THE NATIONAL HEALTH MAGAZINE

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The American Public Health Association

This association of scientific men, having a membership in all parts of the United States, and in Canada, Mexico, and Cuba, meets once a year for the purpose of developing and advancing the interests of public hygiene.

By public hygiene is meant such facts and principles as can be applied by the government, national or local, to the conservation of the health of the public, including city water supplies, sewage disposal, quarantine against infectious disease, destruction of rats. mosquitoes, etc., inspection of milk and other foods, medical school inspection, etc.

The association is composed largely of men working on public health problems in the laboratory, or in an administrative way. In a larger sense than we may understand, these men, individually and collectively, are working for a diminution of preventable disease, and the general lengthening of life, and in precisely those countries where the most thorough work of this nature has been carried on, we witness the greatest gain in average length of life.

Many of the papers read at the annual meetings of the association would be as meaningless to the layman as the calculations of the stresses and strains in a cantilever bridge. The layman knows nothing of these calculations. He has faith to believe that the bridge will hold him up, and that is all he wants to know. In like manner, much of the work of the public health men would be unintelligible to the untrained layman, but the results are to him just as important as are the calculations which determine the strength of materials to be used in the bridge — more so, for he may never use the bridge, and every day he is coming in contact with conditions which are under the control of the health officers.

The influence of the health officer is least felt in country districts, for obvious reasons, and for that very reason the country is specifically the home of malaria, typhoid fever, pellagra, and hookworm disease. Not that all country districts are infested with these diseases, but when they are, the situation is less under control than it is in the city.

Our purpose in this paper is not to attempt to introduce the reader to the intricacies of the public health problems, but to help him to realize that there are such problems being handled by men who are as much experts in their line as are the men who plan bridges and tunnels and sky-scrapers. In fact, the one thing that made the Panama Canal a failure with the French was the mosquito, and the one thing that is making the work of digging the canal a success to-day, is sanitation, that is, provisions for the protection of public health, scrupulously enforced.

Public health administration involves personal sacrifice, sometimes personal loss. It means often the restriction of personal liberty; for instance, the liberty to spit on the sidewalk, the liberty to throw garbage into the street, the liberty to maintain a nuisance, the liberty to go around with diphtheria germs in the throat.

We are all willing the other fellow shall be restricted in such matters. Are we broad-minded enough to accept gracefully the restrictions ourselves? If I am a dairyman, will I take it with good grace when the inspector tells me half of my cows have tuberculosis, and that I can not use them any longer for milking purposes?

Public health is a progressive science. It is gaining ground. New discoveries are constantly being made and published, leading to more efficient health administration.

Important problems are coming up for solution at the meeting of the American Public Health Association, and it is the purpose to give in the November LIFE AND HEALTH a popular account of this year's meeting, one which will enable our readers to work more sympathetically and cordially with the public health administrators in the performance of their duties.

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Entered as second-class matter June 24, 1904, at the post-office at Washington, D. C., under the Act of Congress of March 3, 1879.

TERMS: \$1 a year; 10 cents a copy. Special rates to agents.

POSTAGE IS PREPAID by the publishers on all subscriptions to all countries.

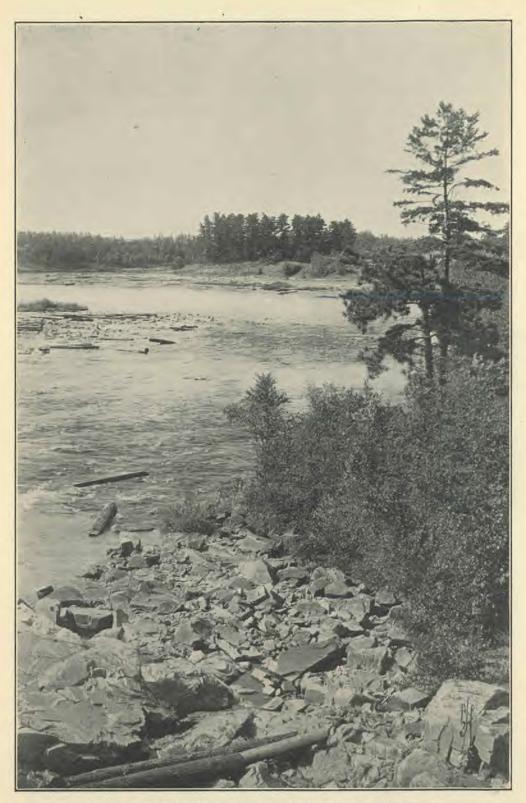
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IT IS BEST TO SELECT A ROUTE THAT OFFERS VARIETY ("Cross-Country Walks for Women," page 614)

VOI. XXV No. 10 LIFE & TIEALTH

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.

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A Foreword by the Editor

A civilization may be very accurately estimated by observing the position accorded the women by the men. In proportion as a country becomes civilized, woman assumes and is accorded a position of dignity and responsibility more nearly on a par with man. Rapid and revolutionary changes have taken place in this respect during the last generation. Little by little the belief in man's essential superiority is giving way.

Reference is not made to woman's entering the political field and her insistent demand for the privilege of the ballot, which, to say the least, has in some quarters assumed a very undignified phase, but to her finding a useful sphere beside man in the many industrial and mercantile occupations, in education, and in movements for general social uplift.

Whether woman really desires the ballot and will use it to good advantage, the future must decide. There is evidently a growing sentiment in favor of woman suffrage. But we can not be blind to the fact that many prominent women are vigorously opposing the movement to give women the franchise.

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In this issue are given a number of messages from women to women, messages which we believe will prove of present interest.

Town improvement is a work well worth the interest and the time of women. No town is so unfavorably situated that it can not be beautified; none so beautiful that it can not be improved. Town improvement work will have a strong educational influence on the young, will add to the pleasure and interest of the adults, will materially increase the property values and the general prosperity of the town, and above all, will have a tendency to hold the more ambitious

of the young people from gravitating toward the larger cities. The article by Eva Ryman-Gaillard should prove an inspiration to women living in towns and villages to undertake this public-spirited work.

The impression may prevail that the opportunity is past to secure government lands, or that such a move is impracticable for the inexperienced. Florence L. Clark shows from her experience, that, with a few hundred dollars, it may be accomplished, and that life on a Western claim may bring not only health but independence.

Women very naturally form the habit of living indoors. It seems almost impossible, with their many duties, to find time to get out for a walk, until finally the indoor habit is firmly fixed. The article by Mary Alden Carver should be an incentive and a help to break up this unhealthful habit.

Can a woman work in an office under modern conditions and retain her health? Miss Mahon believes from her experience that this is possible. Her recital of this experience may be a help to many business women who find their health failing, and may help others to apply the "ounce of prevention."

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Fred W. Beckman's recital of how one man fought consumption and won the battle will be read with profit by every one who has learned that tuberculosis has marked him or some dear friend for a victim.

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"Cancer, the Outlaw," by Camillus Bush, M. D.; "The Modern Verdict Concerning Alcohol," by D. H. Kress, M. D.; "Elimination and Disease," by H. R. Harrower, M. D.; "Sick-Headaches," by E. L. Paulding, M. D.; "The Law of Rest and Healing," by G. D. Ballou; "The Death-Dealing Picture Show," by R. O. Eastman, are intensely practical, and will need no introduction.





HE accompanying quotation makes a fine motto for improvement workers, because it emphasizes the fact that each individual is an in-

tegral part of the "they" who are blamed for things undone, and that individual effort is an essential factor in all improvement work.

No town is so small, and no commu-

nity so scattered, that it can not have a live, working improvement society; but no such society ever has been, or ever will be, organized without some preliminary work by an interested few;

Why don't they keep the streets a little cleaner? 'You ask with deep annoyance, not undue;
Why don't they keep the parks a little greener?'

(Did you ever stop to think that 'they' means you?)"

mainly a war against ugliness of all sorts, and a campaign for beauty, cleanliness, and healthfulness. As an idea of what such a society can accomplish may best be given by telling what one *has* accomplished, the writer offers no apology for describing, in part, the work done in her home town, Girard, Pa.

As what might be a trifling work for a town of one size would be a formidable undertaking in a much smaller one, so any work done must be judged, largely, by the number of workers; and in order

> that the work to be described may receive a true valuation, and that it may carry its lesson of encouragement to other s mall towns, it must be explained that when the work was begun,

and after organization, the work of the society must be supplemented by that of the individual.

The work of a "civic improvement league" may include work along vastly broader lines than those that come, properly, within the scope of a "town improvement society," for, as the term is generally accepted, the latter includes six years ago, the population of the town did not exceed twelve hundred, and is well below fifteen hundred now.

The society as first organized was composed entirely of women who realized that a beginning must be made somehow, and that the development of sentiment favorable to their purpose meant gradual work, with no attempt to

606

do anything that might antagonize others. When the announcement of the organization of the society was made, an invitation was given for any one and every one interested in having a more beautiful town to join it — the annual dues being fixed at twenty-five cents a member.

The plan of the town included a small "public square," about two hundred fifty feet on a side, with the main street running straight through it; but later, when a monument in honor of the soldiers and sailors of the Civil War had been erected in the middle of the street, the walks had been curved to give added width for the roadway.

Grand old maple trees bordered the south half of the "square," while the north half was a veritable grove; but, with all its possibilities, the place was unkempt and unattractive, and the society began operations by trying to improve it. As soon as the finance committee had funds in hand, shrubs and plants were set out, a small fountain was built, and iron seats, set in cement, were placed in pleasant locations.

The soldiers' monument stood on a circular mound, surrounded by a heavy iron fence. The fence was removed; the mound was changed to a long-oval form, and heavy cement curbing was built around it. Shrubs, and two howitzers which had been used in the war, were placed on the mound, and the improvement was so marked that the square came to be generally known as "the park."

As the people began to realize what the society wanted to accomplish, helping hands were extended on every side. A farmer sent men and teams to help with the grading; a load of high-grade lawn fertilizer was sent and scattered; and when the lawn was ready for it, a second-hand lawn-mower, in good repair, was given. Another donation was a lot of fine shrubs; and so the work went on, nearly all the citizens helping,



A BIRD'S-EYE VIEW OF THE PARK

as they could, to make ours a "town beautiful."

Almost the first work of general improvement was done by two ladies who, at their own expense, planted vines beside brick buildings throughout the town. Of course they did so with the consent of the owners. Now business buildings, factories, churches, and other one-timegraph and other poles near the corner.

This spirit has brought about the removal of fences, until very few are left in the town, and the effect of long stretches of unbroken lawns, with their shrubs and flowers, is that of an extended parkway. In a thousand and one ways the work goes on, for in this work, as in other kinds, human nature shows



LOW SHRUBS NEAR THE STREET. TALL GRASSES BESIDE THE FOUNTAIN, A bit of the park in detail

bare buildings are attractive because of the beauty of the vines. This result has come slowly, but surely.

As the work advanced, it was noted that here and there property owners were carrying out the work in various ways. Cne man transformed an unsightly alley back of a business block by planting vines, golden glow, cannas, castor beans, and other quickly growing plants, until the place seemed like a tropical jungle. Then, between the building and the street, at one side, he made a bed thirty feet in circumference, and filled with cannas and dahlias that bloomed until frost spoiled them, and the same kind of plants were put around the teleitself. If B adds some beauty to his home surroundings, or removes some unsightly object, A on the one side and C on the other will strive to equal if they can not outdo it.

Each year we try to add some beauty or convenience that will be a permanent good. Besides, our funds are expended in paying a man to keep the little park in order, clean cross-walks, and do whatever is needed, of a public nature.

Two years ago we decided that the thing the town most needed was a good drinking fountain for man and beast, and we installed it. Last year street signs were the object in view, and we have them ready to put up. At our annual meeting we elect a president, two vice-presidents, a secretary, and a treasurer. Besides these, we have a finance committee and a park committee of three members each, who plan ways of earning money and of carrying on the work, and call on the town, collectively and individually, for whatever help they need in carrying out their plans. If any unusually important work comes up, the president has power to appoint committees.

We have, beyond question, accomplished much for so small a town; and as an expression of personal opinion, the writer has no hesitation in saying that such results are largely owing to the fact that committees have been given a free hand in their work, and, to an unusual degree, freedom from petty criticism.

As a society, and in our individual efforts,' we have made mistakes, and expect to make more; but, on the whole, we are satisfied, and are ready to keep on working for more and better things — things that add to the pleasure of the stranger within our gates, and contribute to our own good.

Residents of some village may say, "We have no such place for a park, to begin with." Well, even so small a one as ours is *not necessary*; but if it seems desirable, look around and see if there is not somewhere in the town a vacant lot, or one with old buildings which can be removed or torn down, that would serve for the purpose. A central location is not always the most desirable.

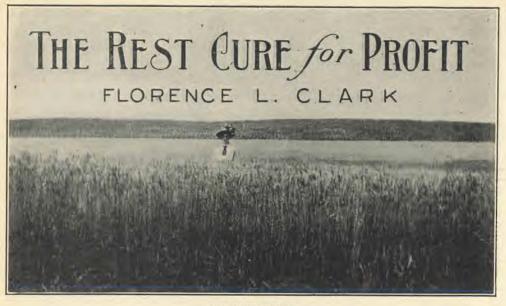
Others may say, "We have no waterworks to make the fountains possible." Again I say they are *not necessary*. Many small things may be done while waiting and working for these larger ones. Work; and talk, *talk*, *talk*, but do not argue, *town improvement*.

If the village fathers are not progressive, talk your voting friends into working for those who will study civic questions; and when you get them, do all in your power to help them, and they will prove your most valuable helpers.

If one little village of twelve hundred inhabitants can be bonded for the purpose of putting in an electric-light plant and a water- and sewer-system, another can, and can make these public works self-supporting, too.

Begin somewhere, but *begin*, and perhaps not "all things," but many things, will come your way. The night the ladies of Girard organized their Town Improvement Society, many things were talked of and called impossible of achievement, yet the most improbable ones became accomplished facts in less than three years.





MY FIRST CROP



ITH what increasing insistence the free lands of the Northwest lure to-day! There lies ''easy money;" there can be found sat-

isfaction for the land hunger innate in nearly every one; but, better yet, there yonder on the wide prairies, in the "free, fenceless air," in the big aloneness and

the great quietness, wait rest and abundant health for all who come a seeking. And it is this longing for balm for throbbing nerves and red blood for a run-down system, fully as much as the conviction that more money can be earned in fourteen months "holding down a claim" than can be saved from moderate salaries in ten years. which now draws



THE COLONY SHACKS

thousands of men and women workers from the towns and cities out into the public domain to jostle farmers in the race for homesteads.

In this spirit several friends and myself came to North Dakota a year ago, and took up claims together. 'The experience has been so delightful, so healthgiving, and so well worth while financially, that we pass the good word along in the hope that others may be led to come and do likewise. Homesteading is

> so wholly within the grasp of all who have a few hundreds to their credit that it is indeed a pity that more do not "use their right" ere it is too late. It soon will be. Only two, three, five years at the most, remain before the very last of the government land will have been disposed of, and the opportunity of earning a farm "just by sitting," of taking a long leave of absence

from work and spending a blessed fourteen months on the prairies, will have passed forever.

To obtain a homestead, it is not necessary to depend upon the big land openings, as many seem to believe. There are large areas of public land fully as good as these reservation farms, to be had for the mere filing. In North Dakota, according to the last government report, one million acres are still untaken; in Montana, ten million acres. Complete information relative to these areas may be obtained by writing to the United States Land Office.

It was our good huck to have a friend on the ground who chose claims for us before we left home. Hence, it was only necessary to file at the local land office on arrival, and receive papers. We had chosen four quarters of the same section, so

that we might build our shacks close together, and live colony fashion,— the ideal way to homestead.

The building of the four shacks came first, and there was in truth a deal of bustle in the middle of section 34 during the month of May, for, of course, we had come onto our land in the spring in order to avoid two winters. After inspecting the shacks of the neighborhood, — especially one that cost fifty dollars, in which a woman homesteader had survived to tell the tale, though she did wake up to a frozen nose one winter's morning,— we evolved a plan whereby for one hundred fifty dollars we built shacks that served all purposes very nicely.

Six-foot cellars were dug. These insured warm floors, and also made cheap, convenient storehouses for fuel. The shacks, twelve feet by sixteen feet in size, were made of rough boards, covered on the outside with tar paper and on the inside with rosined paper. A double ceiling, with air space between, was put in to prevent the undue escape of heat through the roof. Rubberoid was added, not, however, before we had had a fine natural soaking one thundery night. Three full-sized windows were put in, though our homesteader carpenter as-

> sured us they would admit an " awful lot of air." We answered it was an "awful lot of air'' we wanted, also an " awful lot of sunlight." In order to obtain a maximum amount of the latter, one window was placed on the east side, another on the west. and the third on

Miss Clark went West, obtained a home, and regained her health; and every year, as the country becomes more thickly settled, her property becomes more valuable.

In the East, her salary, at the very best, would have been largely used in necessary expenses. In the West, without a regular salary, she has become a property holder, and will one day have a magnificent home.

Meantime, she has gained what is really more valuable than even a home — superb health.

> the south. Inner partitions were built in. To these the home-made folding beds were hinged. By this arrangement we avoided sleeping next the cold outer walls in winter. The shacks were "sodded up" in the fall, and proved comfortable in the severest weather.

> Scarcely had the first week of claim life passed ere we had developed amazing appetites, and were sleeping the sleep that knew no waking until the meadowlark chorus tuned up in the morning.

> The shacks completed, we turned our attention to gardening and the superintendence of the breaking and putting in of small fields of flax. After that, there was the country to get acquainted with, and that meant long tramps. There was

the village, three miles distant, where provisions could be bought, and to which a daily mail came by stage. One of our party had brought a team, so we drove as well as walked. We were out-of-doors

most of the day, and at night slept in a wide-open house. Bolts and bars are scorned by the homesteader.

We were remote from neighbors, and soon found a restful delight in the absolute freedom to do as we pleased when we pleased, to wear easy clothes,-our trunks contained only ancient apparel,-to sleep and eat, to work or idle, as the whim seized us. Nothing was insistent, not even worry,

and what could be better nerve medicine than such an atmosphere? Indeed, there is dynamic tonic in the mere being alive on the vast, unbroken prairies, seeing nothing but the encircling sky line, the purpling buttes away yonder, the unduforget, think you, those long rides and drives and tramps over trails abandoned only yesterday by the buffalo herd; gardening together in the early mornings; picnicing and berrying down the

To "have a cough " and be in failing health means, perhaps, loss of position, and doctors' bills and other heavy expenses; and if the purse is limited, it means the prospect of being thrown on public charity.

But not necessarily, if one takes warning in time. A trip to the West, a preemption of some of Uncle Sam's remaining domain, a period of comparative rest in the pure air of the Western plains, may mean a conservation of two personal resources — a building up of home and health.

Not much longer will Uncle Sam have land for the homesteader. It is being rapidly taken up; but the Western Canadian provinces offer very favorable terms to settlers.

Pioneer life is in a sense a life of privation, but it has its compensations, as Miss Clark shows in her paper.

river; sleighing in the homemade "punt;" that day before Christmas when we searched over the hills under the snow for ground-cedar; that night we watched in wonder the radiant play of northern lights? How eminently worth while it all seemed, and what a splendid reserve of health and nerve-force we stored, meantime, for use when back at the old stand again!

As the winter

closed in, the unhampered environment offered splendid opportunity for study and reading and doing the things we had always wanted to do, but had never before had time to do. So we kept content each in his own way, though

lating stretches of waving grass reaching out a thousand miles. One swells to it with the biggest breath he ever drew, and that breath floods into the lungs ninetynine and ninetynine hundredths per cent pure.

Shall we soon



SLEDDING IN THE "PUNT"

not just after the fashion of the homesteader who exclaimed, "My! but I had a good time when I lived on my claim! I didn't do a thing for fourteen months but sit with my feet on the stove."

Among our neighbors was one

who came to his homestead in an advanced stage of tuberculosis. He has so completely recovered that he is now in business in the village. Another who had been a victim of asthma in its worst form for many years, told us with a happiness that none but those who have seen her suffer in one of the dread attacks could appreciate, that she had not had "a touch of her old trouble " since she began homesteading. The dry air and sunshine (there were ninety clear days in western North Dakota between Dec. 1, 1909, and April 1, 1910) make the country especially good for throat and lung troubles. But when to air and sunshine are added rest and the simple life of the open, disease germs of all kinds languish.

And the wonderfully charming feature of this homestead rest-and-health cure is that, unlike all others, it does not require the sacrifice of hard earnings nor indeed even the losing of one's daily bread and butter. On the contrary, you are actually paid, and paid well, for taking the cure. You come and breathe the purest air in the world, sit and rest, fill your system with highly oxygenated blood, see the sun rise in splendor and set in glory 275 days in the year, sleep in the immense stillness, and when fourteen months have been checked off the calendar, Uncle Sam hands you a farm worth from \$2,500 to \$5,000.

Doesn't it seem a pretty fair bargain, to invest a tired body and a few hundreds in money, and realize therefrom health and a couple or twice a couple thousand dollars?

Schafer, N. D.



WHEN WE HAD OUR LAND BROKEN AND PREPARED FOR FLAX



Cross-Country Walks for Women

Mary Alden Carver



HERE is no recreation which holds greater possibilities for enjoyment for the woman who is fond of being out - of - doors

than walking. Because of its cheapness, healthfulness, and convenience, it makes a strong appeal to the average walks will be comfortable and satisfactory, or otherwise.

Never set forth on a tramp unless you are well prepared so far as proper dress is concerned. Those most experienced in the matter find that nothing is more suitable than a simple outfit consisting of a short skirt, with bloomers underneath, a comfortable blouse, a pair of stout, high shoes, a small hat, and heavy gloves, together with a woolen sweater.

woman of moderate means. It would be difficult to name many regions in which it would be impossible to gratify one's desire for this form of exercise. On the other hand, it usually follows that if one deliberately sets forth on exploring excursions, agreeable surprises will be met at every turn. and unexpected "'easures will be found in ambush on every side.

Never set forth on a tramp unless you are well prepared, so far as proper dress is concerned.

Nothing is more suitable than a short skirt of firm, dark-colored denim, with black sateen bloomers underneath, a comfortable blouse, stout, high shoes, a small hat, heavy gloves, and a woolen sweater.

There are a few accessories that should be carried on every cross-country excursion,— a parasol, a small flat knapsack suspended from the shoulders by a strong strap, and perhaps the following: a fieldglass, a small bottle of peroxid, a stout jack-knife, some court-plaster, a small pair of tweezers, a variety of pins, a ball of twine, a compass, a pencil, a note-book, a flask of water, and a small drinking cup. A lunch will be needed.

No material is more satisfactory for the skirt than a firm, dark-colored piece of denim. This should be made with a wide hem, to supply added weight to the skirt when finished, and to offer greater resistance to briers and other obstacles that may be encountered. Black sateen is admirable for the bloomers. Add a short petticoat of the same material, and you

In order to derive the most satisfaction from pedestrian outings, it is well to bear in mind a few essential facts; for there are fundamental bits of wisdom one must possess in order to realize the best results. For instance, the subject of suitable dress and accouterment enters largely into the matter, and decides to a remarkable degree whether or not the

will have a comfortable walking-habit.

High shoes with heavy soles are the best. With feet shod in this manner, rubbers may be dispensed with, even in rainy weather. The high tops form a protection from briers, poisonous plants, and annoying insects. They are also a support for weak or weary ankles.

The woolen sweater is a valuable ac-

cessory. It is light to carry when not in use, and may be tucked away into very small space in the knapsack. It is invaluable in case of a lowering of temperature or an unexpected shower.

Stout gloves protect the hands from insects, poisonous plants, and briers, and are also more durable than gloves of more delicate texture.

A small hat is best, for the reason that one thus dressed is better prepared to go through thickets, and will suffer less inconvenience on windy days. A veil may assist in keeping the hat in place, and will prevent the hair from getting awry. A veil is advisable where one is made nervous or fussy by these little annoyances.

Dressed appropriately, one does not fear destruction of garments, the body is free and unhampered, and is shipshape

for any weather.

It is well to be as little hampered with luggage as possible. There are, however, a few necessary accessories that should be carried on every crosscountry excursion. First, a parasol is a prime requisite. It is a valuable adjunct in case the sun's rays become too fierce, it is a reliable protection when the rainclouds lower, and in the absence of both sun and showers is a staff from which one may derive great comfort when ascending or descending slopes. The par-

asol is the only article with which one needs to be cumbered, with the exception of an inevitable knapsack. The knapsack, however, has no place in the hands, and should always be suspended from the shoulders by a strong, broal strap. The knapsack may be any desir- ' able small grip one may prefer, but generally a small, flat leather receptacle is best liked. Into this, many essentials to the success of an expedition may be placed. Successful walkers carry the following articles within the knapsack: A field-glass, a small bottle filled with peroxid, a stout jack-knife, some courtplaster, a pair of small tweezers, a variety of pins, a ball of twine, a compass, a pencil, a note-book, a flask of water, and a small drinking cup. All of these may be crowded into an almost inconceivably small space, and are invaluable.



MORE PLEASURE IS DERIVED WHEN THE HIGHWAY IS NOT FOLLOWED. TOO CLOSELY

It is also well to carry a lunch in the knapsack, which, to be most satisfactory, should be strictly utilitarian. Carry nourishing edibles that are hearty and sustaining. After a little experience. one realizes that dainties are quite out of place on a "hike," and learns to appreciate simpler, more substantial food.

A small book, if one is an inveterate bookworm, often adds to the enjoyment of a jaunt. When a rest is sought in some shady retreat, the pages may make a particularly strong appeal. And if some accident or unforeseer incident necessitates a prolonged absence from home, a book is frequently a much-appreciated bit of luggage. Into the knapsack may also be crowded the little souvenirs or trophies that may be

accumulated upon an expedition.

As to the road one should travel, almost any highway is desirable, if a paved thoroughfare is avoided. A rolling sweep of roadway is excellent, as it is far less wearying than an endless level, and offers variations that are impossible to an upgrade route, or one that is entirely on a downward slope.

Of course, this has no reference to mountain - climbing efforts, which belong in a class by themselves. This article deals with the crosscountry walk that may be indulged in by any one at any time. Remembering that a pavement is hard for tender feet, it is well to leave the city, when setting

forth upon an expedition, by way of a trolley to the suburbs. In this way, one is precipitated into the open without feeling signs of fatigue. When once in the country, much more pleasure is derived if the highway is not followed too closely. It is much more enjoyable to wander into ravines, stroll off across meadows, dip into the forest or wooded tracts, and loiter along river banks or lake shores, than to keep strictly to the highway, with its customary traffic and dust.

The gait itself should be an easy stride. One will soon acquire a rolling, swinging motion that is conducive to

> endurance and rest. The journey should be made by easy stages, avoiding all fatigue. A "lift" is sometimes offered by a friendly farmer. This breaks the monotony of the walk, and. gives color to the expedition. It adds to the novelty of the day, and affords a pleasant experience to all concerned. It is advisable to meet as many of the inhabitants of the rural regions as possible. These chance meetings offer great opportunities for character study, and are often a source of diversion and much pleasure to every one. One who has not had the experience is sure to be amazed at the hospitality abounding in the country.

With reference to the route, many things should be taken into consideration. It is well to observe the position of the sun, and avoid walking with its rays shining directly into the face or eyes. One should be mindful of the direction in which the wind is blowing, and should consider the topography of the country, and the lay of the land.



How One Successful Business Woman Kept Her Health

Anne Guilbert Mahon



OW in the world do you keep your eyes so bright, your complexion so rosy, and your health so perfect, when you have had so many

years of hard work in such a strenuous office?" asked a friend of a successful business woman. "I don't believe you have missed a day on account of illness in all these years, and you seem health-

ier, and look younger and fresher than when you first went there. How do you do it?"

"Well," laughed the other, "it is true that I have not lost a day because of illness, and I have been in my present position for ten years. I know it is considered a hard office, and the work is confining and

arduous, but my methods are very simple. Any one can follow them, and it certainly pays to take care of one's health, both for the enjoyment of life and the fitness for work and service which it gives.

"I had to learn by experience," she continued. "After I had been in the office a short time, I found it beginning to wear on me. I found myself growing weary and nervous, tired of my work, and dreading the future. I looked around

me at the scores of business women who were nervous wrecks, who dragged themselves listlessly through their work, who broke down long before they should; and I determined, then and there, that if it was in my power, I should not become like one of them.

" I obtained from the library several good books on hygienic living, and I subscribed to one of the leading health magazines, and then I tried to live up to the rules as nearly as I could, and to select those which seemed to fit my spe-

Advice is always cheap, especially advice along health lines. Perhaps here, as elsewhere, example goes farther than precept. It may be well to publish health rules by the score; it is certainly better to live a few of the rules and demonstrate their usefulness. Many stenographers and business women break down comparatively young. Have they made an intelligent attempt - like Miss Mahon - to adjust themselves to their environment so as to eliminate all injurious influences, or to offset them by health-giving influences? It is hoped that the experience of Miss Mahon will inspire many young women to take better care of their health.

"I made out a daily schedule for myself, with the aid of these books and health articles. and followed that program.as closely as possible. I selected physical exercises which I felt would do me the most good. Each morning, on arising, I practise them, with windows wide open. breathing deeply all

cial needs.

the time. I make a point especially of doing the stretching exercises — arms reach, stretch, and circumduction — and the trunk movements — bending and twisting. I have time for only a few movements, but I try to make those include exercises which should, as a whole, strengthen every muscle in my body. Sometimes I can give twenty minutes to my exercises, sometimes only ten, but I always give at least *ten*.

" I follow up my exercises by a quick

sponge-bath in cool water — not ice cold. I found that the sponge-bath was more beneficial to me than the plunge, though, of course, people differ in opinion as to this.

"I take plenty of time for my breakfast, never allowing myself to hurry through it. I know there is a great diversity of opinion as to the suitable breakfast; but, after a good deal of ex-

perimenting. I found the one which seemed to be most suitable for me. I take a raw egg beaten up in a glass of milk, accompanied b v fruit, cereal, toast, and usually a cup of cereal coffee. I realize that one has to be governed by one's constitution, health, and ideas as to what is the suitable morning meal, or whether he should omit it entirely. After experimenting for some time, I found this the most satisfactory breakfast for my individual needs.

"Breakfast over, I walk to the office. Unless the weather is very stormy, I never deviate from this custom. It takes me a half hour to reach the office, and I try to enjoy the walk as much as possible, to breathe deeply all the way, to keep the proper walking position — head up, chest high, weight on the balls of my feet. I do not allow myself to think of business, or worry of any kind; I simply enjoy the walk and the fresh air. I try to observe as many things as possible, so as to give my mind healthful occupation, and thus make the exercise all the more helpful. I never hurry; I always allow myself plenty of time, but I walk with a brisk, rather quick step, as I find walking in that way does me more good. When I arrive at the office, after my morning walk, I feel fresh and invigorated, and ready for my day's work.

"I am a great believer in plenty of

"I had to learn by experience. After I had been in the office a short time, I found it beginning to wear on me. I found myself growing weary and nervous, tired of my work, and dreading the future. I looked around me at the scores of business women who were nervous wrecks, who dragged themselves listlessly through their work, who broke down long before they should, and I determined, then and there, that if it was in my power, I should not become like one of them."

"Some of my friends call me 'fussy," and say I take too good care of myself; others reproach me for allowing myself to miss social pleasures, and opportunities for learning which I might enjoy in my evenings and holidays; but after long years of experience, I find that my way pays me. It keeps me strong and well able to do my work, and it enables me to enjoy life as much as possible. When I look around me, and see the numbers of weary, nervous, broken-down business women, I think it pays a hundredfold to take care of one's health."

fresh air, and I have my office well ventilated. For tunately, I have a little room to myself, so I can regulate the ventilation to suit myself. I always have one window up at least an inch or two, so that I have a steady current of fresh air in the room while I am working. I keep a screen, which I adjust to avoid drafts. I breathe deeply all the time, and, as often as I can during the morning, I go to the window, throw it open wide. and take five or ten

good, deep breaths. It does not interfere with my work, for I find when I return to my desk that I am stronger and able to accomplish more work in a shorter time than if I had not stopped to take the new life which breathing the fresh air gives me.

"I always try to keep the correct position while working, never to stoop or allow myself to become round-shouldered over my desk. I use a straight-backed chair, and sit with spine erect, chest high, shoulders down, and head up. I never suffer from backache or pain in the waist muscles, of which so many sedentary workers complain, and I think the reason for this is my maintaining at all times this erect position. My muscles have grown strong, and my lungs and vital organs have a chance to do their work properly. Every chance I get,—say, every hour or so,—I sit back in my chair and rest and relax all over for about two minutes, closing my eyes and relaxing every muscle. It is surprising how this little rest refreshes and strengthens.

"I am a believer in mental hygiene, too, and I try to enjoy my work as much as possible. I do not allow it to degenerate into a dreary routine, as so many business women do. I say to myself that each piece of work, no matter how small and commonplace, is necessary, and is the right work for me to do at the time, or I would not be called upon to do it. and I do it the very best I know how, and put my interest into it, and enjoy it while I am doing it. I try, always, to keep a cheerful frame of mind and not to allow myself to be upset or worried by trifles or to lose my self-poise. I try to keep as happy as possible at all times, for I realize that a cheerful, contented disposition makes work much easier and life much happier.

"At noon I eat a very light lunch — a sandwich, and a cup of milk and some fruit, or a bowl of clear soup, or some toast and a glass of milk — always something simple and easily digested. I have the good fortune to belong to a woman's club, where I get my lunch, and, afterward, go to the rest-room and take at least a fifteen minutes' good rest on the couch. After this I take a brisk walk of fifteen minutes or so in the fresh air before I return to my afternoon duties.

"During the afternoon I try to keep the correct position, to practise deep breathing, as usual, and to take the little rests and drafts of fresh air at the open window.

"During the day I drink a glass of clear, cool water — not ice-water — every hour, between meals, and I always drink two glasses on rising and two on retiring. I think this practise of drinking pure water copiously has done much to keep me well and my system free of impurities during all these years of hard work.

"Our office closes at five in the afternoon, and then I leisurely walk home. I never hurry. I endeavor to dismiss from my mind completely the cares and incidents of the day, and to forget that I am a business woman, and have been in a rushing, busy office all day. At first I could not do this, but I persisted, and now I am able to shake off the cares absolutely when I close the office door behind me. Any woman can do it if she makes up her mind she will. I try to be utterly care-free and happy, and to enjoy the walk and observe everything, as I do in the morning.

"When I reach home, I go straight to my room, take off all the clothes I have worn during the day, take a warm bath, and lie down in a loose robe, utterly relaxing every muscle, and rest for half an hour before dinner. Then I dress. I always keep one or two pretty, fluffy evening gowns, which I wear to dinner, even when I do not expect company and am not going out, for I find that a dainty, dressy gown refreshes me wonderfully, and I feel like a different person from the one who has been in the severe garb of the business woman all day.

" I eat a good, nourishing dinner, and enjoy it.

"My evenings I spend in utter recreation. I allow myself three evenings a week in which to 'dissipate,' as I call it — which includes attending a good lecture, or going to some congenial social function. I found that I simply could not keep late hours every evening in the

week, and incur the consequent excitement and fatigue, if I wished to keep my health and be able to do my work properly. So I limit myself to three evenings a week. On the remaining nights I make it a point to retire early, not later than nine o'clock, and before I go to bed I read some light, entertaining book, or enjoy some music or conversation with the rest of the family; sometimes I make a short call in the neighborhood, but always return before nine o'clock. Of course I am compelled to deny myself pleasures and privileges which others enjoy, but I find that it pays in the end, for what is an evening's enjoyment compared to broken-down health and shattered nerves?

"Many of my friends criticize my mode of spending my evenings. One girl I know was in the habit of doing her dressmaking in the evening. She made all her own clothes, after working in an office all day, and she enjoyed the sewing, it was really a diversion for her. Another spent her evenings doing fine embroidery and drawn-work. Another devoted her evenings to deep, improving reading. Each one of those women is obliged to wear glasses constantly, and one, the one who did the fine embroidery, has had to give up her position on account of her eves. The doctor will not allow her to use them for anything for six months to come. She has some beautiful pieces of embroidery to show; but I do not think they repay her for the loss of her eyesight and her position. I realized that my eyes were subjected to constant strain

during the day, and I used them as little as possible in the evening. The result is that they are as strong as they ever were, for I take good care of them at all times, and I am one of the few stenographers I know who do not have to wear glasses.

"On my half-holidays, and on Sundays, I try to spend as much time as I can in the open air, on the porch or walking or driving in the country. I try to breathe in enough pure, fresh air to last me for all the hours during the week in which I am confined in the office.

" Some of my friends call me ' fussy.' and sav that I take too good care of myself; others reproach me for allowing myself to miss social pleasures and opportunities for learning which I might enjoy in my evenings and holidays, but, after long years of experience, I find that my way pays me. It keeps me strong and well and able to do my work, which is of the first importance; and it enables me to enjoy life as much as possible, for I have accepted the inevitable, and I do not allow myself to pine for any of the pleasures and privileges I am obliged to miss. We all have to give up some things, you know, in life, and I have many compensations. I may be 'fussy' and overparticular, and I may deprive myself of much that I might enjoy, but when I look around me and see the numbers of weary, nervous, brokendown business women, I think that it pays a hundredfold to take care of one's health, as a woman must do if she wishes to make her work a success."





A Fight With Tuberculosis, and a Victory . Fred W. Beckman



F it had not been for tuberculosis, it is more than likely that "Uncle" Henry Wallace, of Iowa, editor of Wallace's Farmer,

and one of the greatest of present-day apostles of good farming, would now be merely a superannuated preacher instead of a distinguished leader of agri-

cultural progress. Tuberculosis, however, became a factor in his life. It compelled him to leave the pulpit for the farm; from the farm he entered farm journalism, and has for years been an influential factor in the upbuilding of the agriculture of the Middle West. friends thought it was really to die, probably within six months at the longest.

But this preacher did not die. He lived. He lived his six months, then he lived his year, and then he lived year after year for many years, growing strong, well, and vigorous, until now at seventy-four living has become such a fixed habit with him that he seems likely to continue living indefinitely. In ten years' time this man conquered the disease that came so near taking him. In

A broken-down, consumptive preacher, whose relatives had all but one died of consumption, went West and lived on cream and outdoor air, and in ten years was well. He became a successful farmer, and later a leading agricultural editor and man of affairs. At the age of seventy-four, he is doing more work than at any previous time. His health rules are: — Don't worry.

Get all the sleep you can. Eat moderately and simply.

Get plenty of fresh air, day and night.

twelve years' time he was so well that he was accepted for life insurance in spite of his bad record. That was when he was fiftythree. Eleven years later, when he was sixty-four, he underwent another rigid examination, and was accepted again for life insurance. Very

Something like thirty-five years ago Henry Wallace was a broken-down United Presbyterian preacher. He was a recognized consumptive, and the sole living member of a family of consumptives. Only a few months before, he had buried his last brother, a victim of consumption, and in the twelve years preceding that he had lost three other brothers, his mother, and three sisters, all through the same dread disease. So, when he quit the pulpit to make a determined fight for life, most of his recently, at the age of seventy-four, as he sat among two hundred of Iowa's most prominent men who had gathered to do him honor on his anniversary, he was as vigorous, strong, and well as the best of them. There seemed ample reason for the prediction that "Uncle" Henry Wallace, as the midwest fondly calls him, was good for many more years of useful activity. Where at forty-one he was thin, angular, weak, with all the outward signs of a consumptive about to die, at seventy-four his six-foot frame was erect, his step firm, and his manner vigorous and strong.

The rescue of a middle-aged consumptive, with one foot already in the grave, and his restoration to complete health, are extraordinary, and yet, as Henry Wallace tells of his experience, it seems rather a simple matter after all — just a matter of plain food, fresh air, and plenty of sleep — nature's own restorers.

"When my doctor called on me thirtythree years ago, after I had made a vain trip to California for my health," said Mr. Wallace, as he told of his fight, "he looked me over and rendered his verdict: Get out of your pulpit at once, or you'll go to the graveyard in six months."

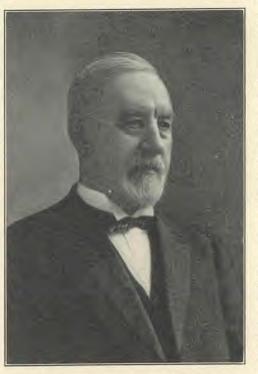
"' Well, then, I'll preach my farewell sermon next Sunday,' I replied.

"'No, you won't,' he came back at me. 'Don't you open your mouth to preach for a whole year, if you want to live.'

"I was at a loss how to help myself. I had tried many things, my trip to California among them, with little or no hopeful results. I was worse off now than I had ever been. So, as I looked back over consumption's harvest in my family, and contemplated m y own condition, I felt discouraged,

and with a bit of desperation I exclaimed, 'Doctor, what shall I do?'

"And then he gave me a unique prescription: 'First quit preaching right now, and start to living outdoors as much as you can,' he said. 'Buy a healthy cow at once, and take care of her yourself. When you milk her in the morning, drink the strippings while they are warm; set aside the rest of the milk until noon, and then drink the cream. When you milk the cow in the evening, again drink the strippings while they are warm, and before you go to bed, drink the cream from this milking. Keep that up every day for six months or a year or longer. Stay outdoors as much as you can, and



HENRY WALLACE, OF DES MOINES, IOWA Editor of Wallace's Farmer

One of the foremost agricultural journalists of the present day, and a member of the National Country Life Commission. Thirty-three years ago, he was a consumptive with one foot in the grave, the last survivor of a family of eight who died of consumption. Now at seventy-four, he is well and vigorous, and capable of doing much more work than the average man of middle age get all the sleep you can. Don't worry.'

"I obeyed him. I quit preaching and locked up my desk. I bought my cow the next day, took care of her myself, and drank her milk faithfully, milk being the greater part of my diet. I kept this up in my town home for some months, and then, to keep myself busy so I wouldn't have time to think about myself, and to get more outdoor life, I decided to go to farming. Fortunately, my last brother and I had invested in wild Iowa lands, so I moved my family to Winterset,

Iowa, twenty-five miles away from my farms, for I wanted the schools for my children. As for me, I practically made my residence on the farm, working out-of-doors, drinking lots of milk regularly, eating sparsely and simply, sleeping abundantly, and driving back and forth to Winterset in all kinds of weather.

"From the very first I began to get better; never very fast, sometimes very slowly; but always I got a little better. As I got better, I began to take other nourishment than milk-simple foods that I selected as I found they agreed with me. After two or three years, I found myself able to go back to my desk again, not to write sermons, but to write on agricultural problems for a near-by country newspaper. A little later I felt well enough to buy a newspaper and become a farmer-editor. Seven years after I quit the pulpit, I felt strong enough to become editor of an agricultural weekly in Des Moines, and devote myself entirely to editorial work.

" I stuck to my milk drinking and outdoor living, and at the end of ten years' time I was completely well, although at this time a life-insurance company rejected me as a doubtful risk. Two years later, however, when I was fifty-three, the same company accepted me. Eleven years after that, when I was sixty-four, I made another application for life insurance. Two local doctors examined me and pronounced me a first-class risk at that age. But when my application and examination papers got to New York, they aroused suspicion. My policy was held up weeks for investigation, and finally the chief surgeon of the company, the late Dr. S. H. Lambert, while on a trip West asked to give me a personal examination. When he had finished, he declared that, while I seemed to be about the healthiest man in the United States, my health record was rotten. He added that the office in New York had been disposed to suspect an attempt at fraud. After that examination I got my policy, and I was told I might as well make it \$50,000 as \$5,000."

In the course of an investigation of the feeding of live stock, Mr. Wallace became impressed with the belief that humans might well adopt some of the recognized principles of successful cattle growing. There are live stock rations known as the food of support, rations that are sufficient to maintain live stock at a stationary weight and condition: there are also rations known as food of increase, rations on which live stock may be fattened. Mr. Wallace, after much study of the question, determined that for a man of his age and habits, a food of support was ample, so he lessened the quantity of food he ate to correspond to this conclusion. That was about fifteen years ago. The result was somewhat in the nature of a surprise; for Mr. Wallace got heavier instead of remaining at his old weight, because, as he later concluded, of a more ready and thorough assimilation of the reduced ration. In two years' time he gained ten pounds, and later he gained still more. From a weight ranging from 158 to 164 pounds, rather underweight for a man of six-feet height, he went to a weight of about 198 pounds, which is his present weight, at seventy-four years of age.

Though he restricts himself as to the quantity of food he eats, Mr. Wallace never restricts himself as to kinds, as long as they are plain foods.

"After I became well enough to take other foods besides milk, I gave myself full freedom," said Mr. Wallace. "I never adopted a strict diet. I eat what I like, just so it is plain food and well cooked. But I do not eat as much as I would like, ever. I never get up from the table without feeling that I'd like to eat something more; I always have some appetite left. I still have a leaning toward milk foods. At all times, however, I eat what is at hand, so long as it is plain food and wholesome."

Mr. Wallace has reduced the lessons of his experience in prolonging his own life to these simple rules of living: —

Eat moderately — always a little less than you could eat comfortably.

Eat simply; plain foods well prepared are best.

Get plenty of fresh air, day and night.

Get all the sleep you can, not less than eight hours at regular times, and as much more as possible.

Don't worry.

Mr. Wallace dwells strongly upon his " don't worry " injunction. " Remember that yesterday is past and gone, and that to-morrow is not yet here," he says. "To-day is the day. Take thought of to-day and to-day's work only; live right to-day, and do your work right to-day, and that is all that can be required of you. Take a hopeful view of the future, always, no matter what the present may Hopefulness promotes long life. be. What if you did lose an opportunity today or yesterday? Another just as good will be along to-morrow for you to use if you are alert then. Keep your mind so busy with the things to-day that are worth while that you have no time to think of yourself or your troubles. That is the sure way to success and to a long and happy life."

Mr. Wallace's faith is firm that by ta-

king thought men may lengthen their lives greatly, and that the world may be tremendously enriched in every way thereby. His own life justifies this faith. Thirty-three years ago, at forty-one, he was at the very brink of the grave, and at the very finish of his career. Yet his twoscore years have been lengthened into more than man's allotted threescore and ten, and filled with service and usefulness to his fellow men that have made him a great man among them and a leader. His seventy-four years sit lightly upon his upright frame and broad shoulders; his walk is strong, his hand steady, his mind clear, and there is about him a suggestion of power and vitality increased rather than diminished by the passing of the years.

Mr. Wallace at seventy-four is daily doing more work than at any other time of his life. Every week he writes some twenty-five columns of editorial matter for his own and other publications, besides attending to a very large correspondence from all parts of the United States. From time to time he fills lecture engagements, speaking on agricultural and social topics, and each week he conducts a business men's Bible class at the Y. M. C. A. in Des Moines. When he was made a member of the Country Life Commission, he did the work required of him then without letting up in his regular editorial work, and since then he has found time to write numerous magazine articles.





Cancer, the Outlaw

Camillus Bush, M. D.

[Camillus Bush, M. D., a young San Francisco surgeon of much promise, met an untimely death by typhoid fever. This article is the last he ever wrote. He intended furnishing a series on cancer for LIFE AND HEALTH.]



FROM the earliest days of written medical records, the cancer question has interested the race. An ever-eminent foe, looming

large in the mortality statistics of every generation, the dread disease unchecked has taken its toll of the lives of men and women. Here is chosen as victim a dweller of the slums; there a member of a royal household: here a drunkard;

there a minister of the gospel: here the lingering remnant of a degenerate stock; there the parent of a clean - limbed. clean-blooded family: here the diseased outcast of society: there the president of a university: here the vegetarian, there the meat-eater. The insidious onset too often masks the observation of its earliest characteristics, and the discovery of the firmly-seated disease is accompanied by the despairing terror we have all seen.

The ignorance of the cause of cancer, and the complete failure in its medical treatment, have opened the door to the added horrors of quackery, that are little less sickening than the conditions accompanying the malady itself. Added to the commercial exploitations of the sufferings of these unfortunates by advertising doctors, cancer-cure institutes, etc., are the well-meaning efforts of undertrained, blundering, vainglorious men, who from time to time announce to the world a new cure for cancer. It is no wonder that to-day the conception of

Cancer looms large in mortality statistics, plucking victims from all walks of life, irrespective of surroundings or habits.

General ignorance as to the nature of cancer renders this a rich field for the exploitation of the quack.

Cancer is a malignant tumor, an outlaw among tissues, respecting no rights of the law-abiding tissues.

The ultimate nature of cancer is not known. Is it contagious? Is it parasitic? Is it inherited? Is it caused by diet? Modern medicine answers, No, to all these queries. Cancer usually develops at the site of some old injury.

To avoid cancer, we should not allow warts, moles, or wens to grow indefinitely. Very little else can be done in prevention, except to avoid the irritation of a broken tooth or of a cigar or pipe.

The safest procedure with a cancer is early removal by surgery. Procrastination is fatal.

Epitheliomas, or skin cancers, are sometimes successfully removed by other methods, but unquestionably the safest procedure is to consult a responsible surgeon. cancer by laymen and many doctors is most confused, being formed by a mixture of quack foolishness, c e n tury-old superstition, newspaper accounts of scientific discoveries, a n d personal observation.

We may ask, then, has the wond e r f u l development of scientific m e th o d s a n d knowledge during the past twenty years done nothing to elucidate this great riddle? The answer is boldly given: Much has b e e n a d d e d t o knowledge and results, and this advance is the heritage of the race. It is the intention in what follows to give the important facts about cancer.

There are many kinds of tumors (or lumps), but they are divided primarily into two great classes - benign and malignant. The former we shall not discuss. A cancer (or carcinoma) is one example of malignant tumor. Such tumors are called malignant because they grow in a lawless way. Beginning as a small colony of what appear to be ordinary tissue cells, this little collection enlarges by multiplication of its individual cells, and continues to enlarge. It invades the adjoining tissues, and does not respect the normal barriers that have been set for the growth of any particular tissue. It does not heed the law obeyed by muscles, skin, mucous membrane, bone, etc., "Thus far shalt thou go and no farther," but penetrates and destroys as it goes. Not only this, but each minute cell of such a malignant tumor when broken off from the main tumor, as often happens, and transported to another part of the body in the blood stream or lymph stream, preserves its vitality and lawless tendency in whatever spot it chances to settle. That is to say, it begins a new growth by multiplying and acting exactly as the parent growth did. In the latest stages of malignant tumor the body may have many such lawless deposits in it, so that it may be difficult to tell which has been the first tumor. Now the cancer is an example of such a tumor.

In the very early embryo, which later develops into a babe, there are three primitive layers, the outer one of which eventually gives rise to skin, mucous membranes, and the glands that are developed from them. Cancer develops in these tissues and glands, and its cells resemble closely the cells of the tissue from which it starts, whether it be skin or stomach, mucous membrane or intestinal glands; and its further growth bears also a resemblance to the arrangement of this same tissue. But the individual cancer cells have somehow kept the same wonderful energy and ability to multiply rapidly that the cells in the outer layer of the embryo had.

For this reason, the greatest students of cancer have thought that a few scattered embryonic cells may have stopped in their early development and lain quiet among their fully-developed brothers, who have built the skin and mucous membranes, etc. Then something happened to wake them and start them madly multiplying, as their associates had done in early embryonic times.

Another view is that the character of the ordinary well-behaved skin cell is suddenly changed by some outside influence. The impulse that wakes the sleeping embryonic cell, or the influence that changes the character of the innocent epithelial cell, as the case may be, we can sometimes very roughly trace.

It is confessed, then, that the ultimate cause of cancer is not known. Some claim that a parasite incites the epithelial cells to take up their cancerous career. In support of this contention, they point to the occurrence of vicinities and houses where the disease is more prevalent than at other places. For the most part, however, the parasitic theory has been discredited. We frankly avow our ignorance of the start of this tumor, just as we own our ignorance of the cause of the phenomenally rapid growth of the embryonic child. On the one hand, it is mysterious why the cancer grows without restraint; on the other hand, it is just as mysterious why the normal tissues grow just so far and then stop.

One of the questions oftenest asked is, "Is cancer inherited?" In the strictest sense of the word, cancer is not inherited. Probably, when all is told, it may be said that one whose mother or father has died of cancer is no more liable to the trouble than one whose family has been free from it. At the same time, it is possible that there may be a certain family tendency.

A much more likely factor in the development of the disease is injury or chronic irritation. Cancer seems prone to develop in the base of old ulcers, in the scars of old burns, at the site of warts that have undergone long irritation, in benign tumors or cysts of long standing, and at the points where severe or oft-repeated blows have been sustained. For example, cancers about the mouth seem more likely to develop from the scratching of the tongue by decayed snags of teeth, or from the constant irritation of hot tobacco smoke. Apart from these factors, we know nothing that increases the likelihood of the disease.

The question is sometimes asked, "Is cancer contagious?" The answer may be boldly given that it is not. In the experimental laboratory the cancer may be transmitted from one animal to another by cutting out a piece of the growth and transplanting it under the skin of another. In the same way, it is possible that living cancer cells rubbed from the tumor of one person may be implanted into the broken skin of another. But, under ordinary circumstances, we may live in the house with a sufferer with no danger to ourselves.

How then are we to avoid this trouble? There are certain rules that, followed by everybody, would greatly reduce the number of cancers. Benign tumors should not be allowed to remain in or on the body indefinitely, as they tend in some instances to become cancerous. They should be surgically removed. In this category come persistent warts and moles and wens, as we'l as chronic sores that refuse to heal after months or years. The teeth should not be allowed to remain decayed or roughened,

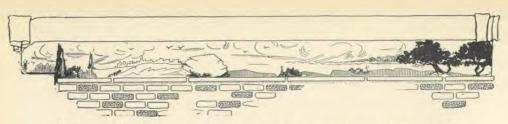
so that they may irritate the cheek or tongue.

Aside from these few things, little can be done to lessen our likelihood to can-Not knowing the cause, we can cer. not formulate rules of prevention. There is nothing to indicate that diet or manner of life influences the matter. Our hope, then, lies in the early detection of the trouble. There is a time in the early development of every cancer when its removal would be followed by cure. This period may be longer or shorter, but the fact remains that if cancers were taken in time and removed, they would be cured. The tendency is, however, for people to temporize. A small lump is discovered. A neighbor suggests a remedy, which is tried for a few days or weeks; then a patent medicine is used; then a so-called specialist who treats without the knife is consulted. After the patient's money is gone, the specialist drops the case or reports the cure, and, later on, depleted in health and wealth, with cancer cells scattered from the primary growth to other glands and tissues, the patient enters a hospital for an operation.

Had the surgeon been able to operate at the very start of the trouble, he would probably have cured the case. Sometimes even after many months the disease is cured by thorough operation. It is impossible to foretell usually at just what point the disease has progressed too far to be eradicated. People should consult the best surgeon to be found at the very earliest moment that any suspicious growth appears. In these days cancers of the hidden internal organs are being recognized early by skilful doctors, and are often cured by early operation.

We have to look the matter in the face. There is no cure except surgery for cancer, and waiting diminishes that chance. There are no serums, no medi-

(Continued on page 630)



The Modern Verdict Concerning Alcohol D. H. Kress. M. D.



GREAT change in opinion has taken place recently in regard to the value of alcohol as a beverage and a medicine, A little a Ouaker applied longer consider the abstainer a poor risk. The overweight produced by the use of alcoholic beverages is no longer regarded by them as an indication of robustness and health. By carefully kept records these companies have ascertained that the one who is below the normal body weight is a safer risk than the overweight. Insurance companies are now

over forty years ago for life insurance in an English company. He was carefully examined, and pronounced an excellent risk, with one exception - he was a total abstainer from the use of wine and whisky. While the man who habitually drank to the point of drunkenness was not received even then by insurance companies, the one who used it in socalled moderation was regarded a better risk than the total abstainer. The highest degree of health, it was thought, could only be enjoyed by the moderate drinker.

Insurance companies to-day no 628

A generation ago, insurance companies preferred the moderate drinker as a risk; now they much prefer the abstainer.

Hospitals have lessened the consumption of alcohol by one half, two thirds, or entirely.

Many physicians are abandoning the use of alcohol largely or entirely in their practise.

What has brought about the change? Alcohol has been on trial at the bar of scientific research, and has been found to be a murderer and a deceiver.

It causes a feeling of warmth, when the body is losing heat too rapidly.

It causes a feeling of increased power, when the victim is weaker, as shown by instruments of precision.

It causes a feeling of intellectual increase, when the brain and nerves are actually retarded in their action, as shown by test.

It promises protection from disease, and paralyzes the white cells, the body defenders.

It destroys reliability and efficiency, as every large industrial establishment can testify.

It is ruinous to physical efficiency, as athletics can testify.

It is not the occasional drunk who suffers most injury, but the moderate drinker who takes daily small doses.

seeking, not moderate drinkers, but total abstainers.

For years medical men have regarded alcohol in some form as the great standby at the sick-bed. No drug appeared to do so much for the patient. For headache, for stomachache, for sleeplessness, for nervousness, for fatigue, for irritability, in fact, for any disagreeable and unwelcome symptom, wine, beer, whisky, or brandy was resorted to. I remember well when the wine or whisky bottle was found in almost every home. to meet the emergencies which might arise. The presence of the bottle had, no doubt, much to do in creating the many emergencies; for the bottle was always in demand.

A great change has taken place the past few years in the minds of medical men regarding the value of alcohol as a remedy in disease. In the hospitals of the United States its use has been diminished one half to two thirds the past ten years. Some hospitals have abandoned its use altogether. Medical men no longer place the same dependence on alcohol as a remedy in sickness; some have dropped it from their list of remedies entirely.

What has brought about this change? Scientific experiments and studies have demonstrated that alcohol does not do what was claimed for it. It does not bring health to the sick man. It produces a *feeling* of health in sickness, for the same reason that it causes a feeling of wealth in poverty. It produces mental paralysis, or a state of partial unconsciousness. For this reason, the poor man, although poorer, is less conscious of his poverty, and the sick man, even though seriously ill, is less conscious of his condition. Alcohol tears down the danger-signals nature wisely erects along the pathway of transgression.

Alcohol is not merely a narcotic poison, a deadener, it is also an irritant, and as such does injury to every tissue with which it is brought in contact. Under its narcotic influence the injury resulting from the irritation is not appreciated. For instance, alcohol is taken to relieve the unpleasant symptoms associated with an irritable stomach in dyspepsia. While it paralyzes the nerve terminals of the stomach, and thus affords relief from the local symptoms, it increases the irritation, or aggravates the condition which is responsible for the unwelcome symptoms. Naturally, when the narcotic effect has worn off, the abused and much injured organ cries out louder than be-

fore, and another dose is demanded to again afford relief. In this manner the desire for alcohol is often created and maintained. The person is under the delusion that he is improving, while the local condition is constantly becoming more serious.

It is not the one who goes on an occasional spree and then abstains, who sustains the greatest injury. The one who resorts to alcohol in small doses daily is being injured to a greater extent than the man who drinks to excess occasionally. It is the continuous mild irritation that brings about the organic degenerative changes in the blood-vessels and organs of the body.

In health the body is protected from germs of disease by an army of soldiers known as leucocytes, or white bloodcells. Alcohol, by paralyzing these cells, makes them incapable of protecting the body from germs of disease. Some time ago a young beer drinker met with an injury which necessitated a surgical operation. When entering the operatingroom he inquired of the surgeon, "Doctor, will the operation kill me?" "No," the doctor replied; "the operation won't kill you, but the beer may." The operation was skilfully and successfully performed, but the wound refused to heal. Blood-poisoning set in, and the man died. Beer was responsible for his death.

Among the poor and ignorant, beer. stout, and wine are still considered nutrients and foods. The nutritive value of these beverages amounts to very little. They are never taken because of the nutritive properties they contain. No intelligent physician ever prescribes their use for the purpose of imparting strength. They are used and prescribed because they deaden the sensation of fatigue which is felt by the poorly nourished body in need of food or of rest.

Alcohol does not impart strength; therefore it can not be considered a nutrient or food. By numerous experiments, conducted upon animals and upon men, it has been found that even small doses of alcohol diminish the working power. Athletes abstain from its use in order to excel. Railway engineers and other employees in positions requiring accuracy, are not considered safe if they use alcohol in moderation. It has also been found necessary to restrict the use of alcohol on the battle-field. The abstinent soldier is more reliable. He marches better; he shoots better; he is not subject to frequent attacks of sickness and other indispositions, as is the user of alcohol. In exposure to severe cold, alcohol has been found dangerous to life, because it reduces body temperature.

The additional burdens thrown upon

the liver by the use of alcohol, makes it incapable of oxidizing leucin, uric acid, and other dangerous body wastes; as a result, these get past the liver into the tissues, where by constant irritation, they do great injury. Gout, rheumatism, neuritis, irritable temper, and periods of despondency and depression, are frequently associated with the moderate use of alcohol. A state of chronic congestion is also brought about in the organs of elimination .- the kidneys and lungs. Kidney diseases, pneumonia, and other lung diseases, are more common among moderate users of alcohol than among total abstainers.

Alcohol, however, exerts its most ruinous effects upon the most delicate and sensitive structures of the body, namely, the brain and nerve tissue.

Cancer, the Outlaw

(Concluded from page 627)

cines, no rays, no pastes, no secret remedies by imposing bearded fakirs with Vienna diplomas, that cure cancer. The skin cancers, or epitheliomas, are comparatively benign. These growths in experienced hands may at times be safely treated by X-rays or by caustic pastes and applications. This should only be done under the advice of competent consultants. The ordinary cancer demands early and thorough removal with the surgical knife.

The point to be emphasized is the great need of an early diagnosis and immediate thorough operation. The earlier the operation, the less extensive it need be. Cancer begins as a strictly local disease, and there is a certain varying time in its early growth when its removal will be followed by cure.





Elimination and Disease

Henry R. Harrower, M. D., Editor American Journal of Physiological Therapeutics

"The most important element in the

Many obscure diseases result from an

successful treatment of disease is the main-

medical science

whether one is being poisoned from his

What can be done to obviate the ef-

taining of a clean bowel."

fects of self-poisoning?

unclean bowel.

Can

food canal?



HERE is no question but that the vast majority of human ills are due to, or are increased by, defective elimination.

Many disease conditions are due alone to faulty metabolism, and every

k n o w n disease, whether acute or chronic, is associated with some disturbance of f h e eliminative f u n ction of the body. This has, in the past decade, come to be appreciated a s a n inevitable condition.

Under the com-

plex modern conditions few individuals eliminate properly and well. The city dweller, with his intensive application to his vocation, is continually menaced with disturbed alimentary functions; but

Anodynes: Pain-relieving drugs.

Atony: A lack of tone or strength.

- Autointoxication: Poisoning due to substances made within the body.
- Elimination: The removal of waste from the body.

Emunctories: Organs which carry off waste.

rarely does he realize it until more or less harm has been done.

The most important element in the successful treatment of disease is the maintaining of a clean bowel. Autointoxication, or self-poisoning, is the cause of most of the so-called "indefinable" ills, such as malaise, vague aches, a tendency to colds, "indigestion," and the like; and this is undoubtedly a con-

dition which serves to pave the way for the onset of all disease processes.

It is of special importance to the individual, and to h is medical adviser, to k n o w, from time to time, just how he is getting along. If attention was gen-

erally given to the functions of the body at the first sight of any noticeable trouble, no matter how slight, and *before* serious discomfort or disease is present, the appalling frequency of such fatal maladies

determine

GLOSSARY

- Function: The duty peculiar to any part of the body.
- Metabolism: The chemical processes of the body which change food into energy, heat, etc., and vice versa.

Prophylactic: Guarding against disease.

as Bright's disease and apoplexy would soon be greatly diminished.

There is a crying need for greater attention to the subject of improper bowel elimination, and its twin, autointoxication. Bouchard, the famous French scientist, correctly described man as "constantly on the brink of a precipice, ready at any moment to succumb to the poisons manufactured in his own system." He did not overstate matters, and, although he was ridiculed at the time, general medical thought now coincides with his ideas.

Ninety per cent of all disease is preventable; and by far the most important step toward this end is the sensible care of the emunctories of the body. The human bowel is the great source of disease. Not only do the conditions existing there cause disease, but they are a continual drain upon the normal vigor and vital resistance of the body, preparing the way for the individual to succumb to the first attack of the enemy.

From early childhood to old age, faulty elimination plays a prominent part in the lives of all. The nursling that receives the proper attention, and whose emunctories are kept in proper condition, is not the one that most easily "catches everything." Many times, in children, conditions that amount almost to intestinal atony are allowed gradually to habituate themselves until they are a serious menace to health, and by no means easy to treat, no matter how skilful the physician may be.

Many of the diseases so common to young women, as, for example, painful menstruation, anemia, etc., may often be traced to an intestinal trouble pure and simple. The tendency to colds is often righted by proper attention to the bowels. Headache, lassitude, backache, and a hundred and one other ailments are the sign-posts that nature considerately puts up for our warning, usually, however, to be either ignored or smothered with coaltar anodynes.

The plan of taking a weekly physic, or, better still, a decidedly laxative diet one day each week, although sneered at by some, will prove to many a veritable blessing. A good saline laxative¹ will sweep out the intestinal canal, with no inconvenience to the individual, and with great advantage. Another commendable plan is to have periodic investigations made of the urine. With this as a check, any disturbances will be evident in time to take steps to remove them before serious chronic indisposition has developed. An examination might well be carried out, say, every three months, and much good would result. In a moderately large experience of this kind, it was positively surprising how many supposedly well persons showed the presence of some slight trouble, which would otherwise have resulted in the beginning of a more serious disturbance.

We were all taught in our early days the adage, "Take care of the pennies, and the pounds will take care of themselves." This same principle is just as true when it comes to considering the care of the body. Take care of the little affections, and the dangerous maladies will generally take care of themselves.

To close: faulty elimination of the normal waste products of the body and an increased manufacture of abnormal poisonous substances due to retention of this waste, is the basis of practically all disease. Look into the eliminative capacity of the body from time to time, and thus rather forestall disease than endeavor to cure it after it has come. "An ounce of prevention is worth a pound of cure."

72 Madison Street, Chicago, Ill.

¹ The editor is not certain that the saline laxatives are absolutely innocent. He would recommend in preference the laxative foods.



Sick - Headaches E. L. Paulding, M. D.



F all the chronic maladies that human flesh is heir to, sick-headache has perhaps the most depressing effect. A man who is appar-

What is sick-headache?

Why does it appear periodically? Why does it "run in families"?

ently in perfect health one day, and has planned to perform a giant's work the next day, wakes up dull and listless, with a heavy feeling in his head, and a

lack of appetite for his breakfast. He has, at first, no actual pain, and no nausea. He is a little out of humor with himself, and perhaps with others. He

may eat a pretty good breakfast. Toward noon his head actually aches, but not much, and his stomach, though squeamish, will hold on - for a while - to a pretty square luncheon. After noon, things grow worse; work becomes difficult; fun is out of the question. In the head is an intolerable pressure, and there are throbs of greater pressure at every effort to do anything. This is sick-headache. The evening meal, if eaten at all, is eaten in silence. The evening may be short, because the bed is sought at an early hour, but the night will be long, for sleep comes in short interludes until nearly morning. Morning finds him all serene again, and most likely ready for a good, hearty breakfast and a fair day's work.

This pictures a moderate sick-head-

ache in one who has learned a few things about the care of it. One unaccustomed to such attacks, usually throws up his breakfast, or at least his dinner, and feels pretty well, if he goes slowly, for the rest of the day. If one who is subject to sick-headache vomits freely, he obtains relief almost immediately; but generally he who has learned nothing about treatment gets no surcease from his suffering until the second, and sometimes the third day.

> Sick-headache is often supposed to be a hereditary disease transmitted to all the children of the family; but I believe that the habits that cause it are the things

What will prevent it? What will cure it? The believe that the solution of the family; but is that cause is the solution of the third the solution of the solution of the family; but is the solution of the solution

mother, to son and daughter. The weakness may be hereditary, but the bad habits that produce that weakness may be overcome even if inherited.

Some think that the giving up of a meat diet will cure sick-headache, but usually it only modifies it, while in some instances it makes it worse. The one who gives up meat eating does so because he is soul hungry. That hunger may be satisfied, and is, if he gives himself up to righteous living, but he often makes the mistake of eating too heartily of the foods composing his new dietary.

A man in one of our camp-meetings said to me, "There is more nourishment in one slice of whole-wheat bread than in the same quantity of beefsteak." "Yes," I said, "we have a reasonable amount of proteid in it to build up our tissues, also the carbohydrates, which, with the fats in the butter used on it, make the fuel to maintain our body heat; but why so many who give up meat should act so ravenously hungry I can not understand. They eat great quantities of beans, peas, eggs, and nuts to make up their loss of proteids in the meat, then add to this three or four slices of bread, some potatoes and other vegetables or fruits, then some pudding or pie, and wash it all down with hot milk or cereal coffee."

This explains the cause of sick-headache, in many instances. The *hungry day* comes the day before the headache day. It is overeating of proteids the day before that brings on the attack, though some proteids, especially those in eggs and milk, are not so likely to produce headache as others. Those we get in nuts, meats, beans, peas, and some indigestibles perhaps are the worst. This is personal experience.

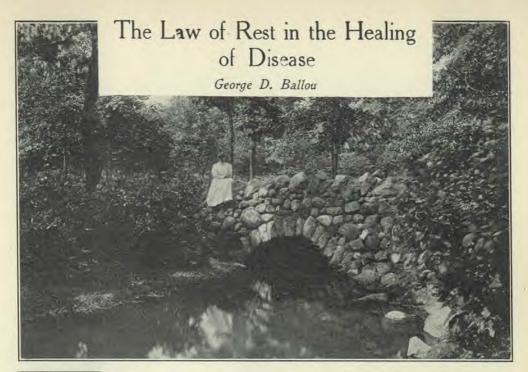
As has been demonstrated, we need very little albumin in our diet in order to supply our waste of tissues. The foods named above - meat, nuts, beans, peas (dried peas), and indigestible foods - should be left out of our diet altogether if we have these headaches, perhaps if we have any nervous trouble. The albumins in excess of our body needs are not absorbed, not even properly metabolized, that is, changed into soluble albumins in our alimentary canals. Not being metabolized, they become poisons, and are taken up as such in some systems, producing headache, sick-headache, and probably other nervous diseases, such as neuralgia, epilepsy, hysteria, etc.,- diseases that come and go with healthy days between.

Among other preventives of sickheadache may be mentioned the free use of fruits, laxative ones of course. If these fruits are eaten the first thing on rising, and a pint of cold water taken, they will not interfere with the digestion of the good warm breakfast that comes later. The water may be taken first, and the stomach given a half-hour to absorb it, before eating the fruit. Apples or oranges are the best. Eat two or three of them. These will prevent the multiplication of germs in the alimentary canal, indeed will help in keeping it clear of toxins of every kind.

What can be done for these headaches in persons who have not yet learned how to avoid them?

First, these patients should learn the use of the stomach-tube to clean out the large accumulation of bile that is usually in the stomachs of these cases. It should be used before breakfast. After washing out the stomach, it is best to take a small dose of salts. The effervescing kinds are easiest to take, besides the carbonic acid gas in them is sedative. The salts should be taken at least a half-hour before breakfast, if the forewarning comes that early. This will clear out the small intestine. About an hour after breakfast a high enema is the best and quickest relief, and is surer than a large saline dose. Take it in the knee-chest position, so that the water will gravitate easily, and fill the remotest part of the large intestine. Hot water will be more cleansing. Use one or two quarts. In it put creolin till the water turns milky (white), not creamy (yellow),- say a teaspoonful of creolin to two quarts of water. Do not hold it long. The creolin will kill the germs, and will neutralize some of the toxins. Do not use any acetanalid nor antikamina mixtures. Fast or eat sparingly, and you will soon feel all right.

Arroyo Grande, Cal.





MAN reaches his highest development in every phase of his being when he keeps in right relationship to sunlight, air, water,

food, clothing (protection from the ele-

ments), exercise, and rest. On a proper adjustment to his environment, life, health, efficiency, a n d comfort depend.

Diet and exercise have for many years received the m o s t attention, and in general the physical causes of disease have been made so promi-

nent that until very recently we have heard almost nothing concerning mental causes, except from a few who were gen-

erally considered to be extremists. But now we find schools of psychotherapy and metaphysics flourishing everywhere, and systems of so-called divine healing are exploiting the principles of mind cure, and transforming the results, in the minds of their ardent disciples, into marvelous cases of divine healing.

Most of these schools ignore physical

Sunlight, air, water, food, clothing, exercise, rest — these seven. Take care of them, and a kind nature will take care of you.

For years physical causes of disease have received attention. Latterly, the pendulum has swung the other way, and many are looking to the mind as the one cause of disease, and the one means of cure.

A rational view considers both body and mind as acting together in the causation of both health and disease.

> tween the believers in physical causation and remedies on one side and believers in the creative power of

causes, and proclaim that mind is the supreme source of physical phenomena. The impression that human mind exists independent of, and separate from, matter paves the way for all sorts of vagaries and all phases of occultism. The conflict be-

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thought on the other, can never end until all are made to see that mind and body are correlated and coexistent. That mind and body grow up together is a matter of common observation, and that the same food, water, and air which produce and sustain flesh and blood produce and sustain feeling, emotion, and thought, is almost a necessary deduction; for it is a matter of constant observation that mind in all its varied phenomena is dependent on physical conditions, as well as that the body is dependent for care and direction on the mind. The presence of poisons in the body, as in case of fever, dethrones the mind. A blow upon the head suspends mental functions. If the body is deprived of water for ten days, the mind loses its coherence, and soon the man is dead mentally and physically.

All observation proves that matter has been and is being organized so as to be capable of living and feeling and acting in a thousand multiplied forms. When these observations are properly interpreted, the hazy occult notion that human mind comes from somewhere and goes somewhere, nobody knows whence nor whither, and exists independent of, and separate from, all matter, will be relegated to oblivion, and men and women acting on good sense and reason will be able to treat the privileges and phenomena of existence in such a manner as to keep mind and body in right relation to each other as well as to the material universe. And God, the Creator, will come in for his share of the praise and honor due for his marvelous skill and power.

How sunlight, air, water, and earth acting together can produce food substances is as much beyond our comprehension as the most stupendous miracle. And how food substances can be transformed into flesh and blood and feeling, emotion and thought, is as baffling as any of the teachings of occultism. So while we are dealing with physical and mental causations, we must realize that they are only secondary, and that back of them all is the Creator, in whose hand is the past, present, and future.

We may not understand the relationships of our environment here, nor deal wisely with our future prospects, without reckoning with the Creator. And if we read the book of nature with unbiased mind, and place with it the teachings of the Bible, we shall find nothing but harmony between the two. And this harmony will be a potent aid toward bringing us into such harmony with the Creator that we shall be able to appreciate all our relations to both the physical and mental conditions with which we find ourselves environed.



The Death-Dealing Picture Show

R. O. Eastman



T is eight o'clock in a large city. Twilight is giving place to the deeper shadows of night. The street lamps are flickering, a n d beginning to blaze

unventilated.

show-windows are beginning to blaze with their usual evening radiance, and the wares of the shopkeepers are set announcements of the evening's attractions. Dozens are going in. We follow.

From the glare of the portal one steps into absolute darkness — darkness save for the square block of light on the curtain at the far end of the room upon which the moving-picture man trains his machine and produces the evening's entertainment. The eye is immediately attracted, the fortunate result being that one forgets to observe the stench and

forth beneath the dazzling rays of the arc lights in an unending iridescent splendor.

The lull which succeeded the noisy home-going of the thousands from shop, office, and factory after a day of busy toil is giving place again to the noisy demonstration of the evening's usual throng of pleasurescattered in the air in coughing. The darkness favors uncleanly habits, and careless spitters contaminate the floors, which are rarely ever cleaned. Every movement of the crowd stirs up this germladen dust. To sit for an hour in such a room is dangerous; yet half a million people will attend such shows to-night. Can all that the antituberculosis crusade is doing undo the evil that is accomplished by these shows, in the transmission of this one disease?

The moving-picture show is dark -

there — some with a cough.

Multitudes

congregate

Germs are

seekers. They go two, three, and four abreast; here single file, there in platoon; some boisterously parading the streets, some basking before the show-windows, others hurrying as though toward some appointed object.

Here is a broad, white archway, dazzlingly illuminated. It is the brightest, most attractive spot in the block. In the center is a wicket, a girl, and a roll of tickets. A noisy figure "5" stares one in the face. On either side, portraved in brightest colors, are catching suffocating stuffiness caused by the presence of a house full of people and a lack of ventilation.

At the close of the next "act," part of the crowd gets up and goes out. The newcomer finds a seat and sits watching the change of pictures, until the act which he first saw comes upon the

curtain again. Then he, too, joins the moving, restless throng upon the street.

The ethics of the moving-picture show have been variously discussed. One fact may be accepted as conclusive, whether for good or ill: the moving-picture show is with us as a permanent institution — permanent until or unless some country-wide movement as effective as the antisaloon campaign some day sweeps it off the field of action. From a few here and there in our largest cities the thing has grown in the last few years until to-day there is scarcely a hamlet which does not possess from one to a dozen of this class of theaters, while in the larger cities every block has its moving-picture show, and they are numbered altogether by the hundreds or thousands.

The ethics, I say, have been variously discussed. But from at least one standpoint it can be definitely and emphatically asserted that the moving-picture show as an institution stands to-day as one of the greatest dangers in the metropolitan community. That is the health standpoint.

Let us consider just one feature,- the moving-picture show as a breeding-place for tuberculosis. Note the conditions: The show house is, first of all, usually in the center of the block. This is the location that the proprietors seek to secure. It catches the traffic going both ways, rent is cheaper, and the display is as effective as it would be elsewhere, if not more so. Being in the center of the block, the lighting and ventilating facilities are naturally more limited than in any other location. But so far as the lighting facilities are concerned, none are needed, for the exhibitions are given in darkness. And the moving-picture man will tell you that too much ventilation is hard on the films; an electric fan will keep the air moving, and fresh air will be let in at the doors as the people go in and out. This the moving-picture proprietor considers ample provision.

We have authority for the statement that one in every eight of our city population dies from tuberculosis, and so in such an assembly there must always be some present capable of spreading the disease. Within the place there is every encouragement for the spread of the bacteria. There is no incentive for maintaining the standard of scrupulous cleanliness that might be more desired in a well-lighted auditorium. The room is dark; the dirt does not show; the men and women cough at will, distributing upon the air in the emitted sputum an incalculable number of tubercular bacteria. In the darkness which prevails there is no hesitancy on the part of the spectators to spit on the floor, and usually this is done around the angles of the seats or on the space around the legs of the chairs, where it is most difficult to clean. The result is that the filth dries, turns to dust, and by the constant motion of the people, the air is kept well filled with the germ-bearing dust.

The show lasts for a half to threequarters of an hour — sometimes an hour. For this space of time the audience, consisting largely of women and children, sits and breathes this germcharged air. Could there, then, be a more favorable condition for the spread of tuberculosis than these moving-picture houses offer?

Even more fearful is the hazard taken by those who are employed in these places. Shut out from all light and pure air during their working hours, they readily contract disease, and frequently are sufferers from tuberculosis. Dr. Howard D. King, in a recent number of the *Journal of the American Medical Association*, says that a large majority of those who have applied to him for treatment from these shows have been sufferers from tuberculosis.

Half a million people will attend moving-picture shows in the United States to-night. On Saturday night the number will nearly double. And so it will go on, night after night, in an ever-increasing proportion. Is it not a mooted question whether all the sanitariums that have been built and all of the antituberculosis movements that have been set on foot in the last few years can unmake consumptives as fast as the tens of thousands of picture shows, with their continual grist of habituated frequenters, can produce them?



Milk Control and Certified Milk



HERE was a crying need for milk supervision. The facts are these:— I. Milk is a most important article of diet.

2. It is especially necessary for that part of the population, the infants, most dependent for health on a pure food supply.

3. Milk is frequently a means of transmitting disease, for one or more of the following reasons: —

(a) The cow is diseased.

(b) The milker is diseased.

(c) One of the men who handle the milk is diseased.

(d) The cow shed and the dairy house are insanitary and unclean.

(e) The cows are unclean.

(f) The milkman has on dirty clothing, has unwashed hands, and milks in a careless manner.

(g) The milk is put into receptacles not properly cleansed.

(h) The milk is allowed to remain warm so that the rapid growth of bacteria is favored.

These are only part of the mishaps to the consumer. In fact, it is only by the utmost care at every step—care which the ordinary person would call "foolishness," which the old farmer and dairyman would say is "all poppycock" — that contamination and disease can be effectually prevented. To one who has not studied the subject, the rules prescribed by the milk commissions for the sanitary production of milk would seem to be sheer nonsense. Yet bacteriological count and other tests show that the fore-

going rules are none too stringent.

Let us look squarely at the facts: tuberculosis is alarmingly prevalent in dairy herds, and when present, the bacillus finds its way into the milk-pail. Though there is some question whether adults are very susceptible to tuberculosis infection from milk, there can be no reasonable doubt that infants not infrequently suffer from such infection.

Typhoid epidemics are not rarely traced to a milk supply. Other infectious diseases have been found to have a like origin. Diarrheal diseases of infants, which in summer are responsible for a frightful infant mortality, are traced quite largely to an impure and unclean milk supply.

Could we by any means insure that all milk used as human food would be free from disease and dirt, there would be an immediate and very marked lessening of mortality, especially among the very young.

Laws have failed to secure any marked improvement in the milk supply. It is almost impossible to subject the dairies supplying a city to close inspection; and there is not one man in a hundred who has been so educated that he could, or who would if he could, produce a clean milk.

Recognizing the impossibility of securing a pure milk supply by legislation, physicians and others have established milk commissions to provide for the production of a clean, wholesome milk. These commissions make arrangements with some of the better grade of dairymen, whereby the latter submit to periodical inspection, and adhere to certain prescribed rules. The milk is frequently examined chemically and bacteriologically. The cows are examined at intervals by a competent veterinarian. The dairy buildings and methods are inspected frequently. The milk must show a certain per cent of nutritives, and there must not be more than a certain maximum number of bacteria present.

Dealers complying with such requirements are privileged to sell their output as "certified milk." The price charged for such milk is one and one half to two times the price of ordinary milk; and it is needless to say that except with the well-refined it is not popular at that price, for nearly every one will buy dirty milk at eight cents rather than pay twelve cents for clean milk; for after all, "it's all milk; what's the difference?" And that is the way most people look at it, little realizing what may lurk in that eight-cent milk.

Do you find a little black sediment at the bottom of the can or bottle? O, that's nothing! only a little of the cake from the cow's udder, which dried on while she was lying in the reeking, germ-breeding barn-yard.

Is this overdrawn? Go to any average dairy, and you will be ready to testify that it hardly does justice to conditions as they actually exist. Perhaps if your dairymen could be trained from early age to appreciate the value of cleanliness, — surgical cleanliness,— if they could be inspired with a pride similar to that of the modern housekeeper, in all that pertains to the handling of the animals and the milk, we might have a different product from what we now have; but then we would have to pay for it, and we ought to.

A good, clean, healthy milk will necessarily cost more to produce, and should bring more on the market. As soon as there are sufficient consumers demanding a clean milk, even if it be higher priced, there will be dairymen ready to cater to their wants.

What is most needed now is a healthy public sentiment in favor of clean healthy milk.



READY FOR MARKET They meet the requirements of the pure-food law



THE Washing-An Admission ton Herald, which by a Friend of the Motion Picture "looks with decided favor upon this new amusement industry, and is pleased to see it grow," makes, in an editorial comment, August 11, an admission which should have weight with any parent who has in view the good of his child. Speaking of the generality of the pictures shown, it says: "They are like the average novel one reads to while the odd hours away [I pity the person who has any odd hours he has to " while away "], passably good, or indifferently bad. Others 'stir good impulses,' and ' appeal to our better natures.' "

" But pictures are sometimes shown - too often, indeed - that are positively out of place before an assemblage that such a show draws. Stories of marital infidelity, betrayals, and revolting crime, depicted as they are in graphic manner, are quite as injurious in their influence as would be the prize-fight portrayals which are properly forbidden. The careful parent, as between permitting his son or daughter to know the inner secrets of human life, involving a wanton disregard of the moral code, and becoming hardened to the taking of human life, or, on the other hand, witnessing a reproduction of prize-fight scenes - the careful parent would infinitely prefer the latter."

Infinitely worse than the prize-fight scenes would be!

Later he says: "A class of pictures frequently seen should be suppressed absolutely for the public good."

In excuse for the showmen, he says "they are put to their wits' end to supply new subjects daily, and it is not to be expected that any large per cent will be either uplifting or instructive."

With this admission from a friend of the picture show, that it is very slightly uplifting and instructive, and that frequently pictures are shown which should be suppressed,—pictures actually worse than the prize-fight,— can any sane parent having the good of his children at heart, let them attend the common moving-picture show?

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Conservatism IN the history of Not So Bad Roentgen-ray therapy is an eloquent appeal for medical conservatism. We occasionally accuse the medical profession of being too slow in adopting new methods; but sometimes it might be better if it were a little slower. As a matter of fact, in the medical ranks there is the conservative, the liberal, and the radical. The ultra-conservative is the man who graduated in the fifties and "don't believe in germs." There are all degrees of them.

The ultra-radical is apt to be the comparatively young man with more enthusiasm than depth.

There has been a varying attitude toward X-ray treatment. Some rushed into it wildly, expecting to find it almost a panacea. Others accepted it with much reserve. We have finally learned that it is a two-edged sword, and must be handled with extreme care. To quote from the July American Medicine : —

"Special licenses for Roentgen-ray operators have been suggested more than once, but mostly with a view to preventing the burns from the unskilful application of large doses. It has been brought up again, on account of the cruel deaths of so many skilled operators, who have thus shown that even they did not realize the profound results they were unconsciously producing. It is said that there is an opposite danger of stimulating new growths of greater malignancy instead of destroying them, if the dosage is too small. The late appearing nervous symptoms and kidney and blood changes due to the influence of long-continued weak doses in adults, and the profound influence of short applications upon children, have opened our eyes to the more subtle effects, and have proved that there was not enough animal experimentation when we rushed in with this new mysterious agent. The special courses now demanded in medical colleges may be made the basis for the required X-ray licenses to physicians intending to specialize, and may also be arranged for students who may be excused from many things demanded of those who are to take up more general practise."

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Bee Stings for Rheumatism been recommended, off and on, for years, perhaps for generations. It has never been very favorably received by the profession, perhaps for several reasons. One is that it is a remedy not very likely to be popular with the patient. Another is that no remedy which is so simple that persons can apply it themselves without going to a physician is ever likely to have very much favor with physicians.

Every once in a while, however, some physician reports excellent results from this treatment. The most recent appears in the London Lancet, July 23. Doctor Maberly, a physician having degrees from several colleges, reports his experience with bees in old chronic cases of rheumatism that have resisted treatment by other remedies,- cases of neuritis, stiffened joints, chronic rheumatism, following rheumatic fever, and cases following influenza. Though the remedy did not always produce a complete cure, it gave remarkable relief, even in cases in which other remedies had been absolutely valueless. He recommends beginning with six stings, increasing to perhaps two dozen. The treatment may be repeated every day, or two or three times a week, until the desired result is obtained.

The writer has been incidentally taking

the bee-sting cure for a long time. It has been involuntary, so far as he has been concerned, the treatment being prescribe 1 by the bees themselves. Whether it has acted as a preventive of rheumatism in his case or not, he can not say. It is usually not administered in homeopathic doses, and certainly ought to cure " that tired feeling," even if it accomplishes nothing else.

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The Price of Milk

Good milk costs more to produce than poor

There is not much difference in milk. the appearance of good and poor milk, and one is apt to think "milk is milk." But there may be a great difference in its effect on your baby. The poor should be able to obtain milk cheaply, but it should not be "cheap milk." It should not be cheapened by cutting down the farmer's profits to where he can not do clean work. Without a fair margin of profit, capable men, honorable men, will not go into the dairy business, and it will be left to the shiftless man, the man with the cobweb barn and half-cleaned milk pans, and filthy well, and cows with cakes of manure on their sides, and milkers with dirty hands. That is cheap milk. If it must be cheapened for the poor, it should be by some charitable concern handling it without the middleman's profit, for the especial benefit of the babies of the poor, - some association which will make sure at whatever cost that the milk is clean. Pasteurizing dirty milk does not make it clean milk.

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Skin Diseases and AN English physician Autointoxication reports in the Lancet of July 30 a number of cases of skin diseases, including eczema (moist tetter), psoriasis (dry tetter), urticaria (hives), acne (pimples), and pruritis (itching), which he found to be due to intestinal disorders, and he reports a permanent cure by the use of intestinal lavage, or enema. He uses an alkaline sulphur water as a douche, followed by immersion baths of the same water. He uses for the douche, twenty to forty ounces of alkaline sulphur water at a temperature of 105°, with a two-foot pressure, and has the patient lie, while taking the douche, first on the right side, then on the back, and finally on the left side. The douche is repeated at intervals, and each time the discharges are examined. The doctor is at a mineral spring, and of course is partial to the spring water, but doubtless as good results might be obtained by using other medicated douches.

A better procedure, however, is prevention, by a well-selected dietary, from which highly nitrogenous animal foods, complicated dishes, and foods likely to cause indigestion or to favor intestinal putrefaction, are omitted.

Business Versus (Tobacco

ONE of the most im-

Tobacco portant things that has occurred in the country in recent times affecting the use of tobacco was the issue by the Pennsylvania Railroad officials of a positive no-tobacco rule. This means that no employee of the extensive Pennsylvania Railroad system, from section-hand to division official, may be permitted to use any tobacco during working hours.

A significant comment is made upon this action by the *Tobacco World*, one of the leading journals of the tobacco trade in the United States. The editor of this publication first summarizes the result of this rule established by the railroad company, as follows:—

"Number of employees of the Penn-

sylvania Railroad	316,000
Tobacco users, chewing and smoking	237,000
Tobacco used, average, one man on	
duty in one year	50 lbs.
Cost per pound	50 cts.
Cost of tobacco in one year, per man	\$25
Total cost of all tobacco consumed on	
duty Sci	0.25 000 "

This last figure, as we are informed by the *Tobacco World*, represents the loss to the tobacco interests in case the Pennsylvania Railroad enforces this new rule, and the article indicates an expectancy that the new rule will be rigidly enforced.

It is plain, therefore, without any comment to this effect by the editor of the aforesaid publication, that the sum of \$5,925,000, or nearly six million dollars, represents a *saving* to the men and to the families of the men which the enforcement of this rule will doubtless bring about.

"Since the Pennsylvania Railroad issued its edict last year against all employees using tobacco while on duty," the *Tobacco World* goes on to say, "statisticians have been at work to show that as a result of this rule the tobacco interests will suffer a loss of approximately five million dollars a year.

"While this new tobacco rule has been on the books of the Pennsylvania Railroad for some years, it has never been rigidly enforced. The latest announcement that the railroad intends to enforce it means that all employees caught in the act will be suspended, and if the offense is repeated, discharge will follow.

"There is no doubt that the railroaders, if they live up to the letter of the law, will suffer considerable hardship. Since railroading began, smoking and chewing have been favorite habits of employees, especially such as brakemen, firemen, engineers, and roundhouse employees. A general holler has gone up from this class of men, and it is unlikely that the rule will be enforced.

"In defense of this order the railroad company says that it has been compelled to enforce this matter because of the great need of adopting some means of maintaining strict sanitation and cleanliness."

Two or three more of the big industries and corporations of the country adopting such a rule as this, and then strictly enforcing it, would mean that a big hole would be made in the annual profits of the tobacco trust; but more important than this, there would be an appreciable decrease in the figures representing the national waste.

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THE MEDICAL MISSIONARY AT WORK



Experiences in Burma

Ollie Oberholtzer



T is quite laughable at times to see the vague conception t h e people here have o f Americans. One day a boy, walking with his

father, said, "Father, I thought the Americans were all aborigines, but I do not think our doctor is." Evidently he thought I was superior to most Americans. At another time a Chinaman said: "O, you are an American! I do

like the Americans. They all have such good hearts." Then he asked if all are missionaries. I had to tell him not all of them are.

The thorns among the roses are no sharper here than elsewhere. And there are just as many

roses as in many other places, and at times I think they are of a sweeter fragrance.

During our heaviest rain, I had a class of five or six who came daily for Bible study. Two were Buddhists. The others had made a profession of religion. One young man, on being questioned as to where he was going every day during his vacation, thus not being able to join the others in their sports, answered that he was coming to my place to study the Bible. The young

BURMA PRIESTS

ence between laboring in Burma to-day, under English rule and modern conveniences, and laboring there one hundred years ago under Burmese government. Surely the Lord has gone before us and prepared the way. I lifted my heart to him in prayer for more of that patient, forbearing, persevering spirit that

men, at this reply, made light of him.

Judson. While standing by that silent

grave, which has stood as a monument

to the Christian religion since 1826, I

tried to realize something of the differ-

Some time ago I visited Amherst. There lies the body of Ann Hasseltine

> characterized the life of this good woman. While in Amherst, I stopped at the old

I stopped at the old Baptist mission home, which was built more than sixty years ago. There I found many old relics, brought years ago from

America by missionaries. Among them was an old book of daily reading, bought by a missionary in Calcutta on her way to Burma in 1835.

Under the different dates, I read the following: ----

- "Another year is past; a doubtful few remain.
 - Reflect, my soul, upon what hast thou done eternal life to gain.

-" Dec. 31, 1837."

"Hitherto the Lord has helped me. - Dec. 31, 1856." "Though I walk in the midst of trouble, thou wilt revive me.— Dec. 31, 1878."

"The Lord will perfect that which concerneth me.— Praise the Lord.— Dec. 31, 1879."

"Thus far the Lord has led me.-Dec. 31, 1882."

"Goodness and mercy have followed me all the days of my life. Lord, help me to finish my course with joy.—Dec. 31, 1888."

The last was penned but a short time before her death. I do not suppose this

was written for others to read; but, as they spoke volumes to me. I thought they would help some one else. Though this woman lies silent in death, her children and grandchildren are carrying on her work. I meet people who have labored here for years and years to bring a knowledge of the true God to this people. If the people at home could realize how much the workers in the dark corners of the earth

need wisdom and strength, there would be a more earnest cry to God raised in their behalf.

One lady, who has been laboring in Burma more than forty years, said to me: "There is one point in which I can join hands with you — the second coming of Christ." She asked me for some literature upon the subject, and said her experience was that she could get the interest of the natives more easily by talking of the second coming of Christ than in any other way. I gave her a Burmese tract. She began to read it to a man for whom she has been laboring for some time. He became so interested that he did not want her to stop reading, and

was deeply disappointed afterward to find she had given the tract away before he had heard it all; but she said she would secure another copy for him.

One day a Burmese man from a distant village called upon this lady. As she could not see him until the afternoon, she gave him a copy of the tract just mentioned, and asked him to go to a Christian's house, read it, and return to her in the afternoon. He returned much exercised in mind, and said: "Is this all true? If so, how is it I have lived here all these years and no one has told me,



RURAL SCENE IN BURMA

although I meet Christians almost every day?"

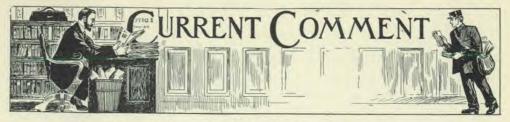
The work in Burma is onward. When I arrived here two and one-half years ago, there was a little Sabbath-school in Rangoon of about fifteen members. Now their hall is quite well filled with as earnest a body of believers as you will find anywhere, a company who demonstrate by their offerings that they love God. There are also Sabbath-schools in Moulmein and Meiktila. Of late I have been doing some work in the Rangoon church, and the eagerness shown to have me call and talk on health principles demonstrates their interest in this line of work. I also visited Meiktila, in upper Burma. There I met Mohammedans, Burmese, and natives of India, anxious to learn concerning health principles. In Meiktila there is a real interest springing up among the Buddhists to know more about our religion. One man ordered a Bible.

On my return home, I stopped a few days in Rangoon. While there, an intelligent native called. He had had much difficulty in finding us. He wanted to purchase health literature. His being a strict vegetarian seemed to form a bond of sympathy, and he looked to us for instruction. After he had secured his books. I found, in the course of conversation, that he was quite well informed. He begged us to visit his village upon his return from a three months' vacation. We thought of course he was a Christian, and asked him to what church he belonged. "O," he said, "I am a Hindu, but desire to learn." We gave him a supply not only of health literature, but also of religious papers. He wrote me that he had read all, and then passed them on to others. He holds a good government position, and assures me that he will gather the people together to hear if I will come to his place.

About the same time we learned of a woman who had become deeply interested in our work through reading, and was calling for some one to teach her more fully. It was thought best that I visit her, because, while I instructed her, I could have a change to a dry zone. I started August 1 for Pagan, the capital of the old Burmese dynasty. This is a place of great interest to tourists. Here are ruins of buildings erected eight hundred years ago. At one time thirteen pagodas adorned the surrounding hills, while many have fallen to ruins. Even now, as far as the eye can see, are lofty pagodas. Bricks, with the history of one thousand years ago, are constantly being unearthed.



BELIEVERS IN BURMA PRESENT AT A BAPTISM



The Year in Medical Education



M EDICAL education has commanded unusual attention. The chief landmark here is the report on medical schools issued by

the Carnegie Foundation. This report, with its direct and unsparing criticism of the schools, has brought to a focus the more diffused criticism which had long been abroad. But it does not stand alone. For several years the Council for Medical Education of the American Medical Association has carried on a campaign for the improvement of standards in this field, which was strongly accentuated in the meeting of the Council at Chicago in February last. As might be anticipated, such standardizing movements meet with some strenuous opposition.

When, however, Senator Owen, of Oklahoma, introduced in Congress a bill for the establishment of a Department of Public Health in the federal government, the measure met with such wide-spread and determined opposition as could hardly have been anticipated. While some of this opposition undoubtedly came from commercial interests, which feared federal supervision, some of it seems also to have arisen from a distrust of current medical practise on the part of conscientious objectors. These several occurrences have shown how far we are still removed in this country from any general agreement regarding the practise of medicine as an applied science and the education preliminary to such practise.

In the meantime education for health has gone steadily forward in the common schools. Medical inspection, the establishment of open-air schools, and the employment of school nurses, have been centers of public-school interest throughout the year.— The Outlook, July 30, 1910.

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Diet in Training

THE question of diet is of the first importance in the training of athletes, and concerning this matter widely divergent views have been expressed by various authorities. It is freely allowed that the opinions of old-time dictators on the best means of feeding those in training for the exertion of severe physical efforts, have been for the most part overturned. The diet in vogue in such cases forty or fifty years ago, would not meet with favor in these days. Possibly the pendulum has swung too far in the opposite direction, and a certain amount of faddism has been introduced into the subject. Yet it appears to have been definitely proved that youths and men can be brought into excellent physical condition, and kept in that condition, on foods which would have been regarded with the greatest suspicion in days of yore. For instance, there are many formidable athletes nowadays who are vegetarians. Mr. Eustace Miles, one of the best tennis players who has ever lived, is a rigid vegetarian. There are also those who confine themselves to a diet of fruits and

nuts, and who seem to be able to maintain a satisfactory bodily condition. In the face of varied and contradictory experiences, it must be confessed that one can not yet make a dogmatic statement with regard to diet for athletes.

H. I. Gillett read a paper on diet in training before the Oxford Medical Society in the Radcliffe Infirmary, Oxford, on June 17. He pointed out that the majority of Oxford rowing men consume on the average of 169 grams of protein daily, thus exceeding Atwater's standard of 150 grams daily for those doing severe muscular work. Liebig taught that the oxidation of proteins was the sole source of muscular energy; hence the diet formerly consisted largely of flesh. But now carbohydrates and fats are recognized as sources of energy, and a high protein diet is regarded as unnecessary or harmful. Atwater and Bryant, in their dietary studies in university boat crews, estimated that the average amount of protein consumed daily was 155 grams. They did not show that it was necessary to take so much, but they said that the diet best suited to training had not been decided upon, and so it varied according to the ideas of special trainers. Chittenden, on the other hand, does not follow the ideas of trainers or tradition, but has proved, at any rate to his own satisfaction, that athletes can keep in good condition, and compete on favorable terms with others, on as little as 55 grams of protein daily, the amount of protein varying with the weight of the individual. Gillett thought that Chittenden's estimate of the quantity of protein needful was too low, and suggested that in order to ensure nitrogenous equilibrium it would be safer to allow a considerably larger amount.

Excess of protein is bad, in that it must mean unnecessary work for the digestive organs, liver, and kidneys, and the purins may cause symptoms of general

malaise and irritability, and throw extra work on the organs of excretion. Toxemia may result from decomposition of protein, causing a high-blood pressure with consequent strain on the heart, in addition to the strain of exercise. The point is how to discover what constitutes an excess of protein, and to find out whether a hard and fast rule can be laid down with respect to the diet of athletes. Judging from experiments and tests which have been made up to the present time, it may be stated with emphasis that no arbitrary rule can be deduced from these, and it seems likely that the diet of athletes must be regulated according to the idiosyncrasies of individuals under the direction of medical men or skilled trainers. A medical trainer should not take long to find out whether his pupils are suffering from an excess of protein, or, at least, he should be able to ascertain with a sufficient degree of exactitude, after a few weeks' observation, whether their diet is suitable The personal equation, after all, must be considered, and it does not appear reasonable to suppose that a routine diet can be ordered that will be suitable for each and every athlete.- Editorial, Medical Record, July 30. 1010.

Health Through Drafts

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T HE prevailing notion of "getting consumption," as the common people think of it, is embodied in the process of "catching cold which settles on the lungs." Their belief is that a cold usually, if not always, comes from sitting or standing in a draft. A draft is the bane of the common man's life. As a result, he carefully closes his doors and windows as soon as a touch of tresh air strikes him.

Modern studies of tuberculosis and its causes, have exploded such theories. Tuberculosis is not caused by colds, and colds are not caused by drafts. In fact, fresh air is recognized as the best preventive of both colds and tuberculosis. This belief is borne out by the statistics among railroaders, and the percentage of tuberculosis cases among them. Two hundred thirty-six working men out of every hundred thousand in all trades die with the white plague, while only 129.6 (or about one half as many) in one hundred thousand railroad men are afflicted. Fresh air undoubtedly saves them. Fresh air for the trackmen, the largest class of railroaders; for the enginemen and train crews, vardmen, roundhouse men, and all classes, indeed, except the clerks and shopworkers. The howling wind that whistles past the engine cab at sixty miles an hour; that whirls and eddies around the shanty or finds the cracks in the roundhouse, is by no means the unmixed evil indicated by the florid greetings it receives from the shivering railroader.

In the shops the matter is otherwise. The air is filled with dirt and dust, thirtyeight varieties of which, including iron filings and emery, are detrimental to the lung tissue.

With the clerks, ventilation is a matter of more attention. The difficulty here is the clerk's sedentary occupation, his bent body and stooping shoulders, with never a need for deep breathing, and his deadly fear of walking when he can ride, are all aiding and abetting his early passage to the grave by the tuberculosis route.

Of the railroad man's treatment of the riding public we must speak more in sorrow than in anger. Whatever be his desires in the matter of air, they are sure to be overridden by an anxious public. bent on excluding all possibility of murdering germs by the cheap use of free oxygen.

The new-style steel cars, now coming into general use, have specially constructed ventilators, with the openings in front of the cars near the floor, which permits a flow of cold air over the steampipes before it is thrown into the car and breathed. That does away with all overhead openings, with drafts, with the possibility of arbitrary and fanciful directions by passengers, and insures a uniform supply of fresh air warmed just enough to be breathed with comfort. Special contrivances strain out the dust before it enters the cars .- Arthur Holmes, Ph. D., in Fresh Air Magazine. July, 1910.

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Grape Juice in Typhoid Fever

I N the management of our typhoid fever patients, we must not forget that orange and grape juices, together with well-strained vegetable soups, will obviate the deplorable physical state which will otherwise ensue at the close of the typhoid proper, and which is, in a degree, a scorbutic condition. Another point, in connection with milk when it is used in typhoid as the main dietetic reliance, is that it should be modified by the addition of barley-water, the latter in about onethird proportion. Modification by lactic bacilli cultures has also its advocates. E. E. Cornwall, of Brooklyn, reports a phenomenally low death-rate in a large series treated with ripened milk .- Editorial. Therabeutic Medicine, February, 1910.



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.

Obesity, Its Significance and Its Prevention



 E frequently meet with patients,
 usually past middle age and above the average in weight, who suffer from symptoms so di-

versified and indefinite that we are puzzled as to how to classify them. These symptoms are often severe enough to suggest serious organic disease. But we find the important organs are apparently in normal condition.

These patients usually complain of shortness of breath, dizziness, headache, backache, lack of energy, constipation, loss of appetite, "indigestion," puffiness of face, swelling of the legs and feet, insomnia, irritable temper, indefinite aches and pains in different parts of the body, commonly referred to as "rheumatic" or "neuralgic," and a great number of other symptoms.

If the patient happens to be very stout, we diagnose the case as obesity. But very often the patient's weight is not sufficiently above normal to account for any symptoms at all. It is obvious that there must be some underlying condition responsible for the mischief; and when obesity is present, it must be regarded as merely a symptom of this general condition rather than a disease in itself.

Faulty metabolism is the underlying 650

cause in all these cases, the symptoms in any given case being modified by the age, habits, temperament, etc., of the patient.

Metabolism is the highly complicated chemical process going on in the body in the assimilation and utilization of food. The uses of food are twofold: First, to supply the body with materials for growth or renewal of tissue; second, for the production of energy, in the form of heat and motion. During infancy, childhood, and adolescence, a considerable part of the food is used up in the development of the body. When the body has attained full growth, the requirement of food is greatly reduced. Any excess taken at this period is generally disposed of by work or exercise. But after middle age, the activity of the body is diminished, requiring much less food. If the habit of satisfying a vigorous appetite is continued, a great deal of it will be stored in the form of fat.

Certain noxious by-products are formed as a result of tissue combustion. As muscular exercise is an essential aid in the elimination of these materials, if the proper amount of exercise is not taken, these substances will accumulate. It follows, then, that the same conditions or habits that encourage the development of obesity also favor the accumulation of poisonous materials which, in the course of time, will pave the way for one of several evils. The kidneys, put under a tremendous strain, are likely to break down. The arteries, affected through the presence of toxic substances, undergo changes in structure, which weaken their muscular coats.

The heart, being a part of the circulatory system, is apt to share in the changes taking place in the arteries; and as the blood pressure is generally raised, the heart is forced to pump the blood through greater resistance, and heart failure is likely to result. The nervous system is also irritated by these products. Ill-temper, nervousness, insomnia, etc., are early indications of trouble, and many cases of neuralgia are due to this cause. These patients suffer from aches and pains in different parts of the body; and many cases of so-called muscular rheumatism, rheumatic gout, etc., are really cases of autointoxication.

These conditions are caused by sedentary habits, and overindulgence in food and drink. Obesity is merely one of the indications of faulty metabolism, and a patient who accumulates much more fat than is normal will, sooner or later, show other evidence of the disease.

In making examinations for life insurance companies, we are occasionally surprised to find evidence of diabetes, disease of the heart and kidneys, etc., in persons who are apparently in good health, but not nearly so often as in examining patients affected with obesity. Overweights are prone to disease of the arterial system, diseases of the heart, apoplexy, premature arteriosclerosis, diabetes, and rheumatism. They usually take insufficient exercise, are generally high livers, and are frequently free users of stimulants, particularly malt liquors. They succumb easily to accidents, surgical operations, and, as a rule, to acute diseases.

Many people owe their lives to examinations for life insurance, when some

conditions were discovered in the incipient, and often curable, stages that would have terminated fatally if left untreated. Many incurable diseases can be prevented if the conditions leading up to them are recognized in time, and the proper means taken to check them.

Prevention is the highest aim of modern medicine, and all our efforts are mainly directed to the prevention of disease. But under the present conditions we can control only diseases originating from causes outside of the body, because in those cases the physician is called early, and by the use of quarantine, vaccination, etc., he prevents the disease from spreading to other persons; and the progress of the disease in the person already affected is modified, and complications avoided by the proper management of the case. Whereas in diseases originating within the body, such as chronic Bright's disease, the onset is extremely gradual, and there are no symptoms of sufficient importance, as the patient thinks, to require medical attention until the disease has reached a dangerous stage.

The only hope of solving the problem is not to wait until there is reason to suspect one of these incurable conditions before making a test. In the class of cases under discussion, such a catastrophe as apoplexy, uremic convulsions, or heart failure, which often carries off people who are comparatively young, is merely the culmination of a series of pathological changes that have been going on for some time; in a majority of cases, a careful medical examination would have disclosed these changes quite early; and by correcting the errors in the person's mode of living, regulating his diet, exercise, sleep, etc., and proper medication and physical treatment when indicated, we can cure a great many of them, and certainly prolong the lives of a majority of them. We know that these changes are apt to begin any time after the age of forty or fifty (much earlier in men who are high livers, and spend much time in their office under great business strain), and that obese persons are more prone to develop these conditions than persons of average weight. Would it not be a wise and beneficent plan, then, to educate our patients who have passed middle life, and especially those affected with obesity, to the importance of periodic examinations? Many useful lives would be saved each year through this precaution.— i.~B.Kronenberg, M.~D., in Medical Record, July 23, 1910.

Treatment of Furunculosis

B^Y furunculosis is meant the repeated outbreak of boils occurring over a period of weeks, months, or years. As to the ultimate cause of this disease, the last word has by no means been said. We know that the boil is usually, if not always, caused by an infection of the pusgerm (*staphylococcus phyogenes aureus*), and that new boils are caused by infection from the old one; that susceptibility to boils is increased by diabetes, debility, and albuminuria, and that the development is facilitated by irritation of the skin. Aside from this, we do not know what produces the majority of cases of susceptibility to boils.

As to treatment, I do not believe that early excision or poulticing are to be recommended except in rare instances, the latter being contrary to aseptic procedure. In calling attention to the following method, I do not wish to detract from the vaccine method, which often gives brilliant results. I know of no method which compares with it in certain cases, but all cases do not yield, and some that have not yielded to vaccine treatment have yielded to the local treatments I am about to describe.

In the first place, the patient is directed to wash the whole body with warm water and soap morning and night. This part of the treatment I regard as most essential. After thorough washing and drying, the body is bathed in a saturated solution of boracic acid. Other antiseptics, as bichlorid of mercury, may be used, but I prefer boracic acid, and regard it as most effective. The skin is allowed to dry without wiping, and the boils are dressed with the following ointment spread on cotton, bound on if possible:—

Boracic acid			•								I	dram
Precipitated	sulphu	r				*	 			4	I	dram
Carbolized v	aselin	÷	÷		,		 		*		Т	ounce

Do not open boils until they have become very painful and mature. Change daily all clothing that comes directly in contact with the body. Germs are often retained on collars and underclothing, and reinfect the body.

Everything should be done in a general way for the welfare and health of the patient.

While this treatment does not accomplish the brilliant results of the vaccine method, it rarely fails when carried out faithfully, and frequently succeeds where the vaccine method fails.— Ed. Wiggleworth, Professor of Dermatology, Harvard University, Boston, Mass., Journal of the American Medical Association, April 16, 1910.



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

Country Life in America, New York.

"Safer Plumbing for Half the Money," J. P. Putman.

Good Housekeeping Magazine, Springfield, Mass.

"The Practical Victories of Medical Science," Thomas L. Stedman, M. D., editor *Medical Record*.

Cooking Club Magazine, Goshen, Ind.

- "The Simple Life's Rewards."
- "Rocky Mountain Cookery."
- "With the Cook in September."
- " Primitive Methods of Preserving."

National Food Magazine, Chicago.

"Health and Living Conditions in Germany," Rutledge Rutherford.

- " Food Adulterations in America."
- "Notes on Food and Health."
- " Domestic Science Work."

The Ladies' Home Journal, Philadelphia.

"Wholesome Luncheons to Take to School," May Ellis Nichols.

"Menus for Students," Mrs. S. T. Rorer,

"My Best Recipe," Marion N. Godkin.

Success Magazine, New York.

"America's Young Men." Ernest Poole. "Marriage in America (The College Girl)," Robert Haven Schauffler.

"What Is the Matter With Our High Schools?" Benjamin C. Gruenberg,

Harper's Bazar, New York.

- "Making a Sun-Parlor."
- " The Up-to-Date Nursery."
- " How to Reduce Flesh."
- "Modern Complexion Treatment."
- "Autumn Luncheons."
- "Closing the Summer House."

Progress Magazine, Chicago.

"The Medical Milk Commissions of the United States," Addie Farrar.

"Governmental Regulation of Mining Methods," M. Hamilton Talbott.

"How the Government Is Working Out the Problem of Conservation," Catherine Frances Cavanagh.

The Designer, New York.

"The Woman Who Starves Herself," N. Hamilton.

"Passion Fruit," a new food for Americans.

"I Myself Am Heaven and Hell," a talk on the disastrous physical effect of lack of self-control.

The Mothers' Magazine, Elgin, Ill.

"Typhoid Fever and Its Control," Hogarth Senn, M. D.

"Teeth of the Young Mother and the Growing Child, Their Relation to Health and Character," Theo. M. A. Elsnau, D. D. S.

" Result of the Use of Soothing Sirups," Kate Davis.

"Open the Windows; Open the Doors," Alice T. Mabie, M. D.





School-Age Limit Raised.— The New Jersey Medical Society has asked that the minimum school age be raised from five to seven years.

Public Drinking Cups Banished.— The public drinking cup has been abolished in Cleveland public schools, and sanitary drinking fountains have been installed.

Infantile Paralysis Epidemic.— From widely scattered sections of the country come reports that indicate that infantile paralysis is more than usually prevalent.

New Reportable Diseases in Pennsylvania.— The State law now requires the reporting of hookworm, pellagra, and infantile paralysis, in addition to the other reportable diseases.

A School of Tropical Medicine.— The San Francisco health department has matured a plan to establish a school for the study and treatment of tropical diseases in the port of San Francisco.

Stream Pollution in New York.— Sanitarians in New York are indignant because the State legislature has failed for two years to pass adequate legislation against stream pollution, and have appealed to the governor for executive action on the existing laws.

Medical Inspection in New Jersey.— It is hard to find inspectors for the New Jersey schools. The physicians of the State have, as it were, "gone on a strike," and demand one dollar for each pupil inspected, and parents want children inspected by their own family physicians.

Foot and Mouth Disease.— Owing to an outbreak of this disease among the cattle of Yorkshire, England, the United States and the Canadian governments have prohibited the importation of cattle from that country until it has been satisfactorily proved that the disease is stamped out.

Campaign Against Baby Sirups.— Health Officer Woodward, of Washington, has begun an active campaign against baby sirups. Finding that the laws can not be invoked to stop the sale of these nostrums, he has, through the *Herald*, begun a campaign of education which he hopes will lessen the tendency of mothers to dope the innocents for every little trifle. Imperial Cancer Research Fund.— The recent report of this organization, showing the work of the past year, is decidedly not in favor of the view of the heredity of cancer. If anything, the findings are against such an interpretation.

Infantile Paralysis in Washington.— There is in Washington City a serious epidemic of this puzzling infantile disease. As yet, this disease has not yielded up its secrets to investigators, and we are much in the dark as to its mode of transmission.

Infantile Convulsions.— A South African physician states that infantile convulsions seldom or never occur except in the presence of fever. When the temperature rises above one hundred two degrees, if a cold bath be given, and the temperature kept down, there will be no convulsion.

Infantile Paralysis in Bethlehem, Pa.— An epidemic of this disease has been raging in this place for some little time. In one case, a child two and one-half years old was taken with paralysis a short time after using milk from a herd in which one of the cows had been lying several days with paralysis of the hind legs.

International Tuberculosis Congress Postponed.— Because of protest against the inconvenience of the time, especially from American physicians, the next International Congress on Tuberculosis will be held in Rome, Sept. 24-30, 1911, instead of April, as at first announced. Many more Americans can attend in September than in April.

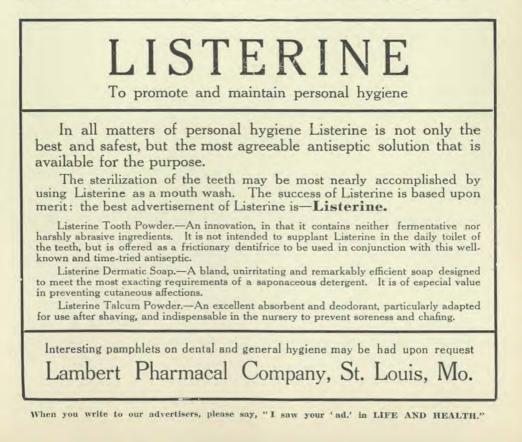
The Rat Campaign in San Francisco.— Though there has been no case of plague in San Francisco for more than two years, thirty men are still employed to do nothing but catch rats. A few cases of plague might not be a bad thing for some other cities if it taught them how to clean up, as it has taught the citizens of San Francisco.

Liquor and Leprosy.—Dr. Brinkerhoff, of Honolulu, as a result of four years' observation at the leper hospital at Molokai, expresses the opinion that the use of alcohol by the natives is largely responsible for the prevalence of leprosy among them. That does not imply that liquor alone can cause leprosy, but that it renders its victim less resistant to the leprosy germ. Cholera in Russia.— Official figures recently published, show that since the outbreak of cholera in May till the end of July, there were 37,652 cases of cholera, with 16,651 deaths, occurring in forty-two provinces and territories. In the one week ending July 23, there were 13,374 cases and 5,979 deaths.

Instruction to Girls on the Care of Infants.— A bill has been framed in England by the physicians, which requires that hygiene be taught in the elementary schools, and that girls be taught the care and feeding of infants. It ought to pass. A large proportion of infants die because of the want of knowledge on the part of the mother, and many more die because of ignorance of simple laws of hygiene.

Fined for Selling Morphin.— A French pharmacist sold morphin without a prescription to a student, who obtained the supply for a fellow student, who became addicted to the drug. The father of the victim sought legal redress in an action against the pharmacist. The pharmacist claimed that he was not responsible for the action of the student who had bought the morphin, but the court decided that he was responsible for any ill that came from the morphin when sold without a prescription. Babies and Opium.— In England, children, even of the well-to-do, are habitually given opium to quiet them, by careless, irresponsible nurses. It is said that one who knows the signs of opium addiction can walk through the parks and read the signs in scores of little white faces. Drugs, such as opium and brandy, are given to the little ones to stop their crying at night. Sometimes a nurse rubs opium under a child's finger nails, so it is said, and the little fellow, waking, cries a while, sucks his fingers, and is soon in a stupor. The result is a nervous wreck for life.

National Association of Mothers.— The Denver meeting was the largest in the history of the organization, there being present 148 members, from twenty-four States, as well as a large attendance of visitors, especially of Denver women. The key-note of the convention was "child welfare in home, school, and nation." There are two national associations of women,—" mothers" and "daughters," which offer a marked contrast. The " mothers" have their hands full with plans for the betterment of the rising generation. The "daughters" seem to meet for the purpose of quarreling about pedigree, and office, and similar dignified matters.



To Prevent Beriberi.— The government of the Philippines has forbidden the institutional use of polished rice. It has been definitely determined that beriberi is due to the use of food containing no phosphorus, this element in rice being in the removed hulls. If rice hulls are given in the food of those who live on polished rice, they do not contract beriberi.

Steamer Screens Against Malaria.— A steamer plying between Liverpool and a South American port six hundred miles up a tributary of the Amazon, in a region where the mosquitoes are so thick as to infect with malaria practically all travelers, has been thoroughly screened for the purpose of protecting passengers and crew. Probably the screening of vessels plying in mosquito-infected districts will become more common.

Public Health Run Mad.— The health department of Aurora, Ill., has decided, so it is reported, that every one of its inhabitants must take at least one bath a week, and the health officer and chief of police threaten dire penalties on any one who fails to comply with the law. We would rather know of their enforcing more sane regulations having to do with public health than see them attempt to regulate the private life of individuals.

The First Woman President.— Ella Flagg Young, the superintendent of the Chicago public schools, has been elected president of the National Educational Association. The "committee" nominated a man, but Mrs. Young was nominated from the floor, and defeated the official candidate two to one. When Mrs. Young first attended a meeting of the National Educational Association, women were expected "to be seen and not heard." They viewed the meetings from the safe distance of the galleries. They are heard now.

Brewers' Boycott a Boomerang .- Beer makers, resenting the attitude of the Boston Herald in regard to the Bar and Bottle bill just passed by the Massachusetts legislature, undertook to intimidate that journal by instituting a boycott of its advertising columns. The Herald proceeded to carry on what it would never have done under ordinary circumstances, a thorough investigation of the influence of the brewers in municipal politics. The result proves conclusively that the brewers are concerned in local politics; that "it is important to the attitude of a legislature to be favorable to the brewers, and to that end the beer makers and their allied interests become contributors to State campaign funds;" that the brewers "seek to defeat the purpose of society, and to that end are accumulating and using political power, influencing executives, controlling licensing boards, lobbying against restrictive legislation, and attempting to intimidate and silence the mouthpieces of public opinion."

The Clean People of Massachusetts Aroused.— Roused by the disclosures of the Herald, nearly every prominent preacher of Boston, and of many other Massachusetts cities, have denounced the brewers and the liquor traffic for their pernicious activities in Bay State politics, while civic and reform organizations of every kind have thundered their approval of the brave fight for newspaper independence which bids fair to prove a stinging boomerang for the trade that provoked it.

A New Chautauqua.— The Stony Brook Association has selected Stony Brook, Long Island, fifty-three miles from New York, for the establishment of an assembly town. The purpose is to establish a place where many can meet for the consideration of religious and sociological questions without necessitating the expense involved in some of the older assembly towns. Such topics are considered as housing, cost of living, child labor, and the like.

The Second International Congress of Alimentary Hygiene.— This congress will be held in Brussels, October 4-8. Among the subjects to be considered will be: Energy-Value of Foods and Alcohol; Value and Effects of Cooking; Influence of Microorganisms; Use of Antiseptics in Foods; Purity of Water; Sterilization of Foods; Contamination of Foods on the Street; Clean Milk; Analysis of Butter; Food Legislation; Legal Responsibility of Food Venders, etc. The secretary is M. E. Grognard, Rue de Louvain, Brussels, Belgium.

Indianapolis's Moving Pictures .- The Juvenile Protective League of the Children's Aid Association recently made an investigation of fifty-four moving-picture shows. Ventilation was found, "far from adequate," even though not so bad as during the cold months. "In sixteen out of twenty-four theaters, at least one film portraved crime in an offensive form." There were few films "downright immoral, but a good many were at least questionable." "Parts of the vaudeville performances were reported as unfit for any stage. Educational features were practically lacking." It is estimated that ten thousand children under fourteen years of age attend these shows every week in Indianapolis. In view of the danger to health and morals, we ask, How long will parents permit their children to attend such places?



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(What to Eat-How to Live)

is a monthly publication edited by Paul Pierce. It was awarded Highest Honors, Grand Prize, and Gold Medal by the International Jury of Awards, World's Fair, St. Louis

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THE National Food Magazine is the only magazine of the kind in the world. It has been published for fourteen years, and is the magazine that is striving for the enactment of laws that will prohibit the manufacture or importation of any food or beverage deleterious to public health. If its teachings are followed and its recommendations heeded, it will make the fact that a food product originated in the United States a guaranty as to its purity and wholesomeness.

This is the magazine that offers prizes every month for the best table story, for the best entertainment suggestion, and for the best recipe, kitchen or dining-room suggestion. It publishes toasts and sentiments and many interesting features. It is of great value to any housekeeper who desires to entertain, or host or hostess who desires to be entertaining.

A meeting of the Executive Committee of the National Association of State Dairy and Food Departments passed the following resolution : "Be it resolved, That we hereby recommend this publication to the great consuming public of the country, and also to the retail grocers of the country, and to all who are interested in the subject of pure food; and we further recommend that the various State Food Commissioners and Chemists mention this magazine in their monthly bulletins and reports and through such other means as they have."

A Cleveland paper says: "If you are inter-ested in good health and long life, if you want protection from food poison, get a copy of the National Food Magazine. Besides, it takes sunshine and happiness into every home."

The Chicago Tribune says: "Paul Pierce, of What to Eat, the National Food Magazine, when called upon for a speech, urged those present to write, telegraph, or make known to their congressmen their desire for a national pure food law."

The Chicago Daily News says: "The National Food Magazine is doing all in its and need in regard to pure food, and is show-ing the urgent need of government protec-tion." power to awaken the people to their sense

The St. Paul Dispatch says: " Paul Pierce, editor of the National Food Magazine, is pushing hard for pure food legislation. Wherever there is a convention of tradesmen in food products, there he is, preaching the gospel of pure food law."

The Minneapolis Tribune says: "The National Food Magazine began the great pure food crusade years ago, which since has stirred the United States. An article from this magazine was read in the United States Senate and proved the most powerful argument that has yet been produced for national food legislation."

The Hartford Post says: "Not only the housewife, but gentlemen of the household and club, will find it interesting."

The New York Sun says: "Interest in the magazine is not confined to the city in which it is published."

The Boston Globe says: "In every way superb.

The New Orleans Daily Item says: " Every woman should send for it at once.

The Rochester Post Express says: "Full of sage and seasonable advice."

The Detroit Free Press says : "Bright and readable."

The London Bookseller says: "A publication that deserves attention.'

The Wilkesbarre Reporter says: "The finest thing of the kind ever attempted."

The Minneapolis Journal says: " Wit and wisdom throughout.

The London Epicure says: "Printed exunite Long and the state of the

publication, and greatly appreciated by those familiar with it."

Oscar, of the Waldorf, says: "It is unquestionably the leading dietetic and culinary magazine of the world.

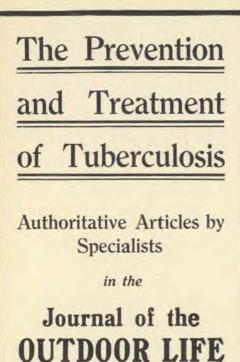
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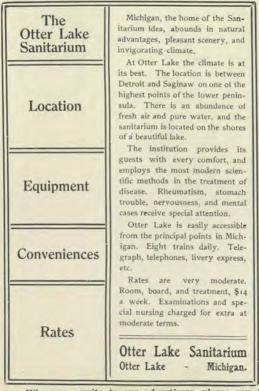
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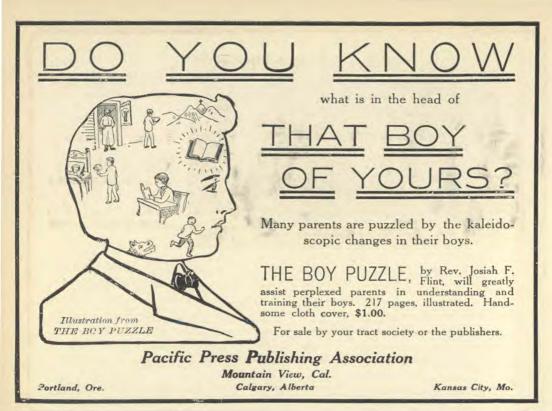
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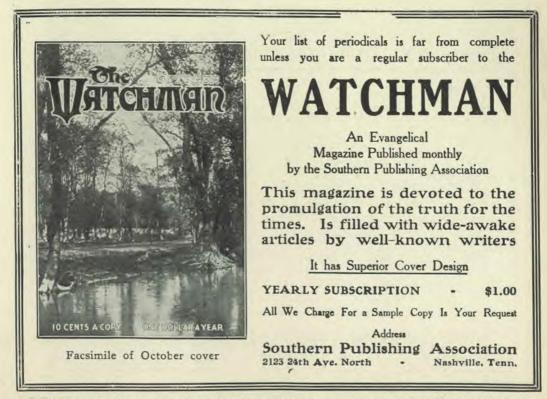
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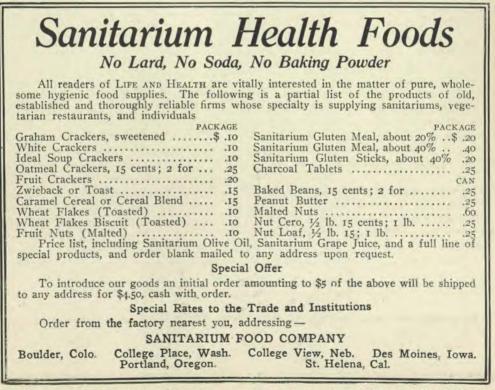
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