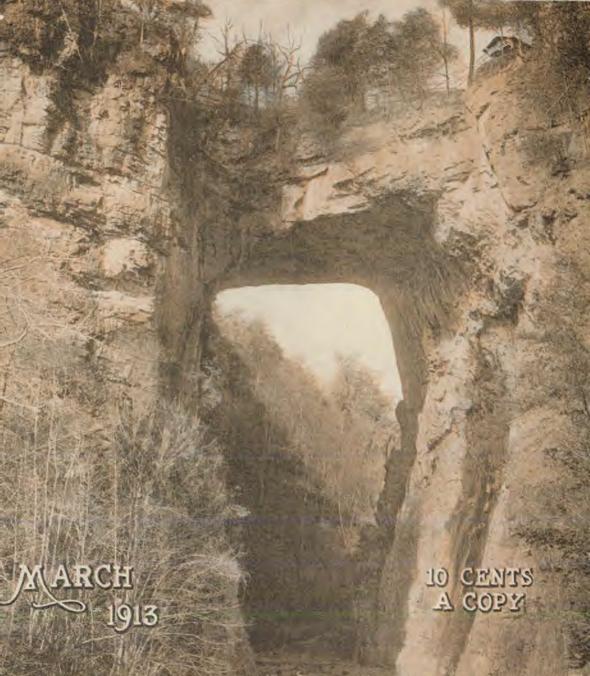


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George Henry Heald, M. D., Editor

WHAT TO DO FIRST

Convulsions in Children

RELIEF follows a few whiffs of chloroform.

Sore Nipples

THE best application for the relief of this trouble, so we are told, is compound tincture of benzoin.

Crab-Lice

WASHING the parts with ether will immediately destroy these pestiferous creatures, says an exchange.

To Relieve Hiccup

IMMEDIATE relief will usually follow the swallowing of a lump of sugar on which four drops of oil of cinnamon have been placed.

Poison-Ivy

EQUAL parts of lime-water and sweet spirits of niter is a mixture recommended for ivypoisoning, and should be tried where other remedies have failed.

For Chilblain

THE following is recommended and is worth trying: Obtain from the druggist two ounces of *dilute* hydrochloric acid U. S. P., and apply to the parts two or three times a day. It often gives remarkable relief, so it is said, though in some cases it is ineffective or even increases the irritation. Be sure to use the dilute acid, as the concentrated acid would eat the foot.

Goiter

A RECENT writer in the Medical Summary suggests, as a treatment for goiter, the use of minute doses of proto-iodid of mercury, 1/30 to 1/10 of a grain (4 to 10 grains of the "2x" or 1/100 trituration powder). His experience was that in all young, incipient, or soft goiters, it is practically a sure thing. It will do much for some very long-standing goiters, and should be given a thorough trial in such cases. At the same time, it is necessary to watch for anything that causes uterine irritation. Mercury proto-iodid is something that should be used only under the care of a physician who is able to give fuller details.

Wetting the Bed

CHILDREN fed on an excess of starchy foods pass an unusually large amount of urine. When other measures fail, try cutting down the foods containing starch to the minimum for a few days. The result is often gratifying. Give starchy food for breakfast, but not at other meals. Even a small piece of bread at supper may renew the trouble after it has been checked.

Dog Bite

Do not kill the dog, but keep him chained and under observation for at least sixteen days. If he has rabies, he will show it within that time, and will probably die of lockjaw within ten days. In order that the Pasteur treatment for prevention of lockjaw may be effective, it should be given within five days of the bite. In any case, it is much wiser to take the treatment, which is harmless, than to allow the wound, which may be infected with rabies, to go until it is too late.

To Prevent Loosening of the Teeth

THE Medical Review of Reviews gives the following recipe, which it recommends as a preventive of this condition : ---

Tannic acid 2	
Tincture iodin I	dram
Tincture myrrh80	
Potassium iodid15	grains
Rose-water to make 6	

A teaspoonful of this mixture should be taken in a tumbler of water every two hours as a mouth wash.

To Cause Vomiting

In cases of choking, poisoning, or other conditions where it is desired to empty the stomach promptly, vomiting may be produced by thrusting the finger well down the throat. Follow this with a glass of warm water to which has been added a teaspoonful of dry mustard, says the *Medical Summary*. If ipecac is used, a teaspoonful should be given to a child, and a tablespoonful to an adult. It should be followed by a drink of warm water, and the index-finger again inserted. Generally speaking, the finger method is quite successful in causing vomiting, especially if narcotic poison has been taken.

WHAT DO YOUR CHILDREN CHEW WITH ? EDWARD LEONARD, M.D.

T would seem that campaigns for the dental inspection of schoolchildren are becoming world-wide. Statistics unearthed by European workers are no doubt responsible for the movement. Professor Jenner, of Germany, recently announced that of one hundred thousand schoolchildren examined in that country, from eighty-one to ninety-nine per cent were found to have defective teeth; only about one per cent had normal, healthy mouths.

England and Italy fall in line with like figures, and a similar state of affairs prevails in America. This universal neglect of schoolchildren's teeth can very often be traced to the indifference of parents. Most of them think that teeth, once erupted, are organs that can more or less take care of themselves. They will allow a child's molar to decay until the ungentle promptings of toothache finally land the child in the dental chair.

The condition of the mouths of young

pupils reveals this parental neglect in an amazing degree. The condition of the teeth of some of those examined was enough to keep their owners in constant distress and physical ineffi-Aside ciency. from the discomfort of an ill-kept mouth there are the sinister dangers it invites. To quote an eminent authority: "The germs of the more serious diseases of pneumonia, tuberculosis, diphtheria, and tetanus effect lodgments near and about the mouth, and from there attack the body."

Decayed teeth leave the doors wide open for these agents of disease. It has long been established that the teeth play an important rôle in the digestive disturbances of childhood. Defective teeth result in imperfect mastication; and if a child can not properly chew its food, how can it have physical and mental efficiency? Where observation has been possible, it is found that, eliminating other factors, corrected dental disease and good scholarship go hand in hand.

Nothing reveals this fact more clearly than the recent observations of the Marion School Dental Squad in Cincinnati. Forty children from the poorer districts of the city were selected from the school. When the deplorable dental troubles of these children had been corrected, and the benefits of a proper use



The ungentle pangs of toothache.

of the tooth-brush impressed upon their young minds, the improvement in scholarship was amazing. Better attendance, good conduct, and increased averages in the class brought pleasure to the observers. Earache, stomachache, and headache were no longer commonly excused.

The combating of dental disease and dental neglect among schoolchildren must be carried right to their desks. European countries are far ahead of America in this work. Strassburg, Germany, has a sixty-thousand-dollar building devoted entirely to dental surgery for children. Here, thousands of schoolchildren receive dental care at an approximate cost of twenty-five cents a pupil. When the teeth of a child have been put in good condition, he is given a piece of rye bread and taught how to masticate properly. Professor Jenner was the originator of the work, and his policy has been followed throughout Europe, and has finally spread feebly to our own shores. Aching teeth in Boston will soon find relief in a onehundred-thousand-dollar building under erection for that purpose. Dental inspection in New York schools has for some time been in vogue; but the smaller outlying communities are still slumbering. The National Committee on Oral Hygiene of the National Dental Association is doing good work, and it is hoped that before long this thorn in the flesh of juvenile progress will be removed.

CONSUMPTION IS NOT A HEREDITARY DISEASE; IT IS A CURABLE DISEASE

D. H. Kress, M. D.

K

N civilized countries no other disease has a death-rate equal to tuberculosis. It carries off young men and young women

just as they are blooming into life or entering upon years of usefulness and responsibility. One third of the deaths that occur between the ages of fifteen and forty-five in civilized communities are said to be due to this disease. In Germany, where a careful study of the disease has been made, it has been found that nearly one half of the deaths between the ages of twenty-one and twenty-five are caused by it.

Dr. Nageli, a noted authority on tuberculosis, as a result of very extensive investigations conducted by him, concludes from the tubercular scars found in the lungs of post-mortem cases that practically *every adult* has at some time had tuberculosis. Another European authority says ninety-eight per cent of his post-mortems presented either active tubercular disease or scars indicating the previous presence of the disease. It is seldom, if ever, found in the new-born, and is therefore contracted after birth.

Consumption is to be dreaded perhaps even more than plague or smallpox, and the same precautions should be taken to prevent its spread that we take in preventing the spread of other germ diseases. If an outbreak of smallpox should occur, the whole community would be aroused. Decided and effectual efforts would be put forth to prevent its spread and lessen its prevalence. Yet little anxiety has in the past been felt concerning consumption.

The probable reason why this apathy has existed is the fact that other epidemic or germ diseases carry off their victims in a few days, while consumption steals in quietly and fastens upon one member of the family, and in the course of a few months he dies. Then it is found that another member is failing in health and losing in weight; in a short time he, too, dies of the disease; and so it goes on weeding out one after another, until often entire families are in time wiped out. But it does its work so slowly and stealthily that little alarm is created. Friends of the bereaved stand by and say, "It is too bad, but it runs in the family; it is a hereditary disease." This consolation and resignation is felt by all, and so matters are allowed to continue, and this monster is left undisturbed in its work of destruction. The feeling exists that no one is to blame for a death due to consumption. This feeling is responsible for the existence and prevalence of this disease. The fact is that any adult person who dies of consumption has himself and not his parents or his heredity to blame for it.

It has been fully demonstrated that consumption is not inherited. It is possible to inherit certain predisposing weaknesses, but it is also possible within certain limits to develop and strengthen these weak points, and have them become strong points. The gardener takes the weak plant and by cultivation makes of it a thrifty plant.

The difficulty is the children inherit not only the weakened constitutions of their tuberculous parents, but in addition they fall into the wrong habits of the parents. These habits, more than the weakened constitution, are responsible for tuberculosis.

Let no one therefore settle down in apathy, and say, "There is no hope for me; I have inherited this weakness." Determine to strengthen the weak points. If the chest is narrow and contracted, take suitable exercises to develop it. Sit erect; stand erect; walk erect. Send a current of energy into every muscle of the body. Practise deep breathing; keep in the open air; dispense with every harmful practise; eat clean and wholesome foods, combining them well, and masticate thoroughly all you eat, and you need never fall a victim to this disease.

Consumption is a curable disease if it is taken in time. But if it is not treated in time, it soon reaches the incurable stage. As a rule, its progress is rapid. The disease process begins at a small point, and rapidly spreads. It is there fore of the utmost importance that curative measures be adopted at the very outset. Life in the open air is above all treatments the best; nourishing food is next in importance. Agreeable surroundings and light, cheerful occupation must also be encouraged.



MONUMENT ERECTED TO THE MEMORY OF PASTEUR

Pasteur in the discovery of the anthrax bacillus rendered a lasting and inestimable benefit to cattle and to man; and this was only one of his many achievements.



THE HYGIENE OF DEEP BREATHING

William J. Cromie, Instructor in Gymnastics, University of Pennsylvania



O the average person, articles written on such subjects as health and hygiene, are in the

main dry and uninteresting. This is because the paper is too technical or prosaic, or is poorly written, or because the reader's education along this line is so meager as to cause the subject to be unappreciated. I deeply realize that such a title as "The Hygiene of Deep Breathing" will not strike a popular vein in most people, because it sounds too simple or commonplace; but that is not sufficient reason why it should not be written, nor, again, why it should not be read.

It is the simple things in life that are best for us, and simple or hygienic eating, drinking, and exercising, with simple pleasures and habits, should be studied and encouraged. This paper is an appeal to the woman, because her breathing is more shallow than that of the man, although the same regimen of exercise is beneficial to both. If any woman will read this carefully and perform the exercises daily for six months, physical training will by that time have a new meaning, and such subjects as health and hygiene will have added attractions.

The average woman gives very little thought to the art of breathing, because this simple though very important process goes on constantly whether she takes note of the fact or not. She receives food into the stomach but a few times daily, while air is taken into the lungs fifteen or twenty times each minute.

This air undergoes in the lungs a species of digestion, and this process goes on without any intermission both day and night during her lifetime. She can live but a few minutes without breathing, consequently the act is one of the greatest factors in hygiene and life.

The Breathing Organs

In order that the act of breathing may be better understood, I shall give a short review of the physiology of the lungs and chest. The lungs, or organs of respiration, with the heart between them, are situated in the thorax, or chest, and are separated from the stomach and intestines and other organs of the abdomen by the broad umbrella-shaped bridge, or muscle, extending across the body, called the diaphragm. When one is about to inhale air, the muscular fibers in this membrane contract in such a manner as to bring the diaphragm more nearly to a level or plane than it was before, enlarging the cavity of the chest, and thus causing a negative pressure, often spoken of as a "vacuum." The air rushes through the mouth and nostrils, trachea or windpipe, and bronchial tubes, to equalize the pressure in the lungs with that outside. This is called inbreathing, or inspiration. Outbreathing, or the act of expiration, is caused by the diaphragm's being pushed upward against the lungs by the contraction of the muscles of the abdomen; the walls of the chest contract, the ribs being pulled downward by the muscles.

The size of the chest is greatly diminished by these movements, and the air is pressed out of the lungs through the air-tubes, bronchi, larynx, and nostrils.. For the function of breathing, one possesses a bellows-like arrangement, which alternately contracts and expands under the control of the nervous system, bearing a close analogy in its mode of action to the apparatus employed in the circulation of the blood. Each consists essentially of a kind of pump which propels, one fluid, and the other air, through a series of ramified tubes, the difference being that in the lungs the inflow and outflow pipes are the same.

Although one can breathe through either the mouth or the nostrils, the latter are the natural air-passages, inasmuch as they are always open. The larynx, or opening into the windpipe, is situated in front of the throat, and is protected by a kind of lid, called the epiglottis, which immediately closes under the impulse of reflex nervous action whenever any particle of food or drink is about to be swallowed. The larynx, containing the vocal cords, is continuous with the trachea, or windpipe. The trachea divides into two branches, called the bronchi. Each bronchus enters the lung on its own side, and divides into a large number of small branches, named bronchial tubes. In the nose, the air is warmed and moistened, and the coarse particles of dust, etc., are left clinging to the damp and sticky surface.

In all exercises which call for deep breathing, such as cycling, running, mountaineering, rowing, and most games, the breath should be taken in as much as possible through the nostrils. When the organs of breathing are forced into stronger action, the possible harm which may be done by dry, cold, or dust-laden air is correspondingly increased.

Force in Inspiration and Expiration

The lungs are not, as some seem to think, a support for the chest walls, but, on the contrary, tend to suck them in. Dr. Henry Campbell, of London, shows the elastic force or suction exerted by the lungs under varying degrees of expansion, as follows:—

At the end of an extraordinary expiration, o mm. Hg.



Photo by Haeseler, Philadelphia

FIG. 1. From position A, inhale deeply as arms are raised as in position B. Exhale as arms are brought front as in position C.

At the end of an ordinary expiration, 5 mm. Hg.

At the end of an ordinary inspiration, 10 mm. Hg.

At the end of an extraordinary inspiration, 30 mm. Hg.

The elasticity of the lungs, in fact of all the tissues of the body, tends to become less with advancing years. When the skin loses its elasticity, it becomes

wrinkled, and on account of its being permanently stretched and no longer tightly adapting itself to the underlying structure, is thrown into folds. What is true of the skin is also true of the lungs; the elasticity and suction they exert diminish.

Many women visit the massage expert, men the barber shop, in order to have the face massaged. It is observed that massage of the face tends to keep away wrinkles,

and gives a healthy glow to the skin, making its functions more active. Just as the skin may be preserved and nourished by a rich supply of blood through the agency of massage and proper care, so may the suction and elastic properties of the lungs be preserved by the "massage" of deepbreathing exercises, such as are illustrated in this paper. Of course, the lungs should be carefully protected from bronchitis, pneumonia, coughing, etc., and all straining exercises where the thorax remains fixed should be avoided.

A number of men have experimented in determining the force of the inspiratory and expiratory muscles. The early workers were Hales and Hutchinson, of

England, while those of more recent date are Donders and Waldenburg, of Germany. This force is measured by means of a graduated U-shaped glass tube partly filled with mercury, to one end of which is attached a flexible tube, which is applied to the mouth or nose. In ordinary breathing, according to Waldenburg, the mercury moves from I to 2 mm.; in forced breathing the movement is much greater.



Photo by Haeseler, Philadelphia

F1G. 2. From position A, inhale deeply, head back as in position B. Lower the head as in position C, exhaling. While exhaling, bring the elbows as near the front as possible.

B

C

larged by elevation of the ribs and the descent of the diaphragm. The elevation of the ribs increases the sagittal and lateral diameters, and the descent of the diaphragm increases the

vertical diameter. In ordinary breathing the average person has very little rib movement, especially in the upper part of the chest, respiration being chiefly abdominal. It is during fast walking, running, athletics. gymnastics, swimming, games, and special deep-breathing exercises, such as are illustrated in this paper, that the upper diameter of the chest is brought into vigorous action. In the civilized woman it is the upper part of the chest that is mostly used, but this type of breathing. is not a natural one, due to the fact that diaphragmatic action is correspondingly

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In average adult men, inspiratory force varies from 80 to 100 mm. expiratory Hg., force from 100 to 130 mm. Hg. In women the former is represented by from 60 to 80 mm. Hg., the latter by from 20 to 110 mm. Hg. It will be seen by these figures that expiratory force is about one third greater than inspiratory force.

A Chest Developer The chest is encurtailed on account of the restricting influence of stays which interfere with the free descent of the diaphragm and the expansion of the lower bony cage. It is for this reason.

claims Gibson, an authority on the lungs, that after the age of fourteen the lower transverse diameter of the chest is less in the civilized woman than the upper, the reverse being the case in man. It naturally follows, then, if tight dress or recorsets stricting are worn, that chest development will be retarded. The practise of tight lacing, common among the fashionably dressed women of a few years ago, was criminal, because it not only get a larger girth of chest. Of course, the swing of the arms assists in this, but the greater portion of the development is due to the deep breathing.



Photo by Haeseler, Philadelphia A B C FIG. 3. From position A, clasp the hands behind the head, elbows front as in C. Inhale deeply as the elbows are forced back as in B, and exhale as the elbows are brought together as in C. The elbows should be closer

elbows come together.

together in C. Lower the chin to chest as the

impeded proper breathing, but cramped the action of the heart, stomach, and other internal organs, and thereby injured them. Deep breathing is the best chest developer.

I found my chest larger after a two days' walk of one hundred miles than before. Athletes who do nothing but run, above systems may be better for singers, but the exercises herein illustrated are the most efficient for the woman who desires a large and elastic chest and bust.

Another article by Mr. Cromie, with a number of other breathing exercises for women, will appear in the April issue.— Ep.



There ате 50 many forms of breathing advocated for singers and others that one is apt to become confused. The following are some of the forms that are recommended : Clavicular, pure lower costal, lower costoabdominal, pure abdominal, and abdomino-costal

Each of these systems has its devotees, and I shall not try to discuss them pro and con, but shall direct attention to what I consider the best kind of deep-breathing exercises. The



E. I. Bruce, shooting in Washington Park, Chicago.

ARCHERY

Edward B. Weston



N preparing a short article on archery for LIFE AND HEALTH, the very name of the magazine suggests some things which

may be said on the subject.

Anything which makes life more worth living, and increases health, is certainly worth considering.

All outdoor athletic sports are a benefit to the people, and each year we are giving more time to them.

Every one thinks his own is the best, and we have no dispute with any: but we reserve the right to believe our own, all things considered, has no superior. Anything which improves the health lengthens life, and makes it a happier one. Any recrea-



On shooting line, Washington Park, Chicago. Will H. Thompson, Seattle, in foreground.

tion which is adapted to both sexes, to all ages, and to all individual conditions, is of great value. Anything which requires study, and improves one's mental condition, is of great value. And any sport which does all these things, and gives pleasure in the doing as well as in

> results obthe tained, is sport par excellence. Archerv is such a sport.

From the standpoint of health. we take our exercise in the clean, outdoor air. We stand erect, with every muscle in a state of gentle tension, and breathe Every deeply. time we shoot an arrow, we drawlift forty-five pounds more or less, and after doing this six times, walk to the target,

LIFE AND HEALTH

perhaps sixty yards away to recover the arrows.

The strength of bow is not forty-five pounds for all, nor the distance walked sixty yards. The women use bows of from twenty to thirty-five pounds, and the men from thirty to fifty pounds; and the distance walked is from thirty to one hundred yards. Thus it will be seen that the physical exercise is enough.

Archery is adapted to the female as well as the male, and this makes it most admi-

rable from a social point. It has no movements which could injure the most delicate woman; and one who is not robust will certainly grow stronger by a judicious practise of archery. To the

man or the woman. weak or strong, it is a delight. We have known archers under ten years of age taking part in national tournaments, and doing creditable work. And we have known of a number over seventy doing good shooting, as good as they ever did. And one man made his best score when over eighty, and he had made many good ones.

No sport requires more thought and study, and without these no one becomes a good shot. The greatest pleasure is obtained when mind



Dr. Edward B. Weston, Chicago, expresident National Archery Association.

an arm-guard. If you have no friend to give you lessons, get a book and learn from that. It can be done.

Any information on the subject will be gladly given by the writer. Address him

> at 511 Peoples' Gas Bldg., Chicago, Ill.

> and muscle are work-

ing together. And

exercise without

pleasure is of com-

paratively little value.

asked. How shall I go

to work to become an

necessary is a range,

or a place on which

to shoot. It may be

found in a public

park, or on a private

lawn. It should be

fairly level, free

from stones, and

long enough to shoot

a bow, a set of ar-

rows, finger-tips, and

Get a target. Buy

forty yards.

archer?

The

We are often

first thing



Mrs. Witwer-Taylor, Chicago, woman champion of the United States.

[This article was accepted for publication for the reason that archery, for those who have need of some diversion, is a clean, healthful, open-air exercise, affording to the mind a gentle stimulus, and to the neuro-muscular system symmetrical development, self-control, and poise, and it accomplishes all this without some of the obvious disadvantages of the more strenuous forms of exercise.]



HOW TO FEED THE SICK

Wm. W. Worster, A. M., M. D.

R

HAT portion of dietetics which pertains to the feeding of the sick should receive a most thorough and careful consider-

ation. Even for a person whose appetite and will powers are both active, it is not always easy to select a diet; and when these are temporarily absent or greatly diminished, the situation is more difficult. In the sick-room there are many complicating conditions to meet. What food to give, how to prepare and administer it, and when to give it, are problems constantly recurring. The attending physician sometimes prescribes the amount and kinds of food. Usually, however, not only these but the preparation and administration as well, are left to the discretion of the nurse or other attendant; many times, and far too often, to an inexperienced cook.

In the feeding of the sick, there are many things to be taken into consideration other than those which directly pertain to the food. The condition of the surroundings, the position of the patient, the appearance of the tray, the conduct of the nurse, and the like, are factors of great importance.

Before the tray is brought in, see that the patient is made as comfortable as possible. Be careful not to throw his head too far forward. Wash his hands and face before each meal. Rinse his mouth before and after eating. Be sure to protect all clothing. Do not permit crumbs to fall into the bed; they are very disagreeable. When he is able to sit up a half-hour a day, arrange the daily routine so that one of his meals will be served during that time. Keep the patient's mind, if possible, continually upon some pleasant subject. Be sure to consult, as far as orders and health will permit, the known tastes and desires of the patient, but do not annoy him each meal by asking. Learn by careful daily observations his likes and dislikes. Surprises are very gratifying and more appetizing than meals planned for with the help of the patient.

Never overburden the digestive organs of the patient. This is frequently done in an overanxious endeavor to help the patient. Remember it is not the quantity of food swallowed that helps, but the amount actually digested and assimilated. Many times a small, appetizing meal is much better than a larger one. If the patient is sleeping, it is not always advisable to awaken him for meals. Many times the sleep will do as much good as the meal, if not more. The meal can be postponed, but the sleep in many instances can not be resumed.

It is always advisable to keep the patient in a room with pleasant surroundings and abundance of fresh air. The room should always be isolated from the noise of the kitchen and the odor of cooking food. If the patient is unable to sit up, such articles as a bedside table, drinking-tubes, and feeding-cups are always of great convenience.

The nurse or attendant should be very careful not to spoil the patient's appetite. This many times is done by serving foods in medicine utensils. Irregular-

ity in serving meals may produce the same effect. The patient's appetite may fail completely if the meal is much delayed. If the nurse feeds the patient, she should do so slowly and usually in small amounts. She should never think of eating in the patient's room. Very near friends or relatives may under certain conditions be permitted to do so, especially if the patient is convalescing to such an extent as to enjoy their company. In many cases it is necessary for the nurse to tax her ingenuity and judgment to the utmost to stimulate any desire at all for food on the part of the patient.

It is very essential that the nurse should know for herself about foods, their composition, and preparation; and under no circumstances should she leave this, perhaps the most important part of her work, to inexperienced hands. The preparation of the food should receive the utmost care. It is one thing to cook for the well, but it is quite a different thing to cook for the sick. How many times have I heard such expressions as the following: "O, I just don't know what to get for my patient to-day!" It is a perplexing problem many times, and requires much thought and training.

Possibly no one thing is of greater significance than to have the tray both attractive and inviting. It should be scrupulously clean, with the best kind of well-cooked foods. A poor appetite may be wholly due to the non-tempting nature of the food or a poorly set tray. Food should never be prepared in the patient's presence. It should always be tasted before taken to him. Such foods as milk, eggs, and butter should invariably be fresh. Highly seasoned foods are objectionable. Great care should be taken to see that such foods as are to be served hot are not only hot, but also served in hot or warm dishes. The same is conversely true for cold foods.

Avoid having too many things on the tray, but on the other hand, never neglect the essentials, such as knives, forks, spoons, sugar, and salt. Have the tray large enough to prevent crowding. Make everything as neat as possible. Clean napkins, spotless china, shining silver, combined with order in arrangement, make the tray very inviting. Do not fill dishes containing liquids too full, as they are likely to spill. Glasses should never be over two thirds full.

Garnishes, flowers, and quotations from the Bible or standard authors, while not imperative, may very appropriately be placed on the tray. It may be said in many instances that the patient is too sick to notice all these details. This is seldom, if ever, the case. He may nevertheless be too ill to mention them. The very fact that he may not give verbal expression to his feelings is no sign of his non-appreciation. Proper care in the preparation and administration of foods to the sick is as essential as the proper administration of medicine or treatments of any kind.

As soon as the meal is completed, remove the tray at once. It should never be left in the room with the expectation that it will stimulate an appetite. It is a good plan always to disinfect or sterilize all dishes that come from the sickroom. This is not always essential; but if made a routine practise, it will never be neglected in cases of infection, where great dangers exist not only to the nurse, but to the family, if the disinfection is not properly executed.

Chamberlain, S. Dak.





THE FARM BABY

Edythe Stoddard Seymour

IX

REMEDIES

For a Burn



ARRON-OIL should be kept on hand for burns. Make it by shaking equal parts of lime-

water and olive-oil together until they form a milky-looking emulsion. Apply on a clean cloth. Vaseline, oliveoil, butter, or lard can be used until the other is ready, or for a slight burn.

For a Cut

Bathe a cut with hot water; if bleeding much, pack on baking-soda and bandage rather tightly; if blood comes in spurts from an artery, tie firmly between the cut and the heart, bandage the place, and send for a doctor.

For Sick Stomach

If sick stomach comes from overeating, stop all food, and give a teaspoonful of lime-water in milk every half-hour. Feed thin milk two hours after vomiting stops. If there is diarrhea and vomiting, send at once for the doctor.

For Loose Bowels

Give a teaspoonful of castor-oil; but if it is possible to do so, get the doctor at once, especially in the summer, for a diarrheal condition may in a few hours get so serious that even the doctor may not be able to do anything for the child.

For Constipation

Feed between the regular feedings sweet cream, orange-juice, prune sirup, or strained oatmeal gruel made from long-cooked oats.

For Eczema

Avoid all soap over eczema spots, clean with olive-oil, and if the surface is moist and angry, dust with talcum powder, preferably the borated talcum. Keep the child from scratching the spots. In case of eczema, one can almost be certain that there is something in the diet that needs correcting.

For Heat Rash, Stomach Rash, Hives

For any such eruption first give a dose of castor-oil, then dab moist bakingsoda over the irritated skin and let it dry on. Repeat this often if there is itching. Give orange-juice between feedings.

To Remove a Splinter

Heat the end of a needle red hot; when cold, pick out the splinter with it. Drop a little peroxid of hydrogen on the place.

For a Dog or a Cat Scratch

Wash the wound and drop peroxid of hydrogen on it. Always keep this in the house (and bandages, too), as it is very cleansing and healing. A fourounce bottle costs but ten cents.

Contagious Diseases

Mothers should know how to distinguish contagious diseases from ordinary heat rash or a rash caused by indigestion. If there is any doubt, call a doctor. Some grow worse so rapidly that the patient gets beyond help before the doctor sees him. I have personally known two lovely girls to die because the parents did not know for a week that their daughters had diphtheria.

Diphtheria

This comes on suddenly, with fever, sore throat, vomiting, and pains in the back and limbs. On examination the throat shows white spots. Children less than a year old or nursing babies seldom contract the disease. It is very contagious, and one should step aside when the patient coughs. The eyes as well as the mouth take the germs. In severe cases of croupy cough, examine the throat for white spots. Membranous croup is one of the worst forms of diphtheria.

If a child has been exposed to diphtheria or the disease is present in the neighborhood, have him gargle his throat every day with peroxid and water or salt and water; if the child is too young to gargle, wash the mouth with a clean cloth dipped in a peroxid solution.

If the baby is already sick from diphtheria, send for the doctor, and get a room ready to keep the child separate from the rest of the family. Remove all unnecessary furniture. Make a pail of water milky looking with creolin, and go over the floor and furniture with a damp cloth wrung from the water. Washing-soda or soap can be used if creolin is not at hand. While waiting for the doctor, inject warm water into the bowels to clean them out.

Scarlet Fever

Scarlet fever is also very serious and very contagious; sometimes the case develops so fast that the patient dies in a few days. Others have it very lightly. All should be kept isolated, and stay in bed while the rash is out. Later the skin dries and peels, and the child should stay alone until the doctor says it is no longer likely to transmit the disease.

Scarlet fever comes on suddenly; the

child complains of sore throat; sometimes this symptom is very severe. Vomiting usually is severe at first. The rash appears in fine, bright-red pimples about the third day, first on the front of the neck and around the armpits. The chin, nose, and mouth are free from rash. A physician should always be called, as dangerous complications occur.

Measles

This disease is usually considered mild, but often there are complications that make it dangerous, and even fatal. The patient should stay in bed, in a partly darkened room, with the eyes shielded from the light, until the rash is gone. The purplish-red rash appears first on the face, the spots being about the size of a split pea. The eyes and nose run, and there is a cough.

German Measles

The rash of German measles resembles that of measles, but is rose-colored and disappears a minute after pressure. The glands back of the ears and under the chin swell about the time the rash appears. It is the mildest of all these diseases, and needs no treatment. Keep the child indoors while the rash is out.

Whooping-Cough

starts with an ordinary-sounding cough; after the disease progresses, there are a number of short coughs followed by a prolonged whooping sound. In light cases there is little of the whooping, but it is just as contagious as in severe cases. If there is much vomiting, feed a few spoonfuls of milk between coughing spells. Keep the child out-of-doors as much as possible, bundling him well when the weather is bad. Avoid heating exercise, for this is sometimes fatal.

Mumps and Chicken-Pox

Mumps, with the swollen glands under the angle of the jaw, and chicken-pox, with its watery-looking blisters, are both mild diseases. Keep the child indoors,



SOUPS

George E. Cornforth



OUPS are sometimes considered to be rather a relish than a food. If they are properly made, however, they are not

only nutritious, but they contain elements that are likely to be lacking in the ordinary dietary. Vegetables are rich in certain mineral salts that are needed in the metabolism of the body; but because of their large content of woody fiber, they are to many persons objectionable, and possibly indigestible. In the form of soups, the most valuable mineral constituents of the vegetables may be obtained without the indigestible residue.

The February issue contained recipes for a number of excellent cream soups and bran-stock soups. The soups in the present article have all proved their value in the dining-room.

Cream Vegetable Soup

- 1 small turnip, chopped
- I small onion, chopped
- I small potato, chopped 1 cup cabbage, shredded
- 1 cup corn

Stew all together till tender in sufficient water to cook the vegetables. Add milk to make three-fourths quart soup. Reheat, and thicken with two teaspoonfuls flour stirred smooth with a little cold water. Add one-half teaspoonful salt and one tablespoonful oil.

Cream Chestnut Soup

To shell the chestnuts, wash them, and cut a slit in the side of each one, then boil them for a few minutes. Drain off the water and pour cold water over them. The shells and tough skins that cover the kernel can then be easily peeled off.

Boil the peeled chestnuts till thoroughly tender in a small quantity of water. Rub them through a colander. For one cup of the purée, use,-

I cup of the water in which the chestnuts were boiled

- I pint milk
- 2 tablespoonfuls oil
- 2 teaspoonfuls flour
- a teaspoonful salt

Heat milk in a double boiler. Thicken with the flour stirred smooth with a little cold water. Add remaining ingredients. Reheat.

This and the cream of almond soup are most delicious soups. The cream chestnut soup has a meaty flavor.

Cream of Almond Soup

2 ounces shelled almonds

- 11 cups hot water
- 11 cups hot milk
- 1 teaspoonful salt

Blanch and thoroughly dry the almonds, and grind them through a food chopper, using the nut-butter cutter. Rub this almond butter smooth with the water. Cook in a double boiler twenty minutes or till the nut butter has thickened the water somewhat. Add the hot milk and salt, and heat together a few minutes.

Cream Pumpkin Soup

Perhaps not many of our readers have thought of such a soup as this. The French name for the soup is crême de poturon, and people pronounce it delicious, not knowing that it is prepared from such a plebeian vegetable as pumpkin.

h cup pumpkin which has been stewed or steamed and rubbed through a colander

- ‡ teaspoonful sugar
- 1 teaspoonful salt
- pint milk

Simply heat the ingredients together in a double boiler.

I said that part water might be used in some of these soups. Part cream might be used also, which would make

richer and more delicious soups. This is especially true of cream pumpkin soup.

Instead of the chopped parsley which is generally used in cream potato soup. try just a little chopped fresh spearmint or a little of the powdered dry mint.

Try a little mint also in cream pea soup.

Clear Tomato Soup

I pint tomatoes

I cup water

1 onion, sliced A bit of bay-leaf

A few grains of summer savory A few grains of thyme

I teaspoonful sugar

1 teaspoonful salt

Cook all together twenty minutes. through a fine colander. Reheat. T Rub Thicken with two teaspoonfuls flour rubbed smooth with a little cold water. Add two teaspoonfuls oil.

Barley and Tomato Soup

11 cups tomatoes

- 11 cups water 1 small onion, sliced

I tablespoonful pearl barley

1 tablespoonful oil

1 teaspoonful salt

Cook together all the ingredients except the barley for twenty minutes. Rub through a fine colander. Add water if necessary to make three-fourths quart. Put into a double boiler. Add the barley and cook four or five hours.

Rice might be used instead of barley in this soup, and then only about an hour would be necessary for cooking.

Tomato Macaroni or Vermicelli Soup

I cup strained tomato

2 cups water

2 teaspoonfuls peanut butter

11 tablespoonfuls fine macaroni or vermicelli

1 teaspoonful salt

Rub the nut butter smooth with the water. Add the tomato and salt, and heat in a double boiler. Add the macaroni and cook for from thirty to forty minutes.

To make tomato rice soup use rice instead of macaroni.

Tomato Bisque

- I cup strained tomato
- 2 cups water
- 1 cup peanut butter
- 1 teaspoonful salt

Rub the nut butter smooth with the water. Add strained tomato and salt, and cook in a double boiler fifteen minutes.

Walnut Bouillon

I cup strained tomato

2 cups water

a cup chopped walnuts

2 teaspoonfuls flour

1 teaspoonful salt

Heat tomato, water, and salt in double boiler. Thicken with the flour stirred smooth with a little cold water. Add the walnuts.

The most nutritious soups are those that are made from the dried legumes. and perhaps the most meaty-tasting and satisfying soup can be made from brown. or German, lentils. The red, or Egyptian, lentils do not have so much flavor as the brown ones, but taste more like split peas.

Lentil Soup

I cup brown lentils I teaspoonful finely chopped onion

I tablespoonful flour

2 tablespoonfuls oil

a teaspoonful salt

Wash the lentils and soak them overnight. In the morning put them to cook in cold water, and cook them slowly for two or three hours, or until thoroughly tender. Rub them through a colander. Brown the onion and flour in the oil. Add these and the salt to the lentil purée and sufficient hot water to make the soup of the proper consistency. This should make about one quart of soup.

The onion, oil, and flour may be omitted, and the soup seasoned with cream or milk.

Split Pea Soup

I cup split peas

1 cup peanut butter

I potato about the size of a butternut

I onion about the size of a walnut

a teaspoonful salt

Wash the peas, and soak them overnight. In the morning put them to cook in cold water with the peanut butter, the onion, and the po-tato, which has been scrubbed and sliced without peeling. Cook slowly four or five hours till the peas are thoroughly softened. The creamy, rich consistency of this soup, as well as of bean and lentil soups, is obtained by long cooking. If the peas or beans or lentils are not suffi-If the peas or beans or lentils are not suffi-ciently cooked, they will be mealy and will settle to the bottom of the soup. Rub the whole through a colander. Add salt, and enough water to make of the proper consist-ency, and reheat. This should make about one quart of soup. The peanut butter, potato, and onion may be omitted, and the soup seasoned with cream or milk or with one-eighth to one-fourth equals of the source of the sou fourth cup of oil.

Bean soup can be made by the same recipe, using any kind of dried beans in place of the peas.

In making cream tomato soup, it is not necessary, as is usually supposed, to use soda in order to keep it from curdling. It may be made in two ways,first by using cream, second by using milk and taking sufficient care in making the soup.

Cream Tomato Soup, No. 1

2 cups strained tomato

I cup water

I cup cream I tablespoonful flour

a teaspoonful salt

Grated yellow rind of 1 orange

Heat tomato and water to boiling. Stir the flour smooth with the cream, and whip it into the boiling liquid. Add salt and the orange rind, and serve at once. There is so little casein in the cream that the soup is not likely to curdle when made this way.

Cream Tomato Soup, No. 2

1 pint strained tomato

I pint milk

2 tablespoonfuls flour

I teaspoonful salt

Heat the tomato to boiling, and thicken it with one tablespoonful of the flour stirred smooth with a little cold water. Heat the milk in a double boiler, and thicken it with one tablespoonful of flour. Add the salt to the tomato. Slowly add the thickened tomato to the thickened milk, whipping the milk as the tomato is poured in. Remove from the fire and serve at once. This must not be allowed to heat again after the tomato and milk are mixed, because it will curdle if they are heated together.

Tomato Cream Soup

a quart milk

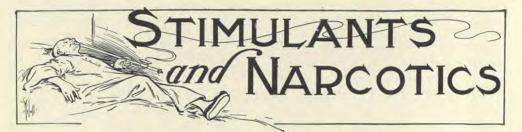
1¹/₂ tablespoonfuls flour ³/₄ to I teaspoonful salt

Tomato-juice

Heat milk in a double boiler. Thicken with the flour rubbed smooth with a little cold milk. Whip in sufficient hot tomato-juice to give the soup a pretty pink color. Add salt and serve at once.



To avoid infecting food, always cover the mouth when coughing.



ARE TEA AND COFFEE HARMFUL?



UCH is the question that proposed itself to the editor of the New York *Medical Times*, and in order to get at rock-

bottom facts, he wrote to a number of prominent physicians, asking a reply to the question. The September number of the *Times* gives a symposium of their replies, which nearly all contain emphatic testimony that the use of tea and coffee may be, and often is, very harmful to the users. Nearly all admit that in small amounts, many, and perhaps most people, are not visibly hurt by these beverages. But the man who uses such a beverage because he needs it to brace him up and many do — is on dangerous ground.

G. Wilse Robinson, M. D., professor of nervous and mental diseases in the University Medical College, Kansas City, Mo., says: —

"Caffein is used in coffee and tea as a beverage for its stimulating effects. Even in small doses, one cup of coffee or tea per day, it acts as a stimulant to nerve and muscle tissue. The general results of the action of caffein upon the nervous system are to increase the reflex irritability of the cerebral cortex; mental functions improve; ideas flow more rapidly. . . .

"The secondary effects are not such as to encourage us in seeking help and aid in this manner. Caffein is not a food to nerve or muscle tissue; it does not increase the elimination of fatigue products, but does increase their production. In order to respond to the stimulation of regularly ingested doses of caffein, nerve and muscle tissue must draw upon their reserve energy, and they must do their work in the presence of an excessive quantity of toxic fatigue products; and both of these conditions tend to exhaustion and perversion of function. Ideation is more rapid, but less accurate, and the judgment is perverted. If caffein is used regularly, there is a disturbance of the gastro-intestinal function, depending upon the size and the frequency of the dose. This disturbance of function results in a lowering of the body nutrition. This further tends to physical and mental exhaustion." Dr. Harvey Wiley, of pure food fame, who has done all in his power to warn against the use of the so-called "soft drinks" containing caffein, said: —

"There is quite a universal agreement among experimenting hygienists and physicians that a stimulating effect on both muscle and brain action is produced by caffein, but there is a very wide difference of opinion among experts as to whether it is desirable to produce this effect. . . .

"No injury can come to the public by failure to use these beverages; injury may come, and often does, to those who do use them, especially to excess; and to the young, to those of nervous temperament, and to those who have idiosyncratic sensibilities toward drinks of this kind, even when used in moderation."

Dr. Tom A. Williams, the prominent Washington neurologist, writes under the heading "Tea and Coffee Are Not Innocuous." He says, in part: —

"The toxic action of the caffein group of alkaloids is very decided in some individuals, but they are excreted so rapidly that most people fail to show signs with ordinary doses....

ple fail to show signs with ordinary doses... "Of course, there is a special susceptibility in certain individuals. It is remarkable how large a proportion of the nervous people who have consulted me have previously learned to refrain from tea and coffee because of their experience that it aggravates their sufferings."

"Perhaps the best test of the toxic effects of a nerve poison is the performance of such acts of skill as are demanded in games requiring activity. Even if no tremor is apparent, uncertainty and diminution of dexterity soon show themselves. In thinking, the same faults are observed, and are the cause of the psychasthenic feelings produced by alkaloids of the caffein group."

Dr. Otto Juettner, secretary of the Cincinnati Polyclinic, says he has no doubt "that the question in regard to the relative harmfulness of tea and coffee ought to be answered in the affirmative." He continues: —

"Tea and coffee can not be classed under the head of foods, because their food value is practically nil. They must, therefore, be considered poisons in the same sense in which all drugs are poisons. Any substance which does not serve as a physiological nutriment is a poison, and therefore relatively harmful." "That the abuse of coffee is by far more

"That the abuse of coffee is by far more frequent than its proper use, there seems to be no reasonable doubt. The symptoms produced by excessive indulgence in coffee can be observed in the arrested physical and mental development of children, their pallor, emaciation, and nervousness; in the morbidly excited action of women who are addicted to the coffee-pot just as the toper is to the whiskybottle, and no less helpless and pitiable victims than he; in professional men and students who dispel the sense of fatigue and drowsiness and whip up their mental faculties by coffee; in the aged, whose tremor and itch are not infrequently due to excessive indulgence in coffee." "Patients who can not get along without tea or coffee, but feel uncomfortable and even

"Patients who can not get along without tea or coffee, but feel uncomfortable and even sick when deprived of these stimulants, illustrate the harmfulness of the latter. Such patients are, to all intents and purposes, drug fiends, and should be classified with habitués of tobacco, opium, and other toxic agents."

Dr. Aiken, secretary of the Nebraska State Medical Association, thinks the important question is not, "Are tea and coffee harmful?" but, "Are tea and coffee beneficial?"

"It is not what I may take into my system with impunity, but what I may use with benefit to my physical and mental health and good citizenship. . . If used as beverages, they become a detriment to the user in direct ratio to the amount ingested and the resisting power of the nerve-cells of the individual to withstand repeated stimulation and relaxation. That they are habit-forming drinks is abundantly evidenced by the many headaches and cerebral complaints among persons who for any cause 'missed their accustomed cup of coffee or tea.'"

Solomon Solis Cohen, long an authority in medicine, says that "there is not the slightest doubt that caffein, thein, etc., are harmful, except when prescribed for definite purposes in the treatment of the sick." He concludes: —

"You can not get 'something for nothing,' however, in biology or anywhere else. Coffee elicits a greater discharge of energy, but furnishes none; therefore it stimulates at the expense of the tissues. It permits one to work when he ought to rest; and in the long run he pays with compound interest for the borrowed strength."

But why add testimony? None of the men quoted claim that caffein in small and infrequent doses is horribly and perniciously bad, especially in the normal person. But the neurotic who feels the need of a bracer, the very one who is apt to get to using coffee or tea in order to get more work or more pleasure out of his life, is the one above all who should let such stimulation severely alone. Any one who feels the need of coffee or tea to make himself more efficient, or to take away that tired feeling, is treading on thin ice when he begins the use of one of these beverages.



THAT UNCONQUERABLE CRAVING FOR DRINK

PROSTITUTED PERIODICALS



HE cut on this page, a photographic reproduction from the columns of a recent Chicago daily, is a sample of the kind

of advertising a certain class of newspapers is accepting. It is to be said to the credit of the management of the better newspapers that they refuse to accept such matter in their columns.

I fail to see wherein the advertising manager and the publisher of a news-

that pubpaper lishes advertising calculated to lead other people to begin drinking are better than the saloon-keepers. In fact, they are worse; for the sasimloon-keeper ply puts his goods on sale, and who wants can come and purchase; but these men lend their sheets to a drunkard - making propaganda. How much better are they than those above the level of the dive master is no extenuation. Every self-respecting person, especially

if he has boys and girls, and if he has not, for the sake of the boys and girls of his neighbors, should refuse to take any paper that carries such advertisements, and should let it be known that a paper must reckon with its subscribers as well as with its advertisers.

It is not necessary to reply to the



who lend their influence to the perpetuation of the white slave traffic and other infamous conditions? And the fact that they usually pass for respectable citizens

in the "Liquid Bread " advertisement. In the February issue is an article by Dr. A. B. Olsen showing how much "nourishment" there is in beer. It is enough to say that there is scarcely a statement in either of these advertisements that is not misleading, wilfully misleading, and intended only to create patrons; or in other words, to make habitual

supposed argument

drinkers, and consequently drunkards. Can you imagine anything more devilish? If your newspaper carries such advertisements, let it hear from you.



Seventeenth century bas-relief, Versailles. Now in museum of Comparative Sculpture, Paris.

ED T () R AL

"IS IT TRUE?"



UCH is the title of an article in the January American Magazine, by Albert Jay Nock, bearing the subtitle "Startling and Convincing Results of Karl Pearson's Investigation of the Families of Drunkards and Teetotalers."

There are just two noteworthy facts regarding that subtitle; namely, that Karl Pearson did not make any investigations of the families mentioned in his study (or more properly a study by his assistant, Miss Ethel Elderton); and second, that the study was not a comparison between drunkards and teetotalers. With these two exceptions, insignificant, perhaps, to Mr. Nock, the subtitle might be permitted to stand unquestioned. In justice to Mr. Nock, it should be said that he does not attempt to claim that the statistics and conclusions of Professor Pearson are final. "They purport to show only that the investigations of the Galton Laboratory, as far as they go, throw such serious doubt upon the accepted belief that alcoholic parents are apt to produce imperfect children that we ought to suspend judgment and call in further evidence." We thank him for this concession.

Mr. Nock tells us that he began his investigations with the commonly accepted belief that drunken parents are apt to produce imperfect children, and not until he visited the Galton Laboratories was he convinced that the question ought to be reexamined. His paper in the American gives his reasons for his change in belief.

Curiously, I began an investigation of the subject after having heard a lecture against Pearson's conclusions, being myself not at all convinced by the lecture and quite prepossessed in favor of Professor Pearson's work. With the "Report on the Physical Condition of Fourteen Hundred Schoolchildren" submitted by the city of Edinburgh Charity Organization Society (which was one of the reports used in the Galton Laboratory study, the other one not being published nor obtainable by me at the time), a memoir by Miss Elderton and Professor Pearson ("Eugenic Laboratory Memoir X. A First Study of the Influence of Parental Alcoholism on the Physique and the Ability of the Offspring"), and a somewhat animated and acrimonious correspondence between Professor Pearson on one side and Sir Victor Horsley and certain economists on the other, I finally came to a conclusion exactly the opposite to that of Mr. Nock, as has been outlined in the August, 1912, Life and Health, in an article on "Intemperance and Heredity." We have sometimes thought that possibly we gave this attempted proof more attention than it deserves; but from the fact that it is still being used as a means of deceiving the people, it is worth while to give the matter further consideration.

But to return to Mr. Nock's article. He implies that Karl Pearson made investigations of the families on which he reports. This is misleading, for Pro-

LIFE AND HEALTH

fessor Pearson personally made no investigations of these families. He simply took the report furnished by the Edinburgh Charity Organization Society, and a report by Miss Dendy on the children in the special schools of Manchester. The former report I have before me as I write; the latter I have not been able to obtain, and as far as I know it has not been published. In neither of these selected series of families is there any evidence that Professor Pearson or his helpers have any knowledge of conditions further than is contained in the reports.

But we may let that criticism pass. The more serious criticism is, at least so far as the Edinburgh work is concerned, that there was no comparison between drinkers and teetotal families, for there were but 18 so-called "teetotal" families out of 781 in the study, and for this reason they were not considered in a class by themselves, but were put in a class including 275 families which, because of the testimony of police, neighbors, etc., that they "did not drink more than was good for them," were classed as "sober." and these "sober" families were compared with those who habitually drank to excess. But even the 18 socalled teetotal families are open to criticism, for the records show that quite a number of the children were born before the father became an abstainer, and some of the mothers were known to be drinkers. Of others there is no evidence as to whether they were drinkers or not, the only statement being made that the father was an abstainer. Moreover, Dr. Saleeby, himself a prominent writer in eugenics, stated in my hearing that these Edinburgh investigations were made in the North Cannongate School, which, so far from representing the working class of the population, was a typically degenerate population, and that there were no abstainers in the district. Dr. Saleeby had himself practised medicine there for three years, and knew whereof he spoke.

And yet Mr. Nock thinks that the statistical method upon which the Galton Laboratory places its dependence "comes out as near certainty as anything can in this highly uncertain world." Curiously enough, Pearson's figures are very severely criticized by a number of eminent men, including physicians and statisticians who are competent to judge. For instance, in the *British Medical Journal* of Jan. 14, 1911, we have Sir Victor Horsley's statement that it was the opinion of various statisticians and biologists "that Miss Elderton and Professor Pearson had omitted to observe certain obvious precautions to insure accuracy in handling the data biologically and statistically on which their conclusions were based." Professor Hyslop, an eminent student of heredity, and one who has great opportunity to observe the degenerate classes, said that it was open to question whether this problem could be solved satisfactorily by statistics.

So much for Professor Pearson's work coming "as near certainty as anything can in this highly uncertain world."

To show how an error is driven home to the common people, by way of illustration, I may quote further from Mr. Nock's paper. He says: ---

"Let me try one more illustration which comes even closer to the point of this article. Suppose you examine a thousand families of drunken parents. You find, say, seven per cent of defectives. You conclude that the children are defective because the parents drank. But presently I come along reporting just as high a percentage of defectives in another thousand families, taken at random, whose parents never drank a drop. You see the point." Yes, we see the point; but that is just what Mr. Pearson did not do. He did not find one thousand families, not even eighteen families, in which it was shown that the parents never drank a drop. For instance, one father had taken a pledge "two years ago," and the children were much older than two years old, and another had been pledged twelve years, four children being born before the pledge. Another pledged after the death of his wife, so that all his children were born while he was a drinking man. In quite a proportion of the eighteen families there is no evidence whatever to show whether the mother was a drinker or not. The only statement was that the father was an abstainer. How does this compare with the "thousand families taken at random whose parents never drank a drop"?

Again Mr. Nock says :---

"In other words, you are assaying a picked sample of humanity, not a random or average sample."

According to Mr. Saleeby, this picked sample are practically all drinkers, and even the so-called teetotalers were from degenerate stock in one of the worst slums of the city.

There have, however, been comparisons made between the offspring of abstainers and drinkers by Prof. Taav Laitinen, extending over a period of six years, concerning the drinking habits of five thousand families, from which he was able to make a large group of abstaining parents, another of moderate drinkers, and another of immoderate drinkers who used more than a quart of beer a day.

Like Professor Pearson, Dr. Laitinen found no striking difference between the children of the moderate and the heavy drinkers, but there was an evident and marked difference in favor of the children of the total abstainers.

When one looks at the array of figures given by Mr. Nock in his article, he is apt to be somewhat convinced, unless he takes the trouble to find out how these figures were obtained.

The article itself would indicate an attempt to be careful and sincere, and probably Mr. Nock had no other thought in preparing his article. But as will be seen by the quotations I have made, he certainly has not represented properly the work of Pearson and Elderton, possibly because in their enthusiasm they unwittingly gave him an idea regarding the work which was not warranted by the facts.

Heald



AT a luncheon given Harmony hv the American Civic Association in connection with its annual meeting in Baltimore, one of the young women whose business it is to beautify the railway stations in the Middle West, gave a charming talk on harmony of color and arrangement. Among other things she criticized the incongruity of the green window-boxes, the juxtaposition of flowers of inharmonious colors, the mixing of tame with wild flowers, the use of window-curtains of colors that do not combine harmoniously with those of the house. She spoke particularly of having a harmonious arrangement of house and grounds; especially did she advocate simplicity and the avoidance of "gingerbread work." which in her own mind detracts greatly from the simple dignity and beauty of the property.

All the time she seemed to be oblivious of the fact that she herself was presenting a most striking example of incongruity and lack of simplicity and harmony in wearing on her hat a part of a dead bird.

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Butcherless

Meat

THE London Daily Graphic of October 24, has an article en-

titled "Synthetic Dainties," which describes the cowless milk and the butcherless meat now being made by synthetic process from substances of vegetable origin. Not only are milk and cream made that are said to be more digestible. more uniform, and more cleanly than the real article, at a lower price, but they make a butcherless meat and a sealess sardine, or at least a paste containing the nutritive equivalent and the flavor of sardines without the objectionable features, and it is said that this sardine paste can be used in the preparation of very excellent so-called sardine sandwiches.

If this industry proves to be commercially practicable and is brought over to America, will the great beef trust buy it up so as to maintain a monopoly in meat substitutes, or will they engineer through Congress a tax on the vegetable meat products compelling the purchasers to pay ten or fifteen cents extra a pound, so that the meat can still be sold at exorbitant prices? That was about the history of oleomargarin.

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First and Last

It is a remarkable fact that the United States, which abol-

ished the use of opium in the Philippines, thus giving courage to the Chinese to make an effort to rid their nation of the opium evil, and which was the foremost government in calling the Shanghai opium conference, and which was the government to propose not only the curtailment of the international trade in opium, but also to instigate some fortyodd governments in the passage of domestic laws against narcotic drugs,- it is queer, I say, that this United States is the last of these countries to pass laws for the control of the opium habit in its own country.

Again, it is remarkable that the United States government, which believed it perfectly proper to protect China in its effort to prohibit the importation of opium across its border, is so loath to protect her American States in the effort to keep liquor from crossing their borders.

Is it simply because we have no moneyed or influential men who are interested in the production of opium? Are

we really on the level with England, which, because her moneyed men were interested in opium, forced the opium habit on China at the point of the bayonet? Is it a fact that this government will continue to refuse to protect its States in their natural rights simply because moneyed and influential men in this country have capital invested in the liquor business?

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An Extremist

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DR. PICKARD, a Baptist preacher of Sa-

vannah, Ga., in a mass-meeting at the Unitarian church, Washington, D. C., convened to favor the passage of the Kenyon-Sheppard Bill regarding the interstate shipment of liquor into dry territory, said: "My father was a slave owner, and yet there is one man I honor as much as any rock-ribbed New Englander can honor him. I refer to Wendell Phillips, the abolitionist orator who said every day, 'Slavery is wrong, it must go,' and continued saying this until one day he said, 'Slavery was wrong; praise God it has gone." Dr. Pickard does not believe that this is a time for us to be considering little side issues. We have with us a great moral issue, as great as was the slavery issue. The liquor traffic is wrong, and it must go, and we should continue to say this until some day we can say, The liquor traffic was wrong; praise God it has gone. When there are enough men who believe regarding the liquor traffic as Wendell Phillips believed about slavery, this traffic will not be long in disappearing.

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Nuts

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"BREAD, butter, and beefsteak are fur-

nished by nuts, in a nutshell, in tablet form, in sealed individual packages, water free, concentrated, and uncontaminated." This concentrated statement is no exaggeration of the virtues of the nut, which is not appreciated as it should be, possibly for the reason that it is not grown in sufficient quantities to make it a staple article, selling at a price within the reach of all. Man's teeth would indicate that once he lived largely on nuts. He could thrive well on them now, or on a bill of fare containing much more nuts than is usual in the ordinary bill of fare.

If it is a fact that "there are few acres of tillable land in the United States that will not yield one hundred dollars' worth of nuts to an acre, with less care than for almost any other crop," there is no reason why every farmhouse and many city dwellings should not be surrounded by a number of nut-trees, and the shade-trees along our roads and in our streets might well be nut-trees, doing double duty. An acre of nuts will certainly go farther to feed human beings than an acre devoted to the raising of cattle.

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DR. WOODWARD. Alcohol Classed Where It Belongs health officer of the District of Columbia, at a meeting of the Monday Evening Club, for the discussion of the excise law for the District, said: "I have been asked what interest I had in the subject-matter of this evening's meeting. My reply was that alcohol is at present one of the most important of all influences on the public health, and that it is the business of a health officer to inform himself thoroughly with respect to the situation, and to do whatever may lie within his power to mitigate such dangers as may exist. Morphin, alcohol, and cocain are all known to be substances the excessive use of which is dangerous to the health and morals of the consumer, and I have never been able to discover any sanitary or moral reason why a legal distinction in favor of alcohol should be made in the methods employed to govern their sale."

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Two Notable IN November and Associations December two annual meetings with somewhat similar purpose, both relating to the preservation of health,— the annual meeting of the American Civic Association, and the Second National Housing Conference,— were held, the former in Baltimore, November 19-21, and the latter in Philadelphia, December 4-6.

The former emphasized the idea " the city beautiful," and considered parks, playgrounds, city trees, harmony of buildings, and the like. At the same time it did not forget the back yards, the stables, the house-fly, and the festering sore spots which are too often covered over by the veneer of fine public buildings in the municipal quarter, or of fine parks and elegant mansions in the residential quarter.

The American Civic Association has determined that cities shall not do after the manner of the housewife who keeps her parlor and dining-room and special guest-room in trim condition for the inspection of guests, and neglects the kitchen, cellar, and back yard. The association, by all the influence it possesses, is saying to the cities that they ought to be good housekeepers in cellar and back yard as well as in parlor and dining-room.

The Housing Conference considered particularly the housing conditions of the people, the crowding, the ventilation, the dark room, the inadequate water-supply and toilet facilities, the open privies, and the like; and its workers have an abundance of material to keep them busy, for every city has its sore spots and its housing problems,— localities where people are living under conditions not fit for a self-respecting pig.

The housing workers are partly city inspectors or health officers, partly volunteer workers who are endeavoring to obtain adequate legislation for the protection of the poor against such conditions. And there are some who would go so far as to say that the laws should be made to include also the homes of the wealthy.

Among some of the problems considered at the recent conference were: "Financing the Small House," "Regulation by Law," "Garden Cities," "Instructive Sanitary Inspection," "Best Types of Wage-Earners' Houses," "Shall We Encourage Workmen to Own Homes?" "Suburban and Rural Housing," "Room Overcrowding and the Lodger Evil."

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Garden Cities

At the Housing Conference the subject of

garden cities was discussed a number of times. A New York architect who read the leading paper on this subject, took a very pessimistic view of the garden city as the solution of our American industrial problems. He saw, or thought he saw, numerous drawbacks to the garden city, among which were, first, the cost of transportation; second, the restrictions to the city building code; and third, the policy of the labor-unions. But it was not certain that he convinced the audience, and surely the speakers from Canada took a decidedly opposite view. One objection raised to the garden city was that "Americans are too independent; each man desires to own his home rather than be a copartner in a community of homes." It was pointed out, however, that this community interest not only makes for better social conditions, better neighborhood sentiment, greater civic pride, etc., but the man owning shares in the garden city is actually more free than the man owning a home, for by the terms of its agreement, the company stands ready to buy his shares whenever he desires to move away, and the man owning a building may not be able to get rid of it so easily.

The statements made by some members of the conference indicate that the garden-city experiment is likely to be given a careful trial in this country in the near future. We see no reason why the garden city should not prosper here as well as in England.

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Help the Man Lower Down MUCH was said at the National Housing Conference about homes for the laborer in fairly good circumstances, but not much was suggested for the man farther down,— the man who, above all others, needs for his growing family the better sanitary conditions, the better educational surroundings, the better inspiration and incentive to a fuller life, that can come only through better housing conditions. Some suggested working the problem from the other end, that is, by raising the wages. A few suggested simple, sanitary accommodations built by some philanthropic associations, to rent at a small profit.

Many such houses in Philadelphia are put on lots 14 x 41 feet in size. In a way these cheerless dwellings are better than the airless and sunless tenements, still they leave much to be desired; and evidently the problem of adequately housing the poor still waits satisfactory solution.

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Education "EDUCATION is the most important factor in all health problems," said Charles J. Hastings, of Toronto, before the National Housing Conference. Legislation providing for better sanitation, for better housing conditions, in fact any legislation intended to improve the condition of the people, can accomplish little if it is not accompanied with an adequate, enthusiastic campaign of education.

Legislation intended for the general good is sure to pinch somewhere. It must compel some one to do his duty, or forbid the doing of something that would be harmful to others. Those few who are disturbed by the law will antagonize it; and unless the great majority who might benefit by the law if enforced, realize its value and importance to them, they will let it die under the attacks of interested parties. Hence, with all new legislation there should be a campaign of education.

This is only one phase of the educational problem. There are thousands, including many of the so-called better classes, who need to learn that health is not obtained out of a bottle, but is

dependent entirely on methods of living, environment, etc.

Housing reformers and health inspectors generally encounter two great obstacles to the enforcement of sanitary legislation,— the opposition of interested parties whose gains would be diminished if they were compelled to put their properties in good sanitary condition, and the indifference and ignorance of those who have all their lives been used to squalor, and who do not realize to what extent such conditions impair the health.

Education may not reach the first class, for with them it is a change of heart rather than a change of head that is needed; but the exploited class, the defenseless class, getting but the dregs of civilization, need to know wherein the law provides for their protection, and what they can do to help make the law effective.

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The Health Officer BERNARD J. NEW-MAN, secretary of the

Housing Commission of Philadelphia, at the recent National Housing Conference made some noteworthy statements. He believes that boards of health always go just as far in the enforcement of sanitary laws as the sentiment of the community permits. He thinks that such boards should go farther, that they should lead the public sentiment. If they find that there is an apathy concerning the enforcement of sanitary laws, they should conduct a campaign of education. In order to do this, they should themselves do original research work, thus obtaining the proofs for what they want to teach, and with these proofs they should go to the people and convince them.

He favors a more complete organization of the department of health, and a separation of the hospital division and the division of sanitation, and he would have over the division of sanitation a man ten times as capable as the man over the hospital division; "for any doctor can take care of the hospital, but you must have a good sanitarian to take care of the public health."

This reminds me of the difference between the health administration in this country and in England. There the health officer is a M. D., D. P. H.; that is, after taking a complete four-year medical course he must devote a year to the study of sanitary science before being permitted to take a position as a health officer. In this country a farmer, or a butcher, or a car conductor is eligible at least in small towns - so long as he has the education sufficient to write a death certificate: and we may have the spectacle of a health officer going for consultation in some matter involving the public health to a physician graduated before there was any study of hygiene and sanitation in the medical schools. and who has since had no time to read up, and who, in consequence, is not at all in touch with the latest development in sanitary science.

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The Saloon Versus NEARLY twoscore Safe Travel lives, so the Outlook tells us, were lost within the year through collisions on railway lines protected by automatic block-signals. Though the mechanism did its duty, the human factor failed. Signals were either not seen or disobeyed. No matter how many mechanical contrivances we may have to protect human life, yet there is always the human element that must be considered; and lives are very much safer when entrusted to men who, other things being equal, are total abstainers from intoxicating drink than when entrusted to men who drink even moderately or occasionally. This is emphasized by a statement in a recent bulletin of the Interstate Commerce Commission, that the Southern Pacific system in the four years ending June 30, 1912, carried 150,000,000 persons without killing one passenger through collision or derailment.

It is interesting in this connection to learn that this railway company has for six years engaged in a warfare against the saloon. In the first place, it not only forbids drinking during work-hours, but it forbids drinking at any time. It requires that its employees shall be total abstainers.

In addition, it has erected at various places along its line club-houses to furnish the men with the social life for which they so often frequent the saloons. These rooms are neat, the food furnished is well-cooked, and the greatest freedom prevails, just as in a saloon. At the same time the men quickly come, under the intelligent guidance of the ones in charge of these club-rooms, into a better atmosphere, and the use of better language, etc., than would be found in the saloon.

In commenting on these facts the Outlook says: "Undoubtedly the clubs' influence upon the human factor assisted materially in bringing about the record of four years' safe travel." Inasmuch as the club-rooms have done much to run out the saloons from lack of business, the Outlook makes this comment: —

"Social welfare workers will find food for reflection in the remarkable success of this enterprise, which vigorously suppressed every tinge of paternalism and patronage in order to lay hands upon that most elusive, unwilling individual, the adult, independent, self-respecting worker, and keep him out of the danger zone of the saloon."





A GRATEFUL PATIENT

Bertha Selmon, M. D.



HANKS to the American woman physician, Dr. A.! Following the birth of a child, my wife had a very diseased

breast, which broke and left several openings. She went to Dr. B., and was treated for over a month without receiving the slightest help. Fortunately, a friend told me that in Bao Shing Road, Shanghai, there was a Helping Hand Dispensary, and the woman physician, Dr. A., was very skilled and had cured many cases of diseased breast. In the seventh moon I took my wife to this dispensary. Dr. A. used the lancet with care, and opened the abscess, afterward daily washing the diseased part; moreover, her sympathy for the sick one was most heartfelt. In ten days the sore was healed, and my wife's general health much improved; in fact, she improved from day to day, and in about ten days was completely cured. When I think that she was under the doctor's care for less than a month and yet fully healed, I can not but thank the doctor, and insert this in the paper, that others suffering with this disease may be informed.

" (Signed) DJU I NENG."

The above is a translation of a card of thanks that has appeared in several issues of one of the leading Chinese dailies of Shanghai. It was inserted by the husband of a woman who had been helped here in our Shanghai dispensary. The circumstances connected with the case are as follows: About two months ago a poor, neglected woman came into the dispensary. She had not received proper care after the birth of her child,

and as a result had an infected breast, which broke, leaving seven large openings that constantly discharged milk and pus. We learned that her husband was a man in comfortable circumstances, but his people looked upon this woman as an undesirable daughter-in-law; the result was that she had no money to pay for the dressings needed in the treatment, although it did not amount to more than twenty cents a day. However, she was treated with every care, and in a little over two weeks the seven openings in her breast were almost healed. She was a refractory and unthankful patient, and before she was entirely well, left for her home in Hangchow, one hundred fifty miles from Shanghai.

Not many days after this woman left, another patient arrived. She had come from Hangchow and had brought with her her husband's father, her own father, and several servants. We were surprised to learn that she had come all the way from Hangchow just to be treated in our dispensary, for there are several large hospitals in her home city. We learned that she had searched all day in Shanghai to find our little dispensary, having called at several of the large hospitals during the search. She rented a room near the dispensary and settled down to stay until cured. The family was a wealthy one, and several servants came with the woman every time she came to the dispensary. During the time of her stay she became very much interested in the gospel (she was not a Christian), attended meetings in our chapel, and read several of our tracts.

KARMATAR, INDIA

Della Burroway



INCE we are in our own property the attitude of the people has greatly changed toward us. They look upon us as a part of

the great Karmatar family. If we neglect going into their homes for a few weeks, they are sure to remind us that we are neighbors and should come often. In the hundreds of homes about Karmatar thus far only two have been closed to us. The people lay aside their work when we enter, bring out cots for us to sit upon, call their neighbors, and together they listen with the greatest attention.

As we tell them of the near coming of Christ, they invariably want to know when he will come. They can not comprehend how the dead who have been burned (Hindus burn their dead) can be restored to life. The truths of Jesus' soon coming and his power over death as taught in the resurrection, will arouse the Hindu as nothing else will. Many confess there is nothing in the Hindu religion to save from sin, but fear of caste prevents them from taking their stand for the gospel.

I believe school work is the entering wedge among Hindus and Mohammedans. We have many calls to open schools. Fourteen miles in the jungle, such a call has been standing four years. Some three miles out a school building and teachers' house, belonging to the villagers, have been waiting over a year for us to occupy. The salary of such a teacher does not exceed six dollars a month. For want of means many calls can not be answered.

For fear of turning away some of our Hindu and Mohammedan schoolboys we did not at first introduce the Bible as a text-book, but simply gave a Bible talk. Prejudice has given way to such an extent that we have this week placed in each boy's hand a portion of the Bible, with the instruction that in the future he will be graded in Bible as in every subject. Not an objection was raised, but on the other hand many questions were asked as to what was expected in the manner of study. We are getting hold of some fine young people, who will be a power in the work here. One such young man can speak four languages, and is a very earnest Christian. Another young man and his wife who have recently come to us are learning the dispensary work.

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TREATMENT-ROOMS FOR JAPAN

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I. H. Evans



LL the foreign workers but one, Brother John Herboltzheimer, enjoyed the privilege of attending our general meeting for

Japan. Brother Herboltzheimer had been called to nurse the wife of a prominent missionary who had been given up to die by the leading physicians of Japan. The wonderful effects that the hydriatic treatments [water treatments] had on 'vis woman attracted wide interest. The superintendent of the leading foreign hospital in Tokio, where this woman had been given up to die, was greatly pleased at the results obtained by the treatments given, and invited us to operate a small hospital in connection with their large institution, where water treatments could be given. Though this invitation showed kindly feeling on their part, we did not find it practicable to accept it. It did, however, help us to see the benefits that might be gained by having well-equipped treatment-rooms in Tokio or Yokohama. The latter place has many foreign residents, and offers a splendid opportunity for successful work if properly conducted. During the meeting it was voted to open treatment-rooms in one of the two cities named.



THE editor can not treat patients by mail. Those who are seriously ill need the services of a physician to make a personal examination and watch the progress of the case. But he will, in reply to questions sent in by subscribers, give promptly by mail brief general directions or state healthful principles on the following conditions: —

1. That questions are written on a separate sheet addressed to the editor, and not mixed in with business matters.

2. That they are legible and to the point.

3. That the request is accompanied by return postage.

In sending in questions, please state that you are a subscriber, or a regular purchaser from one of our agents; or if you are not, accompany your queries with the price of a subscription to LIFE AND HEALTH. This service is not extended to those who are not regular readers.

Such questions as are of general interest will, after being answered by mail, also be answered in this department.

Ulcers on Lips and Tongue.—" Please tell me the cause and cure of ulcers on lips and tongue. I seldom eat meat, fat, or pies and cakes. I take freely of cocoa, as much as eight cups a day, but do not take tea or coffee. I get plenty of fresh air and exercise."

Am unable to tell you the cause of the ulcers, but I would suggest the use of a very little pure carbolic acid. Dip a wooden toothpick into the carbolic acid, wipe off the excess so there is just a little moisture on the point, and touch the ulcer spots with this moist end, being careful not to touch any healthy tissue. The application ought to leave the spot white. If the ulcers do not yield to this treatment, see your physician. I note that you use as much as eight cups of cocoa a day. I fear that this is even more harmful than a cup or two of coffee. Can you not cut down your cocoa?

Infant Constipation.—" I am nursing a baby two months old; he is constipated. What is the best thing to do for him? Every day for about three weeks, I have moved his bowels by the use of a soap enema, which has immediate action. Is this harmful?"

Do you give your baby enough water to drink? Sometimes when a baby cries, it is for water and not for milk; and as Dr. Jacobi has stated, to give a child milk when he wants water, is about equivalent to giving a grown person potato when he wants a drink. The child should have water several times a day; and if this is attended to, it may affect the child's bowels considerably. If I were you, I should diminish the soap enema as soon as possible. It is bad to become accustomed to any such habit, and the child on growing up would find himself dependent on something of the kind throughout his life.

Sweating Feet.—" Can you give a reason why my feet sweat and have an offensive smell? They are always cold, although my general health is good."

When you are doing considerable walking, use low, thin shoes, which you will find in mild weather a preventive both of the cold feet and of the sweating; and in winter use felt shoes, and if necessary use woolen stockings. When you are doing much walking, it would be well after you wash the feet with soap and water each evening, to pour a little formaldehyde into a basin of clean water, and dip the feet into it. If this does not suffice, dip the feet into the formaldehyde and water again in the morning. Continue this, increasing the strength of the formaldehyde until the disagreeable odor eventually ceases.

Loose Teeth.—" My husband has loose teeth. Seven have been pulled, and now more are getting loose. What can be done to save them?"

It is probably a little too late to do much to save your husband's teeth. He evidently has what is commonly known as Rigg's disease, and this has probably been going on for some time. There are dentists who are able with careful treatment to relieve the condition to some extent. But it might be better for your husband's health to have his loose teeth pulled, possibly all of his teeth, and have plates instead. When there are loose teeth, there is very likely more or less formation of pus, which is swallowed and may thus poison the whole body, and cause appendicitis and other serious diseases. Consult the best dentist in your neighborhood. He will probably be able to tell you just what to do. Head-Lice.—" What can we do with a child who has become infested with head-lice, which she must have caught at the public school? Her hair is long, and it is a difficult task to go through it with a fine comb frequently enough to get rid of the vermin."

The following has been recommended as very satisfactory: Lay the child on her back on the bed with her head over the edge, and place a basin in a chair beneath her head, so that the hair lies in the basin. Pour over the hair into the basin a solution of one-to-forty $(2\frac{1}{2}\%)$ carbolic acid. Keep this up until all the hair, especially those portions over the ears and at the nape of the neck, which are most infested by the insects, is thoroughly soaked. Keep up the soaking for ten minutes by the clock. At the end of ten minutes drain the hair, but do not dry it nor even thoroughly wring it out. Now swathe the whole head in a thick towel or flannel fastened in the form of a turban, and allow this to remain on for an hour. The head can then be washed and allowed to dry. Every bug and every egg will have been killed, and there will be no more trouble, unless the child is again exposed to infection.

Pellagra.—"Does pellagra come from using cooking-oil?"

There is no reason for believing that pellagra comes from using cooking-oil. At the present time it is not known what causes pellagra. There is no food that is invariably connected with it, and there is no evidence that the disease is contagious. There are some who think that it is caused by the bite of some insect, and I myself am inclined to that belief.

Noise in the Head.—" I have been troubled for several months with noise in my head, which is very annoying. My hearing, which has always been imperfect, is growing worse. I should like to know the cause of the noise, and if anything can be done to help my hearing."

The noise in your head and your deafness may be due to catarrh of the middle ear, and may possibly be relieved by a competent aurist. It is possible your local physician can direct you to the nearest specialist in this line. I should most certainly consider it advisable for you to see a specialist; and if he is the right kind of man, he will tell you frankly whether he can benefit you or not.

Chronic Rheumatism.—" I have been troubled with rheumatism for a long time, though not severely. It has troubled me mostly at night, and usually in the joints; but since last spring it has been located in my feet, and my feet and legs swell sometimes before a disturbance in the weather. I have been troubled for years with constipation. I also have soreness in the intestines at times. Some months ago I strained my ankle quite badly on two different occasions, and since then I have had the rheumatism. I am very nervous, both mentally and physically."

Your accident may have determined the location of your rheumatism, but it is possible that your trouble originates with the intes-

tinal disturbance. You may have, in fact, what is commonly known as autointoxication, and some change in your diet may be needed. The fact that you have been troubled for years with constipation would indicate that this might be the case. Your nervousness may also be an evidence of intoxication, but it is a case which is too serious to attempt by mail, and you ought to be under the personal care of the best physician that can be secured in your neighborhood. To attempt to treat you by mail would be doing you an injustice, and might do you more harm than good; for the one who treats you ought to know from day to day how you are getting along, and should keep track of your diet and your various symptoms. It is true that physicians are sometimes likely to use too many drugs, and that they sometimes treat a case without careful study of it; but even so, treatment by a local physician would be better than the attempt to treat yourself by advice given by mail.

Chronic Appendicitis.—" Kindly give me the symptoms of chronic appendicitis, and tell how it may be treated. Do you consider an operation necessary?"

Chronic appendicitis is not a disease that is to be diagnosed or to be treated in the home. Unwise treatment is apt to lead to disaster. It would be impossible to advise as to whether an operation is necessary in any particular case without much more knowledge of that case than could be obtained through correspondence. There is reason to believe that some men are too willing to operate for appendicitis when there is no need of it. On the other hand, many grave disasters have come from a neglect to operate when an operation should have been performed.

Anemia.—" We are told by a doctor that our child who is two years old has anemia. He has never been sick and is fleshy, but is very pale. What food should you advise in such a case? Do you think —— [a proprietary milk ferment] is good in such a case? Would you advise the giving of iron in tablet form?"

Possibly your child does not get sufficient sunshine and fresh air. Do you give him enough milk, or do you feed him quite largely on cereal foods? It is possible that some of the fermented milks would be an advantage, and though I do not think the one you mention is any better than some of the others, it may be worth trying, at any rate. I do not know that I should recommend one of the iron preparations, for there is sufficient iron in natural foods, if the child is given a liberal dietary.

Gelatin .-- "From what is gelatin made? Some have said that it is made of pigs' feet."

Gelatin is a substance akin to gluc. It is made by boiling cartilaginous animal tissues. It may be made in some cases from material which is absolutely unfit for human food. Whether it is ever made from pigs' feet or not, I can not say. There is a vegetable form of gelatin known as agar-agar, made from a form of seaweed, but I think this is seldom if ever used in cooking.



Conservation of Schoolchildren, Being the Papers and Discussions of a Conference held at Lehigh University, April 3, 4, 1912, under the Auspices of the American Academy of Medicine. Paper, \$4; cloth, \$5. American Academy of Medicine, Easton, Pa.

In addition to the papers and discussions of the conference, several papers, prepared especially for this volume, are given.

The topics considered in this most excellent collection may be classified under three general heads: The problem of the feeble-minded children; the teaching of hygiene in the schools; medical inspection and the prevention of disease in schools.

Each paper is prepared by a person whose experience and study have entitled him to write and speak with authority on the subject.

Of particular interest among the excellent educational papers, I note "How Should Hygiene Be Taught?" by Louis Nusbaum, a prominent Philadelphia educator; "Education for Parenthood," by Dr. Helen C. Putnam; and "The Teaching of Social Ethics, and Its Relation to the Conservation of the Child," by Dr. Winfield S. Hall. Then there are Teaching of First Aid in

Then there are Teaching of First Aid in Schools, the Well-Fed Child, Open-Air Schools, the Prevention of Infection of the Respiratory Tract, Child Labor, and other articles of great value and interest to students of the subject.

One desiring to study the subject of the conservation of schoolchildren, probably could not find a more authoritative and thoroughly upto-date discussion of the various branches of the subject than is presented in this compendium.

The Milk Question, by M. J. Rosenau. Net, \$2. Houghton, Mifflin Company, publishers, Boston and New York.

Why do we have a milk question any more than a bread question, a fruit question, or a vegetable question? — Because in a sense true with none of these other foods, milk is apt to be dangerous to health. It forms a large part of our baby problem. Milk is a substance easily susceptible of contamination at every step of the way, from the cow to the consumer, and it is a food in which the contaminating bacteria grow luxuriantly. The milk question is one whose solution will require the combined wisdom and honesty and public spiritedness of lawmakers, sanitarians, farmers, carriers, dealers, and also common sense and cleanliness in the household.

Dr. Rosenau believes that the milk question, though a difficult one, is capable of solution, and his book is a contribution to this end. He is no dreamer nor enthusiast, neither is he an armchair scientist. Equipped with a

most thorough laboratory experience, he shows a grasp of the sociological side of the question hardly to be expected from the man who has given his time largely to laboratory research.

The book takes up the physiology of milk as a food, the question of dirty milk, and the various factors in the solution of this question.

Every one who is desirous to know why milk becomes so dangerous before reaching the consumer, or who wants to know how to avoid some of these dangers, will be well repaid by a study of this book.

Food in Health and Disease, by Nathan S. Davis, Jr., A. M., M. D. Second edition. Cloth, 449 pages; \$3.50 net. P. Blakiston's Son & Co., Philadelphia, Publishers.

This book in its original form was prepared as one volume of the System of Physiologic Therapeutics by Dr. Solomon Solis Cohen, which has rendered such excellent service in placing the non-drug methods of disease treatment on a thoroughly scientific basis. This second edition of Dr. Davis's book, issued as a separate volume, has been thoroughly revised and much of it rewritten to make it conform to the more recent knowledge of digestion and dietetics. In Part I, devoted to the general topic of diet in health, the principles of nutrition and the value and merits of the various foods are carefully considered. As is the custom with books of this age, meat is considered one of man's most important foods, and the caffein drinks are described as comparatively harmless. The author, however, is thoroughly convinced of the harmfulness of alcohol. There are important chapters on diet in health, infant feeding, and food as a cause of disease.

feeding, and food as a cause of disease. The second part, "Diet in Disease," gives general directions for feeding the sick, and follows with careful instruction regarding the proper diet in each of the various diseases or classes of diseases. While it is true that a large proportion of diseases can not be cured by diet alone, it is equally true that there are few diseases which can be successfully treated without careful regard to the **diet**.

This work should be a great help to the thoughtful physician or nurse. In the medical schools it must be confessed that the topic of diet has not been given the attention it should, and there are few physicians who are so well equipped in the important matter of dietetics as they are in the administration of drugs.

One astounding statement made by this author causes one to read again, to see if his eyes have not deceived him. The author

says of nuts, "They are agreeable, but have little value as food." What he can mean is not clear, unless it is that they are so little eaten. Just below this statement is a table showing that nuts are as nearly pure nutrition as anything we eat, and there are no figures showing that a very large proportion of this nutriment passes out of the intestinal canal undigested. Glancing at the triangle prepared some years ago by Professor Fisher, of Yale, one will readily see that a fruit and nut dietary will make an admirable combination, giving a proper balance of protein, fats, and carbohydrates, as may be confirmed by a study by Jaffa, of a number of fruitarians (Bulletins, 107, 132, United States Department of Agriculture) who though they lived entirely on fruits and nuts, were all vigorous and healthy. Dr. Davis himself has noted this study under the title "Dietetic Fads," (Give us a definition of "fads," please, Doctor.) and how he, after stating that these people are all vigorous and healthy, can say that nuts "have little value as food," when they contain practically all the nourishment these people obtained, is one of the unsolved mysteries.

Educational Lectures on Dental and Oral Hygiene, edited by T. C. Trigger, D. D. S., St. Thomas, Ontario, Canada. Published by the author. The Journal Press. Illustrated. Post-paid, cloth, 80 cents. The object of the author is to create a

The object of the author is to create a greater interest in the care and preservation of the teeth, and also to show the intimate relation mouth conditions bear to the health, beauty, and comfort of the individual.

With all the doctors have done in the way of disease prevention, we could not hope to cope fully with disease without the help of the dentists. It is safe to say that a very large proportion of all communicable diseases is transmitted by means of the mouth, and the danger of transmission is increased manyfold by poor teeth and diseased gums.

Such books as the one by Dr. Trigger should have large circulation.

A Manual of Personal Hygiene: Proper Living Upon a Physiologic Basis.' By Eminent Specialists. Edited by Walter L. Pyle, M. D., assistant surgeon to the Wills Eye Hospital, Philadelphia. Illustrated, 12mo of 516 pages. Cloth, \$1.50 net. W. B. Saunders Company, Philadelphia and London.

This standard work, which has been revised, enlarged, and brought up to date at various times, has recently appeared in the fifth edition, to which has been added a chapter on the important subject "Food, Adulteration and Deterioration," by Dr. Harvey W. Wiley.

To those not acquainted with the earlier editions of this book, we may state that it is a manual prepared to set forth plainly the best means of developing and maintaining physical and mental vigor. Throughout the book there is given a concise but adequate discussion of the anatomy and physiology of the parts under consideration, so that it might make a very acceptable text-book on elementary anatomy and physiology as well as hygiene. Untechnical language has been used as far as possible, and when necessary to use any technical expressions these have been fully explained in the glossary at the end of the book.

The Care of the Body, by Prof. R. S. Woodworth, of Columbia University. Price, \$1.50 net. The Macmillan Company, Publishers, New York.

A book written chiefly for young men, with the belief that an intelligent man without technical knowledge of medicine, and without excessive attention to the care of his health, can still do much to keep himself in good condition. Leaving the consideration of public hygiene for the specialist, the author treats personal hygiene as the direct concern of every man, who in the last analysis must be his own manager or health officer as regards the amount and quality of his food, sleep, exercise, recreation, etc., his relation to which determines whether he will have good health or only mediocre health.

The author, though writing in plain, untechnical language, follows very closely in the lead of the most recent physiologic and hygienic thought. The book is, in fact, thoroughly up to date.

oughly up to date. In the matter of diet, he occupies a moderate plane, giving due consideration to the teachings of both the high-protein and lowprotein advocates, though he admits that the advantages of a meat diet are not great enough to be very important.

enough to be very important. His chapter on "Indulgences"—alcohol, tobacco, tea, and coffee—is quite unique; and though he does not denounce these things quite as unsparingly as some do, yet what he says may have more weight with the young man than some more radical statements.

man than some more radical statements. In the chapter on "The Cycle of Life" he does not hesitate to touch in a frank way the question of reproduction and sex hygiene; and in the chapter on disease he gives briefly an excellent popular résumé of our present knowledge of communicable diseases, which includes incidentally a forceful lesson to young men on the advantage of a clean life.

Other subjects are, of course, included; such as, the blood, the circulation, breathing, and ventilation, wastes and their removal, bodily heat, the work of the body, the muscles, the ear and the eye, nerve and brain, work, rest and recreation.

The Chemic Problem in Nutrition (Magnesium Infiltration). A Sketch of the Causative Factors in Disorders of Nutrition as Related to Diseases of the Nervous System, by John Aulde, M. D., Philadelphia. Published by the author.

For some time the opinion has been gaining ground that nutrition has to do with more than the proteins, fats, and carbohydrates; in other words, that the so-called mineral salts may play as important a rôle in the metabolism of the body as the so-called organic foods.

Dr. Aulde believes that many of the ills of human flesh are due to the loss of balance between calcium and magnesium in the body, the calcium being lost and replaced by magnesium. He attributes this change partly to excessive acidity, the acid combining with and carrying away the calcium, and partly to the use of such foods as contain an excess of magnesium; for instance, the cereals, especially corn-meal. He believes pellagra is merely a manifestation of magnesium in-filtration, caused by a too-exclusive corn diet.

In proof of his position, he gives illustrations of plants grown with different propor-

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PAMPHLETS RECEIVED

Michigan State Board of Health, Lan-

sing. Preliminary Report of a Eugenic Survey of Michigan

Association of Life Insurance Presidents, New York

Need for Better Vital Statistics

The Influence of Vital Statistics on Longevity

Proceedings of the Sixth Annual Meeting

Department of Commerce and Labor, Bureau of Labor, Washington, D. C.

(Retail Prices and Cost of Living Series) Retail Prices, 1890 to 1911 — Retail Prices, 1890 to June, 1912 — Retail Prices, 1890 to August, 1912

(Workmen's Insurance and Compensation Series)

British National Insurance Act

Sickness and Accident Insurance Law of Switzerland

tions of magnesium and calcium in the soil, which show conclusively that plants at least do much better if they have a fair proportion of calcium than if they have a large excess of magnesium in their nourishment.

We certainly are groping more or less as to the ultimate cause of disease, and such a hypothesis as the one by Aulde should be frankly considered in all its bearings before it is cast aside.

Whether the doctor proves his contention that old age, laziness, insanity, Raynaud's disease, infantile paralysis, neurasthenia, etc., are caused or made worse by magnesium infiltration, I must leave to the readers of his book to decide.

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(Industrial Accidents and Hygiene Series) Lead-Poisoning in Potteries, Tile-Works, and Porcelain Enameled San-itary Ware Factories

Department of Agriculture, Bureau of Chemistry, Washington, D. C

A Study of Nuts With Special Reference to Microscopic Identification

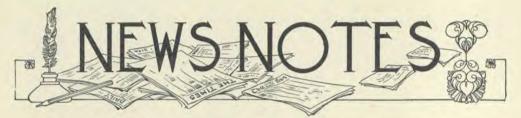
Department of Agriculture, Bureau of Animal Industry

Report of the Chief of the Bureau of Animal Industry

North Carolina State Board of Health, Raleigh

Hookworm Disease - Tuberculosis -Typhoid Fever - Medical Inspection of Schools and Schoolchildren - The Baby — The Plague of Flies and Mosquitoes — The Sanitary Privy — Malaria; Its Cause and Prevention





High Cost of Living.—We sometimes hear that our immense outlay for pensions by increasing the indirect taxation thereby increases the cost of living. How many realize that in the last three years more money has been spent for liquor in the United States than has been spent on pensions since the civil war?

A New Bureau Proposed.— At the recent Congress for the Study of Alcohol and Other Narcotics, held in Washington, a resolution was passed indorsing the bills now pending before Congress to establish a bureau for the study of pauper and defective classes, and urging the passing of the bills.

Bromo - Seltzer Dangerous. — Physicians realize that this substance which is now "on tap" at about every soda-fountain, and which is used frequently and constantly by some persons, is a dangerous acetanilid drug; and one case has been cited by Dr. Douglas, of Boston, in which a grave mental condition absolute dementia, in fact — was shown to be directly caused by the use of this dope.

Beriberi in South America.— What appears to be a typical beriberi has made its appearance in Brazil, in some cases in persons who have not eaten rice for months. Moreover, it is not in any way connected with a low-protein diet, for the Brazilians eat meat very freely. So the students of beriberi have another guess coming, at least in regard to the cause of this South American variety.

Milk and the State.— It is proposed to make supervision of the dairies of New York a function of the State instead of the city, the licensing and inspecting of dairies, creameries, and milk-shipping stations to be done by the State board of health, which shall also control the health of the dairy cattle, sanitary condition of dairy barns, etc. The city department would then simply test and inspect the milk as it reaches the city.

Heroin as a Habit-Forming Drug.— Perhaps from the mistaken notions of physicians, but doubtless in other cases in order to evade the law against the sale of morphin, heroin is increasing in its use as a habit-forming drug. Not only is it not a less harmful drug than morphin, as has been supposed, but it is possibly even more disastrous in its effects in some cases. The statement made by some dealers that it "does not produce narcotism, constipation, gastric disturbance, or habituation," is decidedly misleading. In many cases the drug is being used by snuffing, and in such cases a bad chronic coryza is produced. Railroad Abstainers.— The Pennsylvania Railroad is adopting total abstinence as a requirement for its employees. It allows no drinking, either on or off duty, and, moreover, it has plain-clothes men whose business it is to learn whether any of the employees are on the quiet living a convivial life. The officers of the railroad are convinced that the way to prevent disastrous accidents is to do away with the use of alcohol by their employees.

Doctors and Druggists Prohibitionists.— West Virginia doctors, members of the West Virginia Medical Society, with one dissenting vote, declared in favor of State-wide prohibition on the ground that liquor is not a fit substance for internal administration. And the druggists, without a dissenting vote, passed a resolution asking in case the prohibition amendment passed that a law be enacted making it impossible for druggists to sell liquor.

The Pendulum Swinging.— Dr. Henry O. Marcy, of Boston, honorary president of the American Society for the Study of Alcohol and Other Narcotics, in his annual address gave a brief study of the life of Benjamin Rush, the pioneer investigator in the effects of alcohol and tobacco on man, to which Sarah Phillips Thomas, who is connected with the educational temperance work in the State of Pennsylvania, replied that the pendulum had swung a long way in the University of Pennsylvania from where it was in the days of Dr. Rush, but that now the pendulum was swinging back again, and that there was a demand in two of the departments of the University for special courses along this line.

Housing and Disease.— Dr. Ernest C. Levy, chief health officer of Richmond, Va., reported to the National Housing Conference that though this had been a very bad year for measles and whooping-cough in his city, not a death from either of these diseases had occurred in a building in fair sanitary condition, though there had been numerous deaths in buildings where the sanitation was bad. Dr. Levy considered the housing movement to be an integral part of the great social advance movement now evident in the world, which depends upon the realization that all men are brothers, and which attempts to give better housing, more and better food, more work, but not too much of it. The time will come, said Dr. Levy, when tuberculosis will be unknown except in those who deliberately violate known law.

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Public Drinking-Cup Prohibited.— The use of the public drinking-cup on all interstate common carriers, rail or water, has been prohibited by order of the United States Public Health Service. The drinking-water used on such carriers must be certified as to purity, and the containers must be scalded with steam at least once a week. This is certainly a long step in advance.

Seven Days' Fever.— A number of what appeared to be cases of this disease occurred in the Canal Zone the past summer. This is a disease heretofore reported only in India and southeastern Asia. It seems to occur in the tropics in low-lying lands near the seacoast, in the summer months. The cause of the disease is not known. So far, no deaths have been reported from it, but it is well for physicians on the southern coast to have it in mind in cases of fever.

Water-Cure for the Boston Insane.— The Massachusetts hospitals for the insane have adopted the most modern of treatments for the violent patients; namely, the water-cure, or in other words hydrotherapy. By this means patients who under former methods were necessarily confined in strait-jackets or bound hand and foot, are now given quieting treatments, and often are thus enabled to do sufficient work to support themselves and perhaps help in the support of others. **Motion-Picture Eye-Tis.**— Dr. Geo. M. Gould, the noted ophthalmologist (eye specialist), in a recent issue of the *Journal A*. M. A., has issued a warning against the motion picture in its present state of perfection, which according to his extensive observation is an important cause of eye strain and various reflex nervous disorders.

Alcohol and Our Fighters .- At the Association of Military Surgeons, recently held in Baltimore, Md., Col. L. M. Maus, Medical Corps of the U. S. A., chief surgeon of the Eastern Division, said that practically all inefficiency in the army, even venereal disease and insanity, can be traced to the use of alcohol, and that if alcohol were banished from the army, navy, and marine corps, the efficiency would be increased fifty per cent and the sickness would be decreased fifty per cent. When a company like the Pennsylvania Railroad can find it practicable, and does find it practicable, and, moreover, finds it necessary to have sober employees, it seems strange that Uncle Sam finds it inexpedient to do so, and that, as some argue, if he does not have the canteen, the soldiers will get their liquors elsewhere. The fact is when the officers of the army are as determined to have as effi-cient force there as some of our railroad officials are, it will not take very long to settle the question of drinking in the army and navy.

The best antiseptic for purposes of personal hygiene LISTERINE

There is a tendency upon the part of the public to consider the dental toilet completed with the use of the tooth-brush and a dentifrice in paste or powder form.

It is not possible with the brush and either paste or powder to cleanse the interstitial surfaces of the teeth; here the use of dental floss is imperative, and after meals, or in any event before retiring at night, it should be employed to dislodge the remaining shreds of food substance wedged between the teeth. The tooth-brush and a paste or powder may then be employed for their frictionary effect, moving the brush from the gum margin toward the cutting edge or grinding surface of the teeth, and not toward the gum margin, lest these tissues be loosened from their attachment about the teeth and the sensitive dentin exposed. Rotate the brush upon the grinding surfaces of the molars to remove any food which may be lodged in the fissures of these teeth. The mouth should then be rinsed with an antiseptic solution of suitable strength, for which there is nothing comparable to Listerine, one part, tepid water ten to fifteen parts, forcing the Listerine to and fro between the teeth that all of their exposed surfaces may be brought under its antiseptic influence.

This procedure faithfully pursued will insure the conservation of the teeth.

LAMBERT PHARMACAL COMPANY LOCUST AND TWENTY-FIRST STREETS : ST. LOUIS, MO.

Are You Interested in the Tenements? — If not, you ought to be, for the evidence recently given before the New York State Factory Investigation Commission indicates that many things used on the outside are prepared in the tenements under filthy and dangerous conditions. For instance: "Handmade cigarettes are rolled in the tenements; and a photograph was shown of a man moistening the paste with his tongue. Other witnesses told of children and grown-ups cracking nuts with their teeth, and removing the nut meats from the shells with a hair-pin."

Danger in Home Work.— Before the State Factory Investigating Commission in New York City, the following was related in substance by Florence Kelley, to show the impossibility of supervision: "One Monday morning she met two boys of school age carrying big bundles of knee-pants which the family had been 'finishing' in their home. She stopped, and asked them why they were not in school. ''Cause we're quarantined with scarlet fever.' Further inquiry brought out the fact that the patient was one of the two boys. Mrs. Kelley went to their home and found that the board of health had placarded the apartment, and reported the case to the school. The inspector had not found the clothing, because his visit had been anticipated, and the clothing removed to a neighbor's flat until he had departed. The boys could not attend school, but they could 'finish' knee-pants."

Vegetable Milk.— Artificial milk made from the soy-bean, said to contain all the nutritive properties of cow's milk, has been exhibited in London. The milk is said to be more digestible and the cream more nourishing than the dairy article, and of course the lessened danger of disease transmission is an immense item. The vegetable milk can be used the same as ordinary milk in the production of various dishes and in making cheese, but it will not make butter. Being free from germs, it keeps longer than cow's milk. The process of manufacture is simple and the result is uniform, and in no part of the manufacture is the food touched with the hands or exposed to the air. In London the milk can be sold at six cents a quart and the cheese at six cents a pound. If the English have finally succeeded in making a commercially practical vegetable milk and cheese, cheaper than ordinary milk, germ free, and nutritious, they have gone a long way toward solving our present food problem.

Alcohol and Cirrhosis.— One paper at the alcohol study meeting recounted the results of experimental work on animals, showing that alcohol alone is not capable of producing cirrhosis, that is, hardening of the connective tissues, in animals. Dr. Tom A. Williams afterward in discussing another paper, stated that the old ideas of the direct connection between alcohol and sclerosis (another word for hardening of the tissues) in general, and arteriosclerosis in particular, must be doubted, especially as it has been shown that of persons dying of alcoholism, a smaller proportion on autopsy showed arteriosclerosis than those dying of other conditions. This he explained by the fact somewhat recently discovered that arteriosclerosis is a concomitant of high blood pressure, and that alcohol in dilating the peripheral blood-vessels and thus lowering blood pressure, acts actually as a relief. What we need to do is not to accuse alcohol of all things we can think of, but to learn what conditions are actually to be attributed to its use.

A Notable Garden City .- Parkurbo (park city) was founded in the suburbs of Munich. Bavaria, last June, through the generosity of a Munich banker who donated to the enterprise more than a million square meters of land (something more than 230 acres, or about three eighths of a square mile) bordering on the river Vürm. A noted Munich architect has prepared the plans both for the laying out of the suburb and for the prin-cipal buildings. The Park City Association has a capital of two million marks with which to begin operations. Already some five hundred building sites have been laid out, not in the rectangular form so common to our cities, but on gracefully curved lines, taking advantage of the contour of the land. Additional land has been reserved, in case there is demand for more than the present number of building sites

The aptness of the name, Parkurbo, lies in the fact that every building is to have a surrounding of trees. The peculiarity of this city is that the buildings instead of being near the front of the lots, are near the back, and are fronted almost entirely by lawns, flowers, etc. In the small space at the back, which separates between the buildings facing the two streets, is a small forest of trees, which is continued out between the houses on the side so that each house is almost sheltered from the view of all other houses. It will be truly a park city. The unique feature of this park city is that it is to be a city of Es-perantists. The official language in the town meetings, in all the records, the language used in the newspaper, the theaters, and the stores will be Esperanto, in fact no property will be sold to those who are not Esperantists. Already Esperantists of various nations (probably none from America!) have engaged building sites in this unique park city.



A small town station agent writes: "Send me a Burroughs C. O. D."

F. E. Anderson, of Cornell, Wis., wrote: "Send me a machine C. O. D. I used one at Duluth, where I worked before coming here. Like to have machine before end of month to allow me using it in making out monthly reports."

Mr. Anderson paid for this machine out of his own pocket and therein is the story. He had long wanted an adding and list-ing machine, but did not know he could buy a Burroughs for less than \$375-there-fore he "got along without one."

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ing at \$250, he didn't wait, but sent his order by mail. It is already at work saving money and time and worry for Mr. Anderson, Mr. Anderson's was but one of a great swarm of orders that greeted that an-nouncement—several came by telegraph, many by mail, but most by 'phone to our branches in many cities. Nearly all of those Demonstrating Samples are gone. A few, like the one pictured, are still available. But the point is not that we can furnish But the point is not that we can furnish

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a few Demonstrating Samples at \$250, but that we have a score of different styles of new machines at \$250 and under. We have 9-column non-listing machines for \$150; 9-column machines that print and add, for as little as \$225, all new machines. All Burroughs-new or Demonstrating Samples — are fully guaranteed and are backed by the Burroughs reputation and Burroughs Service. Of course we have high-priced machines -up to the biggest, most complete adding

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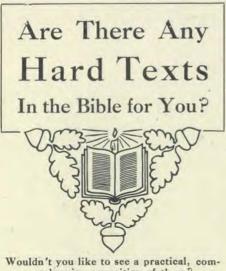
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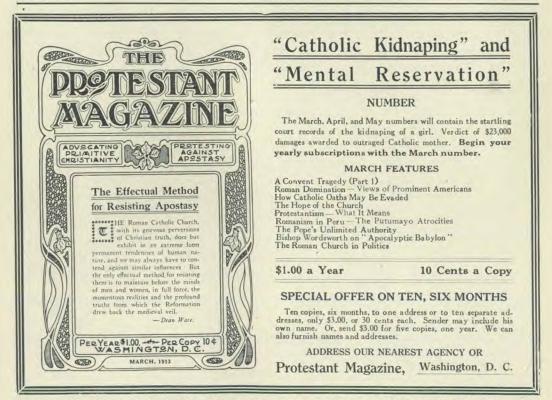
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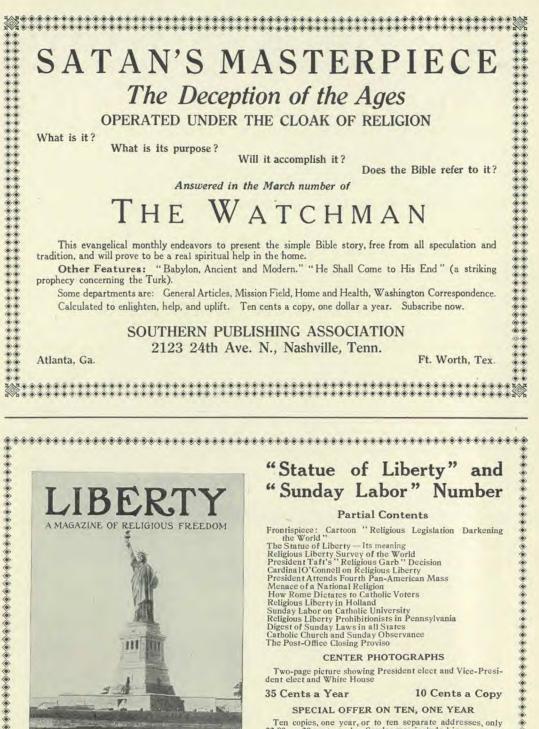


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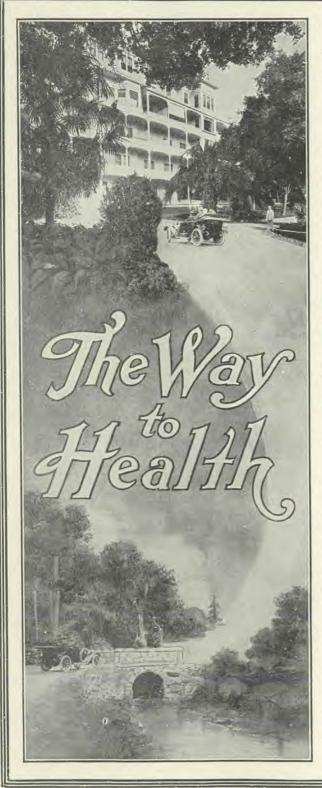
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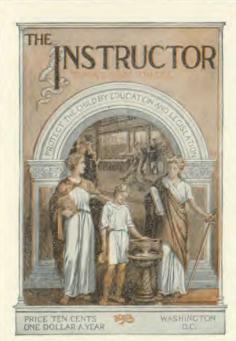
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