Life & Health

THE NATIONAL HEALTH MAGAZINE

JUNE

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Read in the July "LIFE AND HEALTH," "The Care of the Baby"--- needful food for thought these stifling hot days that are coming.

For the older and the wiser ones, there is a full-course dinner of intellectual delectables --- served without vinegar or mustard --- upon a well-garnished table. The COVER is laid for the whole "LIFE AND HEALTH" family --- and such a cover as it will be!

Watch for these dishes: "Camping Made Easy," by Herbert M. Lome; "Hot Weather Suggestions," by L. J. Otis, M. D.; Dr James's article, telling in detail of the preparation he makes for his trips into the wilds; "The Gang Instinct of the Boy, and What It Is Worth," by Dr. Musselman; "The House-Fly," by Benjamin W. Douglas, state entomologist of Indiana; and others.

Some said that they didn't think that the cover of this number of "LIFE AND HEALTH" would particularly appeal to the readers. We said it would. What do you say?

CONTENTS FOR JUNE

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SENATOR ROBERT L. OWEN

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No. 6

LIFE & HEALTH

THE NATIONAL HEALTH MAGAZINE

JUNE, 1910

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

Published Monthly GEORGE HENRY HEALD, M. D., EDITOR Washington, D. C.

The Conservation of Life and Health

Robert L. Owen, a Senator From Oklahoma

IT is impossible to exaggerate the importance of this matter. On the floor of the Senate I offered a mathematical demonstration of a daily senseless sacrifice of over one thousand seven hundred human beings who die by preventable disease and accident, and who die at this rate every day in the year, all of whose lives could be saved.

Can human words add to this proposition? Why conserve plant life and not human life? Why conserve animal life and not child life? Why conserve hogs and let children die, if we can prevent it?

AND WE CAN PREVENT IT

We have a great department, the Department of Agriculture, conserving animal life and plant life and tree life, and no department conserving human life.

The Department of Agriculture does not invade State rights, neither will a Department of Public Health invade State rights.

There are three million people seriously sick, on an average, every day in the year, whose sickness we could prevent if we had a Department of Public Health of sufficient dignity and power.

A BUREAU WON'T DO

We have a Public Health Bureau, under the Secretary of the Treasury, who is expert on finance, and is not expert on health; who is expert in wholesale groceries, but not expert on the pure-food act, and who might regard the pure-food act with aversion.

Commercialism should not dominate our national health agencies, and commercialism will dominate so long as a commercial and financial secretary is at the head of the department and a petty bureau chief looks after the national health.

R. L. Owen

For a Department of Public Health

THERE is pending before the United States Senate a bill, which to those who gage legislative measures by the dollar marks written on it, may seem of trivial importance; but this bill is destined to bulk up large in the elements of the country's prosperity. Reference is made to the Bill (S. 6049) Providing for the Establishment of a Department of Public Health, introduced February 1, by Senator Owen, of Oklahoma. March 24, the senator delivered a speech in behalf of the bill, in which he said: —

"All other bills and administrative measures, however urgent, are, in my opinion, of minor importance compared to this subject of gigantic national interest." Some day the wisdom of this utterance will be more generally understood.

What are some of the facts?

Six hundred thousand preventable deaths annually in the United States, seventeen hundred a day, or more than one a minute — caused by polluted water, impure and adulterated foods and drugs, epidemic and preventable diseases.

Three million persons seriously ill all the time from preventable causes, of whom one million are in the working period of life.

These two items alone, it is estimated, cost the nation hundreds of millions of dollars annually.

It is possible by wise administration, to forestall many deaths, to increase very materially the average length of life. It has been calculated that the average length of life in the United States can be increased fourteen years in one generation.

In Australia and New Zealand, the average number of deaths per thousand annually is about ten. In the United States, it is 16.5, a loss of more than six deaths per thousand which efficient administration may diminish.

Even scattered in separate health bureaus, the government health machinery has accomplished marvels. It has taken away the terror of yellow fever; it has cleared San Francisco of plague, after local business interests had worked with the local officers to hide the fact of plague infection, and had succeeded to the extent that the dread disease was

allowed to reach the ground-squirrels — a condition fraught with sinister consequences; and the end is not yet. Meantime, the government, by a strong hand, with the aid of the better element of San Francisco, made it a clean city, and now vigorous attack is being made on the ground-squirrels. Had there been a health department, instead of a health bureau, to cope with the difficult situation in San Francisco, it is probable that the short-sighted hiders of the plague would have been brought to time sooner, and millions of dollars have been saved to the nation.

Another important work prosecuted by the federal health bureau,— the Public Health and Marine Hospital Service, — was the investigation of typhoid conditions in Washington City. These investigations cover a period of three years, and though we are yet in the dark as to how a proportion of cases are infected, we have learned definitely that there are other important sources of infection besides the traditional water and milk. According to the *Medical Record,* no more valuable studies as to the cause of typhoid fever have ever been conducted in America.

Other investigations of incalculable value, are those regarding hookworm disease, pellagra, leprosy, and the problems relating to the diseases coming to us through immigration.

Heretofore, the Public Health and Marine Hospital Service has been a bureau under the Department of the Treasury; and the Secretary of the Treasury, as Mr. Owen says, is expert on finance, and is not expert on health; is expert on wholesale groceries, but not expert on the pure-food act, and possibly might regard the pure-food act with aversion.

Other important branches of the government's activities in behalf of the health of its citizens are conducted in bureaus working under the Department of Agriculture. There is the Bureau of Experiment Stations, which has for a number of years conducted extensive experiments regarding the nutrition of man and animals; the Bureau of Chemistry, engaged in a number of lines, among them, the investigation of foods and drugs as to their purity.

It is from information given by this bureau that the producers of many fraudulent foods and drugs are detected and brought to time. The Department of Agriculture also has charge of the administration of the laws for the prevention of the sale of diseased meat; and thereby hangs a tale, for first of all, Mr. Wilson, the Secretary of Agriculture, is a farmer, and his interests are primarily with the farmer; and it is not at all surprising that if there is a question as to whether the farmer or the consumer shall be given the benefit of the doubt, the benefit will be given to the farmer and not to the consumer.

That this is not mere guesswork, may be easily proved. After the stir raised by the publication of "The Jungle" and the subsequent investigation by commissioners sent by the President, laws none too stringent were passed by Congress with a view to the prevention of the sale of diseased meat for human consumption. The administration of this law was given over to the Department of Agriculture, with the result that such a liberal construction has been placed on the law that it seems to be practically nullified.

In construing a certain law regarding the inspection of animals slaughtered outside of the federal inspected slaughter-houses which was supposed to work unusual hardship on the farmers, circular 101, of the United States Department of Agriculture, says, "The Secretary of Agriculture, as you are reasonably aware, is a practical farmer; his

heart is with the farmer, and he will not let the farmer suffer if he can help it."

That is just the point. The health bureaus, including the oversight of meats, foods, etc., should be in charge of an individual who is, first and all the time, interested by tradition, by study, and by habit, in the health of the people, regardless of how it may affect the pockets of producers. The great trouble with us has been, that we have been so hypnotized with the value of the almighty dollar that we have let every other interest, including the health of our babies, our sons and daughters, and of ourselves take a secondary place.

It is because we know that the present system allows men openly to use rotten or unclean goods, and cover the fraud with preservatives, allows men to sell and slaughter cancerous cattle and tuberculous cattle, and sell their products for human food,— for people *will* eat meat,— allows dirty dairymen to kill by thousands our helpless babies — it is because we know that in these and other ways, human life is made secondary to dollars, that we believe that there is a crying need for a health department under the leadership of a man who has had a life training in the science of health conservation.

Such a department is coming. If not now, it is coming later, and it will mean the gradual lengthening of human life, and the elimination of preventable disease. Every voter, every person interested in the public health should make it his personal business to write his senator requesting that he favor the passage of this bill.

Some may think that such a department will interfere with State rights. But it will not. As the Department of Agriculture has operated in such a manner as to be a help without interfering in the least in the internal affairs of the State, so will the health department.

THE WHITE HOUSE, WASHINGTON, D. C.

Early Twentieth Century Civilization[1]

Henry Waldorf Francis

IN the early years of this century, and, indeed, until about the middle of it, there prevailed a disease, now extinct, which was known as tuberculosis. Two hundred fifty thousand Americans died yearly of this disease, and the annual loss to the nation was over two hundred forty million dollars. It was estimated in the year 1909 that there were then five million persons living in the United States who were doomed to die of this dread disease unless conditions were changed, and that the total annual loss in one way and another from it, figured in dollars, was about one billion one hundred million; also that one person in every seven was threatened with an untimely death by it. It was stated that every consumptive cost more in dollars and cents than it would have taken to cure him had the disease been discovered and treated in time, and more than enough money was expended in one way and another than would have been required, had it been properly directed, to cure the curable and render the incurable harmless. This disease, the worst from which mankind suffered, had always been thought to be incurable, but while advanced cases were almost hopeless, it had been discovered that in early cases *no disease was more susceptible to cure.*

The drain upon the population was tremendous; the losses in life, health, and happiness, figured in money, enormous; *yet it was admitted the disease could be conquered.* A recognized medical authority of that time — 1909 — positively declared that with twelve million dollars the disease, costing the state a loss of one hundred twenty million dollars a year, could be crushed out in New York. Why, then, was it not crushed out in this nation in a comparatively few years? Why was it permitted to increase? — Because, it seems, private charity and the sale of special society stamps by what was known as the Red Cross organization were depended upon to do the work.

Was the government poor? — No; it was the richest upon the face of the

The writer imagines himself carried forward about nine decades, and from that distant view-point he pictures himself "looking backward" on the present. It must be confessed, his description of what he sees is not flattering to what we are pleased to call "modern civilization," but can we say it is not exact truth?

To such readers as might feel inclined to question the propriety of presenting this world existing at the close of the century, we would say, "Don't be alarmed; it's only a dream." Let the dream be to you a window through which you are enabled to obtain a new perspective of some important health problems.

[1] Extracts from an address delivered Jan. 1, 1998, by Dr. Freshair Nature, Secretary of the National Department of Health of the United States.

earth, and it could have saved, by national measures, the enormous loss the country suffered, at a tithe of what that amounted to. But it did not do it! When there was a plague of locusts or potato-bugs or other things of that character which destroyed crops or threatened property, the government went to the relief without regard to cost; but it left flies and tuberculosis to private resources for such remedy as was thereby possible. The preservation of property, the protection of what was regarded as business interests, — in other words, the *dollar,* — was a well-recognized function of government, but the preservation of life as distinguished from the dollar did not concern it. For the government to make any appropriation for, or to enter upon, a war against tuberculosis or flies was considered socialistic or paternalistic, and not to be thought of — rather let millions of its people suffer and perish needlessly! It was all right to have to war with another nation to increase commerce, but it was altogether wrong to appropriate public money to save life from disease in time of peace, or any other time!

HENRY WALDORF FRANCIS

Comparing the actual annual loss with what it would have cost to crush out tuberculosis had the government undertaken the task, its failure to do so certainly appears an economic idiocy; but such was civilization in the early part of the twentieth century, when property was everything, and life nothing. Everybody knows that the original historical theory of government was that the king — or the state — was the father of the people; and what would be thought of a father who saved the cost of medicine and let his child die? The cry of "paternalism" was unhistorical, and contrary to the foundation upon which government rests.

It is somewhat difficult now, at the end of the century, to understand why a cry of socialism or paternalism should have prevented the government from warring against tuberculosis and saving the lives of its citizens, as well as *millions upon millions of dollars,* and left to the slow and uncertain process of private charity the only hope of relief. Tuberculosis would still be ravaging if we had clung to this policy. It is difficult to understand how our grandfathers and fathers took it as a matter of course, and could have been guilty of such a ruinously uneconomic policy when they thought so highly of the dollar. To say that they were "penny wise and pound foolish" is to express it with an amazing mildness. But it should be remembered that in those days other equally idiotic ideas prevailed. They taught geometry and trigonometry in the schools, for which very few of the boys

and girls would ever have any use, and neglected hygiene and the study of the divine machine called the body. All the things that they should have been taught about anatomy and their physical being it was considered immodest and prurient to mention even in a whisper. Men and women were prosecuted as criminals for daring to write openly upon such subjects. Girls and boys were allowed to go to physical and mental destruction, as well as moral, through ignorance of the holiest of functions. Secret practises were thereby fostered, impure thoughts assailed where would have been pure thoughts, disease was spread broadcast, and, of course, prostitution and what was called "white slavery" flourished. No boy or girl was given any knowledge as to how to build up a home, or the proper social relations between parent and child, or in regard to marriage and the truths of sexual life. They were "too innocent" to have such vital things as these taught them — as if knowledge was not an infinitely greater and safer protection for innocence than ignorance! In view of such conditions, it ought not to surprise you to be told that not less than four hundred fifty thousand young men were annually infected by venereal diseases, and that as there was no prohibition of the union of those thereby — or for any other physical reason — unfitted to wed, thousands upon thousands of innocent wives and children were sacrificed upon the altar of this terrible Moloch of prudery and ignorance. Everything was taught in the schools except the most important of all things: *Know thyself!* That was tabooed, and an inconceivable sarcasm of modesty was allowed to damn thousands of lives, spread venereal diseases, and add to the ravages of that terrible scourge of the past I have mentioned, tuberculosis. Of all the gross outrages upon common sense, of all the insults ever offered to God Almighty who created man in his image, none are comparable to this idiocy which prevailed in the early portion of the twentieth century. And yet the people of those days actually had the brazen effrontery to call themselves Christians and civilized! You laugh loudly, ladies and gentlemen, and I do not wonder. That civilization was a huge joke, but a joke to weep over rather than smile at.

A REVERSED VIEW-POINT HAS SOME ADVANTAGES

That Boy of Yours

By H. T. Musselman

Editor of the Youth's World

NO. 5—THE WORLD YOUR BOY LIVES IN


U. S. POST-OFFICE DEPARTMENT

SO far in these articles we have pointed out the forces at work in the background of boyhood, described the essential elements of the boy himself, briefly explained his chief interests, and discussed the sins of the boy and the sins against the boy. In all this our aim has been to get you to see that boy of yours from the point of view of his inner life — his inheritances, impulses, instincts, interests, struggles, and aspirations. In other words, we have been describing the inner world of youth. To those of us who have the genius to become a boy again at will, this world of youth is wonderfully interesting. Boys of this age have not put on the conventional customs of the world, and so have not grown dull and tiresome. Life is fresh, free, and fiery. The most real world of the boy may be the world within, which the forces of mind have built up; but when we analyze this world, we find that its contents are the result of the forces of matter playing upon the forces of the mind. It is time, therefore, to look at the boy from the view-point of his environment — the outer or concrete world in which he lives. Certainly we shall not understand the boy unless we live in our imagination with him in his own world.

What, then, are the common things which constitute the world in which the boy lives? For the average city boy they are the home, the school, the church, the city streets, places of amusement, the gang or club, and,—thanks to the new appreciation of youth and its needs,— in some towns, the playground; for the country boy they consist of the home, the school, the church, and God's great out-of-doors, with its fields, brooks, hills, trees, sunshine, and sky on the one hand, and its hunting, fishing, swimming, and other adventures on the other hand. We who are working at the boy problem — whether parents, teachers, or leaders of boys' clubs — will never solve that problem until we measure the full influence of these common things which make up his environment. Dare we to sit in judgment upon the sins of a boy until we have understood something of the forces which have led him to commit those sins? Dare we to outline a course of conduct for the boys in our class or club until we know something of the difficulties which their environment imposes upon them? An ideal which might be realized by one boy because of the healthful elements in his environment, might drive another boy to utter despair. No; we must understand the world in which the boy lives. In order

to do this we must see the boy in his home, school, church, playground, and gang, and thus come to know something of his parents, teachers, pastor, playmates, and fellow-gangsters. The greatest force for good or evil in any life is personal association. Hence, we must know something of the character of the persons already referred to, who are the principal citizens of the world in which the boy lives. Further, we must study the city streets in relation to his life. Then there are the places of amusement which he visits. Not to know the Nickelodeon where your boy goes may cause you to lose the moral grip upon his life. Last of all, we must know how much of the great out-of-doors world enters into his environment. Many of the boys in the city have practically none of this. Those in the country are blessed with it in abundance. The boy who has it is widely different from the boy who has it not. We have called your attention to the principal things which make up the world in which your boy lives, and to the importance of our knowing the influence of this total environment. We should like to go on and describe in detail each of these common things in the boy's world, and suggest ways and means of studying them in relation to boy life; but that would require a series of articles, rather than one. Recently a whole book was written on the subject of youth and the city streets, and several others could be written without exhausting that part of the boy's world. However, we wish to raise some questions on each of these common things in the boy's world, with the prayerful hope of pricking your brain centers and starting you to think about the world in which that boy of yours is living to-day.

First of all, there is the home. What kind of home is it? that is the question we must answer. No, we did not ask what kind of house he lives in. A house is not a home. Many a boy is living in a wide house, and yet has no home. A home is more than a place in which to eat and sleep and have one's washing done. Some of the loneliest boys in all the world are those who live in the wealthiest homes. All unmindful of the fact that his boy is hungering for fellowship, companionship, and good cheer, his father toils on with the thought that his supreme duty is to supply him with the abundance of this world's goods. So busy is many a father working for the material possessions of this world, that he has no time to work for the moral and manly development of his own boy. It is slowly coming to be seen that many a boy is being ruined by the luxuries of his home. Hence we can not know a boy's home by looking at the house in which he lives. We must go inside and see the manner of persons with whom he is living, and the spirit which pervades these persons.

Is it a home of respectable sins? Is the father little and narrow and unsympathetic? Does the mother love ease and the social pleasure of her club better than her home? Does selfishness reign? Are there petty jealousies, criticisms, nagging? Is it a place of gloom? Do the inhabitants of it respect one another's personality? These are some of the questions which must be answered by the worker with boys. Others are: Are fun and noise tolerated in the home, or is all noise tabooed? Do the heads of the home think more of their mahogany furniture and their Wilton rugs than they think of their boys' souls? Just here a pleasant memory is awakened in the mind of the writer. Years ago in his Sunday-school a hardware merchant taught a class of twenty-two boys. This wise teacher frequently had those boys in his home for social fun and frolic. It was his invariable custom to invite the pastor, and the pastor was never too busy

to give an evening to the boys. The pleasant memory recalled here is that the wife of that hardware merchant never had a nervous fit when the boys would scar a piece of furniture, or occasionally break some bric-à-brac that happened to be in the way of their strenuous movements. This can not be said of every woman nowadays.

Is the home of the boy ideal? Many boys are blessed with such a home. The ideal home of the boy, whether the house be great or small, is the home in which there is ever present love, sympathy, fellowship, fun, the spirit of play, kindness, and common sense. In such a home the boy problem is an easy problem, and it is largely solved by the parents. If all homes were ideal, there would be little work for the leader of the boys' club. As Professor Peabody says: "A good boy is the natural product of a good home, and all the efforts of philanthropy to make boys better are consciously imperfect substitutes for the natural influences of a healthy minded home." Alas! the average American home is not ideal, and is not solving the boy problem.

But the boy's world is not made up wholly of the home. There is, next and closest to it, the school. It is true that in the later years of boyhood most boys leave the school, but they are in the school long enough to make this next to the home in its influence upon their lives. In the first article in this series, we called attention to the influence of the school upon the life of the child. That influence is almost as strong in the life of the boy. Hence we who work with boys must answer the question, What kind of school does the boy attend, and what are the influences which it brings to bear upon his unfolding life? First of all, is the teacher a lover of boys? Does he understand boys and sympathize with them in the mysterious struggles through which they are passing? Does the teacher give any time to the boys outside the schoolroom? Is he working simply for the shekels, or for the sake of making manhood? What kind of schoolroom is the boy in? What are its comforts, ventilation, etc.? Is there any playground connected with the school, and plants and trees, or is the boy surrounded simply with lifeless brick and mortar or concrete? These are all questions which must be answered in the study of the world in which that boy of yours lives. We hasten to say that the task is not impossible, and that the teacher in the average school will gladly welcome your visit, and that a few hours each month will enable you to learn the principal facts in connection with the school as one of the common things in the boy's outer world.

And there is the church, which, in the lives of many boys, stands next to the home and the school. The church has a great part in the solving of the boy problem, and it looks as if a new, powerful friend of the boy has arisen in the world. It must be admitted that the church has neglected the boy, and that thousands of churches are doing the same to-day. It must also be admitted that many of the churches that have reached out to gather in some of the boys are not dealing with them in the sanest, best ways. All this means that we must ask many questions about the spirit and aim and methods of the church in its work for boys. Is the pastor of the church where the boy happens to be, a lover of boys? Does the official board of the church feel that the work with boys is worth while? and is the church willing to put some money into boy life? Has the church come to see the gang instinct, and to know the value of the church boys' club? Many churches are seeing all these things, and

are actively engaged in helping to solve the boy problem. Hence we repeat that we must come to know the church as one of the most important things which enter into the world in which many, perhaps most, of our boys live.

Besides these three largest things which make up the boy's world, there is, next, the city street for the city boy, and the out-of-door world for the country boy. In this article we shall not have space to say anything more about the out-of-door world of the country boy. For the city boy we plead that the city streets as a part of his world be studied, and be studied carefully. The fact is that we can not ignore this part of his outer world and understand him fully. We need to know how the city street cramps the life of a boy, and puts a restraint upon his nervous energy, which leads often to later outbursts of criminality. We need to know also the great amount of immoral contagion to which he is subjected almost every day of his life. The average street corner gossip is filled with obscene and demoralizing stories. Very often the only home of the gang is in some secluded street. No one can read a book like that of Jane Adams on "The Spirit of Youth and the City Streets," without resolving to know as much as possible about the influence of the street life on the boys with whom he deals.

Nor must we forget, in our survey of the concrete world in which our boy lives, his places of amusement. In the life of the city boy this is an important element. These places of amusement are penny arcades, moving-picture shows, cheap vaudeville establishments, cheap theaters, amusement parks, poolrooms, and baseball grounds. The larger theaters do not play a very important part in the boy's world. The moving pictures and the amusement parks and the cheap vaudeville shows are the principal amusement places for the average city boy. Wherever the shows and pic-

BOYS IN THE STREETS

tures are sexually suggestive, there you will find the boys in large numbers. The fact that boys' amusements are being provided by men and women who run the establishments for the sake of gain, is what makes this class of places immoral in their influence. One of the crying needs of the day is that the boy's amusements outside the home and church shall be provided under city control. As this is not now the case, it behooves every one of us who has any touch with boy life to know what kind of amusements are being provided for him by these often unscrupulous proprietors. Since the boy is fifty per cent fun, this whole problem of amusement must be studied out thoroughly. Many a time our efforts to win the boy and build him up are lost because of the powerful pull of the places of amusement which he habitually visits.

We have mentioned one other powerful element in the boy's world — the gang. We shall not discuss this in this article, as in the next issue we shall devote the whole article to the discussion of the gang instinct, and what it is worth. By that time, we hope that your brain centers will have become hot with thinking on matters pertaining to the world in which that boy of yours is living to-day.

NOTE.— The reader should bear in mind that Mr. Musselman is not describing the boy as we might wish him to be, the boy that we think ought to be, but the boy that *is*, the boy that needs to be saved.— ED.

BOYS IN THE COUNTRY

The Perfection of God's Great Out-of-Doors

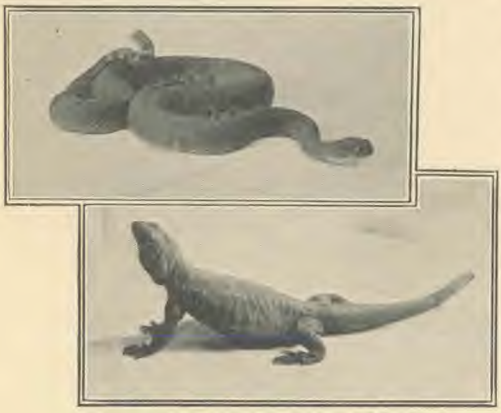
George Wharton James

HOW true it is that those who study nature — God's great out-of-doors—the most, feel its wonderful beauty the most! In some of the dry official reports of the scientists of the government are pictures of birds and fishes and animals and reptiles and plants that are exquisite in their perfection of beauty. On the shelves of my library are thirteen volumes — large, heavy quarto tomes, bound in brown leather — which look as dry and musty and fusty as old books possibly can. Yet at times when I am "shut in" and can not get out into God's great out-of-doors, I take one or more of these volumes down. They smell musty, for the binding is beginning to decay, the leaves are stained with time, and the titles are repellant ("Explorations and Surveys for the Pacific Railroad"), yet I get carried away from all worry, all care, all distress when I see the beautiful pictures, and through them, the wonderfully beautiful realities they portray. Here (in the volume I have just taken down) are several varieties of squirrels, a number of fish, and many birds. How marvelous the wings, the feathers, the claws, the eyes, the beak of each one; and the colors, even in the pictures, are glowing and gorgeous. The feathers, with their bands and markings and dots and lines and topknots and plumes, give one an endless variety, yet each one is as perfect as it can be, — eagles, hawks, Western redtails, Western red-shoulders, buzzards, owls, parrakeets, road-runners, woodpeckers, swifts, humming-birds, fly-catchers, scissor-tails, bluebirds, wrens, warblers,

THE ROAD-RUNNER OF THE WESTERN DESERTS

One of the most curious, beautiful, and interesting of birds

mocking-birds, thrushes, nut-hatches, finches, snowbirds, sparrows, swallows, blackbirds, ravens, meadow-larks, crows, orioles, jays, magpies, storks, cranes, doves, quails, herons, partridges, ibises,



GEORGE WHARTON JAMES'S PET CHUCKWALLA

The markings on the backs of snakes and other desert reptiles are beautiful in the extreme

killdeers, snipes, telltales, curlews, rails, geese, ducks, teals, blackheads, butterballs,— all these, in one part of the report, each one pictured in its gorgeous beauty, reminding one of the words that constantly accompany the descriptions of the various articles used by the priests in the tabernacle, "for glory and for beauty." These birds are all decked for glory and for beauty, and they reveal the tender, sweet beauty of God's thoughts toward us.

And I have spent days and days of many months — continuing through all the past thirty years — in studying the exquisite beauty of the skins of the reptiles of the desert that most people are afraid of and flee from. The markings on the backs of snakes and lizards of every description, on horned toads, on Gila monsters, salamanders, turtles, and tortoises are beautiful in the extreme. As I wrote some years ago in my book, "The Wonders of the Colorado Desert:" "To those who are able to put aside their fears and inherited prejudices, there is a wonderful fascination in the beauty and the grace of movement of the rattlesnake. The delicate colors and the exquisite way in which nature tints the diamonds — the softer grays and olives and browns and salmon reds — can not help but appeal to all true lovers of color harmony. And the grace of movement, the easy, noiseless, undulating elegance of motion are unsurpassed by anything save an eagle in its soaring."

Even the cacti of the desert, those giant, prickly wonders that amaze all strangers when they see them for the first time, have a delicate beauty in the

THE CANDLE CACTUS OF THE CALIFORNIA DESERTS

This cactus has so fine and delicate a spine, and in such countless numbers, that in the sunlight it appears to be covered by a soft wavy halo, more beautiful than words can describe

arrangement of their spines, which surprises you when you begin to study

them. And the color and the fragrance of their blossoms are not surpassed, and seldom equaled, by any of the flowers commonly known in our gardens.

Where we least expect it, beauty greets us; on the desert, on the mountain summit, in the depths of the most secret canyon — everywhere.

"What a marvelous arrangement — so perfect, so symmetrical, so wonderful — of the spines on these desert cacti!"

What a wonderful variety is revealed! Take a list of flowers, of birds, of fishes, of animals; each one is perfect of its kind, and yet each is so distinct from every other. This will form the subject of my next article, viz., "The Individuality of the Things of the Out-of-Doors."

Yet it is well here to observe that it is almost impossible to determine which is the *most perfect* of the things God has made. Which is the more perfect, the orange or the apple? Who can answer? It is purely a matter of personal taste. The fact is, each one is perfect. The daisy is as perfect as a rose, though individual taste may prefer one to the other. Dr. Leyden loved the daisy, so he wrote:

"Sweet daisy, flower of love! When birds are paired,
'Tis sweet to see thee, with thy bosom bared,
Smiling in virgin innocence serene,
Thy pearly crown above the vest of green;"—

while Herbert Bashford wrote about the rose: —

"Within a wood through which I came
A red rose stands — a steady flame;
It is the lamp that Beauty burns
To light the fairies through the ferns;"—

and Moir says: —

"Of all the garden flowers
The fairest is the rose."

The song of each bird is perfect of its kind, and some prefer the lark to the mocking-bird, some the song of the linnet, or the thrush, or the nightingale. Shelley writes in ecstasy over both the nightingale and the skylark, and the finest piece of descriptive prose in the English language — in my humble judgment — dealing with a bird's song, is Charles Warren Stoddard's "Apostrophe to the Skylark." Here is a bit of it: —

"I heard a voice that was as a new interpretation of nature — a voice that seemed to be played upon by summer winds; a rushing rivulet of song fed from a ceaseless fountain of melodious joy. I looked for the singer whose contagious rhapsody accorded all nature to its theme! . . . Those golden notes seemed to shower out of the sky like sunbeams. . . . Such fingering of delicate stops and ventages, such rippling passages as compassed the gamut of bird ballads, — vague and variable as a symphony of river-reeds breathed into by soft gales, — such fine-spun threads of silken song; and then a gush of wild, delirious music — why did not that bird-heart break and the warm bundle of feathers drop back to earth, while the soul that had burst from its fleshly cage lived on forever, a disembodied song!"

"And the color and fragrance of the blossoms of the desert cactus are not surpassed and seldom equaled by any of the flowers commonly known in our gardens"

To the eye that sees aright there is

no good, better, best in nature. All is good, all is best. Hence one must seek for the purpose of the variety. The wheat is as perfect as the oat for food. The corn rivals the barley and the rye. The cabbage is no more perfect than the lettuce, or the onion than the potato. In the commercial field men bring the products of nature for man's benefit, and as my friend Willet writes: "The South brings her cotton, the Middle States their corn, the West her wheat, New England her potatoes, Japan her rice, France her vines, and China her silk, and each one says, 'Lo! mine is king!' But there is no king."

THE MARGUERITE OF CALIFORNIA
"Sweet daisy, flower of love!"

"Of all the garden flowers the fairest is the rose"

In other words, each one is king,— each is as needful to the world as the other, and man can not spare any of them.

So with the objects of the landscape. To dispense with any part of what God has provided is impossible. We need all there are, and each one is perfect in its place and way. The mountain is no more important, in reality, than the brook, and the gigantic sequoia or towering pine than the lowly Gilia or violet.

Hence from this perfection of the things of God's out-of-doors I learn two important lessons: (1) That God has created me capable of perfection, and Jesus verifies this by his loud call: "Be ye therefore perfect, even as your Father which is in heaven is perfect;" and, (2) that my work and place in the world are important enough to God to have occupied his thought; hence they are for a divine, a perfect purpose, and no other man's place can be any more important than mine. "God has his plan for every man," and perfection in life means the meeting of God's plan, the doing of his plan.

Results of Physical Training

William I. Cromie, Instructor of Gymnastics, University of Pennsylvania

THE people of to-day are devoting more time to body-building exercises than ever before. During the past fifty years, much has been learned by studying the physiological science of the subject, and yet we are just entering upon the threshold of the why and wherefore of this important branch of education.

More schools and colleges are each year requiring physical training as part of the curriculum, while many churches, the Young Men's Christian Associations, clubs, societies, and institutions regard the gymnasium, athletic field, and swimming-pool as necessary accessories of man's highest development. Why is it that each year more and more interest is manifested in physical training? Why do the daily papers devote one or more pages to manly sports or games, while our magazines have interesting and instructive articles upon the subject? Why do business men, shop and factory owners, find it to their advantage to relieve those in their employ from work on Saturday afternoons? Why are the municipalities throughout the country advocating more elaborate playgrounds and swimming-pools for the children who live in our densely populated cities?

When a young man enters college, a physical and medical examination is given him, and exercise is prescribed to suit his individual condition. Measurements of his muscles are taken, and strength tests are given him, in order to note his improvement, and more readily determine the result of his physical training course. Measurements and tests are again taken at the completion of his college course.

If a student is required to take

Why the increased interest in physical training? It is an interest born of experience. Careful observation has shown that college men who take regular exercise develop strength and efficiency; that those who neglect exercise leave college physically handicapped. College and school have therefore given a marked impetus to physical training which is having an influence in all ranks. The athletic page of the daily has become popular; athletic articles in the magazines are much sought. Business houses are learning that they make a wise investment when they provide recreation time for their employees. Municipalities are finding that playgrounds and gymnasiums are better investments than reformatories or jails.

physical training, two periods a week, as is the case at the University of Pennsylvania, it will be observed that his muscles are larger and stronger, and his general health is better, at graduation than when he matriculated. On the other hand, the man who fails to take muscular exercise will eventually suffer from indigestion, nervousness, and sleeplessness, and at the end of his college course, instead of being at his best, he will be handicapped physically as he really begins the battle of life.

Since the college, school, and the Y. M. C. A. have taken up the subject of physical training, more interest has been manifested in its development. Newspapers are giving more space to competitive sports and games, because the successful contestants are to-day regarded as heroes, and the people seek this kind of news. Many employers give their employees Saturday afternoon off because more and better work is performed. When a person is allowed to witness or indulge in his favorite sport, it diverts his mind from business cares, and he returns to his work rested, and in a more cheerful condition.

Exercise increases the size and efficiency of muscles,—not only those of the framework, by which we walk and work, but those also of lungs and heart, by which we live. Exercise tends to produce the normal type; it burns up the fat man's surplus tissue, and stimulates nutrition in the lean man. The Greeks cultivated brute strength, as a preparation for war, and all weak ones were eliminated as unfit. Physical training to-day aims to develop health and general efficiency rather than mere muscular strength, and is made to benefit the weak as well as the strong.

* * *

The muscular system is divided into two groups, voluntary and involuntary. The first are those which are subject to the will, and they form the bulk of the muscular system; while the second group are those over which the will has little or no control, but which are stimulated to action by some other agency. Each muscle, or group of involuntary muscles, has its proper stimulus, and these muscles are placed within the cavities of the body, and are employed in the vital processes of digestion, respiration, assimilation, and elimination.

Large Voluntary Muscles

One of the first observed results of daily, systematic exercise is enlargement of the muscles. They not only increase in size, but their structure is at the same time changing. They lose the fat which infiltrates their fibers, and are reduced to their own proper elements. It is this change of shape, or increase in size, that delights the one who exercises. He may not know that fat is being burned, and that chemical changes are taking place, but he does know that he is becoming stronger and more symmetrical, and thus he takes more interest in his work.

As activity of the muscle increases its size, so inactivity decreases it. Nearly every one knows that the muscles of an arm carried in a sling soon wither away and become weak. Inactivity is a violation of one of nature's great laws. Refuse to use what we have, and she will take it away. Make an effort to use it again, and she will gradually restore it to its normal condition. Nature has removed the sight of the fish in Mammoth Cave, Kentucky, because, being in darkness, eyes are no longer used.

An inactive life shows a marked and progressive tendency to become more and more inactive, for the reason that prolonged muscular inactivity has brought

about a weakened condition of the muscles, and, consequently, a man gets tired before he *really begins* to exercise. It has been observed that men who go on the gymnasium floor the most are the men who are most inclined to take regular exercise. On the contrary, the man

who puts it off from time to time, or until a more convenient season, will eventually omit exercise altogether. A man who is lazy in gymnastics or athletics indicates the same state of affairs in his business,— in fact, in all walks of life. Sloth, like rust, consumes faster than labor wears. When one feels like exercising, he should yield to the entreaty of this instinct, for the desire tends to disappear if satisfaction is withheld. The healthy man's muscles desire to contract, and if restrained, will eventually become soft and flabby. Dickens sums up the lazy or inactive man in these words: "The first external revelation of the dry rot in man is the tendency to lurk and lounge, to be at the street corner without intelligent reasons, to be going anywhere when met, to be about many places rather than any, to do nothing tangible, but to have an intention of performing a number of tangible duties to-morrow or the day after."

Stronger Involuntary Muscles

Some people think that one exercises for the sole purpose of obtaining big muscles. Certainly this result follows when one goes into training for this specific purpose, but it is one of the least intelligent reasons for physical training. By exercising the voluntary muscles one thereby strengthens the involuntary, by stimulating the respiration and increasing the circulation of the blood. With every movement, such as walking, breathing, and even thinking, certain cells are destroyed, and must be replaced by others. This work is performed by the blood, which carries the worn-out cells to the lungs, skin, and kidneys, and these discharge them from the body; while the blood, ever busy, lays down new material. *Vigorous exercise* tears down weak cells, and the blood, quickened by this stimulus, replaces the dead cells by the stronger living ones. Thus one who exercises daily will soon become possessed not only

of large and strong voluntary muscles, but the involuntary will at the same time improve.

Uniformity

If one goes to a gymnasium and ob-

serves a group of men working according to the instructor's orders, he will probably be surprised that the same prescription of muscular movements can be suitable for such different temperaments. He at once asks himself the question, How can the same exercise be successfully applied to both the fat and the lean man? Let him go to the same gymnasium six months or a year later, and notice their physique. The fat man has lost weight, the symmetrical outline of his muscles is observed, and he works with more ease and grace than he did when he entered the gymnasium. The lean man has gained weight. He has a brighter countenance, and his general appearance indicates a more vigorous life.

The fat man has lost weight, and the lean man gained it, through exercise, because exercise supplies two physiological necessities. The heavy man's system is overcharged with fat, and vigorous exercise eliminates or burns it. In the thin man's system there is an urgent need of a stimulus capable of arousing the digestion and assimilation to increased activity, and this stimulating agency is found in muscular exercise. When more food is assimilated, it naturally follows that the weight of the body will increase.

Deeper Breathing and Increased Circulation

The most important result of physical training is observed in an increased respiration, and this in turn stimulates the circulation of the blood. Under the influence of this oxygenated blood the heart performs its work with increased energy, and pumps this life-giving stream to all parts of the body.

Most of our present-day literature contains reference to the physical perfection of the early Greeks. The strong man is described as one whose strength is Herculean; the symmetrical athlete is called an Apollo; while the ideal woman is classed with Hebe, Diana, or Venus. But though the physical training of the Greeks sufficed for their needs, it would not for the modern man. Their system was governed by results, as they did not know that the blood circulated. It was not until centuries after that Harvey found the blood to be a moving current, and that it gave life and nourishment to the tissues of the body. Their system did not teach them that profuse perspiration was the result of a quickened respiration, that this moisture drawn from the blood was water which kept the body cool, as vigorous exercise created more and more heat. They were not taught that the more profuse the perspiration, the greater the elimination of the poisons which accumulated in the system. They noticed that exercises that caused the body to perspire profusely were those that called for strength and agility, and as a consequence, such sports as wrestling, boxing, running, and jumping became part of their system of physical development. The one object, the ultimate aim of all physical training of the Greeks, was for great bodily strength, and this strength was for preparation for war. All the games and competitive exercises were designed to qualify the youth of the land with that physical courage, strength, and endurance that are required in battle. All who were naturally weak, or who were weak from illness or ignorance, accident, or neglect, received no physical instruction. Many of the weaklings were banished from the state. The race was to the swift, and the battle to the strong. The science of physical training to-day teaches that health is more essential than great strength; that health is improved by exercises that deepen the chest and increase the circulation; that the man who trains for health will of necessity

have sufficient strength for his daily needs.

One may be a weight lifter and have great strength of different parts of the body, and yet not have good health. Again, the weakling of to-day has an opportunity to gain and maintain health; in fact, he is considered more carefully than the strong, healthy man. Of course it is, and always will be, "the survival of the fittest."

In our universities, the strongest and most powerful are selected for the various sports and games, necessarily so, but the one who is left is not neglected. The youth of to-day must train for the battle of business of to-morrow as strenuously as did the early Spartans for war. The brain is his weapon of defense; and it must be wielded properly, or he will fall by the wayside. Modern business demands too much of one's brains and nerves, and too little of his muscles. One strives in keen competition for wealth, power, and position; he worries much of the day and too much of the night. He eats too fast, sleeps too little, and consequently nervous troubles are increasing. Physical training is not a panacea for all ills, but it will give to one that physical equilibrium (as can be seen by its results) for which all men are striving.

The street child of to-day is not infrequently father to the criminal of to-morrow. The poor child of the highway learns to lie, cheat, and steal. It has been observed that where playgrounds have been given a fair trial, juvenile crime has been very greatly decreased. It is, certainly, better for a city to build municipal gymnasiums and playgrounds than reformatories and jails. A sapling can be trained to grow straight, but who can straighten the bent trunk of a full-grown tree? The same holds true of a child, in that formation is better than reformation.

The illustrations, by Haesler, photographer, Philadelphia, which accompany this article, all represent work in the gymnasium of the University of Pennsylvania.

The Prevention of Typhoid Fever

Alfred B. Olsen, M. D., D. P. H., Superintendent Caterham Valley Sanitarium, Caterham, England

TYPHOID fever is a dirt disease, a typical example of the preventable diseases, and ought to be done away with entirely. Strict cleanliness, public and personal, is the essential weapon in the warfare against typhoid fever. Notification, quarantine, isolation, and disinfection are the most important means of insuring the necessary cleanliness.

The *bacillus typhosus* is the offending microbe, and its invasion of the alimentary canal produces the disease, that is, providing the soil is favorable, and the victim of the invasion is not able promptly to destroy the germs before they gain a foothold and begin colonization.

Drinking Water

But by far the most common means of infection is our drinking water, and most epidemics of typhoid fever are believed to be water-borne.[1]

For example, there was an epidemic in Maidstone, England, in 1897, when 1,847 cases of typhoid fever occurred in the course of a few months. This epidemic was traced to the pollution of the water-supply by a colony of hop-pickers which suffered from typhoid fever.

More recently the English town of Lincoln was attacked, and there were about nine hundred cases, the cause of which was believed to be due to the pollution of the Witham.

To insure safe drinking water it is necessary to distil or boil it before using. This applies not only to drinking water, but to all water used in the kitchen in the preparation of vegetables and other

[1] Recent experience in this country seems to indicate that much typhoid fever attributed to drinking water is due to some other, perhaps unknown, cause. Washington, D. C., taking its water from the Potomac, which drains contaminated districts, was supposed to owe its high typhoid mortality to this water. It was hoped that filtration would materially reduce the typhoid incidence; but with a modern filtering plant, removing nearly all the bacteria, there is not a marked decrease in typhoid in the District. Dr. W. H. Welch, at the last meeting of the American Medical Association, said: "The experience in Washington is probably not exceptional, and it indicates the need of more careful and detailed study of the conditions determining the occurrence of typhoid in American cities than has hitherto been customary. We should not make the drinking water responsible for the disease without conclusive evidence." It is true that in some cities the disease has been proved to be due very largely to the water; and one should always be careful as to the source of his drinking water, but should not fail to remember the other possible means of communicating the disease.

Dr. Henry B. Hemenway said at the same meeting: "The greatest obstacle to progress in the control of typhoid has been the early recognition that sometimes typhoid was spread by water. It is familiarly called a water-borne disease. It has been impressed on me very emphatically of late that milk is far more liable to give the disease than is water."

An investigating board, after three-years' work, has reported regarding the situation in Washington as follows: "We are convinced a vigorous campaign against typhoid fever as a contagious disease, and the adoption of measures that would prevent the spread of infection in milk, would eliminate the greater part of typhoid fever from the District of Columbia." This is probably not the last word on the subject, any more than was the opinion that the installation of a filtration plant would stamp out typhoid fever in the District.— EDITOR.

food, and the cleaning of the dishes. It is a wise procedure to boil your water before taking it, unless you are positively assured that it is free from contamination.

Milk

There is no evidence that cattle suffer from typhoid fever, and, consequently, if milk becomes the carrier of typhoid fever, it is due to a local case of typhoid fever among the dairy hands, or to contact with typhoid-contaminated water. For fifty years or more milk has been recognized as a disseminator of typhoid fever. The milk may become infected with the germs through washing the cans or other milk vessels, or through diluting the milk with contaminated water. Flies, too, may infect the milk. Furthermore, more direct contact with the source of infection is possible through gross carelessness in failing to wash the hands properly, or through other means.

To prevent the transmission of typhoid by milk, boil it before using.

Oysters

The oyster has long been supposed to be an agent in the transmission of typhoid, and the case against it has been proved. In the mayoral banquets at Southampton and Winchester in 1902, there was in each case an epidemic of typhoid fever among the participants, and the infection was traced to the oysters. Some of the cases ended fatally.

Consider for a moment the habitat of the oyster. It is a natural scavenger of the sea. It thrives on sewage, and not infrequently oyster-beds are planted in the vicinity of the sewage outflow for the purpose of providing the oysters with nourishment. Of course, as long as the sewage is free from the *bacillus typhosus,* the oysters will be comparatively harmless. Nevertheless, in my opinion, they can not be considered wholesome.

The safest way to treat oysters is to let them alone, and then there will be no chance of their transmitting the fever.

Mussels, Cockles, and Fish

What is true of oysters is also believed to be true of mussels, cockles, and other shell-fish, all of which are none too particular in their feeding, and if they become contaminated with sewage containing excreta of typhoid patients, there is real danger in eating them.

Watercress

It must be obvious to any one that, if the stream in which watercress is growing becomes contaminated with typhoid excreta, there is danger of transmitting the virus. Great care is necessary to maintain the purity of watercress beds, for it is quite impossible to free the watercress from the germs of disease by mere washing.

Flies

The time has come when we should recognize in the fly an implacable foe of health and life. The old-fashioned idea that the fly is an interesting insect, and quite harmless, is altogether wrong. The fly is a veritable pest, and every possible means should be taken to destroy the insect, and, at all events, to keep it out of the homes and away from food. The problem is a difficult one, but still much can be done by burning as much rubbish and waste matter as possible, and by keeping the garbage receptacle a good distance from the house, and having it emptied regularly two or three times a week. As soon as the garbage can is emptied, it should be scalded with boiling water and thoroughly rinsed; and it should be kept covered always.

Flies have been known to transmit the germs of typhoid as well as dysentery and other microbic diseases.

Drain Effluvia

There is a common belief among the laity that sewer-gas is a direct cause of typhoid fever. This may be true, but,

if so, the cases are rare. Still, small droplets of the sewage may get into the air of the sewer, and so spread disease, and every precaution ought to be taken to prevent its gaining access to the house. The breathing of sewer-gas at any time interferes with the appetite, lowers the vitality, brings on headache, and becomes an important predisposing cause of typhoid fever and other diseases.

Perfect sanitation and good drainage are essential in the prevention of typhoid.

Direct Infection

A not uncommon mode of infection arises through direct contact with the sick-room and the patient. For this reason efficient quarantine and isolation are required in order to prevent the disease from spreading among other members of the family or the neighbors. The visiting of typhoid patients should be prohibited.

Locality

Typhoid fever is associated with overcrowding, poor ventilation, and filth, hence it is not only more prevalent, but also more fatal, in the large towns and cities than in the country. But it is by no means confined to the poorer classes, for it is met with in all stations of life.

"Typhoid Carriers"

It has recently been found that a very few patients who have suffered from typhoid fever continue to carry the germs for weeks, months, and even years afterward, and thus remain a source of infection. Such persons are known as "typhoid carriers." Although typhoid carriers are fortunately exceedingly rare,[1] yet the very fact that it is possible for a convalescent patient to carry the germs in the system for months and years, is of the greatest importance. It is a wise precaution in the case of convalescing typhoid patients to have the excreta examined, to ascertain that they are free from the germ, and to keep the patients under medical observation until this is the case.

Treatment of Excreta

One of the most efficient means of combating typhoid fever is the proper treatment of the excreta. The stool should always be received in a vessel containing a strong disinfectant wash, and then it should be burned if possible. If it can not be burned, it should be well mixed with the strong disinfectant, and later buried several feet in the ground, in a locality where it can not possibly drain into any well or watercourse. All soiled linen should be promptly soaked in five-per-cent carbolic acid before washing. The nurse attending the patient should invariably wash the hands in an efficient disinfectant and change the clothing before leaving the room. Every possible means should be taken to destroy the germs at their source, and thus prevent the further spread of the disease. Such a course entails the most scrupulous and scientific cleanliness possible, but this is essential to success.

[1] Recent observation leads to the disquieting suspicion that it is not so rare as was once supposed.

A Course in Physiology and Hygiene

ANY one desiring a more thorough knowledge of physiology and hygiene should write to the Fireside Correspondence School, Takoma Park, D. C., for information regarding the course. Such a query will place the inquirer under no obligation whatever, and he may learn something to his interest.

Man and the Fly as Typhoid Carriers

WITH a better understanding of the very considerable proportion of apparently healthy persons in every community who are persistent or occasional harborers and disseminators of the typhoid bacillus, comes a clearer appreciation of the highly dangerous qualities of human excreta. While sufficient work has not as yet been done to give us exact information as to the percentage of such "carriers" in the general population of this country, still the findings of the board which has been investigating typhoid fever in Washington, D. C.,— that three in one thousand healthy persons with no history of previous typhoid were found to be such "carriers," — are highly illuminative. This proportion for the city of Washington is probably not far from correct for the country at large, especially since it closely approximates the ratio found to exist in Germany in the same classes of persons.

Inasmuch as at the present time there is no ready method for the detection of these typhoid carriers, a logical deduction from our knowledge of their common existence is that all aggregations of human excreta, as found in the privy pits of country resorts or in the latrines of camps, must hereafter be considered from a broader sanitary standpoint, and regarded as not only undeniably offensive, but as most probably infectious. The general necessity for the destruction, removal, or disinfection of masses of human excreta, whether known to contain the discharges from sufferers with typhoid fever or not, must therefore be accepted as a fundamental sanitary requirement. And this is especially the case during the warmer months, when the pestiferous fly is active in serving not only as an intermediate vehicle, but as a host of typhoid germs.— *Editorial, Medical Record, March 19, 1910.*

Flies May Be Excluded

DURING the next six months — the period of flies and mosquitoes — the average American home will be daily endangered by malaria or intestinal diseases, or by both. Yet, in almost every case, this peril may be reduced almost to the vanishing point by a small expenditure for wire netting, plus a reasonable amount of determination on the part of the keeper of the home.

It can not be too strongly impressed upon the American housewife that every fly that enters her home may be heavily laden with the germs of typhoid fever or some other intestinal disease. Microscopically examined, the fly ranks as one of the most loathsome of all creatures, vultures not excepted. It feeds on filth by preference, and its feet are so formed that the germs through which it walks are carried away to be distributed wherever the fly may chance to land — in the milk-pitcher, perhaps. Its possibilities in the spread of disease are shown by the fact that one hundred thousand bacteria were found adhering to one fly that was examined in New York City.

Too many people are content with the partial exclusion of flies from the house.

Small openings are overlooked because a few stray flies do not cause a great deal of discomfort. The extraordinarily rapid rate at which flies multiply is overlooked. Let us suppose that one fly lays her eggs in an unoccupied house that contains sufficient fly-food, and that no destructive force interferes with the successive generations. It has been estimated that the number of flies in that house at the end of five weeks would be about ten million! And yet the housewife who pays no attention to half a dozen flies scattered through her house wonders from day to day "where all these flies come from"!

If these carriers of disease be rigidly excluded from contact with the food eaten by any family this summer, the danger of diarrheal diseases may be disregarded.— *World's Work, May, 1910.*

Rat-Borne Diseases

AS one by one the mysteries of the transmission of infectious diseases are solved, the commonplace nature of the causes revealed never fails to surprise us. However elusive some of the facts may have been before the chain of evidence is complete, we invariably wonder, when the truth becomes known, how it could have remained so long undiscovered. It was so with yellow fever and the mosquito, and with sleeping-sickness and the tsetse-fly; and the most recently discovered relation of rat fleas to the transmission of bubonic plague was no exception.

There had been something particularly mysterious in the spread of this disease. In the various pandemics of which we have record, the story is much the same. The disease arises unnoticed from some Oriental stronghold in which it has slumbered for ages, and following the lines of ocean trade, creeps slowly around the civilized world. It strikes first at seaports, and then from those footholds advances inland. The wierd manner in which the disease spares one city or province and devastates another, awakes all sorts of superstitious fears. It was, of course, realized at a very early period that the pestilence was ship-borne, but it seemed almost beyond belief that vessels could carry the destroyer over the ocean, and yet the seamen who manned them escape unharmed.

When the part of the rat and its parasites in the production of plague became known, intense interest developed in all that related to that animal, and its habits and its diseases became matters of utmost practical importance. In this country and in our insular possessions the first battles with plague were fought by the Public Health and Marine Hospital Service, and the success of the measures undertaken against the disease in San Francisco have aroused attention all over the world.— *Editorial, Boston Medical and Surgical Journal, March 24, 1910.*

The Rat as a Factor in Sanitation

OUR rapidly increasing knowledge of the part played by insects in the transmission of disease has given rise to an interest in some branches of science which a few years ago would have been thought to possess little relation to medicine or hygiene. The discovery of the relation of mosquitoes to malaria, filariasis, yellow fever, and dengue, of the bedbug to kala-azar, of fleas to bubonic plague, and of flies to such bacteriological diseases as typhoid fever, in which they act as mechanical carriers, directed attention very strongly to entomology.

When we learned that the various animal hosts of some of these insects carried them far outside of their natural habitats, and that plague was essentially a disease of rodents, only accidentally a disease of man, zoology took a very practical turn for sanitarians. . . .

The rat has awakened concern on the part of nearly all civilized governments, and on account of its migratory habits has become a very important factor in international sanitation; for it is not enough that one country carry on an active campaign of rat destruction, as it may be continually in danger of infection by infected rats from ships tying up to its wharves. . . . It is too much to be expected that rats can be exterminated in any country, but it is quite within our power to free ocean carriers of them, and with a systematic plan of rat destruction aboard ships, and a rigid enforcement of simple measures for protecting ships and their cargoes from rat infection, such a pandemic of plague as that which, beginning in China in 1894, has swept around the world, would be impossible.— *Editorial, New York Medical Journal.*

Care for the Nutrition of Mama and Baby

BABY usually fares well as long as the baby routine requires special dishes and different hours. But when she graduates into family routine, the dishes that she partakes in common with the rest are not apt to be prepared according to her needs. They are seasoned and spiced and served with sauces to suit the adult table, and there is more variety than is good for her, and an absence of "truly baby dishes." Her heaviest meal is apt to be at night,— because the men folks must have their dinner at that time,— even though her sleep be disturbed in consequence. Mother, too, is often too weary to digest a heavy meal in the evening, especially after preparing and serving it. She eats hurriedly in order to "catch up," because the first person served will soon be ready for a second helping, and because she does not wish to delay the coming of the dessert. She does not eat enough, and does not digest it perfectly because of the hurry and the weariness. How much better it would be if she and baby had a nourishing and substantial meal at noon, when the dining-room is quiet, and there is plenty of time to eat, and when neither one is exhausted. It need not be an expensive meal or a difficult one to prepare, for extra meals must be considered. How much better condition she would be in to consider the needs of the other members of the family when dinner-time comes! — *Prof. M. E. Jaffa, Director Food and Drug Laboratory, University of California, in Bulletin, California State board of health, with the collaboration of Mrs. Jaffa, formerly a specialist in the diseases of children.*

Eggs and Milk Versus Meat

NEITHER in city nor in country are milk and cream regarded in their proper light as foods in comparison with meats. The family of five might as well use four quarts of milk a day, skimming part of it. At eight cents a quart, a common price in many cities, milk is far more economical than meat, and $2.24 a week may be fairly added to the unreckoned values of country living. Such a family would not use less than two dozen eggs a week, which in the city would cost thirty cents a dozen as an average price, and cold storage eggs at that; while in the country it requires only a small amount of attention to obtain eggs in winter as well as in summer.— *Collier's.*

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.

House-Flies as Carriers of Disease

THE food of young flies is almost entirely moist, decaying vegetable matter. The larvæ

revel in straw mattresses, old cotton garments, rotten socks, and waste paper, and are especially partial to the dirty beddings from rabbits and guinea-pigs. They feed also on bread, decayed fruits and vegetables, and on the excrement of all vegetarian animals. Stables are the chief breeding-places, and larvæ in countless thousands swarm in the decaying manure heaps. Myriads grow in stored house refuse.

From a large breeding-place, they travel in countless batallions to the nearest houses, perhaps two or three hundred yards distant. Each row of houses provides a place of rest if food is exposed, whether in the form of filth or human food. When no nearer place is at hand, they will fly as far as half a mile. [If flies are plentiful, it is almost certain that there is a breeding-place within half a mile, and usually much nearer — a manure pile, decaying vegetable matter, an open closet, a piggery, or some other filth breeder.]

A single fly which was put into a tube of fresh broth converted the broth in fifteen hours into a stinking fluid teeming with germs, including large numbers of intestinal bacteria. It can readily be understood from this that flies gaining access to milk readily pollute it, and make it unsafe to use. Even "clean" milk ordinarily contains thousands of germs, many of them comparatively harmless; but when milk is polluted with intestinal bacteria, either by dirty methods of milking or by the agency of flies, it may become highly poisonous while yet sweet and apparently good.

Flies are among the principal contaminating agents in milk, depositing in it a variety of diarrhea-producing germs. In 1902 I was struck with the remarkable coincidence between the absence of flies and absence of infantile diarrhea during August, and the advent of flies and of fatal diarrhea during September of that year. It has been generally noted that

TO EXTERMINATE FLIES

Prepare a solution containing a teaspoonful of formaldehyde to a cup of water, add a little sugar, and place around the room in saucers. A quarter of an inch deep is sufficient. Flies, attracted to this mixture, drink; some die in the water, others fall dead near the place. The solution is not dangerous.

However, this is only a substitute for a more thorough plan. Houses should be so constructed and so screened that no disease-breeding fly can gain an entrance.

hot weather and insanitary conditions cause infantile diarrhea; but these are merely indirect causes, their influence being due to the fact that they favor the growth of flies.

While I admit that milk may be infected in the dairy, my observation leads me to believe that the principal cause of infantile diarrhea is pollution of milk by flies *in the home,* and I strongly urge the covering of standing milk so as to exclude all flies.

The effect of fly pollution is not the same on all kinds of food. A fly carrying typhoid germs on its leg may infect a lump of sugar, and to that extent leave pollution; but on the dry sugar the germs can not multiply; but in more liquid foods, bacteria find congenial soil, and multiply rapidly. On solid food a fly will deposit comparatively few germs, but on liquid food his whole body is washed off, and myriads of germs are dislodged in his attempts to get out, so that one fly might leave more germs in milk than twenty flies would leave on solid food.

It should be noted that fatal diarrhea is quite rare among children fed entirely from the breast.— *T. J. C. Nash, M. D., D. P. H., county medical officer of health for Norfolk, Eng., in the Journal of Hygiene (London), September, 1909; very much abridged.*

Intestinal Indigestion

PATIENTS with intestinal toxemia[1] of protein origin are frequently treated for long periods for anemia, headache, neurasthenia, disease of the skin, the liver, or the kidneys, or for "dyspepsia," with but little if any relief, and frequently drift, from one physician to another, into habitual invalidism. Nearly always they are self-medicators, making free use of cathartics; for they have learned that a brisk purge gives relief for a day or two.

The patient may be in apparently good condition, or there may be severe anemia, loss of weight, headache, listlessness, mental weariness, insomnia, melancholy, constipation, scanty urine. Usually the condition has been present for months or years, and there is history of unwise use of proteins in the diet.

Patients are frequently encountered who eat meat three times a day, often with cheese, eggs, leguminous vegetables, and milk at the same meal, or, on the other hand, there may be little if any excess of protein in the diet. It is not always the amount of meat eaten, but the inability to digest any that constitutes the underlying condition; and even a few grams of protein may be enough to cause severe symptoms. The dosage of these poisons is infinitesimal, but potent because of constant repetition.

Self-poisoning of protein origin may manifest itself chiefly as anemia, and undoubtedly many of the chloro-anemias of young girls are of this nature. In other cases the nervous system suffers most; but few cases are entirely free from nervous symptoms; and while in one case there may be only headaches and ill-defined fears, in others there is profound neurasthenia, or such melancholy and self-distrust that business is impossible, too often the patient going on to actual mental disease. In any case,

[1] **Glossary**

Anemia: Poverty of the blood, often manifested by pale lips and gums, weakness, emaciation, etc.

Chloro-anemia: chlorosis.

Diagnosis: determining, from the symptoms and signs, what disease is present.

Gram: a unit of weight, about one twenty-eighth of an ounce avoirdupois.

Insomnia: inability to obtain sufficient sleep.

Protein: albuminous or flesh-forming food, represented by lean meat, white of egg, cheese, milk curd, etc.

Toxemia: a condition of the blood in which it contains poisonous products, either of the body cells themselves and not properly eliminated, or of micro-organisms.

until the intestinal condition is recognized and treated, nothing can be done for the nervous disorders.

Cases of intestinal intoxication of protein origin are more common among adults, but they may also be found among infants, in whom the intestinal putrefaction is least on a vegetable diet, more on a milk diet, more still on meat, and most on eggs. Imperfect development of the skeleton and similar faults of growth are said to be closely related to the intestinal germs in infants.

In some cases the main expression of the disease is some form of skin eruption. Many eczemas and other skin diseases apparently due to external irritation rest on such underlying conditions, and are made worse by every slight error in diet.

The cases called "dyspepsia" are without number, and because of insufficient care in making examination, their true nature is not always realized, and their treatment not being rational, improvement is but temporary if secured at all.

Intestinal poisoning sometimes occurs in diabetics who have been placed on an exclusively protein diet, or in consumptive patients who have been subjected to forced feeding, but the cases we desire to consider are those due to imperfect mastication and insalivation, and poor stomach digestion, owing to which the food leaves the stomach in a condition ready to putrefy.

As to the composition of the food, it has been shown that a large amount of fat in the food delays its expulsion from the stomach, while the carbohydrates seem to hasten it. Then prolapse of the stomach or of the intestine, or other local condition, may cause delay in the movements of the intestinal contents, and consequent absorption of poisons.

[Here follows a long technical description of the methods of diagnosis which would not be intelligible to the ordinary reader.]

There are six general types of disturbance: Neuralgic, neurasthenic, anemic, dyspeptic, mental (fears, dulness, rapid exhaustion on mental effort, impaired will and memory, melancholy), and mixed types.

If the patient is making good use of the starches and sugars, and a fair use of fats, the indication is to cut the proteins down to the limit, make cereals and other starches the main reliance, and supply assimilable fats guardedly. It will not do to exclude proteins entirely. It is necessary to feed so as to cause a gain of weight. In order to secure digestion of the proteins and prevent their putrefaction, it is absolutely necessary to supply ferments.

Some patients do well on junket and whey. Buttermilk is an excellent article of diet, and may be taken *ad libitum*. Fermented milks are both food and medicine, as they furnish nourishment, and at the same time disinfect the intestine. They are particularly useful when the stomach is also deranged, as in loss of appetite of nervous origin, and in subacute gastritis, and are useful in gout and rheumatism.

Tea, coffee, and alcohol are almost always to be forbidden, and copious drinking of distilled water encouraged to the utmost, and kept up for weeks and months. The diet must be varied according to the case, and it often taxes the physician to the utmost to suggest something to the patient which he likes, and which, at the same time, he really ought to have. [Then follows directions as to drugs, including cathartics, bile salts, and intestinal antiseptics; but as it is unwise for the patient to attempt self-treatment, these are not given.— ED.]— *Drs. A. E. Thayer and Raymond C. Turck, in Medical Record.*

THE MEDICAL FORVM

Superstitions Die Slowly

THE *Boston Medical and Surgical Journal*, mentioning the case of Miss Kirk, of Aiken, S. C., who has been quarantined three years for leprosy, and who, by the action of the city council, is to have an isolation cottage built for her, and her own cottage and all its contents destroyed, makes the following comment: —

"The popular terror of leprosy, which is out of all proportion to its prevalence or the likelihood of its general spread, is probably a survival partly of the wide-spread medieval epidemic of the disease in continental Europe, partly of the semireligious horror of it developed in our ancestors by their more habitual familiarity with the Sacred Scriptures. An amusing instance of this unreasoning terror has appeared in the sensational alarms lately circulated by the daily press relative to the supposed spread of leprosy through the use of so-called hair rats. Such fables may, however, prove a blessing in disguise if they lead to the discontinuance of a custom as artistically unesthetic as it is hygienically abominable in the women by whom it is practised."

The South Carolina incident is a reminder that medical health officers are subject to epidemics of "hysteria," as well as the common people, and one wonders if a national health department is established and given increased powers, whether these powers will fall into the hands of men who are more anxious to cater to hysterical and superstitious fears of the past than to see that no sick person is compelled to suffer from unjust and unwarranted isolation.

Wm. S. Gottheil, M. D., New York, in the *New York Medical Journal*, March 26, expresses himself in the following forcible comment on the present abnormal terror of leprosy: —

"Leprophobia is an endemic affection here; and it is astonishing to see how many physicians who ought to be immune become affected. I have never shown a case in a medical society without being asked how I dared to handle it so freely. With the laity, the fear of it is an obsession. Vague reminiscences of the leprosy scare in the Bible, the use of the word to characterize the worst phases of moral obliquity, etc., stamp the disease in their minds as something especially contagious and horrible. Epidemic hysteria sweeps over the smaller communities when a case is discovered, occasioning conduct that is a disgrace to our civilization. The leper is sent to a hut in the woods, or out on the plains, or he is imprisoned in a box car and shunted from State to State; his food is handed to him on the end of a pole, and in general he is treated as if the mere sight of him would convey the contagion."

Dr. Gottheil finds that there is much more leprosy in New York than is generally suspected. He has seen several lepers from time to time on the street or in the cars. He tells of one woman, a very marked case if one may judge from the photograph, who has had the disease fifteen years, and who knows what it is. All her children have been born since the disease began, and the family have lived in one room in most unsanitary conditions, yet neither husband nor the children have contracted the disease. Her neighbors have no fear of it. The woman herself keeps a green grocery, and handles the vegetables which perhaps dozens or scores of people eat. If they knew it, what a stampede there would be!

Fear and Disease

PROFESSOR ROSENAU, of Harvard Medical School, in an address delivered at the midwinter meeting of the Æsculapian Club, Boston, on the "Uses of Fear in Preventive Medicine" (*Boston Medical and Surgical Journal*, March 10, 1910), well said: —

"If typhoid were feared as it ought to be, we should soon see it diminish to the vanishing point. The similarity between typhoid and cholera is striking; both are intestinal infections; both occur in epidemics and endemics; both are largely summer diseases; both spread in precisely the same ways; both diseases are about equally dangerous to man, and should be dealt with alike."

A case of cholera in one of our large cities would spread consternation, and almost a hysterical panic. There would be the strictest quarantine, and screens, and disinfection, and watch for secondary cases, and no liberty for the patient until all danger of being a "carrier" was eliminated.

"By a strange contrast, little attention is paid to a case of typhoid fever in the neighborhood, or even in the same house. Still less regard is ordinarily given to the discharges of typhoid infection on a dairy farm or in a butcher shop or in a bakery."

A good parallel to this is shown in the difference in our attitude toward tuberculosis and leprosy, a difference which medical men share with the laity. Tuberculosis is undoubtedly transmissible, and yet we permit consumptives every day and everywhere to do things which we know endanger the health of others. There is very serious question whether leprosy under any condition is as transmissible as tuberculosis, and certainly so in this country; and yet, one supposed leper is hounded like a criminal, and deprived of even the comforts of association with his own family. Don't tell me that a medical education is a substitute for an average inheritance of gray matter. If a man lacks there, an education will merely emphasize it.

Are Barber Shops a Menace to Public Health?

MUCH has been done to improve the sanitary condition of barber shops, and in some cities at least, it has been thought that they are conducted on strictly sanitary principles, but *American Medicine* believes this to be only apparently so: for in a recent issue we are informed that —

"even the best of the better barber shops fall far short of the aseptic precautions that ordinary common sense would seem to dictate. That this is a fact will be borne out by the simplest investigation one cares to make of practically every one of the up-to-date shops of to-day. It is not meant to imply that any of these shops fails to keep its utensils clean or to use clean linen, but it is meant that a real state of antiseptic cleanliness is almost never obtained."

The question is raised whether or not the use of a common brush, soap, and razor is not a fairly frequent source of skin infections, and as a consequence the prime cause of many of the skin lesions constantly being met.

"It is not unreasonable to fear that the shaving stick, brush, or razor used on a person whose face is broken out with any of the common forms of eczema, acne, or the more severe skin lesions, is extremely liable to be a factor in the spread of such diseases, unless these implements are properly subjected after each shave to some effective sterilizing process."

But the *Medical Times*, New York, takes a more hopeful view of the situation: —

"Many a man has transferred his pimples and boils, his barber's itch, his baldness, yes, and his syphilis, to the perfectly innocent in 'tonsorial parlors;' though this means of infection is now haply rare, by reason of the hygienic revolution in these institutions of late years."

American Medicine sees some reason to hope for better things, in the fact that some barbers make use of soap powder, thus insuring that each man shall have his own soap, uncontaminated by another.

"The Meat Question"

THE bulletins of the city and State boards of health are often given over to statistics of little interest to the common reader; but some of them are carrying on a worthy campaign of education. The January Bulletin of the California State board of health contains a series of excellent articles on food and nutrition, by Professor Jaffa, director of the Food and Drug Laboratory, University of California, Berkeley.

While we would like to comment on all his articles in this number, we can take space to notice only one at present, the one entitled "The Meat Question." It will be remembered that Professor Jaffa some years ago conducted a series of experiments on fruitarians. At the time, he seemed a little surprised to learn that these persons could keep in a good physical condition on an absolutely vegetarian, or rather fruitarian, diet. Possibly he learned enough to avoid the propaganda that one can not get along without a large quantity of meat. He recognizes, naturally, that in eliminating meat from the dietary, it is important to furnish an adequate substitute. "Many people may benefit by a temporary change of this kind, or even by a permanent one, but there is a large class of individuals to whom such a radical change might prove detrimental, unless proper thought and care are given to their meals." He continues: —

"Meat is one of the concentrated and easily digested foods in the class of proteids,— the class upon which we depend to build new tissues and to repair waste. Not all people can handle the different meat substitutes equally well, and they must be carefully selected. An average healthy adult with sound digestion can easily obtain the protein his system requires from beans and nuts and cheese, etc. But very young children, and people with weak digestions can not be expected to digest beans and cheese. They would require different kinds of meat substitutes — milk, eggs, etc. . . .

"Skim-milk, properly labeled and sold at ten cents a gallon, as has often been done, is one of the best, cheapest, and most easily digested forms of protein that we have. We might as well prohibit meat being sold without its fat as milk without its cream, when we are using it as protein, and not as a complete food. Skim-milk would be a boon in any family of small income. It can be used to great advantage in the cooking, or made into cottage cheese, besides being used as a drink. While the children of the poor are getting less protein than they require, many animals, such as pigs and calves, are being reared to a healthy and profitable maturity by the large use of skim-milk.

"For present use of non-meat eaters, the following table may prove a useful guide. The housekeeper can see how much of other protein foods she must substitute for *each pound* of meat that she is giving up. It need not all be taken from *one* kind of food. Beans and eggs, or milk and eggs, or cheese and milk, etc., may be used. If the family has been in the habit of having three pounds of meat a day, they need three times that amount of any of the articles given below, or the given amount of three kinds, to replace the meat: —

"*1 pound of lean meat is equal to* (protein alone is being considered)—

2½ quarts of skim-milk.
3 quarts of whole milk.
1 1-5 pounds uncooked old-fashioned oatmeal.
6-7 of a pound of dried beans.
5-7 of a pound of dried peas or lentils, or chick-peas.
2-3 of a pound of full cream cheese.
1 pound of cottage cheese (fresh and moist).
10 or 12 eggs (rich also in fats, etc., not counted).
3-5 of a pound of shelled peanuts or pignolias.
1 pound of shelled almonds or walnuts."

Professor Jaffa here makes an assumption that does not seem to be worthy of him, namely, that if the family has been accustomed to using three pounds of meat daily, it *needs* the protein contained in that amount of meat. Perhaps he knows better, but does not wish to complicate matters for the laity.

The Medical Missionary At Work

Native Methods of Treatment in Burma

Ollie Oberholtzer, M. D.

THE East abounds in medical aid. Here in Burma you may have almost anything you desire, from the well-qualified civil surgeon to the medicine-man who carries a most mysterious wallet, containing cures for all human ailments. The people are grossly ignorant of all things pertaining to the human body, and much prefer a treatment that will drive out the evil spirit at once, even though it cause the death of the patient. It is sad to see, even among the best educated, such erroneous ideas. To their mind, the only cause of pain is wind. And to hear them describe their symptoms, you would judge the body a hull, in which travels balls of wind, which easily pass from foot to head, and from head to foot. The cause of the wind is possession of the devil, and the most effective treatment is to cast the devil out.

One day a neighbor woman called, saying she had not been well for some time. I found she had a temperature of 104°, and ordered her, on reaching her home, to go to bed, saying I would call later and see her. Upon examination, I discovered that she had abscess of the lung, and I tried to tell her friends. They at once knew there was no lung trouble, and soon secured Burmese doctors. The first one called believed in diet, but said she must eat all the rice and curry she could, and when she could not eat, she was to stuff it down. She did not improve, so another was called. He said, "No, do not eat rice and curry, but eat some meats and fruit." Her recovery was not so rapid as they liked, and another doctor was secured. He gave his medicine, which was huge mixtures of most unsightly stuff. Soon another was brought in, who diagnosed it as simply a case of possession of the devil. Now they were to make offerings to him, persuading him to leave the poor afflicted woman, accepting their offerings of rice and curry, fruit, milk, bread, and sweetmeats, which were waved in front of the patient, then carried out and placed on the veranda, for the devils to have a feast. Then the patient prayed as follows: "O god, thou knowest I never have sinned; I have never done anything wrong. Now do take my suffering away."

This was Sabbath morning. Upon my return from Sabbath-school, I knew, by the gaiety of the place, before being told, that she was dead. After a death the house is given over to feasting and gaiety for one week. They believe the spirit hovers around for seven days; so the happier they are, and the more friends they can invite and feed, the greater respect they are showing. Upon the morning of the seventh day, the greatest feast is made. All come, and are fed first, every one being welcome to partake of the hospitality of the host. After breakfast the spirit takes its flight.

I began to realize that what this people need is a knowledge of the human system. Their ignorance of this, even among the educated, is terrible. The above-mentioned family were well educated, in the accepted sense of the term here, when speaking of Burmese. Physiology is not taught in the schools until the seventh standard, and only a little then. I feel that it is of the greatest importance that these people know more about the body, and that something must be done to agitate the question with those who are in authority.

Soon after this occurrence I was in Rangoon. I called upon the superintendent of public instruction. He was not in, but I saw his assistant, and presented the matter to him. He received me very kindly, and inquired about our mission work, then assured me that my request was granted before it was made, for they had already passed a resolution for physiology to be taught from the third standard up. He was glad I came, for, as he said, it is those in such service who go into the homes of the people and see the practical side of educational questions, and really know the conditions, who can sense the need; the officers of public instruction do not have such a good opportunity for ascertaining the real conditions.

Another neighbor was very sick. I was not called, but, with some friends, stepped to the door. I saw him rolling over the floor in wild delirium, of typhoid, I supposed, but did not examine him. They pronounced it possession of the devil, and nothing could be done but to drive him out, in order that the man might recover. I tried to secure a history of his case, and found he had lived in a distant village, and one day had plucked some guavas belonging to a neighbor. He had seen the man give him a queer look, and from that day was not well. They believed the neighbor, by the use of enchantments, was able not only to cause him to be possessed of the devil, but also to put a piece of cow skin in his stomach.

He had grown worse. His father, hearing of his illness, had gone to bring him home, and had found him delirious. On reaching home with him, the father had called their doctor, who soon found out the above-mentioned history, and said the sufferer was possessed, and he would go and set many candles before the image of their god. This would have the effect of tormenting the neighbor who had used the enchantment, and if he became repentant, he would recall the devil, and the patient would live, but if not, he would die. The devil did not leave, so they called another doctor. His plan was to present offerings and gifts to induce the evil one to depart. But he would not. At last they called a man of greater reputation. When he came in, he laughed, and said, "Why, this is not Po Thane. He died before they left the former village, and this is only the devil here. You are just going to expense and trouble in feeding the devil. Now the thing to do is to drive him out." He prepared a mixture, and administered it. It had the desired result — the evil spirit went out. But this left the man cold in death. "O!" said the people, "is he not clever? Just see how he can drive out the evil one!"

I had asked one of our Burmese brethren to keep watch for me, and he was there at the time. He said to them, "Do you call that clever? I could have taken a club, and done that long ago." But they said, "O, no; for he has just driven him out; he could call him back, and put him where he was before." Our Burmese brother said, "Let him call him back into the man." "O, no; that would be very wrong," and they could not think of doing thus.

It is little by little they are brought

from their ignorance and superstition. What we all need more than anything else is not only to be able to drive Satan out, but to leave the people clothed in their right minds.

Often I think our work here is as sowing seed over our great Western prairies at home. We are here to-day, and there to-morrow, and know not which will prosper, this or that, and probably shall never see the result until all the sheaves are garnered home.

Those physicians at home who have well-equipped offices or sanitariums, and trained nurses to assist, can hardly appreciate what it means to make a visit here. You must sit on the floor while making an examination; and, although you may try to concentrate your thoughts on your patient, you can not help but think of your aching back or cramped foot. After attending a difficult case under such conditions, you will feel as you do after having been out a whole day picking strawberries. Remember Burma in your prayers.

Medical Missionary Notes

Hospitals in charge of missionaries win favorable opinions from all classes of society. Dr. Frank Van Allen, an American board missionary in Madura, India, writes that Hindus have contributed over five thousand dollars to the Albert Victor Hospital in that city, although it is a distinctively Christian institution. A few years ago such a thing would not have been dreamed of by missionary or Hindu.

An international hospital has been opened in Adana, Turkey, that being the most pressing need, after the massacre, which entailed a great deal of sickness and suffering. The city has a permanent population of nearly seventy thousand, and this is the only hospital in the district, except one for the Turkish soldiers. Major Doughty-Wylie, the British consul, says that "nothing in the way of charitable effort has been done in this country more worthy of generous support, nothing more acceptable to all races and creeds." There will always be private wards and special care for Americans and other foreigners. There are often cases of serious illness among tourists, or among foreign workmen sent out to set up new machinery, and the only accommodations for such has been in the homes of missionaries. A leading German firm, which has several of its own men in Adana, is actively interested in the hospital. The nurses are mainly English. The American Board, which has been at work in Turkey for more than half a century, will be responsible for outfit and traveling expenses if the right man can be found to be at the head of this important work, and an American woman has pledged one quarter of her salary for two years. If Adana were in the condition that it was before the massacre, there would be a good revenue from fees, but the present desolation makes this course of income small.

Dr. C. D. Ussher, a medical missionary under the American Board in Van, Turkey, writes that people in America would undoubtedly flee from the dispensary connected with his hospital if they should see the patients. He says: "Picture them brought in among the crowd: smallpox cases in every stage, papules, vesicles, pustules, and scabs; famine, scarlet fever, diphtheria, measles, and whooping-cough. If you talk to the friends about microbes and infection, many either look at you nonplused, or assure you that there are no microbes on them, they had a bath a month or two ago, or 'last Easter.' Those whose friends are able to care for them properly are sent home, and those most needy are sent to the hospital, if there is room for them. Yes, smallpox, scarlet fever, typhus, typhoid, and all are sent to our one and only hospital, and it takes much labor and expense in washing, bathing, and disinfecting to prevent infection of others." It is a three-story building, fifty by seventy feet, with four general wards and nine private wards, one of which, with two beds, is used for contagious diseases when there are but few cases.

EDITORIAL

Suggestion, Everywhere Suggestion


WHITE HOUSE, EAST ENTRANCE

IT is said by Münsterberg that a suggestion is "any idea which takes hold of the consciousness in such a way that it inhibits and excludes the opposite ideas." Thank you, professor, for the definition.

The Spiritualist who attends a seance, and accepts all the phenomena as genuine manifestations, is very much under the power of suggestion. Even when fraud is proved, he will still hold to the genuineness of the appearances he sees. Even the shrewd scientists who have sat in wonder in the presence of Paladino have come under her suggestive influence, so that for the time their judgment failed them, as has been shown by Münsterberg.

Every cock-sure advocate of any political party or platform, every founder of a philosophy who thinks his is the only true system, every partizan of whatever cause, is the victim of a powerful suggestion or complex of suggestions that prevents his weighing the evidence on the other side.

Theoretically our minds are open to the reception of truth. Practically most, if not all, of us come under the influence of suggestions very early in life, which suggestions act as censors of every bit of truth or error that is afterward presented to us for acceptance; and our reception of supposed truth becomes a selective process, in which we are consciously or unconsciously separating the sheep from the goats. But it is the early bent of our mind that decides which ideas are sheep and which are goats; that is, we are under the influence of suggestions which tell us, "This is truth; it agrees with my present fund of information; that is error, for I can not reconcile it with what I already believe."

It does not occur to us that our original fund may be largely erroneous. It does not often occur to us to test our present acquirement by the new ideas coming to us. Every new idea we accept, must be in a measure different from what we have before believed, else it is not new; but it must not be too revolutionary; and the new slowly modifies the old, so that from day to day our idea of life is slowly undergoing modification. It, perhaps, never stands still in the case of the most conservative, and it probably never completely changes in the case of the most radical.

A new proposition in mathematics is likely to influence all minds alike that are capable of understanding it. An economical or a political proposition, one dealing with labor and capital, with some sociological, or theological, or race problem, will be received very differently by different persons of similar intellectual capacity, because of the various suggestions that act as censors to determine whether the new idea is a sheep or a goat.

Fashions are suggestions. The peach-basket hat is first an atrocity, then it be-

comes endurable, then charming, then odious, according to the dictates of fashion; and most of our so-called tastes in dress, in architecture, in art, are the results of suggestion. In fact, it is doubtful whether some people would have any definite ideas regarding the merits of works of art, or literature, or music were they not suggested.

A man in his own generation is quite commonplace. Suddenly it is discovered that he is a genius, and every chance word, every anecdote, every circumstance connected with his life, bears out the idea. The veneration associated with certain historical names is often the result of suggestion. Worthy deeds are magnified by suggestion, and those more unworthy are covered with a halo of light. Death often changes values wonderfully, causing the good to stand out prominently, and the evil to disappear.

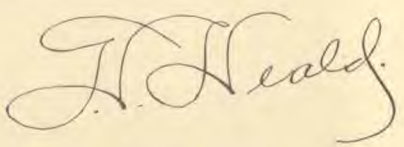
Dietetic beliefs are often made up largely of suggestions. At present there is in this country a most powerful suggestion, that even the learning of the schools is not proof against; namely, that meat is necessary in the diet of man. A while ago there was a reaction against meat, but the belief is too fundamental, and the reaction has been short-lived, and just now the rebound seems to be the other way.

A few decades ago, in the South, the Bible plainly taught that slavery is proper, and that the Negro is the property of the white man by right — merely a suggestion that prevented an unbiased outlook, that kept men who were as honest as you and I from looking at things in their true light. A bitter war caused the teaching to change.

The raw-food people are under the influence of a powerful suggestion, as are all who believe that an exclusive diet is the only healthful one. The truth of this statement is evident from the fact that no people living on an exclusive diet can show greater vitality as a body than the average of mankind.

It is not always the ignorant that are under the influence of suggestion. Take, for instance, our honored pure-food expert. He has such an antipathy for CAFfein that he always pronounces it with a vicious accent on the first syllable, yet he is very friendly toward whisky, provided it is not misbranded; and yet, which of the two is most in evidence as the cause of our paupers and criminals? Is it the coffee houses and the soft-drink counters that help keep our jails filled and our polls corrupt? Is it coffee that enables men to ruin girls, or stimulates the murderer with courage for his dastardly deed, while inhibiting any moral scruples he might have? There is only one answer. I have no brief for coffee, which is bad enough, but mention this to show what suggestion may do for the scientific mind.

I once knew an intelligent medical student who could not be convinced that hypnotism is not a fraud, even with the demonstration before him. He himself was under the power of a suggestion, and hypnotism is merely the reaction to a suggestion. Suggestion was working on the hypnotized patient in one way. It was working on my unbelieving friend in another way. A suggestion is "any idea which takes hold of the consciousness in such a way that it inhibits and excludes the opposite ideas."



As We See It

Health Conservation by the Insurance Companies

THE Provident Savings Life Assurance Society of New York, through its policy-holders' health bureau, has just issued a third bulletin, in the expectation that its perusal by the policy-holders will tend definitely to prolong life. Naturally this is to the advantage of the Assurance Company, but it is much more to the advantage of the policy-holders.

In this bulletin the subject of alcohol is considered. Alcohol is shown to be a fuel which will burn in a certain kind of stove without the formation of clinkers and without injury to the stove. Alcohol can be burned in the human body, producing temporary energy and also clinkers, but it exacts a heavy toll for this service. The man who thinks he can compete with a stove in burning alcohol makes a very great mistake.

Then laboratory experiments are cited, showing that alcohol in so-called moderate quantities reduces mental and physical efficiency. Alcohol as a medicine is becoming more and more obsolete. The testimony of the business world is that the alcoholist employee is unprofitable. The testimony of life insurance is that the total abstainer is a much better risk than the moderate drinker, that is, life insurance statistics show that the total abstainer on the average lives much longer than even a moderate drinker.

Following is the summary given by this bulletin, which it is well worth giving verbatim:—

"Alcohol is not a 'demon,' but a drug; not a stimulant, but an anesthetic. In so-called moderate quantities it reduces muscular and mental efficiency. It suppresses the higher brain functions, thereby releasing the lower. It is most dangerous to those with weak family histories. The effects of excess in those of normal family history may be transmitted to their children. *The experience on large groups of insured lives shows that moderate drinking shortens life.* Most cases of alcoholism are curable, if the desire for cure exists. Advertised cures are worthless; they merely 'sober up' the patient. The advice and assistance of an intelligent physician, the up-building of self-control, and faith in one's manhood, are the fundamental requirements for a permanent cure." (Italics supplied.)

Moral Standards and Decency

The World's Work, commenting on "The Moral Standards of Two Periods," tells, very smugly, how much better we are than our forefathers. Patriarchs and prophets, we are told, would most of them "go to jail if the law were enforced on them." Society has grown merciful, etc., etc. We are becoming too tender-hearted to punish criminals. But as a crowning glory, "conversation has become decent," with the emphasis on the last word.

As a matter of fact, the "conversation" of our times, and all it embodies, has become much more "decent" than the doings. But it is a decency that is the height of inconsistency.

Four years ago a society was formed in New York for the prevention of vice and the diseases incident thereto, choosing as its name (why?) "The New York Society of Sanitary and Moral Prophylaxis," which name, according to the magazine *Charities and Commons*, amounted to an entire repudiation of the aims of the society. Now there has been organized out on the Pacific Coast, where "decency" has not struck in quite so deep, a similar society, "which boldly calls itself the California Association for the Study and Prevention of Syphilis and Gonorrhea. The associa-

tion is composed of forty members, one half of whom are physicians; and a woman, Dr. Frances M. Greene, has been chosen president. The avowed purposes are to treat venereal diseases as frankly infectious, and to drag them into the light, where all men may know and avoid them.

"The first public meeting was held in January, and an audience of several hundred men and women listened to addresses by Dr. David Starr Jordan, of Stanford University, and other prominent men. In conjunction with the assembly was an exhibit, prepared by the secretary of the State board of health. It is interesting to note that *no account of the affair appeared in the daily papers,* although several reporters were present."

Why did these papers refuse to publish anything regarding the proceedings of this important meeting? That would not be "Decent," spelled with a capital initial. It might inculcate "prurient thoughts" in the young. And yet these papers do not hesitate to accept the advertisements of "specialists" treating the diseases of "weak men," or of so-called doctors who are ready to help young girls who are "in trouble."

Our "decency" in conversation and in the press, is too frequently the thin veil covering the grossest indecency. It is a "decency" that refuses to take hold of a moral canker that is gnawing at the vitals of our society.

Meat or No Meat?

IN a former issue we attempted to make it plain to all candid readers that it is possible to live, and to live healthfully and well, without meat.

In view of the fact that the prices of meat must necessarily go higher on account of the increasing scarcity of cattle; in view of the fact that it is becoming more difficult to secure healthy meat, so that government inspection standards have fallen far below what our representative in England stated them to be; in view of the fact that numbers of slaughter-houses are run without an inspection, and to these the cattle that are so diseased that they will not be likely to pass a government inspector are apt to be sent; in view of the fact that were the government inspection to be made so exacting as to exclude diseased animals from human consumption, it would so increase the scarcity and the price of meat that none but the wealthy could afford to eat it,—in view of all this, and of the additional fact that it is possible to live on wholesome, nutritious, undiseased foods at a much lower price than on meats, it behooves every one to give the non-meat diet a fair consideration.

To indicate what is being done in the study of non-meat dietaries, it may be said that some of the most distinguished scientists of Europe are giving the matter serious study — not as a religious measure, nor as the doctrine of a cult, but as a hygienic and an economic measure.

A recent issue of the *Literary Digest* (April 16) contains a translation referring to the investigations of H. Tissier, a French physician of note, who, in order to prevent or to correct autointoxication, has been accustomed to prescribe a diet excluding not only meat, but eggs, milk, and cheese, and including all the fruits and vegetables, with the exception of the seeds of leguminous plants rich in nitrogenous substances.

It is said that his diet has given excellent therapeutic results; that is, it has been remarkably efficient as a remedy for autointoxication. In view of the fact that it falls far below what is usually supposed to be the nutritive requirement, Mr. Tissier conducted a series of experiments in order to determine whether the diet were not too se-

vere. These experiments, which were continued for a period of two years, showed the diet to be ample for ordinary work.

A future number of LIFE AND HEALTH will give the details of a more convincing experiment on the efficiency of the vegetarian diet, continued for a period of five years, conducted by a French scientist of established reputation.

In a recent Bulletin of the Department of Agriculture (Farmer's Bulletin 391), Dr. Langworthy admits that "it is possible to obtain all the necessary protein and energy from other materials. . . . It is of course possible to eat meat dishes less frequently, or omit meat from the diet altogether, if one so desires, and the diet is so arranged that it remains well balanced." But he doubts that such a dietary would be "either desirable or agreeable for the average person." Probably not. But if the average person could witness all the processes the meat goes through, there would be decidedly less eaten — at least, as long as the memory was fresh.

"Nitrogen Starvation"

So much has been written and said recently of the danger of nitrogen starvation, that it is refreshing to read such an article as that by E. P. Brewster in the April *Metropolitan*. The article deals in *facts*, contrasting in a marked manner with some of the statements which have been written on the other side.

We note only one statement that seems to be a mistake. That is, placing the protein requirement of the body at four ounces a day. In view of the work of the Yale physiologists, this would seem a little high, but the writer evidently wished to prepare a paper which no one, even the advocates of a high protein ration, could gainsay, and he has done it.

Probably the greatest evil resulting from the abandonment of a flesh diet has always come from the sudden change, and on this Mr. Brewster says: —

"Let no valorous citizen, however, think that he can dispense with the meat trust overnight. One's bodily organs have become adapted to a certain diet; they will not at once change over and produce less gastric juice and more saliva. Besides, the extractives of meat are powerful stimulants; and a stimulant, barring the moral problem, is best tapered, not sworn off."

Avoid Advertised Cures

IT is excellent advice a certain Life Assurance Company gives its elderly policyholders, "Avoid advertised cures." Whenever any drug or appliance is advertised as a "cure" or "a sure cure," shun it as you would poison; for you know, in the first place, that the advertiser is given to extravagant claims, and you can not do better than to distrust any one who has proved unfaithful in one point. There are no "sure cures." Remember that, first of all, the advertiser is after your money. Your health is to him a secondary matter, if indeed it concerns him at all.

Intestinal Parasites and Germ Diseases

THE opinion is gaining ground that the entrance of microbes from the intestinal tract into the body is favored by the presence of intestinal worms, which, making wounds in the intestinal mucous membrane, permit the passage of bacteria that otherwise might be completely harmless. It is supposed that appendicitis, and perhaps peritonitis, as well as other diseases, may often be caused in this manner.

It is, in fact, stated that since the days when the older physicians gave vermifuges freely, appendicitis has been much more common, and some believe that a resort to methods to clear the intestinal tract of parasites, and care in the use of

foods to prevent their introduction, would do much to lessen the amount of disease due to the entrance of germs from the intestinal tract into the system. Recent confirmation of the theory of the agency of parasites in the production of bacterial diseases was given in an article in the *Journal of Economic Biology,* in which a description was given of a disease in rainbow-trout caused by nematode worms, some of which had penetrated to the swimming-bladder. In the infected fish, the swimming-bladders contained large numbers of intestinal bacteria, while in the healthy fish the bladder contained no such bacteria. In a certain grouse disease mentioned by the author, thread-worms pierced the mucous membrane of the alimentary canal, and allowed the intestinal bacteria to enter the deeper tissues. Some French observers state that according to their observations, appendicitis in man is usually caused by the presence of the *trichocephalus dispar,* a parasitic worm which is quite common in the human intestine.

The Hookworm Disease in Florida

A RECENT number of the *Public Health Reports* gives an account by Dr. Stiles of an examination of about thirteen hundred schoolchildren in Florida by men expert in dealing with hookworm disease. The result of this examination was that more than fifty-five per cent of the children were considered to be "suspects," and this is believed by the examiners to be a very conservative estimate, that, in fact, a careful microscopical examination would reveal the presence of hookworm eggs in about eighty per cent of the children attending the public schools.

Numbers of the diseased children were found to be "repeaters,"—doing the same grade a second time, because unable to keep up with their classes. It was also found that numbers of the hookworm pupils were very frequently absent from school. A few of the teachers were found to be affected also. These people will acknowledge that they have had "the ground itch," and they will take treatment enthusiastically for uncinariasis, but they are indignant if told they have hookworm disease. The idea of a worm seems to be especially odious to them. Considering the fact that this disease may be cured with comparative ease at an expense of a little more than fifty cents for each person affected, and that proper attention to sanitation will practically prevent the disease, it is to be hoped that the campaign of eradication now being carried on and financed principally by the Rockefeller Fund will speedily clean up the infected districts; but there must first be a persistent campaign of education in order that the people may understand the necessity of co-operating in the work of eradicating this disease.

Meat Boycott Lesson of the

TO-DAY one of the greatest of all national problems is that of the prevailing high prices for what seem to be the necessities of life, principally the items of food and clothing. National legislative bodies are laboring with the problem. Whether they will solve it in any degree continues to be wholly a matter of conjecture. But the one great offsetting advantage is that people are beginning to learn how to trim out the unnecessary and harmful luxuries, and to rely more upon the simple and beneficial necessities. It is strange, but true, that the things which harm us most are those we pay the highest prices for. In clothing, the abominable corset will cost the American woman as high as five or six dollars a pair, and the hideous, weighty, deforming constructions which the mil-

liners call hats cost almost as much as suburban real estate.

In food it is just the same way. Our teas, our coffees, our spices, and our meats are the most expensive items upon our national bill of fare. And though the prices of such staples as flour, potatoes, butter, eggs, etc., have also been on the rise, for the most part they have not gone beyond reach of the ordinary purse, provided luxuries are first eliminated.

It is this prevailing condition of the food market to-day more than any other one thing that has raised the doctrine of vegetarianism materially in the minds of the public at large. The famous meat boycott does not, of course, indicate any great expression of sentiment on the part of the thousands of workers who engaged in it, but it does indicate with startling clearness one or two things: First, that the American public has been driven to seeing that it *can* live without meat, something which a few years ago would have been well-nigh impossible; second, that a condition now maintains which makes it more readily possible to educate the public at large as to the benefits to be derived from a no-meat diet. There is no question but the prevailing meat boycott, however it may be determined, will at least have the one result of cutting down permanently the meat consumption of thousands of American families. Perhaps there is no better indication of this attitude of mind than the following expression from an article, which is not, as might be assumed, calculated to teach vegetarianism or the disuse of meat, but rather the use of certain grades of meat. It is taken from an article entitled "The Lesson of the 'Meat Map'" in the issue of *Harper's Weekly* for February 19:—

"Vegetarians and the principles for which they stand undoubtedly are treated with more respect than formerly. Although the majority may not be ready to accept those doctrines, the diet of the present day is becoming better balanced in many respects, and noticeably by an increased use of vegetables and fruits.

"Half a century ago every hundred persons in this country consumed annually more than one hundred hogs and nearly as many sheep. At the present time the per capita consumption of pork and mutton is only about half as great, and the use of beef also has been somewhat lowered. Such changes in diet come about gradually, and it is not easy to determine all the causes that produce such an effect. It may be due in part to the exploiting of cereal products by millers and manufacturers; to the greater abundance of fruits and vegetables at all seasons of the year; to an increasing use of dairy products, as well as to the higher prices of meats.

"What we would not consider excessive meat eating may have been desirable under pioneer conditions, or whenever great obstacles were to be overcome; as an old poet has it, 'Pudding and beef make Britons fight.'

"But physicians now assure us that too large a proportion of meat overworks certain of the digestive and eliminating organs. Therefore, the housekeeper often does well to use meat as a flavor rather than the main substance of a meal."

This is only one of numerous articles which have been flooding the press, all calculated to point the way to a simpler and better diet. R. O. E.

In the Magazines

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

The Circle, New York.

"Fifteen Minutes' Exercise for the Tired Woman," by Wm. J. Cromie, instructor of gymnastics, University of Pennsylvania. Profusely illustrated with photographs.

Cosmopolitan Magazine, New York.

"The Problem of Subsistence," a symposium on the cost of living.

Country Life in America, New York.

The June issue will be the annual vacation number, devoted to all kinds of vacation and outing subjects. Among others—

"A Vacation Guide for East and West," by Eric Bell.

"A Horseback Vacation in the Adirondacks," by Alfred Pace.

"Rowboats and Boating," by W. E. Partridge.

Garden Magazine—Farming, New York; 15 cents.

An article on the extermination of the poison ivy, by Thomas McAdam. Also a number of excellent articles on the care of the garden.

Good Housekeeping Magazine, Springfield, Mass.

"Outdoor Women," by Richard Duffy.

"Summer-Camp Dangers."

"The Individual's Responsibility for Health," by Rev. Lyman Powell.

"The Filthy House-Fly."

"Clean Meals at Moderate Cost."

Housekeeper, Minneapolis, Minn.

"Laziness Is a Disease," by Dr. Kate Lindsay.

The Ladies' Home Journal, Philadelphia.

"What Vaccination Has Really Done," by Dr. Jay Schamberg, being the other side of the topic discussed in the May number.

"Frank Talks With Boys' Parents," by Henry Richards, and—

"How Shall I Tell My Child?" by Mrs. Rose Woodallen Chapman—two very opportune articles relating to sex.

"The Young Mothers' Guide," by Dr. Emelyn Lincoln Coolidge. Dr. Coolidge's department always contains timely counsel.

"When Mother Is Ill," showing how inconsiderate sick people sometimes are when others do all in their power to comfort and help them.

The Mothers' Magazine, Elgin, Ill.

"Economics of the Home," an interview with Dr. H. W. Wiley.

"The Best Uses of Our Public Parks," Magee Pratt.

"The Green Grass Country," Eunice Gooden Janes.

"Possibilities of a City Back Yard," Olive Hereford.

"Camping Out," Miles Bradford.

"Keeping Scientifically Clean," S. S. Phillips.

Munsey's Magazine, New York.

"The Rockefeller Foundation," by Herbert N. Casson, from data furnished by the incorporators of the foundation.

"Two Famous American Surgeons," by Edwin C. Hackett, describing the work of the Mayo Brothers, of Rochester, Minn.

The National Food Magazine, Chicago.

"The Food and Health Conditions of Germany," by Rutledge Rutherford.

"Notes on Food and Health," showing the nutritive values of different foods.

"The Domestic Science Exposition," an account of a great exposition and convention of domestic Science workers, arranged for the purpose of solving the cost-of-living problem.

Success Magazine, New York.

"The Evils of the Night Messenger Service," by Leroy Scott.

World's Work, New York.

"What Not to Do for Headache," Edgar Allen Forbes; an article containing *facts* which should be a warning to every one who is tempted to take a short-cut cure for a headache.

Ministration to Mind Troubles

Why Worry? by George L. Walton, M. D., Consulting Neurologist to the Massachusetts General Hospital. Cloth, 275 pages, $1 net. J. B. Lippincott & Co., New York.

In this book, which first appeared as a serial in *Lippincott's Magazine*, and which has passed through at least nine editions in two years, the key-note is *the insistent thought*. It is this, according to Dr. Walton, that causes us to fret at the weather, and to find fault with our egg, if it is boiled either more or less than four minutes, that causes us to lose sleep because of some trifling noise, that irritates us because of the actions of another, that lies at the bottom of our neurasthenias, our doubts, and our worries,— insistent thought that is due to a wrong perspective, that may be corrected late in life as truly as earlier. Undoubtedly many persons think themselves victims of incurable nervous or mental troubles, who are merely in need of a new standpoint from which to view themselves. This book may give the new view-point. The writer of this review could pay the book no greater compliment than to say that a perusal of the book in order to review it, has enabled him to rid himself of some things that have literally held him for years.

Self Help for Nervous Women, by John K. Mitchell, M. D. Cloth, 201 pages, $1 net. J. B. Lippincott & Co., New York.

"The economy of nervous expenditure" is the key-note of this book. Dr. Walton addresses those who are "keyed up;" Dr. Mitchell, those who are bankrupt or exhausted nervously, or those who are on the way. Undoubtedly both classes are much the same, though there is an advantage in difference in treatment, as in some cases the irritability is more in evidence, in others the exhaustion is more prominent. Dr. Mitchell emphasizes the necessity of removing all physical causes of nervous disorder, including malnutrition. What he says regarding vegetarianism is, on the whole, excellent, but how he knows that man is "intended to be omnivorous" is a mystery, especially as man is anatomically almost the exact counterpart of the higher apes,— so far as his digestive apparatus is concerned,— and the apes have never been accused of being omnivorous. Comparative anatomists tell us that man is anatomically a frugivorous animal, that is, he subsists naturally on fruits, nuts, etc. Dr. Mitchell gives excellent suggestions regarding self-control, system and order, the formation of good habits, and the prevention of nervousness in children.

The Care of the Body

The Seven Essentials of Life and Health, A Practical Primary Treatise on Hygiene, by G. D'Estin Ballou. Modern Hygiene Publishing Co., Los Angeles, Cal.

The Science of Living, or the Art of Keeping Well, by Wm. S. Sadler, M. D. A. C. McClurg & Co., publishers, Chicago; $1.50, net.

Both books are written by men who have had an extensive and successful experience in the lecture field in behalf of hygienic living, and both teach the principles for which LIFE AND HEALTH stands.

Mr. Ballou's book, written in a more simple style, and avoiding the more recent findings of the laboratories, would appeal more especially to the "common people," though there is nothing abstruse in Dr. Sadler's book. Dr. Sadler has given more space to tables of nutrition and food value, which will be appreciated by the few rather than the many, for the multitudes do not care to reduce their eating to the terms of grams and calories.

Especially to be commended in "The Science of Living" is the chapter on "Health Hints;" for those who do not care to master the chapters on nutrition will find much condensed wisdom in this chapter. After all, most of us like to take our instruction in hygiene in tabloid form, predigested.

American Meat, Its Methods of Production and Influence on Public Health, by Albert Leffingwell, M. D. Cloth, 208 pages. Theo. E. Schulte, publisher, 132 East Twenty-third St., New York City.

This is a remarkable book, based chiefly on the interpretations that have been placed on the meat inspection laws by the department that is supposed to be acting as a watch-dog to care for the health of the consumers. The evidence would make it appear that it rather stands as watch-dog to see that everything, even your health and mine, shall take a place second to the financial interests of the producers. It is shown that our representative in England reassured his hearers with the statement that by our inspection methods, diseased meat is most rigidly excluded, and then came back to America and interpreted the law so that the exclusion of diseased meat is not nearly so rigid as he stated it to be. These acts, while inconsistent with each other, are entirely consistent with a policy to protect the interests of the producer, regardless of the interests of the consumer.

To us who are not dependent on meat, this matter may be interesting only in an indirect way; but we would think that those who feel they must have meat, would want some assurance that meat inspection is not merely a process of using the whitewash brush. Every one interested in the meat problem in any way should read this book.

The Landscape Beautiful, a study of the utility of the natural landscape, its relation to human life and happiness, with the application of these principles in landscape gardening and in art in general, by Frank A. Waugh, Professor of Horticulture and Landscape Gardening, Massachusetts Agricultural College, Amherst, Mass. 49 full-page illustrations, large type, wide margins, cloth and board, deckle edge, 336 pages; net, $2. The Orange Judd Company, New York.

In our issue of last month, in reviewing this delightful book, we omitted to give the name and address of the publishers, and we take occasion to repeat that this is a book out of the ordinary. Of the many books that have appeared on nature, none is like this. Professor Waugh, an experienced teacher, and an enthusiastic lover of nature, gives in detail practical methods by which the landscape can be taught by teachers, studied by pupils, and enjoyed by all. Aside from its value as an expounder of a great truth, the book has unusual merit as a work of art, and in literary style it is far above the average.

* * *

The Suppression of Liquor Traffic Among the Indians.— In order to continue the excellent work that has been conducted along this line, the appropriation by Congress for the next fiscal year will be increased from the present amount (fifty thousand dollars) to eighty thousand dollars.

Effect of Social Conditions on Infant Mortality.— In New York sixteen thousand infants die annually. In order to answer the question, "Is it necessary?" an investigation was undertaken in three districts, — the wealthy, the comfortable, and the very poor,— each having an approximate population of 7,500 residents. In the first, during one year there were 37 babies born, and no deaths; in the second, 160 babies were born, and no deaths; and in the third, 434 were born, with sixteen deaths, nearly four per cent. In the first class there was careful nursing, probably by trained nurses, and in the second class by mothers who had the time to attend to their own babies; but in the third class the babies probably were neglected, partly through ignorance, and partly because of the necessity that the mother help to provide for the needs of the family.

Judge Rules Against Vaccination.— The board of education of Watsonville, Cal., refused to enforce the new vaccination law. The State board of health brought legal proceedings to compel them to comply with the law. The judge ruled that the vaccination law is unconstitutional in that it is class legislation, because it compels vaccination of public-school children and not of private-school children.

To Prevent the Spread of Scarlet Fever. — Dr. R. Milne, medical officer of Dr. Barnardo's hospitals and homes, states that by careful inunction of scarlet fever patients from head to foot with oil of Eucalyptus, and repeated swabbing of the throat with carbolic oil, transmission of the disease is absolutely prevented, and that when this precaution is taken, scarlet fever patients can be safely nursed right alongside of children not having the disease. Complications seem to be so rare under this treatment that the disease is less dangerous than measles. If this claim be true, it is to be hoped our physicians in America will soon put it into active practise, both for the prevention and for the relief of scarlet fever.

Corsets in Saxony.— The royal minister of education in Saxony is said to have issued a decree that no girl who wears a corset shall be permitted to attend any public educational institution in that country.

International Esperanto Congress.— The sixth International Congress of Esperantoists will be held in Washington the latter part of August of this year. Dr. Zamenhof, the founder of the language, is expected to be present. Dr. Zamenhof is an oculist.

Vegetable Butters.— From a translation in the *Literary Digest* of an article which appeared in *Cosmos* (Paris), we learn that cocoanut butter is being made in France, Germany, and Italy. It keeps for several months if preserved from contact with light, air, and temperature changes. It is said that sixty thousand tons are made annually in Europe, nearly two hundred tons a day.

Outdoor Public Schools.— The city of New York is preparing a series of twenty outdoor schools — that is, having schoolrooms with open windows from floor to ceiling. The first of these to be furnished contains separate chairs to accommodate children of different sizes, and also some reclining seats, like steamer chairs, made of canvas stretched on wooden frames. Nourishing food and warm wraps will be supplied to the pupils. These schools are intended for anemic children, and not for those suffering from tuberculosis.

Serum Cure for Rheumatism.— The Academy of Medicine in France has appointed a commission to examine into the merits of the serum which has been prepared to cure rheumatic fever. As is now generally known, rheumatic fever is a germ disease. Dr. Rosenthal has been experimenting by inoculating horses with the germs of rheumatic fever, and has succeeded in preparing a serum which seems to be effective when injected into human beings having rheumatic fever. The commission will undoubtedly report shortly as to the merits of this serum.

To Prevent Lockjaw.— The fire commissioner of New York, carrying out an order of the mayor, has published the following: "Notice is hereby given to all concerned that the fire commissioner hereafter will not issue any permit for the retailing of fireworks, Chinese crackers, rockets, blue lights, Roman candles, colored pots, lance wheels, and other works of brilliant colored fire."

International Congress of Physical Therapeutics.— The Third International Congress of Physical Therapeutics, held the week beginning March 30, in Paris, was opened by the president of the French republic. An excellent meeting is reported. The growth in popularity of non-drug therapy is shown in the fact that the second congress, in 1907, had only seventeen hundred members, and this congress had five thousand; that is, nearly three times as many.

Hookworm Investigations.— Dr. C. W. Stiles, of the United States Public Health and Marine Hospital Service, will make Raleigh, N. C., the headquarters of the Rockefeller Commission in its special investigations in the Southern States. The North Carolina State board of health has appointed Dr. John A. Ferrall special assistant secretary for the study of hookworm, to make his headquarters at Raleigh. Undoubtedly the State, the Marine Hospital Service, and the Rockefeller Commission will work together in these investigations.

Typhoid From Milk.— Several outbreaks of typhoid in New York having been traced to the milk supply, the city board of health has cautioned the public that unless milk is certified, guaranteed, or inspected, it should be either boiled or Pasteurized before use. Dr. Biggs states in his report that "certain recently discovered, but previously unknown factors, show that no system of inspection for this city will make the drinking of ordinary commercial milk entirely safe." Recently several cases of typhoid fever have been traced to a milkman who had had an attack of typhoid fever forty-six years ago.

Plague in Hawaii.— There has been a fresh outbreak of plague in Honolulu.

Hookworm in Samoa.— It is reported that five per cent of the Samoans are infected with hookworm disease.

No Race Suicide in Sweden.— The gross increase in population in Sweden in 1909 is said to be greater than in any other year in the past decade.

Beriberi in South Carolina.— A recent outbreak of beriberi in a Negro camp of convicts in South Carolina is another evidence that we hereafter must reckon with the tropical diseases.

A Bill to Protect Public Morals.— A bill has been introduced into the Ohio legislature prohibiting advertisements of the treatment of certain diseases,— venereal, sexual, and the like.

Incorporation of the Tuberculosis Preventarium.— Dr. Nathan Strauss has secured the incorporation of the preventarium, founded by himself for the prevention of tuberculosis in children. It may operate in New York and in New Jersey.

Blindness from Wood-Alcohol.— Three cases of blindness have developed recently in New York as the result of drinking whisky doped with wood-alcohol. It is said that on the East Side a considerable quantity of "white whisky" containing wood-alcohol is sold. The sellers of this fraud are to be prosecuted.

Monkeys Can Have Typhoid.— Professor Metchnikoff of the Pasteur Institute has announced that he has succeeded in inoculating monkeys with the typhoid germ. Heretofore the disease has been confined entirely to the human race. By means of the monkey now it will be possible to prepare antityphoid vaccines.

Public Health Work in Sweden.— Various large manufacturing concerns in Sweden have established private sanatoria for their own employees, and any employee found infected with tuberculosis is sent to the sanatorium and is maintained there at the expense of the company. Members of the families of employees are received, and treated for a small charge.

Measles and Mice.— Dr. A. F. A. King, of Washington, who was an early exponent of the mosquito-malaria theory, has recently published his opinion that mice may be an important means of the transfer of measles. Now that we have come to realize that animals play an important part in the transmission of disease, we can not afford to cast aside this theory without careful investigation.

Virginia Dentists Must Have Medical Education.— The Virginia legislature has passed a law requiring that after 1914 all dentists entering the State to practise must have a medical education. We are querying whether this bill was worked through by the doctors or the dentists.

Public Hygiene in Greece.— The two great scourges are malarial fever and tuberculosis. The people have been interested through lectures, pamphlets, etc., to fight the mosquitoes by draining stagnant pools and using petroleum. Next year a tuberculosis congress will be held in Athens. To this will be invited not only physicians, but all the mayors and other prominent people of Greece.

Autoserotherapy in Pleural Effusion.— The method has been quite successfully used, withdrawing by means of a Pravaz syringe a small quantity (1 c. c.) of the fluid of pleural effusion, and injecting it into the muscles of the back. If the fluid be serous or bloody, the result is generally the rapid absorption of the pleural effusion. Some physicians, however, have denied that there is any benefit in the method.

Sidewalk Spitting Dangerous.— An investigation made by the medical health officer of Birmingham, England, showed that seven per cent of the "spits" collected in public places contained consumption germs. On the other hand, the dust collected from the floors of the cottages of the Adirondack Cottage Sanitarium has been found to be free from tuberculosis, showing that a careful consumptive is not dangerous.

A New Method of Restoring Those Who Are Poisoned.— A physician of the Rockefeller Institute has announced that by running a tube into the windpipe and forcing a steady stream of air into the lungs, life may be preserved in the case of animals, apparently dead of such drugs as strychnin, morphin, carbon monoxid, illuminating gas, etc., and it is supposed that the method may be useful in the case of accidents to human beings, if they are discovered before life is actually extinct.

Wasteful Destruction.— A report having been received from San Francisco that ten thousand dollars' worth of opium seized in that city had been destroyed by the government, one medical journal expressed the opinion that it is a pity that so much of a valuable drug should be destroyed even if it was smuggled, and that it might be applied to legitimate uses. But ten thousand dollars' worth of opium would go a long way if opium were used only in a "legitimate way."

Electric Cure of Cancer.— A Chicago physician has caused some sensation by curing cancer by means of the electric current.

Tuberculous Hogs.— The federal meat inspectors have shown that twenty per cent of the hogs in this country are infected with tuberculosis.

International Tuberculosis Congress.— The next International Congress on Tuberculosis will be held in Rome the last two weeks of April, 1911.

Tuberculosis Work in Iceland.— The little island has a society for the prevention of tuberculosis, and is erecting a seventy-thousand-dollar sanitarium with capacity for fifty or sixty patients.

For a Sane Fourth.— Hundreds of cities and towns have passed ordinances against the use of fireworks. In one city the dealers protested against the ordinance because they had already laid in a supply of fireworks, and it would cause them a heavy loss; so the citizens purchased the entire stock, and will hold an exhibition in the park. Meanwhile the ordinance against the sale of fireworks is to be enforced. In many cities and towns other means of celebration are being inaugurated, such as pageants, parades, flag drills, etc.

Religious Opposition of Hygienic Measure.— Strong opposition from religious sources has developed against the bill prohibiting the use of common drinking cups in public places. The law, strictly interpreted, would necessitate the use of individual cups at communion.

Treatment of Inebriates.— Three professors of neurology in leading New York medical schools have signed a statement in which they urge the necessity of having an institution where inebriates may receive special treatment, and may be given healthful outdoor work. They claim that present methods of treating inebriety are wholly inefficient. At the present time there are forty thousand new inebriates yearly in New York.

A Serum for Pneumonia.— A Berlin physician has prepared a serum by inoculating a horse with enormous doses of the pneumonia germ. After the horse has become thoroughly immune to pneumonia, a certain amount of blood is drawn and allowed to clot. The clear liquid is the serum which, when injected into pneumonia patients in a small series of cases, gave excellent results. It will, of course, be tried in a large number of other cases before it is given out to the world as a specific.

Relation of Tobacco and Alcohol

R. O. Eastman

SINCE the prohibition movement began, tobacco users and representatives of the tobacco interests have scoffed at the idea so frequently put forth that the tobacco interests go hand in hand with those of the saloon. We have heard this idea frequently promulgated from the platform and press, and as often decried by the other side. It is refreshing, therefore, to get the facts in the case straight from official headquarters — from the columns of the *Cigar Maker's Official Journal*. In its issue for February 15 the correspondent in Decatur, Ill., one of the many cities which have in recent years gone under the new local option rule, writes as follows: —

"Trade is extremely dull in this city at the present time. 'Cause,' enforcement of the local option law. This city, and township in which it is situated, voted on the local option question just twenty-one months ago. The election was carried by the drys, or local optionists. The law was never enforced until the last few weeks. They had a change in the administration in the police department the last month or six weeks. 'Consequence,' the law is rigidly enforced. There was in existence and doing business up to the above-stated time at least fifty soft drink establishments, and each and all of them carried a full line of union-made cigars, mostly of home product. These markets for our goods are now closed, we might say, with crepe on the door. . . . It is really surprising how the trade has fallen off since this law has been enforced. If the present condition continues, it doesn't look good for the future.

"Cigar makers throughout the country who will be advised from one who has had actual experience, whatever you do, use your best endeavors to defeat your enemy, local option. However, we have one refuge in view. This local option question will again be submitted to the voters here on April 12, 1910. If we are strong enough to carry the day, and we can have the licensed saloon, it will bring a revival of trade, and Decatur will be as of yore."

Well does the writer of the above communication deplore the passing of the licensed saloon. It is the licensed saloon which sells more tobacco — we might well add, more *bad* tobacco, if there is any condition under which one kind of tobacco can be classed as bad and another good — than any other agency outside of the stores devoted to the sale of tobacco alone. It has been said that there is scarcely a saloon which does not carry a stock of cheap, inferior cigars which are passed out to the man who tells the bartender to "Gim me a cigar," without specifying the brand. This is by no means an infrequent occurrence.

The licensed saloon is a remarkable market for tobacco; but if the cigar makers' union secures any special credit or distinction by such an open affiliation with that particular agency of iniquity, it is entirely welcome to it.

There is a difference between the blue label and the blue ribbon, even more distinction, perhaps, than there is between the brand of weed which the bartender hands out to the thick-lipped Bacchanalian disciple and that handed over the druggist's counter and called "pure Havana."

In the same issue of the above-named publication is another item of interest from a sanitary standpoint. The quotation needs no further comment. It is headed, "They May Be Clean, But ——" and goes on to say: —

"We reproduce herewith a photograph of a stripping room in a Filipino cigar factory. The lack of clothing for the girls displayed by the picture is largely due to the fact that they work for wages that would not be car fare for a girl in this country. A full-fledged cigar maker receives from fifteen to thirty-seven cents per day for making cigars. Cigars now being made in factories such as the above are now admitted to this country, and contain a government stamp which claims they — the cigars — are made by cleanly operators in a sanitary factory under control of the board of health."

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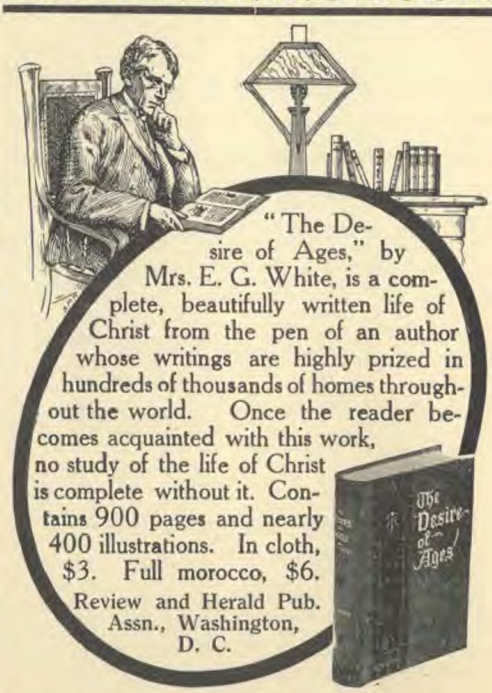

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