep breathing is a most excellent measure; one whose lungs are affected with tuberculosis, should not attempt deep breathing without consulting a specialist. There is danger of rupture and hemorrhage.

The name colds is misleading. The disease or diseases going by this nickname should be renamed.

❖

It was a marked advantage to change the name of our common insect pest from the innocent-sounding but misleading “house-fly” to the more ominous but more correct term “typhoid fly.” The new name will force people to think.

❖

Some new name should be invented for the so-called “cold,” which will indicate its relation to overheating, bad air, germs, and the like. An inappropriate name merely perpetuates a superstition.

❖

The unpardonable sin—hygienically—is for school or church trustees to suck out air from the schoolroom or the church, reheat it, and pass it back for the unsuspecting pupils or church-members to breathe over again. Is coal more valuable than lives?

❖

Do not overheat the house. One may gradually come to acquire a temperature in winter which would be uncomfortably warm in summer. Keep the temperature below 65° F., and keep the air moist.

❖

Do not blame the fly for everything. There is still room for suspicion that syphilis may be transmitted in some other way.

❖

Do not expect to grow hair on a bald head by going bareheaded in the sunlight. The fault is in the soil.



IN THIS FORBIDDING REGION, THE CONSUMPTIVE, WITH PROPER CARE, HAS MORE THAN A FIGHTING CHANCE FOR LIFE

HOW I FOUGHT THE WHITE PLAGUE

* * * * *



THE readers of LIFE AND HEALTH will no doubt remember an article by George Wharton James, entitled "How to Live Out-of-Doors," published in the August number. It was based on a letter received by Mr. James from a "well-known literary man," which ran as follows:—

"My dear George Wharton James,—

"I tried to see you while I was passing through Los Angeles, but when I telephoned to your home you were away. I've been obliged to join the pilgrims of the health quest. Overwork has bowled me over—temporarily and not too crushingly—but if I don't look out, the tubercular bugs will get me, so the experts say. So, with my wife, I've run away from C— [his beautiful home], and expect to pass several months in the Southwest. I was very anxious to secure the benefit of your experience in the mat-

ter of where to go, etc. I seem to remember that you once spoke of a shack, or shelter of some sort, which you had near the Grand Canyon, or elsewhere. I thought perhaps I could borrow or rent such a place—if you had it—and live there quietly for a time, doing literary work very mildly. Or, if you know of some good ranch in the desert anywhere—some place where I could get a shack, for, being vegetarians, we don't want to board—some place where we could secure the use of riding horses without having to pay big prices—if you should happen to know of any such place, I would like to get a word from you as to its whereabouts.

"I was just proposing to go to New York for a few months' literary campaign, when the hemorrhage bowled me out of the game for a while; but I'm in no sense a very serious invalid as yet. But I must rest, and see the country a bit

while resting, and you certainly are our authority on the desert. Can you give me a few tips? Address me General Delivery, Tucson, Ariz., at present. Mrs. — joins me in sending best regards.

Sincerely yours,

“— — —”

Now I, the writer of the accompanying article, am the literary man who wrote that letter to Mr. James, and I purpose in this article to tell the readers of *LIFE AND HEALTH* the true and really somewhat remarkable story of my experiences in the desert mountains of Arizona while fighting the “captain of the men of death”—as the author of “*Pilgrim’s Progress*,” John Bunyan, picturesquely named the great white plague, tuberculosis.

For a reason which soon will be made plain, I will begin at a point near the end of my story, and work backward and forward from that point. I will begin with a morning in July, 1910,—the twenty-eighth of July, to be precise. I was awake before dawn that morning. Just as the sun was rising up behind the ridge of mountains to the east, I slipped into a pool of cool, clear spring water among a grove of fig trees for my morning bath. By this time, the rancher, who was to drive me to the railroad station twenty miles away, had hitched the horses to the wagon, and tied them up, and his wife now called us to breakfast.

After breakfast, I bade farewell to the rancher’s wife, telling her, though, that she might soon see me back again.

“I hope to goodness the verdict will be favorable,” she said. “Somehow, I feel sure that it will.”

Then her husband started the horses, and we drove away through the cool, clear air of early morning. I was bound for Tucson, forty miles away, to be examined by the leading specialist in tubercular diseases of that city. If his report should be favorable, I was then to re-

turn to my wife and children in California. If it was not favorable, I should have to remain in Arizona. I had left California nearly five months before this day. It was, indeed, on the twenty-eighth of February that the leading specialist of San Francisco had discovered that there was a tuberculous condition of the right lung from apex to base, with a probable cavity formation in the tip of the apex, together with a slight infection of the apex of the left lung. I had suffered a rather severe hemorrhage a day or two before. This, too, was the fourth occasion that tuberculosis had attacked me. For nearly twelve years, off and on, the “captain of the men of death” had been seeking to add me to his dismal band of victims. It was now the twenty-eighth of July, and before the day was over, in all probability, I should know on scientific authority just how I now stood in the fight.

I do not think it will be hard for the readers of *LIFE AND HEALTH* to obey the customary injunction of an author to his readers, and imagine, rather than have described to them, the state of my feelings as I drew near and nearer to Tucson and the doctor’s office. I do not think I could describe them.

After reaching Tucson, I made a bee-line for the post-office, where I expected important mail. The letters I hoped for, however, had not come. There instead was a copy of the August number of *LIFE AND HEALTH*. I then made tracks for a barber shop; because I had a four months’ growth of tangled hair to get rid of.

The most important and interesting moments in life often have their scenes set in the most undramatic and curious or humdrum places. For example, this barber shop in Tucson was the scene of a most interesting episode for me when, as I sat awaiting my turn to be barbered, I opened the August number of *LIFE*

AND HEALTH, and looked at page 471. And a great sense of wonder filled my mind as I sat there in the barber shop reading the words which five months before, just as I went into the desert solitude, I had sent to Mr. James. It seemed to me a strange coincidence that my own words should thus come back to me on my return from the desert solitudes, and I thought to myself, "What a happiness it would be if I should find myself able to write another letter to Mr. James, or perhaps to the readers of LIFE AND HEALTH, to say that my pilgrimage on the quest for health had proved successful!"

After I left the barber's chair, I was perhaps a pound lighter in bodily weight — with the loss of my hair — but there was a decided increase of the weight of nervous apprehension on my mind; for now I must go to the doctor. Half an hour later, I was in his private office in the Santa Rita Hotel, and the well-known expert was going over me with his trained eyes, and his stethoscope in his trained ears, and was tapping, and punching, and feeling, and also questioning me completely and thoroughly. He was a man with a very impassive face, and, try as I might (and as I did), I could detect nothing in his manner that indicated what he was finding out.

Finally, however, he straightened up, and said: "There is absolutely no signs whatever of any present tuberculous activity; and, what is more, there is hardly a trace of former trouble. I can not doubt, when I consider your history, and the report made in San Francisco five months ago, that you have had tuberculosis; but you show an improvement of at least one hundred per cent over what the report of five months ago indicated, and now your lungs are in good condition."

The supreme word and the supreme thought in this world are God; and that

word and that thought were all my mind could hold for a little space; and then the wonder and joy and happiness of the thing came surging over me. Within a very few minutes, a long telegram was throbbing over the wires to my home in California.

And now I will tell briefly, yet, I think, with some of that real authority that belongs of right to the man who has actually done what he talks about — I will tell just how I fought tuberculosis in the mountains of Arizona.

In the first place, I went to Arizona because my home is on the coast of California, where during the summer the sea fogs are very thick, which fact makes the out-of-doors life uncomfortable and depressing, on account of the somber sky; and a tuberculous patient needs comfort, and needs relief from somberness. Tuberculous people can cure themselves in almost any climate, so long as they can secure pure air, and *rest*, and good, wholesome food, and the proper care and attention. The dry, pure air of the Southwest is certainly better than the air in many other regions, however; and since I also wanted to live in the desert country in order to secure impressions for future literary work, I chose to go there.

While I am a true believer in, and ardent disciple of, the out-of-doors life, for most people and most conditions, I must state my decided difference from Mr. James on one point concerning "going back to nature;" for I certainly would never advise anybody suffering from tuberculosis, except in the very first stages, especially if he must go by himself, to go away off into the wilderness, and walk about until he is tired. That is all right for nervous patients; but tuberculous patients, I believe, must have *plenty of rest*, and should keep in touch with a good physician, unless by special knowledge

or training, they are equipped to care for their own cases.

When I went to the Arizona mountains, my wife was with me for the first two months, and to her *care* of me — which *care* nearly all tuberculous patients ought to have in order to save them from fatigue — I attribute a large share in my recovery. For days at a time I would hardly move from my reclining chair or cot. At night, of course, I slept out-of-doors. I beheld wonderful views of Halley's comet, and of the marvelous panorama of the night sky. Many times I thought of the sublime thought of the philosopher, Immanuel Kant, that two things filled him with unextinguishable awe, namely, the moral law, and the sight of the stars in the sky.

As to food, I discarded meat, coffee, and tea, and, though I had been addicted to smoking, I gave it up. Nor did I use any drugs whatever, being convinced that the innate vitality of my organism, if helped by good water, good air, good sunshine, good food, and *good thinking*, was much more powerful than any drug, and had no injurious habit of reacting. While I ate plenty, I was careful not to overeat, being especially careful not to overeat of protein foods. I have come to believe that many consumptives are injured by forced feeding, and stuffing them full of raw eggs and milk between meals. It is not what you eat, but what you assimilate without injury to the digestive and eliminatory organs, that really helps you.

I ate uncooked all the ripe fruits and all the lettuce and tomatoes I could obtain. Also I used nuts freely, though I was always careful to masticate these very thoroughly. On several occasions when I knew I had been overeating and had an excess of waste material in my system, I omitted one or more meals, or took only lemon juice and plenty of water. At all times I was careful to keep

the bowels active, though never by the use of drugs, employing a water enema when it was necessary to have artificial aid, which in my case was seldom.

I bathed every day, though I never stayed in the pool very long, or swam much; lest I chill myself, or overdo in the matter of exercise. And every day, sun or shine (though until the rainy season came there was nothing but shine in that country), I would take a sun and air bath, sometimes remaining without clothes for hours. Breathing exercises I absolutely tabooed, knowing that what my lungs needed, so long as there was plenty of fresh air to breathe anyhow, was rest, and not exercise. Let the nervous patient, or the man or woman suffering from almost any other disease than tuberculosis, employ breathing exercises, but I say to the tuberculous person, with the emphasis that comes from having learned by experience: Do *not* take breathing exercises. Until your lungs are well mended, rest them, rest them, rest them.

I did not begin to take exercise until my growing vitality fairly forced me to do so, and when I did start to walk and ride pretty freely, I was still careful not to overdo.

One day, while riding leisurely to a near-by ranch, I lost myself, and wandered nearly all day, in very hot weather, and under the burden of anxiety as to the result, through the desert hills. A night's rest, however, left me feeling well and strong; and then, for the first time, I permitted myself to think that I had made a real improvement. A few days later, I was thrown from my horse by the breaking of the girth, and, although badly shaken up, suffered no ill results; and then the first impression of improvement was confirmed, and I determined to go into Tucson for a re-examination — with the happy result of which I tell you above.



CAN WE SAVE THE BABIES?



ONE baby dies every ten seconds.

Take out your watch and observe the movement of the second hand.

Every time it marks ten seconds, an infant life in some civilized land is snuffed out. If the funerals of these were to pass one point, there would be room only for the hearses, and they would have to travel fast. Picture it if you can, this continuous procession of white hearses twenty-four hours a day, and every day in the year!

This would not be a discredit to civilization if it were necessary,—if it were a “dispensation of Providence,” as was once thought. In the case of tidal waves, hurricanes, earthquakes, volcanoes, and other disasters, we accept the inevitable; but some have learned that a very large proportion of infant deaths, *perhaps one half*, are *unnecessary*; they are due, not to unavoidable causes, but to ignorance.

Some physicians and philanthropists have become convinced, as a result of careful observation, that a very considerable proportion of this infant mortality is preventable, but that its prevention will

depend on the united and earnest and continued activity of intelligent and capable workers everywhere. It is a world-wide problem, and its solution depends on the inauguration of a world-wide campaign.

This conviction gained headway until in November, 1909, the American Academy of Medicine held a conference in New Haven on the prevention of infant mortality. As a result of that conference there was organized the American Association for the

Study and Prevention of Infant Mortality. This new association established head-

quarters in Baltimore, Jan. 1, 1910, and held its first annual meeting in Baltimore November 9-11.

The objects of the association are:—

1. The study of infant mortality in all its relations.
2. The dissemination of knowledge concerning the causes and prevention of infant mortality.
3. The encouragement of methods for the prevention of infant mortality.

Several classes or professions of people working for the baby on several lines, though their activities overlap, are joined in this association.

Do you know that in most States eighty per cent of the babies dying under one year of age are bottle-fed?

There are the philanthropists and social workers, who are engaged in improving housing conditions and general sanitation, and imparting instruction in hygiene.

There are health officers, municipal, state, and federal, who enforce sanitary regulations; also those who gather and prepare vital statistics, and those who are engaged in research work. These have a large opportunity for working for the prevention of infant mortality.

Physicians, particularly those who make a specialty of diseases of children, have a large field of usefulness in this work.

There are educators, teachers in normal schools and universities, and in the more elementary schools, who may do an incalculable amount of good in teaching the young, who will be parents, how to live and how to have their babies live.

Experience has taught us the truth of the homely old proverb, "You can't teach an old dog new tricks." The most effectual education must concern itself with the young. So our teachers, and particularly teachers of teachers, have a most important field before them.

Thus the problem of the prevention of infant mortality naturally divides itself into four divisions: Philanthropic prevention, municipal, state, and federal prevention, medical prevention, and edu-

cational prevention. Each of these divisions occupied one session at the recent annual meeting, of which more will be said later.

In connection with the convention there was an exhibit, the most comprehensive of its kind ever shown in this country. One prime object of the exhibit was to impress upon mothers the great importance of maternal nursing in the reduction of infant

deaths; but inasmuch as it is sometimes necessary to resort to artificial feeding, a considerable portion of the exhibit was devoted to the work of medical milk commissions, and the great importance of clean milk properly prepared, in the prevention of infant mortality among babies artificially fed.

There were "before and after" photographs, showing babies which had been fed on condensed milk or other improper food, and these

same babies after they had been fed for a while by one of the milk commissions. There were charts, diagrams, and other devices to show in a graphic way why babies die, of what diseases, and what brings on these diseases.

The importance of selecting milk was shown by pictures of good and bad dairy conditions. The dirty dairy was contrasted with the up-to-date one. Photographic illustrations were shown of some of the awfully diseased cows sometimes

WATCH THE LIGHT FLASH

At Every Flash
A BABY DIES

Somewhere in the Civilized World



(Electric Bulb, Flashing Every Ten Seconds)

One death every 10 seconds
360 deaths an hour
8,640 deaths a day
3,153,600 deaths a year

One Half of This Loss Is Preventable

found by dairy inspectors, in a milk herd.

There was a striking exhibit from New York, "The best and the rest," showing, by bottles of various sizes, the proportionate amounts of the various qualities of milk furnished to New York City. Of "the best"—the really safe milk—there were two small bottles, which together would not hold a quart. Of "the rest" there was a bottle larger than an apple barrel. "The best" costs more; but it is worth more—if babies are worth anything. **M o r e**

Do you know that ninety per cent of the babies dying before the end of the first year of digestive troubles, are bottle-fed?

of "the best" and less of "the rest" delivered in New York—and in any other city—would materially reduce that awful line of infant funerals that comes with hot weather.

There were bacterial cultures from clean and from unclean milk which in themselves tell a story.

There were a number of interesting exhibits, which even the illiterate might understand. Among them were:—

A "before and after" representation of a tenement-room, before and after a so-

cial worker's visit. The contrast was so great one could hardly believe it represented the same room.

A modern baby's nursery, showing how to equip a nursery for the health and comfort of the little one.

A modern hospital ward for two babies.

An exhibit of dolls, showing the method of dressing babies in various countries, particularly the swaddling of infants as practised in Europe, but now happily being superseded by more healthful costumes.

A most interesting exhibit was that of the Bureau of the Census, showing the statistics of infant mortality of all civilized nations, and enforcing the pitiable fact that among nations called civilized, China, Turkey, and the United States are without the means of preparing such statistics. In this country there is no approach to compulsory registration,—one of the first essentials to the proper tabulation of infant mortality,—and in only a portion of the country is there any adequate registration even of deaths.

A square deal for every baby.

Nations are gathered out of nurseries.—*Charles Kingsley.*

Every parent knows *not* how to bring up a child.—*Italian Proverb.*

Let conservation begin at home! The child is the greatest national asset.

Neglect of children is not only criminal, it is suicidal.—*David Watson.*

We must look to the mothers of a country for that country's welfare.—*Froebel.*

Infant mortality is the most sensitive index we possess of social welfare.—*Newsholme.*

The business of rearing a baby must be classified as an "extra-hazardous occupation."

The errors of the parents, the gods turn to the undoing of their children.—*Euripides.*

The people perish for lack of knowledge.—*Report of the Committee on Physical Deterioration.*

THE OPENING SESSION

On Wednesday evening, Dr. J. H. Mason Knox, of Baltimore, president of the association, delivered the opening address, of which we give the substance.

The Opening Address

WE have met to consider the gravest subject that could come before our citizens. There are three hundred thousand infant deaths in our country every year. We have been making a very intensive study of tuberculosis, but of tuberculosis there are only some one hundred sixty thousand deaths. A conservative estimate indicates that perhaps one half of the infant deaths can be prevented by ordinary methods of hygiene. The work of this association is the saving of this one hundred fifty thousand human lives a year.

We can not hope to produce radical changes instantly; changes in the habits of the masses can be accomplished only by patient and persistent working over a long period of time. We must show the dangers of present methods, and then await a response of popular sentiment. The important objects before us are:—

1. The accumulation of statistics, especially registration of births, without which we are unable to prepare tables of infant mortality from which to work.

2. Education. The mother must be taught how to care for her baby. An excellent work in this direction is now being done in many places by the visiting nurses. Also in the schools there should be instruction given so that young mothers may enter their work intelligently.

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Our Duty to Society

AMBASSADOR JUSSERAND spoke of the duty we owe to society, a duty we can never repay. The best service we can render to society is to continue society. France is not the only country with a decreasing birth-rate; other civilized countries, with the exception of

Hungary and French Canada, show a decrease in the rate of births.

Twenty years ago Budin started a movement for the saving of babies. The movement spread; physicians formerly took care of the mothers, and the babies took care of themselves. One half or even two thirds of them died. Budin studied this terrible situation, and then he taught the mothers how to rear their children. He taught mothers to nurse their babies; and if necessary to use cow's milk, how to obtain pure milk, and how to prepare it.

A few years ago a poor French family lost an only child. In grief, the parents turned their energies to the establishment of a station to furnish free food to mothers nursing infants. They started in a very poorly furnished room with only two dollars. The work did not seem very promising, and it was not well received at first, because mothers did not believe they could obtain something for nothing. Later it became very popular, and money was subscribed by those who were able to do so; now there are many restaurants for the feeding of mothers, where excellent meals are furnished them free, the meals costing the restaurants about seven cents apiece. Any nursing mother who desires may have a free meal, and it has been found that they do not abuse this privilege. Even mothers who are quite poor will pay for their own meals when they are able.

In France, hygiene is taught in the primary schools and cleanliness is enforced. At one time it was supposed that the children of the poor coming to the magnificent schools would be ashamed of their poor accommodations at home, and would help to change to something better,

but it did not prove to be so. But the effect of the teaching of hygiene has been that the children have gone home and taught the parents, with very satisfactory results. And now the old figures of heavy infant mortality, one half to two thirds, do not hold good.



Conservation of National Vitality

PROF. IRVING FISHER, of Yale University, then spoke of our interest in conserving national vitality. It is greater than any other interest. A prominent Tammany politician, when approached by Laurence Veiller, regarding the improvement of housing conditions in this politician's district in New York, desired to know how such a reform could affect his district. The answer given by Mr. Veiller was that it would probably lessen the population, but it would greatly diminish the death-rate. "If that is so," said the politician, "I am with you; these baby funerals get on my nerves." And they ought to get on all our nerves. Of three hundred thousand infant deaths a year, one hundred twenty-five thousand need never occur.

It is apathy rather than opposition that this movement must meet. Some say, "The movement prevents the working of the law of natural selection for improving the race, and prolonging the lives of the weak increases the misery of the poor." Such arguments are fallacious: we are trying to restore the condition of natural selection. Originally the baby had the mother's milk uncontaminated. Now we have to deal with artificial conditions. We must give back to the baby its natural birthright of pure food and pure air. Not to do this is to revert to conditions such as they have in India. Placing the baby under such unnatural conditions is not in harmony with the law of natural selection.

An important measure in this work of

infant preservation is the establishment of a national department of health. The President has favored such a department. Scientists, sociologists, and physicians favor it, but there is a movement working against it, and this counter-movement demands the "freedom" of men who know nothing of medicine to practise medicine, the "freedom" of men to advertise and sell poisons for the treatment of disease, the "freedom" to sell polluted milk or milk from diseased cows. Shall the interests of these men be put above the lives of babies?



Faulty Registry of Deaths

DR. ABRAM JACOBI, the venerable child physician of New York, spoke of the faulty methods of registering deaths. Children even two weeks old are, in some cities, permitted to be registered as "still-births," or their deaths are thrown out of the mortality records altogether. It is easier not to count these babies than it is to remedy the conditions which cause their death. It is claimed that deaths of these very young infants are "unavoidable," but many of them will be avoidable if we apply proper preventive methods. [Dr. Jacobi then proceeded to enumerate the so-called unavoidable conditions which cause the high death-rate among very young infants.]



Infant Mortality in Maryland

DR. WM. H. WELCH, of Baltimore, said in substance as follows:—

I am glad the initial meeting of the society was in Baltimore, because Baltimore needs such a campaign as much as, if not more than, some other cities. We also have a measure of pride in the fact that the Society for the Study and Prevention of Tuberculosis began in this city, and we hope that our society will have as bright a future as the tuberculosis association.

In Maryland more than one fifth of all deaths are under one year of age, and one third of the deaths are under five years. The mortality is especially high with us on account of the Negro population. One ninth of all deaths are in the first three months of life. These figures indicate the fundamental importance of the work in which we are engaged. While a large proportion of those who died during the first year of life are among the so-called "unavoidable deaths" (which Dr. Jacobi says are not unavoidable), it is those that result a little later from diarrhea, digestive troubles, and acute respiratory diseases and infections, which we must work largely to prevent.

There are a number of reasons why cow's milk can never be substituted for mother's milk.

1. Cow's milk does not contain substances which protect the infant against diseases of human beings. There is something in the mother's milk which does actually give the child an immunity against the common diseases of childhood.

2. Artificial feeding requires an amount of care and intelligence not to be expected among the poor, who so often have to resort to it.

Artificially fed babies die in proportion of 15 to 1 of breast-fed.

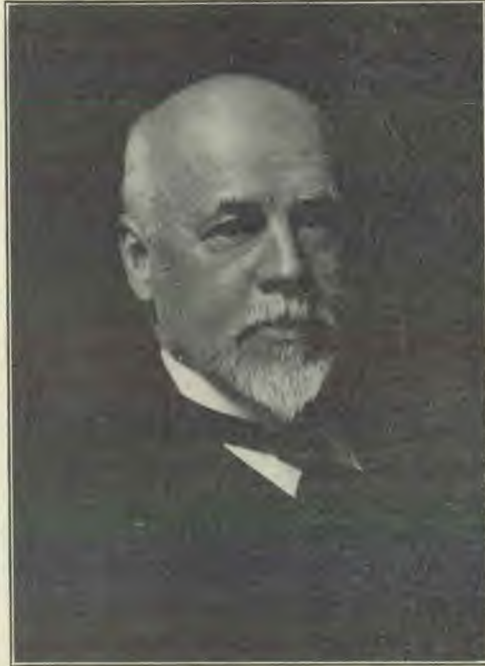
The functions of this association are:—

1. The education of the public.

2. The stimulation of a better sanitary organization and adminis-

tration, including the organization of a national department of health, which should have a bureau of child hygiene.

3. Securing legislation providing for the compulsory registration of births.



WILLIAM H. WELCH, M. D.

Chairman of the session on Municipal, State, and Federal Control of Infant Mortality

The very foundation of the whole commonwealth is the proper bringing up of the young people.— *Cicero*.

Children are the capital of the state. Do you consent to the wasting of twenty-five per cent of our capital annually?

Give us good motherhood and good parentage conditions, and I have no despair of the future of this or any other country.— *John Burns*.

"Can a woman forget her sucking child, that she should not have compassion on the son of her womb? yea, they may forget, yet will I not forget thee."— *Isa. 49: 15*.

"A voice was heard in Ramah, lamentation, and bitter weeping; Rahel weeping for her children refused to be comforted for her children, because they were not."— *Jer. 31: 15*.

PHILANTHROPIC PREVENTION

The session of Philanthropic Prevention of Infant Mortality, Thursday morning, was opened by the chairman, Dr. Hastings H. Hart, director of the Department of Child-Helping, Russell Sage Foundation, New York City.

Dr. Hart delivered the chairman's address on:—

How to Instruct Mothers

VERY little is accomplished in such instruction unless it is made practical, with the child present. The instruction by the physician is of little use unless followed by the instruction in the home by the trained nurse.

Physicians agree that nursing by the mother or by a wet-nurse is the most important means of preventing infant mortality. Some foundling asylums are now boarding out their babies to mothers who act as wet-nurses, insisting that the mothers shall not neglect their own babies. There are six hundred such wet-nurses in New York City as against one hundred in the rest of the United States.

[In the discussion of Dr. Hart's paper, Dr. Fraenkel raised an earnest objection to the mother being a wage-earner. He believed there should be an industrial adjustment, which would allow the father sufficient wages to support the family so that the mother could give her time to the proper rearing of her babies.]

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Mr. Sherman C. Kingsley spoke on the following subject:—

The Relation of the Infant Welfare to the General Social Movement

THE baby makes the population, and out of neglected babyhood come the individuals who make work for the charity workers and reform agencies.

Infant mortality and poverty go hand in hand. The black dots on the city map, marking the location of baby funerals, point out the homes of the poor where the mother must go out to work, where often she is deserted by her husband,—the insanitary tenements in the poor-milk district, where the alleys are foul, and the flies are thick. There is no

problem that affects the home that does not rest with greatest severity on the baby, and the worst effects are even before he is born.

Perhaps the problem of social disease and race responsibility is never appreciated so fully as when one sees its effects and reads its lessons in the baby victim.

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Wilbur C. Phillips, secretary of the New York Milk Committee, presented the following subject:—

Infants' Milk-Depots and Infant Mortality

NO single agency is so important in the campaign against infant mortality as the infants' milk depots. Such depots must be located convenient to the mother to be easily reached. The most important phase is the education of the mother. In one milk depot we have abandoned the use of modified milk, for several reasons:—

1. The use of such milk is an encouragement to artificial feeding.

2. It does not train the intelligence of the mother.

3. Home modified milk is better and more easily adapted to the individual needs of each baby than is commercially modified milk.

4. It is better and cheaper to educate mothers than to dispense commercially modified milk.

Our experience is very gratifying, for we have had excellent success with the unmodified milk. We teach mothers in their homes how to modify it. We find education carried on in connection with the distribution of the cheaper whole milk, much better in the reduction of infant mortality than with the more expensive modified milk.

MUNICIPAL, STATE, AND FEDERAL PREVENTION OF INFANTILE MORTALITY

This session, in charge of Dr. Wm. H. Welch, of Baltimore, was held Thursday evening. The first item on the program was the report of the Committee on Birth Registration, by Dr. Cressy L. Wilbur, chief statistician, Bureau of Census, Washington, D. C.

Report on Birth Registration

MUCH has been done and can be done in absence of reliable vital statistics, to cut down infantile death-rate, but accurate vital statistics are indispensable to the development of an intelligent campaign of prevention. Accurate vital statistics of infantile mortality require a complete and satisfactory registration of both births and deaths. Only a few States have even approximately complete registration of births. Enforcement of the law is an essential part of effective administration of any system of birth registration.

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Dr. Henry Helmholtz, of Chicago, then read a paper entitled:—

Some Studies on Milk-Sugar

THERE has been too much emphasis on the freshness, and not on the form, of milk. It is time we understood better the relation of composition of milk to gastro-intestinal irritation. The great bulk of such cases are due to improper feeding, especially of milk-sugar. There is a definite tolerance of the body for any food—a quantity below which such food is beneficial, and above which it acts as a poison. The child has a greater tolerance for mother's milk than any other food, that is, it requires a greater excess of mother's milk to make it act toxically than of any other food.

There are certain conditions that may act to lower the body tolerance for a food. Among these are insanitary conditions, bacteria, summer-heat infections, and the like. A slight overstepping of the sugar tolerance causes a mild dyspepsia; a great overstepping results in cholera

infantum. There are two symptoms, fever and polymorphonuclear leucocytosis, which have always been supposed to be caused by bacteria. But it has been shown that these may be caused by giving sugar in excess. The normal tolerance is one to one and one-half grams of sugar per pound of baby. In certain cases of cholera infantum this is lowered to one eightieth or one one hundredth of this amount, so that milk-sugar in these cases actually acts as a poison, even in minute quantities. This decreased tolerance is probably due to change in the intestinal wall.

The elements of the milk must be considered as a whole, and not separately. Casein and fat have been considered to be the cause of the acute gastro-intestinal disturbances, but these can be given in large quantities if little sugar is given. We now cure by the use of casein and fat many cases that were formerly supposed to be caused by these substances.

Feeding experiments on pups with milk-sugar have shown similar results. An increase in the amount of sugar given causes an increase in weight until the tolerance is overstepped, after that the animal rapidly loses ground. We have the same effect in a child. The food which under normal conditions nourishes the child becomes a poison when given in excess. The purity of the milk is not the only important fact. The emphasis laid on Pasteurization has overshot the mark, by frightening the uneducated into using the patent foods.¹

There has been too much giving of patent foods, too much readiness to advise mothers to stop nursing on the slightest provocation.

MEDICAL PREVENTION OF INFANT MORTALITY

The session considering this branch of the work, under the chairmanship of Dr. L. Emmett Holt, of New York, convened Friday, 10:30 A. M.

Address by Dr. Holt

EXCESSIVE child mortality is one of the greatest problems. There will necessarily always be a certain child mortality, but it is our duty to make the irreducible minimum as small as possible.

Our problems are not to be solved by pure milk and milk-depots. Though there were never so many agencies in New York to prevent infant mortality as last summer, there has not been so high a mortality among the infants for a long time as there was last summer. In order to lessen infant mortality, we need, among other things, a more accurate registration of births and a more accurate registration of the causes of early deaths. Twenty-five per cent of the deaths of infants are within the first few weeks of life; the fight for the infant has not been without effect. We have gained decidedly along certain lines, as in general diseases and diseases of malnutrition in infants over three months old. In other directions the curve is going the wrong way. Premature deaths and congenital debility are increasing. The progress in the last twenty years has been in prevention, not in treatment.

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A Contribution to the Causes of the Summer Infant Mortality

DR. HERMAN SCHWARZ, as the result of the study of fifteen hundred infants, earnestly urged that mothers be taught to nurse their children even when they are able to give only a part of the necessary food, or when they must be away from their children part of the time. Even a portion of the mother's milk given to a child, reduces the tendency of the child to contract certain infectious diseases.

We should not be satisfied with the statement that maternal lactation is a

disappearing function. It is not so, and it is a part of our work to educate in the hygiene of breast-feeding.

The doctor exhibited a chart in which he shows that great humidity is not necessarily harmful to the baby; hot dry weather seems to be worse on the baby than hot moist weather. This will be a surprise to many persons.

As a result of Dr. Schwarz's work, many women who supposed they could not nurse, were induced to nurse their babies for a portion of the time at least. Ninety-six per cent of the women could nurse their children part of the time, and seventy-five per cent entirely, for six months.

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Do Medical Schools Adequately Train for Child Saving?

DR. IRA S. WILE, of New York City made an earnest appeal that the medical colleges give a more adequate course in children's diseases, infant feeding, and the like, and that this course be made obligatory. He did not believe that the troubles that cause one fourth of the deaths of the human race should have only one seventieth of the time of the medical school. Ignorance in the matter of feeding causes as many deaths as bad milk, and our schools do not teach in regard to feeding, and our young physicians go out to accept the statements of the various manufacturers of prepared foods.

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Dr. S. W. Newmayer, in charge of "Division of Child's Hygiene," Philadelphia, spoke concerning—

Erroneous Ideas of Infant Mortality

WHEN baby is well, mothers can rarely be induced to pay attention to dietetic rules. Most campaigns try to educate the mother with a well child, and

overlook the care of the sick infant. We should make more use of the public schools as a means of teaching, and every health department should have a "Publicity Bureau," making use of the newspapers, which are excellent means of giving instruction regarding health; but it will not do to allow the article to be written by some reporter in the form of interviews, as they very rarely get such matters correct enough to be of any value. It should be written up by the department itself, and by some individual with proper technical knowledge who is able to write it in a popular style.

The cry of paternalism has been raised regarding the efforts to save babies by teaching mothers, and by feeding when necessary. We do not consider it paternalism to educate the older child. If it is our duty to do this, is it not the duty of the State to see that infants are permitted to come to school age?

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Dr. Thos. S. Southworth, of New York City, presented a paper on the following subject:—

The Possibilities of Maternal Nursing in the Prevention of Infant Mortality

MATERNAL nursing not only offers new-born infants the best chance of surviving the first year, but lessens the mortality of succeeding years. There has been too much of a tendency to suppose that modified milk is as valuable as breast milk. Patent foods with flaming advertisements allure not only the mother but the physician as well. Too often the physician advises the mother to wean the baby and use some proprietary food. There are not so many intelligent women to-day who will refuse to nurse when they understand its importance to the baby. There are some, of course, such as those having tuberculosis, insanity, kidney trouble, and the like, who should not nurse; but these are comparatively rare, and under proper management the vast majority will be benefited by performing the natural function. Early weaning of infants is unjustifiable until intelligent effort has been made to build up the mother and utilize the breast milk as a part if not all of the infant's food.

THE EDUCATIONAL PREVENTION OF INFANT MORTALITY

THIS topic was taken up Friday morning, under the chairmanship of Dr. Helen C. Putnam, chairman of the Committee of the American Academy of Medicine to Investigate the Teaching of Hygiene.

This session is composed largely of educators, and Dr. Putnam in asking for papers, required that they should be based, not on theory, but on actual work being done. The doctor herself has examined some forty normal schools, and found that the health practises and in-

struction of these were no better than in the public schools. While they claimed to be teaching hygiene and sanitation, their course was quite meager, and in some schools they were not living up to their own teaching regarding school hygiene.

The addresses by various speakers in this session indicate that in a few schools, including Cornell, University of Wisconsin, and Michigan State Normal, advance work is being done in the matter of teaching school and general hygiene.

INFORMATION CONCERNING A NATIONAL DEPARTMENT OR BUREAU OF HEALTH



THE Owen bill, providing for the establishment of a national Department of Health, has been under a continuous fire of criticism, the most of it giving evidence of preconception rather than of accurate knowledge. For those who are really desirous of knowing what the national government is doing to promote public health, how it is doing it, and how this service can be made more efficient, a paper by George B. Young, surgeon, United States Public Health and Marine Hospital Service, furnishes the desired information. This paper, which appears in the *Journal of the American Medical Association*, Sept. 17, 1910, goes carefully into details, as to the present organization of the federal health work, and what might be expected as a result of reorganization and consolidation of the various bureaus conducting lines of work pertaining to the maintenance of the public health.

A brief study of the health work of the nation, and of the number of departments and bureaus into which it is scattered, as revealed in this paper, will, of itself, go a long way to convince any candid person of the necessity of reorganization and unification of the health machinery of the government under one head.

Imagine the work of the Department of Agriculture being conducted partly in the Treasury Department, partly in the Department of Justice, partly in the Department of Commerce and Labor, partly in the Department of the Interior, partly in the Post-Office Department, and you have some idea of the loss that must result from duplication and lack of coordination. Now, imagine, if you will, the mental condition of those who would object to the consolidation of these activities into one department on the

ground that it was not necessary, and that it would establish a "farmers' trust"! Just weigh, if you can, the gray matter capable of such a deduction, and apply it to the present crusade.

But there is no lack of brains behind the present opposition, neither is there lack of money. The "interests" opposed to the bill have an almost unlimited "corruption fund," as can be seen by the great amount of advertising space they are able to pay for in the newspapers. There is, opposed to the bill, an abundance of both brains and money. At the head of the opposition is a man prominent in Christian Science circles; and Christian Science, as every one knows, stands for the proposition that there is no cause for disease except the mind. If the "Scientists" had their way, there would be no quarantine, no sanitation, no destruction of mosquitoes, no cleaning out of yellow fever, no building of the Panama Canal!

The other most interested force in the opposition, and the one which is best able to furnish the money for the campaign, is the association of big patent medicine men, the Proprietary Association. These men fear, and justly, any movement for the popularization of sanitary methods, and the carrying on of an educational health campaign similar to the campaign for better crops the Department of Agriculture is conducting for the farmers.

We are willing to admit that the success of this bill bodes no good for either patent medicine interests or Christian Science interests, not because the general government will personally deal with these matters, but because there will be a general increase in the average intelligence which will cause the people gradually to give up their faith in self-doping, and in cure by some mystic formula.

Aviation - AND its EFFECTS ON the HUMAN SYSTEM.



NATURE invariably levies a tax on the mental and physical systems of man when he essays the unaccustomed. The person who bestrides a saddle for the first time, or after a lapse of many years, pays penalty in the form of aching legs, back, and wrist muscles. The tourist whose *wanderlust* leads him abroad, as a rule, yields tribute to Neptune when on his way to his destination. The effects of mountain climbing are usually uncomfortable and sometimes alarming. And there are those who never take a journey by rail without suffering in stomach, head, or nerves.

Aviation — the latest demonstration of human ingenuity — offers no exception to this law. In the case of the novice, especially, are its physiological consequences most marked, by reason of his being harassed by the sense of unknown danger. Nor does familiarity with the aeroplane or the dirigible always rid the aviator of these sensations. A prominent airman recently related that he never made preparations for a flight without experiencing a feeling that "something was going to happen," and that when the propeller began to revolve, he was seized with nervous chills. These

sensations, however, all vanished the moment the aeroplane left the ground and began to climb up in the air.

The "plane-fever" that attacks both the tyro and the seasoned flier, is due to nervous strain — to the excessive concentration of the faculties on an act or object. It manifests itself in much the same manner as does the "buck-fever" of the inexperienced hunter, the symptoms being, shaking limbs, chattering teeth, and spasms of shivers. Usually, it precedes the actual boarding of the machine, although in some cases, it follows the seating and handling of the levers. At the flying-grounds at Mineola, Long Island, the writer saw the son of a well-known New York financier make several attempts to get on the seat of a plane, but he failed, simply because of his trembling body. He seemed to have temporarily lost control of his nerves and muscles. Yet it was not cowardice in his case; for he is a brilliant polo-player and a straight rider to hounds.

Harmon, the famous amateur aviator, states that the nerve strain and physical hardships of ballooning are far greater than in the case of any other form of aviation. And as he is accustomed to both the gas-bag and the aeroplane, his

opinion is worthy of all respect. He says: "Only the sturdy, the daring, and the enthusiastic should attempt a flight at this stage of the game. Flying is still in a purely experimental stage, and as such, is not freed from the dangers that are inevitable to such a stage. As it is, it searches out the weak points of one's nerves and stamina, and unless both of these are in the best of condition, my advice is that you stay on the ground."

Another well-known airman, who, curiously enough, has a reputation for a daring that amounts to recklessness, told the writer that he never approached an aeroplane for the purpose of making a flight without experiencing a nervous dread that almost amounted to a panic.

"Lots of times," he declared, "I would have turned tail and have made a break for the hangar or the hotel, if it hadn't been for the knowledge that I was under contract, and that a big crowd was watching me. At such times, only sheer force of will got me on the driving-seat, and when I reached it, I felt as if I were sweating blood. Once off the ground, I was all right, and felt that I wouldn't be anything else but an aviator, no matter what you might offer me; but when the time came to make a descent, the panic got into my bones again, and I usually alighted as weak as a maggot. The feeling is wearing off, though, and I suppose in the course of time I'll be hardened; but I tell you straight, this flying business takes it out of a man when he begins it."

Here was a clear case of nerves. The speaker had followed one of the most risky of professions, as he had been a professional racing automobilist, yet, as he stated, he never got the "funks" when on the eve of a race in which the chances of life and death were about even. His words, "When you are going a seventy-mile clip on the ground, you know where you are, anyhow; but up in

the air, you don't know where you are if anything happens," were explanatory of his feelings. It was evidently this sense of the unaccustomed that was responsible for his panic.

Another star aviator gets cramps in his legs when speeding in a plane. Fear he does not feel, so he declares; yet he always expects an attack of the cramps when flying, the pain of which is sometimes so acute that he has to descend. When on the ground, he never experiences the muscular trouble in question. There is nothing in the position that he occupies on the driving-seat to induce the attack. Clearly, then, nerves and nerves alone are responsible for the cramps.

Sometimes, and especially in the case of the younger men, the exhilaration brought about by rapid movement in the upper air and the consequent physiological effects, induces a sort of ecstasy that is not many removes from emotional insanity of a temporary sort. Many of the hair-raising stunts of aviators are performed under stress of such mental condition. It is for this reason that the Wright brothers always insist on their young pupils following out a line of work in the atmosphere that has been already decided on. A departure from the program is met with rebuke or visited with fines. Even these are not always sufficient to curb the antics of the youngsters. At a recent aerial meeting, after young Brookins had been "short-circling" in a manner that made his machine tip at a perilous angle, he was taken to task by Orville Wright when he descended, thus:—

"You must understand, Brookins, that you have been trained by us, and that you are under contract to us. Therefore, your blamed neck is our property for the time being; and you can not and shall not take chances with it while you are in our employ. A spurt of wind would have done your business just now, while you were

playing your fool stunts. Report to me this evening when the meeting is over."

Of course, the applause of thousands of spectators is a factor in the prompting to hair-raising feats, but the initial excitement of the work itself is the actual explanation thereof—such excitement being due to the causes already given. Nor is this exaltation of feeling quite confined to the younger men. Some of the older ones get touches of it; even Curtiss confesses to as much. But they seem to have the wisdom not to allow it (literally) to fly away with their judgment.

So much for the effect of aviation on the nerves. Now let us examine some of its results on the organs and muscles.

Air-sickness, or nausea, often but not always attacks the neophyte. The trouble may be due to the nervous strain of the experience affecting the stomach, or to the motion of the machine itself. In the earlier types of aeroplanes, the dipping during a flight was most marked; but subsequently invented devices abated it to a considerable degree. Still, under certain weather conditions, a plane of a modern sort will dip and pitch like a small boat in a ground-swell. In either instance, only the seasoned aviator is quite immune from air-sickness.

Goggles are an essential, but not a perfect protection to the eyes of the airman. Even when he has donned them, his organs of vision are often affected by his rapid progress through the air. When one is traveling from forty to sixty miles an hour with no wind-shield in front of him, the breeze is apt to cause inflamed eyelids and congestion of the capillaries of the eye itself, goggles notwithstanding. No matter how large these latter are, the wind creeps around them, and the eyes suffer in consequence. So it comes about that after an aerial meet of some days' duration, the harmful effects on the vision of the aviators is very marked indeed.

The continuous rush of air that accompanies artificial flight tends to irritate the lining of the nasal passages and of the bronchial areas. In at least three cases known to the writer, a catarrh has followed the adoption of aviation as a profession. With the cessation of flight for a few days, the ailment disappears, but a single trip suffices to bring about its re-appearance.

On the other hand, pulmonary affections due to the use of the aeroplane are very infrequent. A physician who takes an active interest in the new science, and who knows personally nearly every airman of note, asserts that the pure air met with above the earth, its stimulative effects on the breathing apparatus, and the increased action of the lungs due to flight, all exercise a healthful effect on the latter organs. Only once was he called upon to examine an aviator whose lungs were under suspicion; and then he found that the trouble was of a bronchial nature, due to the patient smoking too many cigarettes.

The hearing, more than any other sense, seems to suffer from artificial flight. This is mainly due to the roar and rattle of the motor and the propeller, both of which are in juxtaposition to the aviator's head. Then, too, the swift wind affects the aural passages, nor does there seem to be any remedy for this condition, for the aviator has to keep his ears clear of all protective devices in order to listen to the running of his motor. As a result of this, he is usually temporarily deaf after a flight. Not so long ago, the writer spoke to Charles K. Hamilton as the latter stepped out of his Curtiss machine at Hempstead, after a flight of half an hour or so. The aviator put his hand to his ear, trumpet fashion, listened, and shook his head.

"Sorry, old man," he said. "Can't hear a word you say. That confounded motor is still buzzing in my ear. I'll be

all right in a little while, though. Then come and talk to me."

Later, he stated that a loss of hearing invariably followed a flight, no matter what steps he took to remedy the trouble. And, as has been said, many of his colleagues suffer in the like respect.

No matter what the temperature is at the surface of the earth, it is always much cooler in an aeroplane or a dirigible. If the flight is undertaken when it is quite cool at the surface, the aviator when above experiences actual cold. Only the hardiest can attempt to soar when the frost is on the ground. At all times the wind penetrates the aviator's clothing, even if it be of the so-called wind-proof sort. Now, such penetration brings about a rapid evaporation of perspiration, with a consequent lowering of the bodily temperature. Hence the cooling process.

But the experience does not amount to much if the aerial navigator is in good physical condition; yet if he is below par in any respect, there is a likelihood of the weak spot or organ being searched out by the air currents, and trouble ensues. Here is an illustrative instance:—

Not long ago, a well-known amateur was given a dinner in New York by admiring friends. He ate and drank not wisely, but too well. The next day found him headachy, feverish, and out-of-sorts in general. Nevertheless, he made a prolonged flight in an aeroplane at Hempstead, the weather being somewhat cool at the time. The day following, he was laid up with an attack of pleurisy, that kept him in the house for a month.

The wind, plus his bodily condition at the time of the flight, was responsible for his sickness.

Stiffened muscles, rheumatism, colds of the ordinary sort, and so forth, are common to many aviators. The aeroplane is also bad for those who have heart weakness of any kind. The motion and the excitement of flight are such that they put a strain even on the normal organ. More than one airman has collapsed in mid-air through his heart giving out, and usually with disastrous results. The death of a French aviator some months ago from such cause, will perhaps be fresh in the mind of the reader.

The vibration due to the motors and propellers seems, at present, to be inseparable from artificial flight. It affects the aeroplanist to a considerable extent, causing headache, stomach trouble, and nervousness. When it is considered that such vibration is sometimes sufficient to cause the snapping of the stay-wires of a machine, it will be evident why its effects on the human system are as marked as they are, especially in the case of the novice. An aviator whose specialty is long-distance flights, said that some planes carry the motor vibrations much more than others. After running one of the vibrating machines for half an hour or so, he declared that his body would "drum," as he phrased it, for the rest of the day. The experience is somewhat in line with that of the sea-goer, who, on reaching land, feels "the motion of the ship" for some days.



ECZEMA¹

R. S. Ingersoll, M. D., M. R. C. S., England



THIS is an inflamed condition of the skin, a very obstinate one with which to deal when it once has become fully established. It may be either acute or chronic in its nature, and is accompanied with pain, itching, and a burning sensation, associated with redness, swelling, and an eruption. There is sometimes an oozing on the surface.

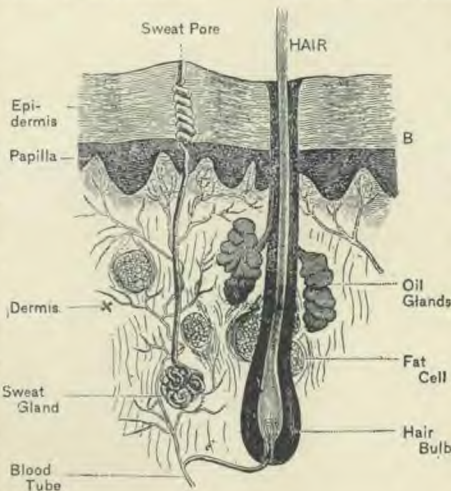
Before attempting to describe the disease, it will be well for us to study briefly the nature and the functions of the skin, which is not simply an outer covering to protect the body from mechanical injuries, but is a very complex organ, of great importance to the proper functioning of the body as a whole.

Among associated structures are the hairs, developed directly from it, and found on every part of the body except the palms of the hands, and the soles of the feet, and the back of the fingers and toes close to the nails. The nails are also modifications of the skin. Extending down from the surface of the skin, we have the corkscrew-shaped glands which produce the perspiration. In close proximity to the shaft of each hair are small oil-producing glands which extend down to the deeper structures of the skin. In association also with each hair is a small muscle which by its contraction raises the hair under

conditions of fright or of exposure to cold or excessive heat. These muscles produce the condition known as goose-flesh. In the deeper layers are found blood-vessels, and a variety of nerves.

Very numerous also are the functions of the skin. By it the temperature of the body is controlled and maintained at approximately a constant temperature. If we are exposed to an excessive amount of heat, it is also prepared to meet the emergency.

The skin is composed of two layers, the outer, or scarf-skin, which acts as a protection to the underlying structures, and the inner, or true-skin, which contains the blood-vessels and nerve endings, and rests, in a normally healthy body, on a layer of loose tissue containing fat. The outer, or so-called scarf-skin, consists of numerous layers of epithelial cells, the



deeper ones being more or less cubical, while the outer ones are more flattened, like the scales of a fish. These inner cells are living, with power to grow and multiply, whereas in the outer layer they are really dying, or lifeless, with no power to reproduce themselves.

The blood-vessels in the true skin are arranged in loops, or tufts, which push themselves into the under surface of the false skin and constitute what are known as papillæ. Some of these papillæ are occupied by nerve endings. These papillæ are arranged in rows, and form the parallel ridges or lines which can be

¹ Eczema, literally, a boiling over; from the Greek *ekzein* to boil over

seen in the palms of the hands and soles of the feet. It is interesting to note that the arrangement of these papillæ remains the same throughout life, so that impressions upon paper from a given finger dipped in specially prepared ink can be identified as belonging to the same individual, even though he live one hundred years, unless the part has been injured in some way. This is made use of in identifying criminals. In certain parts of the body the skin is much thicker than in others, and this difference modifies the character of diseased conditions, such as eczema.

Having noted briefly the complexity of the skin, it will be easier to understand the possibility of an inflammation producing a great diversity of appearances as it affects this complex structure, and that the different varieties of inflammation known as eczema constitute about one fourth of all cases of skin disease. The varieties with which we will concern ourselves are the following, given in the order of their frequency: the vesicular, papular, pustular, and the erythematous.

All the varieties usually start with a reddening of the skin, which is spoken of as an erythematous condition. If they should stop at this point, being associated with the general symptoms spoken of in our definition; namely, pain, itching, and burning sensations, and go no farther, we would speak of it as an erythematous eczema. If upon this reddened surface there appear little pimples which are due to the inflammation of the papillæ in the deeper layers of the skin, we would class it under the heading of the papular variety. If the inflammation is more severe and there appears in the summit of the papillæ, blisters, then we speak of it as the vesicular variety, which is the most common. The pustular variety differs from the vesicular variety in that there is

pus in the place of the watery fluid.

The vesicular, or most common variety, occurs in the bends of the arms or legs and other places where the skin is thin. Its coming is indicated by pain, tension, and itching in the part, and the patient is restless. If the part is observed, it is at first red, and the skin is thick and could not be distinguished from the erythematous (red) variety of the disease. In a short time, however, there appear on the surface small pin-head prominences, due to the inflammation of the papillæ of the skin, which soon have small blisters or vesicles on their summits. These vesicles determine its name—vesicular variety.

These vesicles soon rupture or are broken by the scratching and rubbing of the patient, when a serous fluid exudes. The scratching, if severe, produces a raw surface over the space between the vesicles, and from here again the serum exudes. This stage is called the weeping stage. The fluid stains and stiffens linen when it comes in contact with it.

The course of this, and in fact of all the varieties, is variable. In a very favorable case the surface dries up, the redness disappears, and the skin becomes normal again. More often, however, after an apparent improvement there appears on the same surface, and especially at its margin, another crop of vesicles, and the course above described is gone through again. This may go on, and the disease spread and involve a very large portion of the surface of the body. It may be so extensive as to merit the name eczema universalis, although it practically never involves the entire surface of the body.

In other cases again, the surface, instead of clearing up, becomes covered with yellowish scabs, and is called eczema squamosum from its scaly appearance. On the other hand, instead of improvement the weeping may increase

and the part become more reddened and raw in appearance; then it is called technically *eczema rubrum* (red eczema).

Eczema pustulosum differs in appearance from vesicular eczema in having pus in the blisters in place of serum. It occurs most often on the hairy parts of the body, and is often in reality an inflammation of the hair follicles. Children and individuals run down in health quite often suffer with this variety. Thick crusts often form which are greenish in appearance, under which there is more or less pus. There is usually less irritation and redness in this than in the other varieties. It also is the most favorable as to the ultimate outlook.

Eczema papulosum would seem to be a variety of the disease which occurs upon the back and the exterior surfaces of the arms and legs, where the skin is thick, and the vesicular variety occurs where the skin is thin. There is also much itching and little smarting and burning in contrast with the other varieties. In appearance the skin is reddened with papules about the size of pin-heads, of a red or dark-red color. Upon careful examination an occasional small vesicle may be seen.

Erythematous eczema consists of a thickening and reddening of the skin without the appearance of papules, vesicles, or pustules. The surface is not shiny, as in ordinary inflammation, but is of a dusky-red color and covered with small or larger scales, which can be easily removed without leaving any raw surface. This variety most often affects the face, and may be associated with the presence of a considerable amount of dandruff on the scalp. There are numerous names given to the erythematous condition, dependent upon the part involved and the idea of some prominent investigator, but we will not concern ourselves with more than the above.

Treatment of eczema must be very thorough and comprehensive. While it is apparently a local condition, it is so dependent upon the condition of the general health that it is necessary to apply both general and local treatments; the latter will be of no avail, as a rule, if the former is neglected.

The occupation often is largely responsible, especially when the trouble is limited to the hands. Laundry work and other occupations where the skin is irritated by soap or other irritants, and by moisture, must be avoided in cases where the hands are involved.

In order to get rid of eczema, it is important to build up the general health in every way possible. Outdoor life and exercise are very valuable.

The alimentary tract must be kept in a good, regular condition. This is best done by regulation of the diet and use of foods of a laxative nature. When this can not be accomplished, mild purgatives may be resorted to, such as fluid extract of cascara sagrada in fifteen-drop doses, three times daily, and increase or decrease as is necessary. For children, the old-fashioned remedy of sulphur and molasses is not a bad one. In this connection also I would mention the use of Carlsbad or Hunyadi or other aperient waters. If the eczema has come on suddenly or is acute, the indication is the presence of poisons in the system which ought to be treated more energetically, and for this purpose Epsom salts, a heaping teaspoonful on an empty stomach, is indicated.

When causes have been removed, and derangements, digestive or otherwise, have been corrected, special attention should be given to general tonic treatment—hot and cold applications to the spine, salt glows, and massage. Of special value is the electric-light bath, because in it we combine the tonic and eliminative effects.

Local Treatment

Local treatment must be combined with the general and must be soothing or stimulating, dependent upon whether we are dealing with an acute active condition or one which is chronic in its nature. In the first it must be soothing, in the latter stimulating.

As a rule ordinary water should be kept off from the parts; it is irritating. Clear rain-water or distilled water is better. In case either of these can not be had, use thin oatmeal gruel to which a teaspoonful of soda to the pint has been added, for washing the part. This is cleansing and soothing at the same time.

Avoid also exposure to damp, cold winds when the disease involves the face. Sea air is also irritating, hence avoid the seashore. However, if the general health is poor, the tonic effects of the seashore may offset the local irritation. When the irritation is below the knees, rest in the recumbent position is important; or if work can not be abandoned, bandaging firmly from below up with porous bandage is of value. This can be applied over the ointments when used.

Begin local treatment by removing the crusts when they are present. The best line of treatment for this purpose is to cover the part with gauze saturated with olive or almond oil, and thus soften and remove the scales.

As to the local treatment there is such a diversity of conditions and appearances to be considered dependent upon the complexity of the skin that as a rule it is best to place the case in the hands of a competent physician or preferably a specialist for its direction. However, always bear in mind to avoid irritation of the part. In fact, when the condition is acute, the treatment must be soothing,

unless there are pustules present, when a disinfectant should be used. A good disinfectant ointment is ten grains of iodoform to the ounce of white vaseline. Soothing lotions, such as calamin lotion, which leaves a powdery residue on the surface to act as a protection to the part, can be used, after pustules are gone, or in case pustules are not present. This simple remedy is of great value in the erythematous, papular, and vesicular varieties, and should be applied two or three times daily, so as to keep the part continually protected.

Over parts covered by clothing, where the powder would be rubbed off, and on the scalp where the powder would gum up the hair, we must use soothing ointments, as boracic acid thirty grains to one ounce of white vaseline. This can best be applied by spreading on lint and covering over the part, and placing a bandage to hold in position. The protection must be continuous.

The number of remedies is legion, but the above are safe in the hands of the laity. If the condition is chronic, a physician should direct in the use of the astringent and sometimes irritating and stimulating applications necessary for a cure, so I will not mention these.

I have not mentioned treatments for the scalp and beard and other parts of the body, as the palms of the hands, all of which must have special consideration and care by a physician. I would say in conclusion, when the hairy parts are affected, do not hesitate to have the parts shaved. It is not as painful as one would think, and the medicine can then be more effectually applied. Finally, carry out the instruction of the physician, explicitly. This may spell success when otherwise failure would be the result.

Takoma Park, D. C.



UNDERGROUND VEGETABLES

George E. Cornforth

OTHER underground vegetables are far less valuable than the potato as articles of diet. They are less nutritious and less digestible. In fact, it would almost seem that they are hardly worth eating when we consider the amount of work they give the digestive organs and the small amount of nourishment the system gets out of them. Their dietetic value is due largely to the mineral matter and flavors which make them useful as appetizers and perhaps as peptogens, the flavor of food being the property which causes the secretion of the digestive juices. But an occasional dish of one of these vegetables may be of service to people who have good stomachs, in giving variety to the diet. Fat in some form is almost always used as seasoning for vegetables, since this takes away the watery taste which they have when eaten with nothing but salt; and thus, while the vegetables themselves have little nutritive value, they may become carriers of fat, which is an important article of diet. Since these vegetables are more valuable for their flavors than for nourishment, they are perhaps more useful for making soups and broths than for eating as vegetables.

Turnips

FOOD VALUE IN CALORIES PER OUNCE			
PRO.	FAT	CAR.	TOTAL
1.5	.5	9.4	11.4

By referring to the table given in the lesson in the May number of *LIFE AND HEALTH*, it will be seen that turnips are

little more than half as nutritious as milk. It seems hard to realize that a solid object like a turnip contains more water than a liquid like milk, but such is the case. The turnip, unlike the potato, contains no starch, but, instead, a substance called pectose. This is the substance which gives to fruits their property of forming jelly when boiled.

PREPARATION FOR COOKING.—Select solid turnips. Wash and scrub them well. Slice them into half-inch slices, then peel the slices, peeling deep enough to remove the white lining just underneath the skin, which is usually bitter.

Mashed Turnips

After preparing the turnips as just described, steam them until they are tender, or boil in as little water as will cook without scorching them, having the water boiling when the turnips are put into it. Do not cook too long; for this will turn them dark and give them a strong flavor. Then, if boiled, drain off the water (which will make good soup stock), and either mash them with a potato masher or put them through a colander; season with salt and hot cream or a little cooking oil.

Creamed Turnips

After the turnips are sliced and peeled as directed, cut into half-inch slices; or peel the turnips whole, then cut balls from them with a vegetable cutter. The turnip which remains after cutting the balls, may be used for mashed turnip or for making soup. Steam the dice, or balls, or boil in as little water as will cook without scorching them, adding salt just before they are done. Drain, if boiled, and put into cream sauce.

Cream Sauce

- 1½ cups milk
- ½ cup cream
- ½ cup flour
- ½ teaspoonful salt

Heat the milk and cream in a double boiler. Thicken with the flour stirred

smooth with a little cold milk. Add the salt. Instead of milk and cream, one pint of milk may be used and one or two tablespoonfuls of cooking oil added to the sauce.

Carrots

FOOD VALUE IN CALORIES PER OUNCE

PRO.	FAT	CAR.	TOTAL
1.3	1.0	10.8	13.1

The carrot differs from the turnip in that it contains sugar, only a small amount of pectose, and no starch. The carrot seems to be more of a decorative vegetable than others of this class. It has a pretty color, and may be prepared in a variety of attractive ways.

PREPARATION FOR COOKING.—Scrub the carrots well, scrape with a knife to remove the skin, and put into cold water.

Mashed Carrots

If the carrots are large, either split or slice them, and follow the directions for mashed turnips.

Creamed Carrots

Follow the directions for creamed turnips.

Carrots With Egg Sauce

Prepare as for creamed carrots, adding one chopped hard-boiled egg to the cream sauce.

Carrots and Peas

Prepare as for creamed carrots, using with the carrots an equal quantity of green peas. This makes a pretty dish, the color of the peas and of the carrots going well together.

Molded Carrots

Press seasoned mashed carrots tightly into individual molds. Turn out on individual platters, and surround the molds with green peas. Garnish with parsley.

Baked Mashed Carrots

Season one quart of mashed carrots with one teaspoonful of salt and one-half cup of cream. Add two tablespoonfuls of potato flour or wheat flour, and two beaten eggs. Put into an oiled pan. Bake till set. Serve with chopped walnuts sprinkled over it.

Carrots With Fine Herbs

Slice three large carrots and boil them. Chop one small onion, and cook in one tablespoonful of oil till lightly browned. Add the water in which the carrots were cooked, and boil the onion five minutes. Add the carrots, and one dessertspoonful of chopped parsley, and boil three minutes. Remove from the fire and squeeze in the juice of one half a lemon. Add salt. Garnish with croutons made by cutting bread into one-half inch dice and toasting them in the oven till thoroughly dry and lightly browned.



MOLDED CARROTS WITH PEAS, AND THE MATERIALS AND UTENSILS REQUIRED IN PREPARING THEM

Carrots Maitre d'Hotel

Cut the carrots into halves lengthwise; boil in salted water, or steam. Place on an oiled dripping-pan. Sprinkle with lemon juice, a little sugar, and chopped parsley. Bake till well heated through.

Parsnips

FOOD VALUE IN CALORIES PER OUNCE			
PRO.	FAT	CAR.	TOTAL
1.9	1.3	15.9	18.9

The parsnip differs only slightly from the carrot in nutritive value. The parsnip contains a little more sugar. In their preparation for cooking, parsnips are treated in the manner described for carrots. They may be mashed, creamed, or served with egg sauce, according to the directions for the treatment of carrots. Additional ways of preparation suited to parsnips are:—

Browned Parsnips

After cleaning and scraping the parsnips, cut them lengthwise into slices one-fourth inch thick and two and one-half inches long. Steam or boil the slices in a small amount of water till nearly tender. When the parsnips are young, this will require scarcely more than ten minutes after they begin to cook. Drain, and put the slices into an oiled baking-pan. Brush them over with salted cream or cream sauce. If boiled, pour the water in which they were cooked, of which there should be only a small amount, into the pan. Brown in a hot oven.

Parsnip Fritters

Clean and scrape one large parsnip. Slice, and boil or steam till tender. Mash, and add two tablespoonfuls of cream, the yolks of two eggs, and cracker crumbs to make of the consistency of griddle-cake batter. Beat the whites of the two eggs stiff, and fold them into the batter. Cook on a slightly oiled griddle.

Parsnip Croquettes

- 1 pt. mashed parsnips
- $\frac{1}{2}$ teaspoonful salt
- $\frac{1}{2}$ cup thick cream sauce
- 1 teaspoonful oil
- 1 egg

Mix the ingredients, beating the egg before adding it to the other ingredients. Allow the mixture to get cold, then form into croquettes. Dip in egg, roll in zwieback-crumbs, and bake a few minutes in a hot oven. Serve with egg sauce.

Beets

FOOD VALUE IN CALORIES PER OUNCE			
PRO.	FAT	CAR.	TOTAL
1.9	.3	11.2	13.4

Beets contain a larger amount of cane-sugar than the other vegetables of this class. The common beet contains nearly as much sugar as the sugar-beet, which is used in the manufacture of sugar. If care is not taken to cook the beet properly, much of the sugar may be lost.

Beets should be plump, solid, and unshriveled. They should be well washed and scrubbed with a vegetable brush, but should not be scraped or cut; for the skin must not be broken, because that would allow the sweet juice to escape. Beets should not be pricked with a fork to determine when they are done. When sufficiently cooked, they will yield to the pressure of the fingers. Young beets can be boiled in one hour, but old ones may require three or four hours.

Baked Beets

Beets lose the least nourishment in the process of cooking if baked. It requires two or three hours to bake them; they should be baked slowly, placed on the grate, as potatoes are baked.

Steamed Beets

The next best way to cook beets is to steam them.

Boiled Beets

The beets should be put to cook in boiling water, using as little water as will cook without scorching them, and the water should be nearly evaporated when they are done. When cooked, put them into cold water; then the skins can be easily rubbed off with the fingers.

After being cooked in any of these ways, the beets may be sliced, sprinkled with salt, and served hot, dressed with a little vegetable oil, or they may be served hot in lemon juice, or equal parts of lemon juice and water. A little sugar may be added if desired. Or a cream sauce may be poured over the beets just before they are served.

Cream Baked Beets

Slice cooked beets into a baking-pan. Pour over them thin cream to three fourths the depth of the beets, adding one level teaspoonful of salt to each cup of cream. Bake forty-five minutes.

Sliced or Chopped Beets With Lemon

Cover sliced or chopped cold cooked beets with diluted lemon juice, and allow them to stand one hour or more before serving.

Beet Salad

Chop or dice cold cooked beets, and serve with the following dressing:—

- ½ cup thick cream
- 2 tablespoonfuls lemon juice
- 1 round tablespoonful sugar

Mix the lemon juice and sugar. Whip the cream, then add to it the mixed lemon juice and sugar.

Chopped hard-boiled eggs or chopped or diced potatoes may be added to this salad, also chopped celery in season, or it may be served with sliced hard-boiled eggs as a garnish. Sprigs of parsley may be used in garnishing it, or it may be served on lettuce leaves.

Beet Greens

Greens of all kinds are a class of vegetables from which the food substances for which they are valuable may be very easily lost in the process of cooking if special pains are not taken to cook them in such manner as not to lose these substances. The easy way to cook greens is to boil them in a large quantity of water. There will then be no danger of scorching them. But the objection to this method of cooking greens is that the large quantity of water dissolves the mineral matter, which gives to greens their principal dietetic value, and then the water is thrown away. If the greens

are to be boiled, no more water than is necessary should be used. A better method of cooking greens, however, is steaming.

PREPARATION AND COOKING.—Select young beets, and look them over carefully, rejecting any imperfect leaves. Do not cut the tops from the beets. Wash thoroughly. After the greens are cooked, drain well. If boiled, chop them, add salt and lemon juice, and a little cooking oil, or omit the lemon juice and pass lemon quarters, thus allowing each person to suit his taste as to the use of the lemon.

Onions

FOOD VALUE IN CALORIES PER OUNCE

PRO.	FAT	CAR.	TOTAL
1.9	.8	11.5	14.2

Onions contain a pungent oil of an irritating nature, which puts them, when raw, in the same class with condiments, and makes them valued as flavoring agents. This oil is volatile, so that this objectionable feature of onions is largely removed by cooking.

Boiled Onions

Put the onions in water while peeling, and drop into water after they are peeled. This will make the task of peeling less disagreeable. Put them to cook in a small amount of boiling water, because they are very watery, and they become more juicy as they cook. Boil till just tender, but not longer, or they will fall to pieces and become dark-colored. When partly cooked, add salt and a little cooking oil. The water in which they were cooked may be thickened with a little flour to make a gravy for them, if desired.





ARE MOVING PICTURES HARMFUL TO CHILDREN?



THIS is a question on which there is a great variety of opinion, as there is as to the propriety of attending theaters and of allowing children to read fiction. Recently the *Washington Times* sent eight prominent men on a tour of the moving-picture shows, for the purpose of learning the real influence of these shows, from a moral and hygienic standpoint. From the reports we happen to have from the committee of investigation, it is apparent that these men, as a whole, believe there is much to be said in favor of these shows. They find them well conducted, and attended by an intelligent class of people, and the behavior inside of the establishments is well regulated.

As the investigation was conducted during the summer, when the outside doors were open, it was not possible to form an adequate opinion as to what would be the hygienic condition in winter, with the doors closed, although the testimony in one place was that the air was quite close.

Regarding the influence of the pictures themselves, there was more diversity of opinion. Dr. Woodward, health officer of the District of Columbia, said:—

“It is more difficult to form a proper judgment with respect to the moral and intellectual influence of the pictures shown. The portrayal of one attempted assassination, although thwarted by a child's love; one seduction, although followed by the usual misery consequent upon such a sin; and one planned-for assignation, although the villain was thwarted, was hardly necessary for the moral uplift of the community.

“These things may do but little harm to men and women of mature years, and if

our five-cent theaters were patronized as largely by people of that class as are the regular theaters, assassinations, seductions, and assignations would be no more objectionable in one than in the other.”

A. T. Stuart, superintendent of public schools, was probably more pronounced in his condemnation of these features of the shows; for instance, he says:—

“I would rather risk my child in the moving-picture show than have him habitually see and hear many numbers on the vaudeville stage. An efficient police supervision of the character of the pictures will easily keep out those that are positively bad, but police censorship stops at this point. It can do nothing to protect our youth from exhibitions which, while not plainly labeled as immoral, cruelly outrage all the standards held by people of good taste and refined sensibility. Here an educated public sentiment alone can effect a reform.”

It will be noted that, while he saw nothing of an outrageous nature, yet he sees danger from those things which are not up to a standard of good taste. Particularly does he find objection in what are called the plays with a moral.

“Clearly the most harmful of the pictures shown in Washington are those which partake of the character of what Charles Dickens called ‘a good, murderous melodrama.’ These may be found in any of the cheap theaters, and seem to be the best card of the five-cent show. Some, not all of them, pointedly suggest wrong-doing—such as clever deceit, theft, drunkenness, and finally, seduction and murder; but those who put on this class of plays and pictures defend them as positive agencies for doing good, and refer proudly to the wholesome moral at the end. But this, as we all know, was the fallacious defense of the old yellow-back novel of odious memory, and the five-cent melodrama is too often the old dime novel brought to life again, but clothed in so brilliant a disguise as to be more perilous to good taste and good morals than its discredited prototype ever was.”

One point made by Mr. Stuart is regarding the opportunity for young people unaccompanied by elders to form undesirable acquaintances:—

"The character of the entertainment does not appear to invite fellows who want noise, but the meeting of very young people of opposite sexes in great numbers, seemingly without chaperonage or restraint, and at late hours, constitutes a menace to which parents of girls seem astonishingly oblivious."

He sees, however, a great opportunity for making the moving-picture show a powerful educational influence:—

"The real artistic beauty and fascination of the moving pictures would make them an especially effective instrumentality in the education of the young, and I hope the time is not distant when they can be made available for such high purposes. The field is unlimited."

Granting all the good, all the educational value there may be in these shows, is it wise for parents who have good homes to allow their children to go to such places, especially without the accompaniment of some older member of the family? And in view of the large number of films depicting crime, domestic infidelity, and the like, is it wise for children to attend an ordinary moving-picture show at all?

✽

A Matter of Course

IN India, plague; in Russia, cholera; in Mexico, smallpox; in Brazilian ports, yellow fever; in subtropical countries, malaria; in the South, hook-worm disease; in the United States generally, typhoid fever; in all of these countries, tuberculosis! Like a pall these scourges hang over the respective countries, civilized, semicivilized, and barbarous alike, and the inhabitants accept them as they do earthquakes, cyclones, and volcanic eruptions— as something that can neither be foreseen nor prevented.

It is true we have advanced in some

countries far enough to have health boards, health commissions, laboratories, and a body of health laws; but the rank and file of the people are as ignorant of the nature of the diseases which mow right and left, and of their means of prevention, as they are of the composition of the luminiferous ether; and their conservatism and profound ignorance stand in the way of their accepting any light concerning the cause and prevention of the most prevalent of diseases. It is in the matter of the education of the masses that we must do most earnest work in order to prevent death by unnecessary causes.

Theoretically, we accept the proposition that much disease is preventable and unnecessary, but our belief is not strong enough to have very much effect in our practise. We deplore the fact that there are such horribly unsanitary conditions in the city slums, and on the poorer farms in the country, and then content ourselves with the thought that so long as we live a little nearer the ideal, we, at least, will escape the penalty for insanitation. We forget that none of us lives to himself. In our complex modern civilization, the sins of one region are apt to be visited on a distant locality. The typhoid patient at one dairy may infect an entire city. Practically all our food comes from the country, and perhaps we eat it without cooking or even washing, having no thought of the possibility of infection from a tuberculosis or a typhoid patient. Typhoid fever is very largely a disease of the country, and a liberal share of the typhoid of the city is taken there from the country, either from the country resort, or through the milk or water supply. Often tuberculosis patients, in order to live the outdoor life, go to some mild climate, and there take up fruit raising, and of course handle the fruit which is shipped to market. What are the possibilities of contamination

from such fruit, if it is eaten without proper precautions? At the present there is no way to control such conditions, as regards fruits and vegetables, though something is being done to secure pure water and pure milk for cities. But though it is possible to accept no milk except from tuberculin-tested cows, yet there is the more real danger under some circumstances of transmission of human tuberculosis by a tuberculous milker.

And we are by no means free from danger from the slums. Much of the ready-made clothing comes from these congested districts, where often the filthiest conditions prevail. There may be several persons living in a small, unlighted, unventilated room, some of them having consumption,—and from these sweat-shops our garments come! A large percentage of deaths among bakers is from tuberculosis. Do you think they give up the work of mixing bread and handling the loaves before they become a menace to others? They cling to the job till the very last.

The fact is, we do not live to ourselves. Each of us, no matter what our standard of living, has to pay a toll in the way of increased risk, because of the sink-holes of disease which are still festering in our midst.

State departments of health are doing what they can to lessen the evil, and some progress is being made. The national Health Bureau has been a material help to the States in stamping out plague, yellow fever, and the like, but much more remains to be done, not only in an administrative way, but in a national campaign of education. It has been proposed to establish a national Department of Health, to give the same care to the health of the people that the Department of Agriculture is giving to improving the condition of the farmer. It is not proposed to make this depart-

ment supplant the work of the States, but to supplement it. And there can not be any too much help in the solution of this mighty problem.

But no! disease is an imagination, a product of mortal mind, and germs as the cause of disease is worse than an imagination! So say the Christian Scientists, and of course they see no reason for a national or any other kind of board of health. Christian Science is the one certain remedy for all ills. Logically, a Christian Science leader has started a crusade against the bill providing for a national Department of Health; but the Christian Scientists are not very likely to let go of the very material dollars that come into their hands, and so we must look elsewhere for an explanation of the many thousands of dollars spent in the crusade against the Health Department bill. We have not far to look.

The government has been very efficient, to the extent of its power, in running to the ground many powerful medical frauds—frauds that were in the worst criminal class, because they took from the helpless sick their last dollars and left them worse than before. The government has exposed frauds in the matter of habit-forming drugs, "consumption cures," "cancer cures," and the like. The association of patent-medicine people commands millions of dollars, and it is to their interest to prevent the establishment of a department that will have further power in preventing their nefarious trade. Do we need to ask where the money came from?

With the leadership of this Christian Scientist, and the dollars of interested parties who kept in the background for the very reason that their connection with the opposition would have showed the motive, a movement has been formed that has taken in hundreds of honest and innocent persons who have no other thought than to see justice done.

Diet in the Treatment of Disease,— but What Diet?

THE St. Louis *Medical Review*, in a recent editorial (August), attempts to show that dietetics has a place even more important than drugs in the cure of disease. For instance:—

“Drugs, wisely employed, meet many indications in the treatment of disease, but they do not cure disease. The *vis medicatrix nature*, which performs this important work, derives its chief support from alimentation, and alimentation from diet and hygiene.”

The relationship between the chemistry of the body and the chemistry of food is shown, and the necessity of understanding this relationship in all dietetic management of disease. But it is admitted that—

“for healthy persons, the question of proper food is by no means settled. The best dietarians differ. . . . If it is difficult to decide which is the best food for a healthy man, how much more difficult it must be to determine the most appropriate diet for the sick.”

The *Review* gives as a requisite for a healthy working man about four and one-half ounces of albuminates, three ounces of fats, and fourteen ounces of carbohydrates—the Atwater standard, which has been discredited by the work of Chittenden and others,—and on another page has an article on “Value of Carbohydrate as Food,” in which is a statement showing the tendency of modern research to place less importance than formerly on a high protein or albuminous ration. After referring to experiments showing that, to a certain extent, carbohydrate can with advantage

be made to take the place of albuminous food, the *Review* makes the following remarkable statement, showing that the editor is in a fair way to accept the low protein [albumin] standard, about two ounces a day, suggested by Chittenden:—

“While further experiments might be cited, the two just mentioned show clearly that a relationship must exist between protein metabolism and carbohydrate utilization, and while the time is not ripe for a precise statement of this relationship, it might not be out of place to refer to a conclusion which was hinted at many years ago both by clinical workers and by experimental physiologists, namely, that *when tissues break down some of the nitrogenous products may be reutilized in the rebuilding of the cells* [thus taking the place of a new supply of protein]—*provided abundant carbohydrate is available.*”

Every person believes some things that are impossible of demonstration. No man lives that does not exercise faith in something. Even the hard-headed materialist, who believes everything can be stated in terms of matter and motion, finds large gaps in his theory which he must fill by an act of faith as strong as that of the most religious devotee. The present writer believes that the time will come when the low-protein standard, suggested by Chittenden and others, will be completely vindicated by the scientific world. In other words, we will learn that if we are carnivorous, it is from choice, and not from any physiological necessity.

This proposition has long ago been proved in every-day life. It will yet be proved beyond all peradventure in the laboratory.



Trichinosis Not So Rare **THOUGH** trichinosis is quite common in Europe, especially in Germany, where pork is frequently eaten raw, or nearly raw, in the form of sausage, it is usually supposed to be rare in America, so much so that most physicians are not on the lookout for this disease; but one physician, Dr. W. Gilman Thompson, has seen fifty-two cases in his practise in six years, and another physician reports a serious epidemic of the disease in an Iowa college. It is probably not because of luck that these physicians discovered the disease so frequently, but because they were looking for it. Dr. Albert has shown that it is not necessary to eat raw ham in order to contract the disease, because often the hams are "boiled" at a temperature so low that the parasites on the inside are not killed. At least, persons who have eaten of such "boiled" ham sometimes come down with the disease.



Trichinosis From Eating Boiled Ham **DR. HENRY ALBERT**, professor of pathology and bacteriology in the State university of Iowa, reports, in the *American Journal of the Medical Sciences* for August, an epidemic of fourteen cases of trichinosis which resulted from eating boiled ham. In this paper Dr. Albert comments:—

"It is well known that the majority of cases result from eating uncooked, seasoned, or smoked pork and sausage, and we have been unable to find in the literature any instances of cases of trichinosis being traced to the popular boiled ham."

The various packers have different

periods for boiling ham and different temperatures, depending somewhat on the size of the ham. There seems to be no determination of the exact time and temperature necessary to destroy trichinæ. Dr. Albert says:—

"It is probable that many of the isolated cases of trichinosis, especially of the milder types, go unrecognized as such. It appears often when we are not yet absolutely certain as to just what temperature, maintained for what length of time, varying with the size of the piece, should be attained in order to be absolutely certain that all trichinæ have been killed."

Those who have taken comfort in the thought that only raw ham transmits trichinæ should heed that report. Dr. Albert concludes:—

"Trichinæ is no doubt a far more frequent occurrence than is generally supposed. Many cases are no doubt diagnosed as cases of typhoid fever (two cases were so diagnosed in this instance), rheumatism, ptomain poisoning, cholera morbus, etc., or are considered as obscure conditions."



The Value of Deep Breathing **DR. TENDELOO**, at the International Congress on Tuberculosis held in Washington, D. C., made the observation that in chronic miliary tuberculosis the tubercles toward the apex are larger than those toward the base of the lung, a phenomenon due, according to the doctor, to a slower growth of the tubercle bacillus near the base of the lungs, because of the greater respiratory movements of the lymph in this region; for the virus is practically washed away by the circulatory lymph as soon as the tubercle has reached a certain size. The greater the

movement of the lymph, the less the virus can accumulate, and the slower the growth. If the increased respiratory movements of the lower lungs, in case of generalized tuberculosis, have such an inhibitory action on the growth of the tubercle, what might we not expect from deep breathing in beginning cases or in persons who have been exposed to tuberculosis, but who have not yet taken the disease.

Another significant point is that, in ordinary tuberculosis of the lung, which, in the far greater number of cases, seems to be brought into the lungs through the air-passages, the germs establish themselves first in those portions of the lungs which are expanded the least, those in which there is the smallest respiratory movement.

As a matter of observation, deep breathing actually does much to arrest the progress of early tuberculosis, provided it is not carried to the point to rupture fragile tissues and cause hemorrhage.

The Public Drinking-Cup EIGHT States and a goodly number of cities have already passed laws and ordinances abolishing the common drinking-cup in public places. The boards of health in practically all the rest of the States are urging the passage of such laws. Undoubtedly, in a comparatively short time, public drinking-cups in cars, schools, railroad stations, and other public places, will be a thing of the past, and people will be thoroughly educated as to the danger of this means of contamination.

Public Spitting MEANWHILE the public is not advancing quite so rapidly in the matter of spitting. We do not believe in laws against spitting in the gutters or roads, as such laws

can not readily be enforced, or, if they are enforced, it will be by compelling some individuals perhaps to swallow their own sputum, which is, of course, very dangerous. But the laws against spitting on sidewalks, and in cars, assembly halls, and other enclosed places not reached by the sunlight, should be enforced. It seems strange that there should be laws against spitting, and warnings posted up in cars, and yet travelers think nothing of openly violating the law in the presence of fellow-travelers. Undoubtedly a sentiment against such an unhealthful practise should be developed to the extent that unclean people will not dare to infringe on public rights in this way.



Denies Bad Effect of Vaccination BECAUSE of a continual cry in certain quarters against vaccination, the *Washington Times* had an investigation conducted by Dr. M. S. Iseman, who visited twenty-four public schools and personally examined one thousand children who had been vaccinated, the larger part during 1909 and 1910. The average age of those vaccinated was five years.

Dr. Iseman characterizes the cry against vaccination as a "survival of the great-great-grandfather days brought over from England, and, in spite of the progress of the age, cropping every now and then in their descendants."

The doctor sees a rehearsal of those scenes in Italy and Russia to-day, where, in time of a cholera plague, "the peasantry resist the efforts of the doctors to stay infection, and accuse them of poisoning the people."

Dr. Iseman carefully examined one thousand pupils, making inquiry as to mortality rates, detention from school on account of vaccination, general health of the children, and knowledge of any permanent disability resulting from the vaccination.

If, as the antivaccinationists claim, disastrous results follow the inoculation, there should have been some sign of it in some of these one thousand children, and there should be a decided increase of mortality among the vaccinated; but, as a matter of fact, the doctor reports that he was unable to discover a single child suffering from any apparent disease or affection, and that, for health, vigor, and alertness, these vaccinated children can not be surpassed by an equal number of unvaccinated children on earth.

We look upon the peasants in Italy and Russia who attempt to prevent the efforts of the officers to stay cholera, as ignorant and only semicivilized. How is it when this spirit breaks out in a country where there is more opportunity for obtaining knowledge regarding these matters? Is civilization any proof against the promulgation of superstitious beliefs, such as these which have prevented in other countries effectual work against plague and cholera?



Antityphoid Inoculations

It would seem that these inoculations are pretty well beyond the experimental stage. An article by Major Gosman, of the United States Army Medical Corps, in the *Journal of the American Medical Association*, October 1, reports that of 8,510 United States Army medical officers inoculated up to June, 1910, not one has developed typhoid fever, in spite of varied exposure, though there have been in the same time in the army among unprotected persons more than two hundred cases of typhoid. The same favorable results are reported by others; for instance, the Massachusetts General Hospital reports that since the beginning of inoculation of all persons coming in contact with typhoid patients, there has not been a single case of typhoid among the nurses and ward tenders, although heretofore there has

never been a year in which there have not been such cases.

Major Russell, of the United States Army Medical Corps, in a paper giving results of three thousand six hundred doses of the antityphoid vaccine, says: "It is in some ways a matter of surprise that a method which promises so much has been used so little. It may be said that it has scarcely been used outside of the English, German, and American armies." In conclusion, he states that vaccination against typhoid undoubtedly protects to a very great extent against the disease.

The *Boston Medical and Surgical Journal* in June made the suggestion that those whose occupation or vocation would subject them to a special risk of typhoid, should be inoculated. In view of the statistics, this advice would appear to be sound.



"606"

IF the newspapers give as much publicity to Ehrlich's new remedy as the medical journals are doing, a physician will soon only have to put in large characters the sign "606" over his door to have his front office filled to overflowing with cases of "rheumatism" that have been going the usual rounds of mercury, hot springs, iodids, and the like. "606" will be hailed as a godsend by this class, and by another class it will be received with disfavor, as an "incentive of vice." But if it proves to be a specific, it will be the most popular remedy ever put out by the medical profession.



Caught in the Act

THE United States Government has in a number of cases obtained judgment against the manufacturers of tomato catsup, who make it from the waste material of canning factories. In every case where this refuse material was used in making catsup, sodium benzoate had been

used as a preservative. The benzoate people have constantly made the claim that benzoate is not adaptable to the preservation of inferior goods, that vinegar and spices are necessary for this purpose. The facts made public by these judgments show the fallacy of the arguments of the benzoate men, and the fact is established that sodium benzoate is a splendid thing for the use of men who desire to palm off decayed and refuse matter for good food.

Naturally these men prefer not to be compelled to state on the can the fact that benzoate is used, and the statement is usually made in the smallest type possible, in some inconspicuous place, where it is likely to escape observation. We would advise all users of canned goods to look the label over carefully for small type stating that benzoate has been used as a preservative, and if they find such statement, to draw their own conclusions as to whether they care to use that kind of stuff.



**Do We Need
Public-Health
Administration?**

To those who oppose the administration of public-health laws, we would suggest this proposition: Cholera, at present, is ravaging Russia fearfully, and we know that it is doing this work because of the inefficiency of administration on the part of those who have charge of the public health in that country. At one time we did not know how this disease was transmitted, and all we could do was to watch it spread, and hope that we might escape. Now we know exactly how it is spread, and, moreover, we know that if the sanitary authorities in Russia were reasonably efficient, the disease need never gain the headway in that country that it does. We know that the disease is water-borne, and that it is by the contamination of drinking water by the discharges of cholera pa-

tients or cholera "carriers" that the disease is spread. We may prohibit the entrance of cholera patients into this country, but we may fail to detect the entrance of healthy persons who are cholera "carriers;" that is, persons who harbor the cholera germs in their intestines, and yet show no manifestation of the disease. We may be reasonably certain that, sooner or later, cholera "carriers" will reach this shore. Such may locate in some watershed supplying water to a large city. If this water were not properly filtered, the next thing would be an epidemic of cholera.

Personal hygiene might, by increasing the vital resistance, prevent the disease, and it does prevent it in many cases, but personal resistance is not everything, and in times of epidemic some accidental condition might for a time lower the resistance to the point where one would be susceptible to infection; therefore, no matter how much one gives attention to personal hygiene, he is also dependent more than he may realize on the proper administration of public health regulations, not only for freedom from cholera, but from typhoid fever and many other conditions. In England they have given up the attempt to quarantine against cholera, and the public-health men realize that it is necessary to perfect their work of sanitation; and to this end millions of dollars have been spent and are being spent.

What we need to realize in this country is that isolation is not sufficient under the present commercial relations to prevent the importation of such diseases as cholera, yellow fever, plague, and the like; and it will only be by the means of efficient public-health work that fearful epidemics can be prevented; and, that this public-health work may be most efficient, it is necessary that a national as well as State organization be perfected.

THE MEDICAL MISSIONARY AT WORK



ALL-ROUND WORK AT KARMATAR, INDIA

Louisa M. Scholz

I AM out in the bungalow with Miss Burroway at Karmatar, and enjoying my work very much. It is a little different from that at Mussoorie, where I had the patients come to the dispensary. Here I have to go out, sometimes at night, to see them. It is more difficult. As there are many things to look after, we ladies have to do things that are often more appropriate for a man to do. And it is wonderful how the Lord helps us.

Miss Burroway has a cart and two little ponies. I also have a cart. The mission gave us one hundred rubles to buy a horse for my work. So we two went out on the three-o'clock morning train to Asanal, with a neighbor boy, to buy a horse. We asked God to direct in this, as we really did not feel fitted for the undertaking.

When we reached the place, we found that the horse we wanted had been sold; and so we took another train to another place. Here we had our pick among four horses. Two were not good, and two were young, not broken; and for these latter they asked us four hundred and five hundred rubles. But for one, a four-year-old colt, they came down in price to one hundred sixty-five rubles. We bought him, and everybody says it was a good bargain. The first time he had a harness on we put him to

our cart. Two men held him by the head while Miss Burroway and I got into the cart. I held the lines, and he started nicely, and we both felt so thankful. Yes, we know God has been helping us. He is even interested in getting a good horse for us.

Before we got our horse we had bro-



ONE OF OUR FREE DISPENSARIES IN INDIA

ken the shafts of the cart. We went to work and fixed them. I painted the two carts.

God is blessing me in getting the Bengali language. I am convinced that I am where he wants me to be, but I make it a practise to pray before beginning my study. I have a teacher who knows no English. It is a little difficult at first, but I get the proper pronunciation.

Last night I had a rather inconvenient experience while out with our two ponies. We had to cross a little lake, and at first

one of them would not go through the water. Just as he got in he fell. Our man who goes with us can not hear or speak. So I got out into the water and unharnessed both horses. We succeeded in getting through, but it is needless to say I was wet, and covered with dirt.

To-day we are going on a large cart to see an old Mohammedan woman, whom we have treated seven times for lumbago. The people had burned her back with a hot iron to cure it. As we arrived there the first time, the room was filled with natives. I suppose nearly the whole village was present while we treated the woman. How thankful these people are! I only wish I could impress upon them that it is not I who helps them, but God, through me. I can see how he gives his healing power, as I am called

many times to severe cases, and without a doctor.

Only the other day a man came who had fallen and cut his leg almost half-way through. We had to put him under chloroform. And as he was a very strong man, and we did not have enough chloroform, I tied him on the table, and two men and three girls held him. He had had enough of the anesthetic so he did not realize pain. I had to put in about twenty stitches. The man is getting along well, and the wound is healing. In this place I must do, many times, what a doctor has to do, as there is no one else to do it. I leave the results with Him who is able to heal, and who says, "Be not afraid, neither be thou dismayed: for the Lord thy God is with thee whithersoever thou goest."

A MEDICAL MISSIONARY'S EXPERIENCE IN CHINA

Law Keem, M. D.

THE medical work has shown more increase this year here in Fat Shan, China, than ever before. We have treated more, and a better class of patients, than during any previous year.

It is hard to persuade a Chinese to take water treatment. But after a few have been induced to try it, and are cured, they act as advertisements, bringing more patients to us.

We have at times some very curious experiences. Last summer we had an old lady under treatment for whom we prescribed a neutral bath. She wanted to know if she would dare sit in water so long, if too much of the water would not soak through into her body, also how it got in to cure her, if it entered her stomach, heart, or what. She was afraid it would never come out again, and after a while might do her harm. They know

almost nothing about how they are constructed, and have queer ideas about their bodies.

One time a neighbor woman became very angry at her son, and tried to kill herself by beating her chest with her fists. The neighbors finally held her hands, as they thought she would really do it. She turned black in the face, and one woman raised her up to a sitting position, and held her nose tightly, to keep the air, or life, as she thought, from leaving the woman's body.

Mrs. Keem told them not to do that, as it would keep the air out of her body, and do the very thing they wanted to prevent. They stopped, and let the woman down again. After a little, she was revived enough to take a drink, and finally got over it. The woman learned better than to try such a method again.

Not long since a man came to the

dispensary from a village, with a sore hand. It had been sore for six months. He said he had been to several doctors in Canton, who gave him salve to use, but the hand was still sore. On examination, I found a sharp point on the back of the hand. He said about six months before he brushed some needles off the table, and felt a sharp pain for an instant at the time. I told him one of those small needles was still in his hand. I then proceeded to get it out, and to his astonishment, pulled out a whole needle.

This gave almost immediate relief, and he had no further trouble. He carefully wrapped up the needle, and took it home to show his folks what a wonderful man I was, as he said.

During office hours, one of the workers gives a Bible talk to the patients while waiting their turn for treatment, and sometimes sells several papers. Thus some are able to hear the truth who likely would never hear it in any other way. The Lord knows the results. We must "sow beside all waters."

ARGENTINA, SOUTH AMERICA

G. B. Replogle, M. D.

THE business of the sanitarium is ever increasing. One month the receipts were over four thousand dollars. We average from thirty to thirty-five patients. The outside calls and daily office work for non-resident patients is considerable. The sanitarium idea is fastening itself upon the hearts of the people.

A few days ago a gentleman brought two patients who were needing our services, but who were too poor to pay. He told us to do what we could for them, and he would pay for it, saying that he was doing it for the interest of humanity. We assured him that we were glad to

co-operate with him in such work. We interested him in our Spanish paper, *Life and Health*, and took his subscription for a year.

Our patients take kindly to the bathroom treatments, and we can say quite as much for the diet. We have had patients stay with us as long as four months. The term of average residence at the sanitarium is increasing. This gives them more time to observe the benefits of health reform.

While we still lack much in facilities for work, yet, with God's blessing upon what we have and what we do, there is a good showing in results.



SCHOOL OF ENTRE RIOS, ARGENTINA



THE FEAR OF THE COLD

THESE are times of standardization. Every child born is dressed in standardized clothes made by the million. He has standardized blocks to play with, and goes to a school in which the curriculum is standardized. If he grows up, his habitation as well as his clothes is standardized, and so of his furniture. His flat is only one of a thousand just like it. Even his ideas are completely standardized, so that you may know his philosophy by his attire. There is not a tendency of modern life so economically necessary as this standardization, which prevails in every article manufactured, and in the very houses we live in. Our manner of life is dictated by this economic law, and must we come to our subject at last, our manner of death?

In the general standardization there is none more serious than the hot-air residence. In primitive society the fire was for culinary and sacerdotal uses only. The fireplace, the hearth, was sacred because of the latter use of the fire. From such a beginning the modern steam plant has gradually developed. The house has become a perpetual hot-air bath. The windows are fastened down and often doubled. The heat, by means of automatic apparatus, is kept at 80° F. in kitchen, living-rooms, and sleeping-rooms, day and night. In such rooms the women and children live and die. They are not out-of-doors two hours a day. They dress as for summer all the year round. There are no adequate means of ventilation in the modern house, much less in the modern flat.

Women and children have colds, catarrh, indigestion, and nervous troubles the year round. The children kick off the clothes and cry at night, and are fretful and unhappy by day. Many other serious physical troubles follow the heated residence. The factory, store, and office are equally hot. The men are not far behind the women in adopting the hot house plan.

When at last one of the residents of such a house has consumption, he is put out into a tent, in the cold, to get well. Once in a while a woman who has completely collapsed and is a nervous wreck is similarly treated, and gets strong again. She goes home to the hermetically sealed flat, to a sure relapse. It has gone so far now that most physicians urge the open house for consumptives, pneumonia patients, and babies. They recognize that constant cold, fresh air saves these folks. Even the rheumatic is called by some doctors the minister of cold air and cold water. It is not air alone that cures, but cold and air.

The architects recognize that fashion rules in buildings as well as in dress. The flat or apartment is now in demand. In a way it is an economic necessity. It is cheaper to have six families on one twenty-five-foot lot than one. One engineer, electrician, and janitor will do better by those six families in flats than any one of them could afford in a house. The standard of life has been raised without any increase in expense. But that which costs nothing in the house, cold, fresh air, is unobtainable in the flat. The circulation of hot dead air begins on

the first of October and continues until the first of June, from the basement to the top flat. The hot air furnished in the first floor oozes through walls and floors and comes out of every crack, from base-board to ceiling, gradually creeping up to the roof. The halls are hot chambers of communication for all the smells which distinguish our international city population. Thousands of tenants vie with each other in bidding up the rent on these palaces of cliff-dwellings, and find an exquisite comfort in the winter's hot-air bath, which spells inevitable invalidism.

The public conscience generally is aroused to the necessity of furnishing potable water in abundance. Even the condition of milk and food is subject to special legislation and special police investigation. But air, so much more necessary, so much cheaper and freer, is despised and neglected. The children, when there are any, are not allowed to breathe cold air. They all have adenoids.

Every sleeping-room should be a loggia, with a dressing-room attached. The loggia should be protected from observation from without, and from any danger that children would fall over its balustrades. There the flat-dwellers could put their babies for the afternoon nap, and at night, at least, the whole family could breathe fresh, cold air.

It is remarkable that so sanitary a condition as cold sleeping-rooms has not come into fashion. Doctors generally recognize the desirability of cold, fresh air for sleeping-rooms. It would save coal, and increase the sale of blankets. The probability is that people who are all day in hot, dry, dehydrated air are actually uncomfortable in cold, relatively humid air at night. The mucous membranes of the respiratory tract, the air vesicles, the muscles of respiration, and perhaps the blood corpuscles themselves, are not adapted to sleeping in the cold.

But should they keep up the experiment a week, they could never return to the stuffy, parched air of the steam-heated sleeping-box. The coal consumed in raising the air from 65° F. to 75° F. is more than twenty-five per cent for each of the last five degrees. The hydration falls from the normal comfortable and healthy condition of about sixty per cent to less than thirty per cent, which exceeds the dehydration of the desert simoom. The modern dislike of babies, and even of wives, is not due wholly to their expense, and the difficulty which men have of earning a living. It is not wholly an economic necessity to do without children and wives, but it is a result of trying to raise children in hot houses and live in them with a wife. The women and children become so irritable and miserable, so sick, in fact, that they give adequate reason for the present conditions. The dehydrated air at 75° F. or higher is not subjectively as warm as a room warmed to 65° F. with the hydration at sixty per cent of saturation. The flat-dwellers want more heat and not less.—*Bayard Holmes, M. D., in the Medical Fortnightly.*

✧

The Influence of Coffee

THE recent receipt of a very interesting reprint from the *Chicago Medical Times*, entitled "Coffee—A Drug," by Dr. R. M. Sterrett, has suggested to us the following:—

The fact that coffee is at once a habit-forming drug, and one of the leading staples among the foods of the country, is worthy of a few passing thoughts. If the medical profession would enlighten the laity regarding the dangers of coffee drinking, it would be to their own lasting benefit, for would they not be much more successful in their efforts to cure the hundred and one various ills about which they are daily consulted?

Take, as an example, a very common condition, dyspepsia. No form of therapeutics, whether physical or pharmacal, can ever succeed in securing the desired end-result when the patient persists in continuing the pernicious practises which either directly or indirectly are the cause of the disturbance.

The common habit of coffee drinking at meals is a factor of far greater importance than we have yet realized in the prevention of the successful treatment of many forms of disease; and until this fact is stated in no unmistakable terms both in our medical schools, and in our consultation-rooms, medicine will continue to carry a millstone about her neck.

Not only should coffee be interdicted to those who have to consult a physician, but, wherever possible, its use should be decried in those who are well; for, unquestionably, it leads to many complex disturbances of digestion, metabolism, and elimination. The emunctories have their full quota of work in disposing of the normal wastes of the body, without being overburdened by the addition of other poisons. It should be remembered that, chemically considered, caffeine is not merely an alkaloid with a strychnin-like action, but that it is tri-methyl-xanthin, and its xanthin-like effects are far from salutary.

The use of certain widely advertised "soft drinks" should be mentioned here. A glass of these proprietary drinks contains practically the same amount of caffeine as a cup of coffee, and the manufacturers are making much of this fact. The cola drinker is as badly off as the coffee drinker—he "has to have" his drink. And yet many members of the medical profession not only make use of such drinks, and drink coffee, but condone with their use by their patients, and then wonder why their treatment is not more effective.

We were absolutely appalled when we

stopped to figure out that, granting that coffee contains a minimum of only one per cent of caffeine, nearly two ounces of pure caffeine are consumed each year by every one of the ninety million inhabitants of this great land. Here is something to weigh carefully. No wonder Post says, "There's a reason."

The introduction of many of the so-called "coffee substitutes," notably Postum Cereal and other similar mixtures, has done much to diminish the tremendous consumption of coffee. Now comes Merck, with Dekafa, a coffee from which the caffeine has been extracted. We have heard of no bad effects from the use of either of these, but we do know that, in spite of the aroma and the flavor, neither Dekafa nor Postum will give the confirmed coffee drinker the indescribable something for which his system has been taught to crave.—*American Journal of Physiologic Therapeutics.*



Beastly

WE are constantly using the word beastly in connection with all sorts of evil conduct, but how utterly inappropriate and slanderous it is we can appreciate from a few examples. The man who gets drunk and flounders in the gutter is called a "beast." Now, who ever heard of an animal, from an ameba to monkey, poisoning himself purposely, wallowing in the mire, and saying and doing things generally for which he is afterward ashamed? Only man, through his social helpfulness, has been able to get ahead of nature, as it were, and commit such breaches of her laws. Neither have the lower animals ever stooped to intemperance in the matter of eating. They eat to fulfil nature's purposes—to supply the needs of the body. They do not eat for the mere pleasure of eating. What animal ever thought of poking his paw down his

throat in order to bring about the ejection of his stomach contents, that he might, like the noble Roman, proceed to fill himself again? He has not learned enough for that sort of thing — in other words, he has not become so manly or man-like.

What animal — whether of sea, land, or air — was ever caught in the so-called "bestly" act of chewing tobacco, and the beastlier habit of evacuating the microbic contents of his buccal cavity upon the paths his fellows follow? Even the domestic animals which have fallen low enough from nature's stern morality, through the sheltering help of man, have never been caught in such acts. In no jungle of darkest Africa is it necessary for the king of beasts to post the notice, "No spitting permitted." There is no spitting.

The word bestly is often applied to those who are lacking in outer cleanliness. Save for the animals who have become degraded through association with man, there never was a worse misnomer than to call an uncleanly man bestly, for, though the beasts have not the best means of getting rid of dirt, and their furry or feathery coverings are far more difficult to keep in order than the clothes of man, they are embodiments of purity beside a large proportion of the human race. What is said of outer purity is even more true of inner cleanliness. Beasts are not characterized by fetid breath or by pimples and boils, which tell of undue internal foulness.

When it comes to sexual matters, the absurd, nay, the libelous, use of the

word bestly becomes even more pronounced. It is wholly unnecessary to comment on the subject, and it is sufficient to note that all the lower animals are pure, and that their sexual relations are for the purposes of procreation. If the animal world had a literature, there would be no obscenity. They would not tolerate such classic authors as Sterne and Swift.

In the battle for existence no animals treat their fellows as mankind has done. True, a carnivorous beast will kill another to supply its needed food, but it never kills wholesale for its own advancement, nor takes from the weaker what it can only hoard and never use.

In the matter of amusements we may well learn from the beasts in many ways. Last summer we had the pleasure of watching a grizzly bear in one of our zoos. Up to the shoulders in a tank of water as he stood on his hind legs, he kept batting an empty beer keg beneath the water only to see it bob up again and again. He kept up this kind of solitaire as long as we were watching him, and we were told that it was a favorite pastime with him. We could not but mark the health-giving exercise and genuine sport which this animal was extracting by the hour, day, and week, from this cast-off container, the contents of which a misnamed "bestly" man had used to befuddle his brain, overwork his kidneys, and make a fool of himself generally. Truly this bear is a model for us in contentment with, and in making the most of, common things.— *The Diabetic and Hygienic Gazette, June, 1910.*



Abstracts



In this department, articles written for the profession, which contain matter of interest to LIFE AND HEALTH readers, are given in abbreviated form. Sometimes the words of the author are given, but more often the passage is abbreviated, or else paraphrased in popular language. Technical matters and portions of articles having no popular interest are omitted. Give the authors credit for whatever is good, and blame "us" for the rest.

THE FARM THE NEXT POINT OF ATTACK IN SANITARY PROGRESS



CAREFUL student of sanitary progress is impressed with the marked contrast between sanitary conditions in the country and in the city, where, in recent years, great progress has been made in the organization of effective health departments, in the supervision of water and milk supplies, in the work of visiting nurses and tuberculosis dispensaries, in the medical inspection of schools, and in the control of contagious diseases. While much remains to be done in the city, the foundation has been laid.

But in the country, so far as we know, they are without efficient organization, and depend on methods and beliefs of thirty years ago. In only a few States is there adequate supervision of rural communities. Only a few States require the report of even the most dangerous of contagious diseases, and in most cases such activity is confined to the control of smallpox, diphtheria, and scarlet fever, with occasional attention to a flagrant nuisance. The vast contributions of modern science to the prevention of disease are for the most part lost upon the people of the country for the lack of organization and education.

The reasons for this contrast between the country and the city are mostly obvious.

First, there is the individualistic idea

of life which is prevalent in the country, where so-called personal liberty is seldom invaded.

Second, the isolation of country places makes it almost impossible to educate country people to the necessity of health measures. Such measures are more obviously necessary in the city because of the crowded condition.

But the country, no less than the city, needs health education. Even more than the city it stands in need of fundamental health precautions, not only for the sake of the health of the country dwellers, but because of its effect upon the city dwellers. The health of the city depends in large measure upon the health of the country. Food products practically all come from the country. A single case of typhoid fever in a dairy may infect a whole city. The prevention of smallpox in the cities is largely dependent upon its prevention in the country. Most city cases of the disease are imported from the country or small towns.

Again, there is need of rural sanitation because of the large number of city people who go to the country for vacation. In Virginia, the country boarding-house is one of the greatest sources of typhoid fever. Many of the cases that occur in our cities after vacation are traced to bad sanitation in country resorts. If the health of the cities is to

be further improved, the health of the country must be bettered. If the nation is ever to stamp out infectious disease, it must do it by attacking it both in the city and in the country.

In addition to the crying need for better sanitation, the country offers the sanitarian unparalleled opportunities for investigation of the methods of transmitting diseases, such as typhoid fever, smallpox, diphtheria, and scarlet fever. Again the country offers special advantages in the prevention of the spread of disease, because of the separation of the individual cases, and the slowness and freedom from complication of intercourse. With trained men in the country, prevention should become as effective as a well-oiled machine.

Typhoid fever is, and probably will remain, the greatest problem in rural hygiene. If we must study rural hygiene for its own importance, and if we must, for the present, limit our study to those diseases which are most disastrous, we must begin our study on the farm. While the small towns offer problems of their own, the main danger is from the farms, and the farm is the unit in both the spread and in the prevention of infection. Each farm is a separate community, with its own population, its own problems of sanitation, and its own forces in good and evil. Our work for the improvement of rural conditions must be done for the individual farm.

Studies of sanitary conditions on farms, such as those by Dr. Stiles, show facts that are almost unbelievable in the light of our knowledge regarding soil pollution. These studies have been confirmed by our work in — [naming State]. We have inspected thousands of farms, and it is the exception rather than the rule, that we find even the most primitive sanitary arrangements in use by the people. The privy, if existing at

all, is old, in bad repair, and of antiquated design, and its use confined almost exclusively to the female members of the family. The contents are open to chickens, hogs, dogs, and flies.

Wells are carelessly dug, carelessly protected, and carelessly kept. Tops almost always have wide cracks through which filth is washed at all times into the well. The personal habits are usually in keeping with the other sanitary conditions. Of course there are in every community those of enough intelligence to rise above these conditions, but in regions where the economic standards are low, these exceptions are few.

The crying needs on the farms are better privies, safer water supplies, and improved personal habits, such as washing before eating. — *Allen W. Freeman, M. D., Associate State Commissioner of Health, in Journal of the American Medical Association, Aug. 27, 1910. Paper read before the section on public hygiene, American Medical Association.*

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Dry Air and Health

SO-CALLED children's diseases attack the weak. Treat any adult as you treat a child, and he will have children's diseases. We contract diseases when the vitality is low, and impure air is the main cause of this low vitality. The man who works in a temperature of seventy degrees is committing no less crime against his own nature than the man who takes whisky; for he saps his own strength; and any microbe that goes after him gets him.

We have improved our systems of heating and ventilation until we are afraid of the air. The child is born in a room from which the air is excluded. As a rule, he never gets any fresh air until he rushes out at the smell of it, and is spanked back for fear he will get pneumonia.

Some mothers have found that the babe will become strong if placed on the porch to sleep, but they will not let their two-year-old sleep out there, for fear he will kick off the clothes. He is boxed up and coddled until he is weak and nervous; then he is packed off to school, where the air is worse than in the home.

The rules of the Board of Education call for a temperature of 68° F. The teacher who has taught two years in a room at that temperature, 68°, feels chilly, says the thermometer is false, makes a lot of trouble, and the engineer raises the temperature to 70° for her. Next year she is chilly at 70°; so the temperature gradually goes to 72°, 75°, and 80°. There are many women teaching regularly at 80°, and making a furious complaint if the temperature falls below that figure.

Why are some of us chilly at 70°?—First, because of the rapid evaporation in the dry air. Second, because of the increased radiation of heat in dry air. Moisture is required in the air to prevent these chills. When we attempt to live in dry air, we require an additional 10° or more of temperature to be comfortable. The well person should not have the temperature at more than 60°, but should have a humidity of over fifty per cent. My experience shows that the lower the natural temperature, provided one is not feeble, the better for mind, body, and soul.

In my school we have open-air rooms the year round. We have found that the steam jet makes a room natural and comfortable at 10° less temperature. In moist air at a temperature of 62° to 64° we are clear-headed and feel well. When this new system was introduced, it cut down the number of cases of office discipline eighty per cent. There is less stupidity and strife and the like when the air

is right, and moist air saves one-fifth of the coal bill, as well as adding to the vitality and efficiency. We must get this new system into our schools, our homes, our offices, and churches.—*W. E. Watt, Principal Graham School, Chicago, in American Journal Public Hygiene, June, 1910.*



Cow's Milk Not a Substitute

WE are all familiar with the gross difference between woman's milk and cow's milk, and the proportion of fats, carbohydrates, proteids, and salts in each; but these averages have a very limited value in individual cases, especially in the fat content. We also know that the relation of the different proteids to each other differs. In woman's milk, the albumen and casein are nearly equal. In cow's milk, the proportion is as one to six.

We have been much concerned in the past about the proteids, recently about the fats, now about the sugars, and later we shall be concerned about the salts. But away beyond these things, we are glimpsing subtler facts, a consideration of which makes us fear that our present efforts at adapting foreign milks to the infant digestion and assimilation are gross and clumsy.

We see that the fats vary in their content of volatile and unsaturated acids; that the proteids differ in something more than is determined by our coarse chemical methods; that there is some peculiar adaptation of the proteid foods for the digestion of each species; that there are in the salts peculiar properties fitting them for the various metabolic changes of the body; that the milk contains ferments having a germicidal value and aiding in digestion and assimilation.—*Meara, Archives of Pediatrics, June, 1910.*

Some Books

The Price of the Prairies, by Margaret Hill McCarter, A. C. McClurg & Co., Chicago. Fiction.

Christianity and Social Questions, by R. W. Cunningham, Chas. Scribner's Sons, New York; cloth, 230 pages, 75 cents.

This is an attempt to set forth from a Christian standpoint the relative importance of the various forces which make for human welfare or militate against it.

Health Lessons, Books 1 and 2, by Alvin Davison, American Book Co., New York.

A school text-book on physiology and hygiene, to fill modern requirements, should possess the following characteristics:—

1. It should be written in language comprehended by the people.
2. It should be well illustrated with illustrations that teach.
3. It should be so written as to awaken and maintain an interest from start to finish.
4. It should give a minimum of technical anatomy and physiology, with a maximum of hygiene.
5. It should in simple language give the results of the latest knowledge regarding the prevention of disease.
6. It should not be written on the percentage basis, that is, a certain percentage of matter written to teach a certain propaganda.

Professor Davison has seemed to meet all these characteristics admirably in his books.

Children completing these two books, or even

the first one, will have an excellent knowledge of the care of the body and the prevention of disease.

Courtship Under Contract: The Science of Selection: A Tale of Woman's Emancipation, by James Henry Lovell Eager; \$1.20 net; price by mail, \$1.30; The Health Culture Co., 1133 Broadway, New York.

"A novel with a purpose higher than that of any other ever published, not excepting even 'Uncle Tom's Cabin,' as it aims to secure more of happiness in marriage and the overcoming of the divorce evil."

This may be true, but we can not agree with the statement of the author that "it never becomes tiresome," for it became tiresome to us from the first page, because of the everlasting descriptions of minor irrelevant details, such as the inventory of the articles of Ralph Guy's breakfast. It is a relief if a few things are left for the imagination of the reader. The artist painter knows how to throw much of the unimportant details out of focus or in the background, thereby making more important features stand out. The story-writer, if he is an artist, will do the same. This book may possibly enforce a good moral, but it lacks art. In other words, it would be improved by means of a blue pencil.

However, we can not agree with the teachings of this book; any one intelligent enough to be benefited by a preliminary contract would probably make a good selection without it. Those most in need of such a trial would least benefit by it. After all, fiction is not to our minds an ideal way of enforcing truths.



Courtesy of George E. Cornforth

Upholstered by Santa Claus. No dust—no germs



Announcement of Articles on Hygiene and Kindred Subjects Which Appear in the Current (January) Issue of the Magazines

The Designer, New York.

"Helps Along the Way."

Country Life in America, New York.

"Cutting Loose From the City," No. III.

Harper's Bazar, New York.

"Clothing Children," Laura I. Baldt.

"Children's Luncheons," Mary H. North-
end.

"The Christmas Dinner," Rosamond
Lampman.

**The Woman's Home Companion, New
York.**

"Marriage: Its Success or Failure," Mar-
garet E. Sangster.

"Good Health Resolutions," Jean Will-
iams, M. D.

"Making the Baby's Layette," Helen Mar-
vin.

**Good Housekeeping Magazine, Springfield,
Mass.**

"The Day Nursery Problem," Mary
Bronson Hartt.

"The Training Table." Prof. John R.
Murlin, of Cornell University Medical Col-
lege, under this title, discusses the food
requirements for moderate work.

**The Garden Magazine — Farming, Garden
City, L. I.**

"A Thousand Dollars an Acre From
Celery."

"Problem of Growing Pineapples for
Market."

"Labor-Saving Kitchen Utensils."

Hampton's Magazine, New York.

"Dr. Cook's Confession." Dr. Cook ex-
plains how the arctic conditions affected his
brain, and caused him to write his story,
which deceived millions.

Cooking Club Magazine, Goshen, Ind.

"Constipated Homes—A Physic
Needed."

"Plain Cookery for Plain Cooks."

"Economy in Quality of Foods."

"Wholesome Dishes for the Month."

The National Food Magazine, Chicago, Ill.

"Exposures of Food Frauds at the Mad-
ison Square Garden Exposition."

"Convention of the Association of State
and National Food and Dairy Departments
at New Orleans."

"Pure Food Conditions in Germany,"
Rutledge Rutherford.

The Delineator, New York.

"Mr. Edison Says" that it is beyond his
understanding why the American housewife
has stood so long for household drudgery.
Electricity will sweep and dust, wash and
dry dishes, launder, iron, and cook. By
Allen L. Benson.

"Why Some of Us Are Homely," Louise
Scudday. (Illustrations from photographs.)
A well-known New York physician read
this article and pronounced it valuable and
instructive.

The Mothers' Magazine, Elgin, Ill.

"Bow-legs in Children, and a Method of
Home Cure," Caroline A. Watt, M. D.

"Colors: Their Effect Upon Disposition
and Health," Fred Brown.

"The Appeal of the Objective Mother:
The Child Discovers Itself Through En-
vironment, the Medium Being Its Nervous
System," Jane Ellis Joy.

"The Trouble with James Careless, or
the Effect of Order and Beauty in the
Home on the Feelings and Actions of Peo-
ple," Phil Hoe.





A New Method of Serving Opium.—The proprietor of a Chinese restaurant in Chicago has been recently discovered furnishing sandwiches containing opium, for the accommodation of "fiends" who are unable to obtain it in other forms.

Kissing the Baby and Divorce.—A California woman recently obtained a divorce from her husband on the ground that he insisted on coming into her aseptic nursery and kissing her germless baby on the lips. He should have been steam-sterilized before indulging in such a dangerous practise.

Is Fish Cancer Communicable?—A number of dogs which were kept at the Bureau of Fisheries and accustomed to a fish diet, have been sent to the hatcheries in the State of Maine, to be fed on cancerous fish, in order to determine whether fish cancer can be communicated to other animals through the medium of food.

Tarred Roads Injurious to Eyes.—A paper was recently read by an eye specialist on the effect of dust from tarred roads. Tarring the roads, this man says, diminishes the dust raised by the passage of automobiles, but dust raised on such roads is exceedingly harmful to the eyes, causing inflammation and ulcers, which in some cases are permanent.

Health Caravans in England.—During the past season the Women's Imperial Health Association of Great Britain has sent through certain parts of England so-called health caravans. In connection with these there were lectures, demonstrations, and moving pictures, on various topics of hygiene. The work of the caravans has been so successful that others are to be sent out.

Cholera Prevention in Italy.—It is reported that after the publication of an ordinance prohibiting the eating of figs, on account of a rumor that there was cholera in a certain town, a mob of two thousand attacked and wrecked a local sanitary office, and beat the employees. Sanitary experts, whether in the prevention of yellow fever, typhoid, cholera, or smallpox, always have to calculate on the determined opposition of the masses who do not believe in the prevention of disease.

Outdoor School in Washington.—The school authorities in Washington, D. C., have established an outdoor, or rather an open-air room, which the teacher says will be kept wide open all the winter, and the teacher is enthusiastic. The little fellows, who are wrapped in blankets up to the shoulders, besides having heavy underwear, are happy, especially as they are supplied with hot food and drink.

High Death-Rates in 1909.—Of American cities having a population of over one hundred thousand inhabitants, the highest death-rates reported are: New Orleans, La., 20.2 per thousand; Fall River, Mass., 19.1; Washington, D. C., 19. This is not a creditable distinction for any city. It should be noted, however, that in the Southern cities the colored population materially increases the mortality rates.

Film Censorship in Baltimore.—A movement was recently inaugurated in Baltimore looking to the supervision and censorship of the moving-picture films shown in that city. The meeting was attended by representative members of the Moral Education Board, the Mothers' Club, Women's Christian Temperance Union, and other important societies. One of the moving-picture men present promised that one morning each week, between the hours of ten and one, he would show in his parlor only such films as had been passed upon by the subcommittee appointed by the general committee.

Osteopaths Can Not Sign Death Certificates.—Local boards of health in New York can not recognize death certificates issued by osteopaths until the coroner has made an investigation, according to the decision of Judge Putnam, who said in rendering his decision: "While the city has wisely allowed the practise of osteopathy, it does not feel that it thereby holds one without any practise in medicine or surgery, or experience in prescribing drugs, to certify the cause of death. . . . The sanitary code is discriminating, but the discrimination is not personal or arbitrary. It is based on the limitation which the osteopath may be said to make for himself, and deprives him of no right he ought to exercise consistent with the public safety."

An Antialcohol Issue.—The *Survey* of October 1 contains a number of articles of more than ordinary value on the social aspects of alcoholism, by writers who constantly have to deal with the problem of alcoholism in a large way. The subject is treated from the standpoint of physiology, heredity, sociology, and criminology. As Homer Folkes says: "No one fact, other than the hard fact of poverty itself, confronts social workers, in whatever field they may be engaged, so constantly as alcoholism."

Alleys Are Dry.—Health Officer Woodward says that in the 265 alleys of Washington city, there is not a single bath-tub. He suggests a public bathing-place for the inhabitants of these alleys. This is good enough as far as it goes, but these alley people need something more than bathing-places; for, if we remember rightly, there were some of the new model tenement-houses which were furnished with bath-tubs in order to raise the standard of living, and the inhabitants, on investigation, were found to be using the bath-tubs for coal-bins.

Substitutes for the Public Drinking-Cup.—Laws are going into effect everywhere forbidding the use of public drinking-cups, and in consequence these cups are disappearing; but adequate substitutes have not in all cases been provided. The best substitute, where it can be provided, is the bubbling fountain; and in some cases these have been established. In a few places, paper cups have been provided. In some places, in order to comply with the law, the water-cooler is removed altogether. In many instances, the removal of the cup has established what is even a filthier practise than the old one of drinking from the public cup, that is, sucking the water from the faucet. Evidently the laws for the abolition of the public drinking-cup will need to be supplemented by some provision which will prevent such practises as this.

Continuation Schools in Bavaria.—At the National Society for the Promotion of Industrial Education, held at the Massachusetts Institute of Technology, Dr. Georg Kerschensteiner, superintendent of schools of Munich, Bavaria, gave an address on Bavarian continuation schools. Dr. Kerschensteiner has acquired international prominence, owing to his reorganization of the public-school systems of Munich, Bavaria, to meet the demands of modern social and industrial conditions. As the result of his efforts, fifty-two industrial continuation schools have been organized, at which attendance is compulsory for boys who are at work, until their eighteenth year. For either an entire day or two half days in the week employers are required by law to release the young men working for them, in order that they may attend school.

Tuberculosis Still Heads the List.—In spite of all that has been done in the war against tuberculosis, that disease still stands at the head of the list as a cause of death in this country, if we may judge from the last figures of the Census Bureau, which are taken from an area covering fifty-five per cent of our population. Within that area pulmonary tuberculosis caused one seventh of all deaths, which is practically the figure we have been familiar with from the time when there was very little being done in the prevention of tuberculosis. Preventive measures seemingly have not accomplished very much thus far.

Mortality from Respiratory Diseases.—There was a noteworthy decrease in the number of deaths from influenza, commonly called "grippe," in 1909, in the Census Bureau's death registration area, representing over fifty-five per cent of the estimated population in continental United States. Bronchitis and pneumonia, classified under respiratory diseases, but usually closely associated with influenza, showed, for bronchitis, about the same number of deaths, and for pneumonia a marked increase. Pneumonia, in the aggregate, caused more deaths than other diseases, except tuberculosis.

Athletic Sports and Health.—Dr. Dudley A. Sargent, of Cambridge, recently attempted to explain before the American Academy of Physical Education why women are superior to men as swimmers. Possibly he overlooked the fact that overtraining, which is the fault in this country, has something to do with man's general unfitness. As the *Boston Medical and Surgical Journal* says, the athlete is an artifact, a man unnaturally developed, to make an abnormal physical exertion. The reason the English succeed better in sports than do any other nation is because they train for them the least, and take them merely as pleasurable incidentals in an active outdoor life.

Boston Milk Must Be Bottled.—The Boston Milk Commission has succeeded in enforcing, after bitter opposition, an ordinance requiring all milk delivered in Boston to be bottled. This commission is now attempting to require a uniform standard for the State, so that the milk shut out from one city can not be immediately shipped into another city. They have also taken up with Harvard University the matter of conducting research work on milk for three years to determine some of the puzzling questions that always come up for discussion but can not be settled by discussion. The commission furnishes twenty-five hundred dollars a year toward the expenses of this research. The national Department of Agriculture has also begun a similar line of research.

Food and Nutrition Charts.—The Department of Agriculture has prepared a set of fifteen charts, photolithographed in six colors, showing the composition of food materials. These charts should be of value to teachers of dietetics, instructors in physiology, and teachers of nurses' training classes. They should also be useful in the public-school teaching of hygiene. The foods given include milk, eggs, meats, fish, breads and cereals, vegetables and fruits. Chart 14 gives the functions and uses of foods, and chart 15 shows the accepted dietary standard. Any one desiring this set should enclose a dollar bill to the superintendent of documents, Government Printing Office, Washington, D. C.

Oleo Frauds.—There is a complaint on the part of the officials of the Treasury Department that oleo dealers are evading the government tax on oleo, and illegally coloring their product. It is claimed that the government in this way loses annually two hundred thousand dollars which it should receive from the oleo tax. There is a tax of ten cents a pound on oleo artificially colored to resemble butter, and only one fourth of a cent a pound on uncolored oleo. Many of the large dealers buy the white oleo, it is said, because it is cheaper, and then color it themselves, thus cheating the government out of the tax for the colored product. The govern-

ment officials discovered the fraud by noting that there was a very much larger proportion of white oleo paying tax than of the colored oleo. It is now proposed to so amend the law that all oleo shall be taxed equally, and thus do away with the fraud on the part of the middleman.

The Milk Situation in the District of Columbia.—An effort to secure clean milk and milk from healthy cows in the District of Columbia, has met with very bitter opposition by the milk dealers, who have carried the matter before the Board of Commissioners and before the Chamber of Commerce. They have had the audacity to come in before experts from the Department of Agriculture, and contradict these experts regarding the effect of tuberculin and regarding the efficacy of bacterial count. The government, however, has decreed that the milk furnished in the various departments shall be from healthy cows. The milk producers have no objection to the enforcement of the tuberculin test, but they are making an appeal that they be reimbursed for the cows destroyed on account of tuberculosis. They are willing even now, it appears, that the introduction of new cows into dairy herds shall be forbidden, except on condition that such cows be tuberculin-tested as soon thereafter as possible, and the all-new dairy herds shall be tested in their entirety.

LISTERINE

To promote and maintain personal hygiene

In all matters of personal hygiene Listerine is not only the best and safest, but the most agreeable antiseptic solution that is available for the purpose.

The sterilization of the teeth may be most nearly accomplished by using Listerine as a mouth wash. The success of Listerine is based upon merit: the best advertisement of Listerine is—**Listerine.**

Listerine Tooth Powder.—An innovation, in that it contains neither fermentative nor harshly abrasive ingredients. It is not intended to supplant Listerine in the daily toilet of the teeth, but is offered as a frictionary dentifrice to be used in conjunction with this well-known and time-tried antiseptic.

Listerine Dermatic Soap.—A bland, unirritating and remarkably efficient soap designed to meet the most exacting requirements of a saponaceous detergent. It is of especial value in preventing cutaneous affections.

Listerine Talcum Powder.—An excellent absorbent and deodorant, particularly adapted for use after shaving, and indispensable in the nursery to prevent soreness and chafing.

Interesting pamphlets on dental and general hygiene may be had upon request
Lambert Pharmacal Company, St. Louis, Mo.

The Antivaccination League Declining.—The antivaccination cause in Europe is experiencing hard times. Yearly its support from the public is growing less, and there are no signs of rejuvenation. In 1907 the monthly receipts of the society were over eighty pounds; in 1908, over sixty pounds; in 1909, over forty pounds; in 1910, barely twenty pounds. The *British Medical Journal* comments: "This is a source of uneasiness to the headquarters,—a very natural state of affairs,—seeing there is less money to share among those who have made the antivaccination cause a sort of profession." But the troubles do not end there; there has been dissension among the leaders, and their leading paper has a number of times been forced to offer profuse apologies to physicians it has maligned.

Fall River's Death-Rate.—Recently the Bureau of the Census issued a statement that the death-rate of this city was the second highest in this country. The board of health of the city made a protest stating that there were 1,966 deaths in 1909, and that, on the basis of population, this would give a death-rate of 17.09, instead of 19.1 as shown by the census figures. But, on careful examination, it was shown that the figures given by the board of health were entirely too low. In other words, officials in this city found it more convenient in their reports to disregard a certain proportion of the deaths each month than to bring about a change of conditions which would lessen the number of deaths. Possibly the publicity being given to the death-rate in various States will awaken local health boards to a sense of their duties.

The Continuation School.—Cincinnati has added a very practical feature to its school system. It is impossible to get apprentices to attend night-school after working all day. The apprentice period is a critical one, and the future of the boy depends on his progress during this time. He needs to have an intellectual interest created in his work, in order that he may be ambitious to become, instead of a mere hand, the master of an honorable craft. The board of education provides the school and the teachers; the manufacturers release the boys one-half day a week, and pay them, if they attend the school, their regular wages; if they do not attend, they are docked. The school runs forty-eight weeks a year, eight hours a day. The teachers are allowed two half days to visit the boys in their shops, consult with the foremen, and gather materials for their school work. The course of study is distinctly practical and objective.

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Condemnation of Oyster-Beds.—As a result of a query by Dr. Wiley, as to whether the growing of oysters in water used for sewage disposal does not violate the principles of the pure-food law, 275 acres of oyster-beds at Bristol, R. I., were condemned as unfit for use on account of pollution by sewage. Since then a complete investigation of the waters of Narragansett Bay has been made, and on the basis of bacterial cultures they have been divided into good, doubtful, and bad. All the beds in the last class have been condemned. Beds at Providence to the value of thirty thousand dollars have also been condemned, and beds at Warren to the value of fifty thousand dollars. The *Boston Medical and Surgical Journal* comments: "This action should result in improving the quality of the oyster on the market, and in making it safer for consumption as food. Nevertheless, even though protected by antityphoid inoculation, the cautious and discreet will probably for some time be suspicious of mollusks, and beware of the raw oyster as an article of diet unless they know where he was raised."

The Little Mothers' League.—For two years in the New York schools, lectures were given to all girls over twelve on the care of the infant, but without much result. In May, 1910, there was formed a "Little Mothers' League," in which each child was given a certificate of membership on entrance and a silver badge after attending six lectures. The children elected their own officers. Lectures were given on the modification of milk, bathing, clothing the baby, sanitation of the home, and the like. The results have been gratifying. There have been twenty-two thousand members, and the interest has kept up during the summer. The advantage of teaching these children is twofold. The old mothers are ignorant, and unable often to understand English, and what they do understand, they do not find easy to adapt. On the other hand, the girls over twelve learn readily, and make excellent "little mothers" for the infant brother and sister, and when they later become mothers, the knowledge now gained will be invaluable; so educating these little mothers is doing work for two generations.

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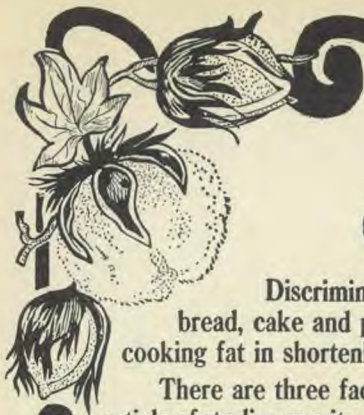
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WALLA WALLA SANITARIUM, College Place, Wash.

The Otter Lake Sanitarium

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Otter Lake Sanitarium
Otter Lake - Michigan.



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The Dining-Room



A Group of Nurses



Some of the Tents

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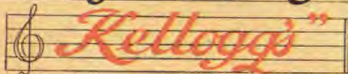
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