Life & Health

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December
1912

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LIFE AND HEALTH

TAKOMA PARK, WASHINGTON, D. C.

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Life & Health
THE NATIONAL HEALTH MAGAZINE

DECEMBER
1912

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

George Henry Heald, M. D., Editor

THIS ISSUE

HEADACHE is a very common and very annoying danger-signal which should give warning that something needs correction. The all-too-common practise of destroying the signal by an opiate is about as sensible a procedure as would be that of an engineer who puts out the red light at the side of the track, and then drives his train ahead at full speed. Dr. Abbott gives some more rational methods of dealing with this warning-signal.

One or more record feats, resulting in damaged heart and shortened life, do not constitute an ideal athletic goal. Dr. Kress, well-known apostle of the simple life, gives some suggestions which, if heeded, would prove valuable to every person desiring to attain true athletic success.

A man who has had high ambitions, who seemed at one time about to reach the pinnacle of artistic success, doomed by fate to keen disappointment but not to despondency and helplessness, has in a private letter ("Christmas in an 'Asylum'") given a cheerful and helpful account of some of his experiences. He has learned that the simple life is the truest life, and that the useful and helpful life is the happy life.

How many who are careful during most of the year as to what and how much they eat, forget their caution during the holidays! Perhaps these will agree that Mr. Fitzpatrick has well chosen his title, "What Fools These Mortals Be!"

Edythe Stoddard Seymour begins a series, which though intended by her for the mother of the farm baby, is equally applicable to many mothers not on the farm. The crisp style will be appreciated by busy mothers who must take their reading in tabloid form. This series will be continued through several issues.

"The Alcohol Family," by the editor of the London "Good Health," who is well known to "Life and Health" readers, is the second of a strong series of articles prepared by Dr. Olsen on the subject of the drink curse. The rest of the series will appear in succeeding issues.

The article on "Eggs" by Mr. Cornforth, the popular chef of the New England Sanitarium, will be followed in January by an article giving special recipes for the preparation of egg dishes.

HEADACHES

G. K. Abbott, M. D.

[Dr. Abbott, in addition to his medical practise, has had extensive experience as a teacher of hydrotherapy to classes of nurses and medical students, and has written two text-books on hydrotherapy. The directions given in this article may seem a little more formidable than the swallowing of a powder bought at the nearest drug store, but the results amply justify all the extra trouble, as the patient who perseveres in the treatment will soon know for himself. These treatments are, of course, best administered by an experienced nurse, but a careful reading of the directions will enable the attentive lay reader to proceed intelligently.— ED.]

HEADACHE is not a disease in itself. Like other forms of pain, it is only a symptom, one of nature's warnings of disturbed bodily function. Such disease or disturbance may not be located in the head at all; indeed, it may be in quite a remote part of the body.

Headaches are due to many different causes, and accompany a great variety of diseases. It might almost be said that there are as many different kinds of headache as there are people suffering from such disturbances. However, in the main, headaches may be so designated as to give a general idea of their cause, or of the disease with which they are associated.

We need here consider only those headaches that are of functional origin; that is, due to removable causes. Curable headaches do indeed constitute by far the great majority of headaches to which man is subject. They are probably responsible for the making of a greater number of new drug habitués (other than morphin) each year than any other form of pain. A knowledge of the causes and of simple, effective means of relief, would go a long way toward preventing these drug addictions which have become so wide-spread during the last ten years. Although accurate statistics might be difficult to obtain, the writer's experience would indicate that not less than one out of every three families keep on hand some supposedly harmless headache medicine, which is used not rarely, but frequently. That any medicine designed to relieve headache is not only far from harmless, but exceedingly dangerous, may be known by any one who will take even half the pains to become as intelligent regarding the human mechanism and its needs as the average farmer takes to inform himself regarding the welfare of his hogs and cattle.

This article considers only those headaches that are due to a removable cause, to which class, fortunately, nearly all headaches belong.

One family in three keeps some headache remedy.

These remedies are all more or less dangerous.

The get-well-quick method of relieving headaches produces many drug fiends.

Headaches may be more safely and more permanently relieved by rational means, without resort to drugs.

Rational treatments for the relief of the most common forms of headache are given in this paper.

Indoor Workers' Headache

Within the limits of this article we shall have space to consider only a very few of the commonest forms of headache. That form from which the business or professional man and, in fact, all indoor workers most commonly suffer is a combination of the nervous and congestive types of headache. There are mainly three causes for this form of headache: (1) Slight digestive disturbances and constipation; (2) work in close, poorly ventilated rooms; and (3) excessive mental application, together with worry. The pain may be located anywhere in the head, but is most frequently felt in the temples and forehead. If the causes are understood, the remedy is a simple matter. But the natural and most effective remedies require a sacrifice of that valuable article, time, so that many prefer to swallow a tablet or a pill even at the risk of drawing upon their future reserve, rather

than take from their business the necessary time to rightly deal with the condition.

An hour outdoors in rest or light work will do much to relieve headache. By indoor work or lack of exercise the blood has become overcharged with unburned impurities, which irritate the brain cells, thus producing the dull, annoying pain of headache. By deep breathing in the pure air better lung ventilation and blood purification occur, and the poisons are oxidized and eliminated. Exercise helps to accomplish the same results in the same way, by increasing oxidation.

If the headache is still rebellious, some preliminary measures would best be used, and then followed by at least an hour of rest in the open air, or by breathing fresh air at an open window. Let the one afflicted take a hot foot-bath, together with the application of cold-water or ice-water compresses to the neck, face, forehead, and temples. If very severe, an ice-bag at the base of the brain may be necessary. The cold compresses should be renewed every three minutes or so, and will be colder if taken immediately from a block of ice. They should be pressed down firmly over the parts to which they are applied. These cold compresses and the hot foot-bath should be continued for fifteen or twenty minutes, or until relief is obtained.

Nervous Headache

Slow, firm rubbing of the forehead outward from the median line and down over the temples, if persisted in for five or ten minutes, greatly assists in relieving a nervous headache. Continuous deep pressure over certain nerves at the temples and at the back of the neck will have much the same effect in purely nervous conditions; but where there is much congestion, the results are not so lasting as those of the cold-water compresses. Cold water continuously applied from fifteen to thirty minutes has a most powerful effect in contracting the blood-vessels of the brain, and thus relieving congestion. The hot foot-bath produces the same result upon brain congestion by drawing more blood to the feet. The application of either hot or cold water also stimulates oxidative processes. Wherever constipation or defective oxidation of poisons by the liver is a factor in causing headache, steps must be taken to remedy these conditions. The absorption of poisons from the intestine may be obviated by thorough enemata, and by a diet of laxative foods, especially coarse cereals and fruit taken freely. Simple home measures by which the liver, stomach, and other digestive organs may be stimulated have been considered in a previous article. [September, 1912.— Ed.]

Anemic Headache

Another form of headache, which is not uncommon, and which most frequently attacks chronic invalids suffering from anemia and similar diseases, is the so-called anemic headache. In this condition the brain is insufficiently supplied with blood, hence its nutrition suffers, and a dull, more or less continuous headache results. It can be permanently relieved only by an improvement in the quality of the blood. For the immediate relief of the headache and to assist in procuring a permanently better supply of blood to the brain, simple natural means are the most effective, and, in fact, the only ones that at all meet the needs of the condition. That which is to be accomplished is the stimulation of the circulation of blood through the brain, just the opposite of that which is necessary in a congestive headache. The following treatment, if intelligently applied, will prove effective in every case: —

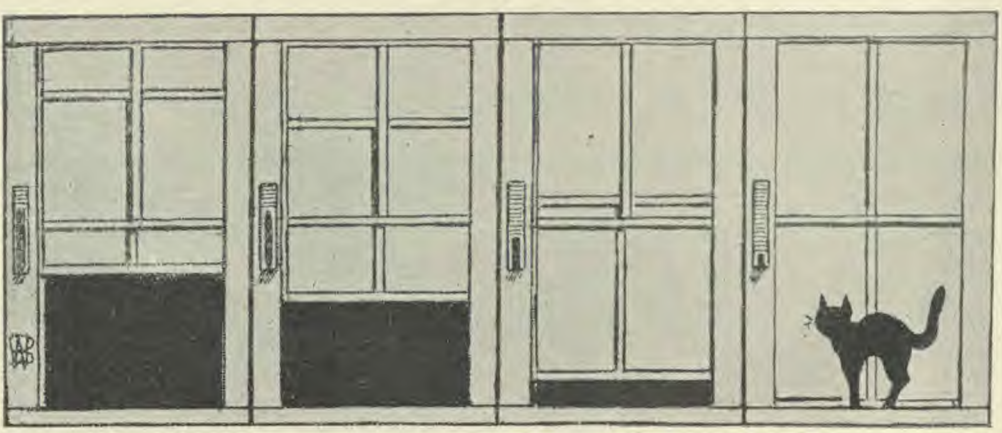
Prepare two compresses of three to five thicknesses of gauze or cheese-cloth, about twelve inches square. Have ready for use two gum-rubber ice-bags filled with finely chopped ice and wrapped in cheese-cloth, also a narrow hot-water bottle or a spinal hot-water bottle partly filled with hot water, and covered with a flannel cloth or a towel. Provide also a bowl of ice-water and a pail or kettle of boiling water. When these are ready at hand, with the patient lying, place the

hot-water bottle crosswise of the back of the neck, and bring it well up under the back of the head. Lightly wring one of the cheese-cloth compresses from ice-water, and apply to the face, covering the top of the head and the ears. Press it down firmly over the forehead and in front of the ears. Renew this every minute, using alternately the two compresses, which, when not in use, are kept in the bowl of ice-water. After three minutes replace the hot-water bottle by the two cloth-covered ice-bags, and the cold compress to the face by another wrung quite dry from hot water; this latter should be renewed every minute. In another three minutes replace the first application of the hot-water bottle to the back of the neck and the cold compress to the face, and continue these alternations for three complete sets of hot and cold. At the close, cool all the parts by wiping off with a cold compress, and dry thoroughly, especially the hair.

The philosophy of this treatment lies in the stimulation of the blood-vessels to greater alternate contraction and dilatation through the influence of the alternate heat and cold. This treatment is also of the greatest service in a cold in the head, as it relieves the passive congestion.

The relief of the headache is the natural result of relief of the condition and its causes. A headache powder only deadens the pain. The cause is still present, and the headache will reappear as soon as the effect of the medicine has worn off. Moreover, the acetanilid, phenacetin, or other drug composing the headache powder has a direct effect upon the blood, and needs only to be repeated frequently to cause great impoverishment of the blood, which means a greater degree of anemia.

Loma Linda, Cal.



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As the thermometer lowers, the window is apt to do the same, if we have not learned the value of fresh air.

THE SECRET OF ATHLETIC SUCCESS

D. H. Kress, M. D.

THE wastes formed by the breaking down of tissue act as muscle or tissue poison. The weariness experienced after severe exertion is due to the accumulation of these products. In old age, on account of the inability of the eliminative organs to carry off all the wastes, there is usually a sensation of weariness on exertion. The same is true in those afflicted with Bright's disease; the elimination by means of the kidneys being defective, the wastes accumulate, and constant weariness is experienced.

Beef extract is a solution of tissue poison. In the animal, as in man, these wastes are constantly forming, and life depends on their constant elimination. There are two streams of blood,— one carrying to the tissues life gathered from food, air, and water; the other carrying away waste matter. The dead products resulting from body activities necessitate a means by which they may be swept out of the system. This process of elimination is carried on by the venous and the lymphatic circulations. One stream carries life to the tissues; the other carries death from the tissues. When an animal is killed, the venous blood and the lymph containing the dead matter, or tissue poison, are retained. In squeezing the juices out of flesh, we extract the dead and effete products that were on their way to the kidneys, lungs, skin, and liver for elimination. By experiments made upon animals, it has been discovered that an injection of beef extract causes death quicker than an injection of an equal amount of urine.

A muscle may be carefully dissected from the leg of a frog, and to one end of this muscle a thread be attached, by which a weight may be suspended; upon stimulating the muscle by means of electrical currents, it contracts and raises the weight. After several repetitions of this act, the muscle no longer responds to the stimulation; it is now really in a state of poisoning, or fatigue. Tissue has been broken down by exercise, and there being no means of elimination, the accumulated waste causes paralysis of the muscle. After carefully bathing this muscle in a mild saline solution, thus washing out the wastes, we find upon applying electricity that it contracts and lifts the weight as before. Place upon a fresh muscle a few drops of beef extract, and it will not respond to stimulation by electricity. Why is this? The beef extract and the poisons formed by exercise of the muscle are identical. Beef extract is therefore one of the worst substances that can possibly be taken by athletes. It is not a food, but "a veritable solution of poison."

The athlete who depends upon beef extract or subsists on a flesh diet, throws into his circulation products that may cause defeat; for the eliminative organs are not equal to the task of keeping the muscles freed from these wastes, in addition to the wastes normally formed. Muscular fatigue must follow.

It has no doubt often been observed by athletes that in running, or riding the wheel, the first hour is very difficult; after this they obtain their "second wind," as it is termed. The first stage of fatigue is due to the rapid accumulation of wastes; but after free perspiration has begun, there is less fatigue, the muscle poisons being eliminated nearly as fast as formed.

It is evident that the future must be with the athlete who eschews a flesh diet, — beef extracts, etc.,— with the one who keeps his system free from additional wastes by taking his food direct from the vegetable kingdom, and not at second hand. In fact, in endurance tests, such as long-distance walking matches, the vegetarians have repeatedly outclassed the flesh eaters.

CHRISTMAS IN AN "ASYLUM"

[The following letter was written from a State hospital to the editor, by an inmate who had no thought of its being published. This man had fine artistic talent, but lacked the ability to meet the world; he was, in fact, what the doctors would call a psychasthenic. After a severe bereavement, he was so despondent that he felt the only safe course was to commit himself to an institution. At this institution, free from care and worry about making ends meet, he eats well, sleeps well, and is gradually regaining command of himself. He frequently writes of the excellent care he has had at the institution. This letter is worth reading, as it shows that even the person without many of the good things of life can, if he has the spirit of brotherhood, help to make others happy. The letter is printed just about as written, with the exception that personal allusions are omitted.— ED.]

DEAR DOCTOR: I have the reputation just now of being extremely "nutty," which came about by my giving some Christmas presents. Where, you ask, did I get the presents? During the fall, I gathered quite a lot of hickory-nuts when taking walks through the woods — in fact, made quite a business of it. These I put away carefully in a dry place; and some days before Christmas, I had the farmer give me a lot of empty strawberry boxes. The storekeeper gave me some nice clean wrapping-paper, which the dry-goods supplies came in. Lining the boxes with the paper, I filled them with cracked hickory-nuts, putting in each box a wire nut-pick. Wrapping and tying completed a very neat-looking package, upon which I printed: —

Merry Christmas,
with compliments
of
John M. Duzenberry

These I distributed among my friends, as well as to the physicians, matrons, supervisors, the cook and her helpers; altogether, I gave out fifty-one boxes. So I have the reputation of giving more presents and spending less money, for it did not cost me a cent, than any one else here.

During the fall, I had gathered quite a lot of hickory-nuts.

Dr. Brewster sent me a beautiful box of candy as an expression of his appreciation for my thoughtfulness; others, who never have met me, have gone to the trouble to hunt me up and thank me for such an unexpected and welcome remembrance. One of the women physicians told me that the box brought back to her mind her happy childhood days in western New York, when she used to gather nuts. When I told her I had sent out fifty-one boxes, she replied that she was glad to know that fifty others also shared her pleasure.

I painted a panel of oranges, and sent it to my daughter for Christmas. Dr. and Mrs. Ashley admired it very much; and as I still had time, I painted a panel of small tangerine oranges, and sent it to Dr. and Mrs. Ashley on Christmas morning. They are artistic and refined in their taste, and appreciated the painting thoroughly. Mrs. Ashley said it was so natural and dainty, so appetizing, that one felt inclined to pick the oranges from the table.

So my Christmas passed happily. I was as busy as I could be days before, and I felt that I had contributed my share toward the general Christmas cheer. Dr. Ashley sent me a box of nice handkerchiefs, and others sent their cards and appropriate mottoes of the season.

The chapel, as well as the different wards, was most beautifully decorated with festoons and other formations of evergreens. I helped the photographer take photographs of these, so had an opportunity to see how much time and trouble had been taken to make Christmas enjoyable for all. I hope to be able to send you a set of these photographs, which may induce you to change your residence to this State, so that you can commit yourself to this beautiful place. [The photos never came, and I still remain uncommitted. — Ed.]

I painted a panel of oranges, and sent it to my daughter for Christmas

We had a fine Christmas dinner, and at night, vocal and instrumental music, and dancing in the amusement hall. Bags of candy and cake, with boxes of fruit and nuts, constituted the refreshments. The stage was set with evergreen-trees covered with imitation snow, through which was seen a cottage, with real light shining from the windows upon the ground, made to represent deep snow; a dark leaden sky made the effect beautiful and realistic. On each side of the stage were immense Christmas trees lighted with different-colored tiny electric lights. Large evergreen stars, which were lighted with electric lights, decorated the walls. It must have taken a great deal of time and trouble to make these decorations.

It is this personal touch, the interest in the happiness and welfare of each patient, that is to me the key-note of the management here. The doctor happening to be in one of the wards, helped us pose an elderly woman who did not wish to sit. He could not have been nicer had she been his own mother. In every ward we saw kindness and patience shown to the unfortunates.

The Victor Victrola had been brought in, so we had song and music from the great operatic stars and composers. The music, I think, was due to Dr. Brewster's kind thought for us, for he came in during the meal to see how the music sounded in the dining-room.

I have been painting steadily six hours a day, making some orange panels; I am fitting up a box to sit in, so I can paint some snow scenes. I have been skating during the last few days, and am surprised how strong I am. The long walks over broken ground have put me in fine shape for any kind of exercise.

"WHAT FOOLS THESE MORTALS BE!"

A CHRISTMAS SERMON

F. W. Fitzpatrick

IT is often deplored that we pay really more attention to our domestic animals than we do to ourselves, our children, and "folks" generally. See how careful, how selectful and solicitous we are in breeding stock, that only the best and strongest offspring shall result; then note how little attention is paid to that sort of thing with us humans! We have to beg and depend upon private effort in pretty nearly all that is done to cure or prevent human suffering; but when it is a matter of farm animal life, the government takes hold and does the job thoroughly. Dr. Wiley amusingly though pathetically tells how a farmer's wife may sicken but keep on at work, bearing children tainted with her disease, and go on, a burden to herself, suffering and miserable, and a menace — by infection — to all about her, but without in any way interesting the authorities. But let the farmer's hog be even threatened with the same disease, and the government steps in and coddles it and tries to cure it, and certainly does prevent it from spreading that disease to other hogs. All of this makes the good doctor (who has probably done more for our general well-being and preservation from injurious foods than has any other man in the country) tartly aver that he'd rather be a hog than a farmer's wife!

This sort of thing impresses us most when it comes right home to us, when we catch ourselves sinning just as the farmer or the government does,— sins of ignorance generally, but none the less harmful.

Now I believe myself a fairly sensible fellow, have dabbled some in dietetic matters, and have even preached sane living and been thought something of an authority on the subject, which makes my sin all the less pardonable when I do do foolish things in that line. I did one yesterday; and the joke of it was that it was done unconsciously, ignorantly, and only just now have I even thought of it, realized the silliness of it, and — repented. Confession is, they say, an essential part of repentance, so here it goes: Yesterday was Christmas. Properly imbued with the spirit of the day, the expansive idea of trying to make everybody and everything happy, I wandered into the stable at feeding-time,

Uncle Sam appears to be far more interested in the life of the farmer's hog than in the lives of his wife and children. He is rather a D. V. S. than an M. D.

with a pocketful of apples, intending them as a sort of dessert, a Christmas extra to the regular and bountiful feeding the horses were getting. I gave two apples to a very fine saddle beast, a horse I particularly like and value; and I gave three to another, an ordinary driving horse, for which I have no special affection. Now, mark you, I'm not stingy, and there were plenty of apples, but the horse that I like, and that means much to me, got only two, because a third might upset him a bit. I didn't care a rap for the other one, but was so solicitous about the welfare of the finer animal that I wouldn't tolerate even the slightest hint at overfeeding or unwonted frills, anything that could harm him.

I gave two apples to a very fine beast, a horse I particularly like.

Now then, not half an hour afterward, I sat at my own table surrounded by children and friends, and served "turkey and trimmin's" and endless salads and dainties, the usual food,—a heavy, rich, and indigestible Christmas dinner. I helped all most bountifully, and bade them each to come for a second dose; for was it not Christmas-time and good cheer abounding? And they gorged; and as I saw them feasting, it pleased me, and I urged more cheer upon them, though I ate sparingly myself—not any special plan, but just from force of habit. Yet I knew perfectly well that one chap is a bilious fellow, and might, as a result of that dinner, be sick for a week; that another was in training for a race and should not have broken his regular diet, and as a result might have to fall out of that race; and I knew just as well that, as a general proposition, such feasting was bad for the whole lot, yet I provided it,

(*Concluded on page 676*)

I served "turkey and trimmin's" and endless salads and dainties,—the usual heavy, rich, and indigestible Christmas dinner.

WELFARE WORK FOR CHILDREN

Warfield Webb

WHAT mother does not love her babe? If she did not, she would be less of a mother than the brutes, which will defend their young, sometimes with their own lives. With this mother instinct of love, most animals possess a more or less perfect what-to-do instinct, which enables them to protect their young, or a fair percentage of them, from the dangers and the enemies with which they are threatened.

But the life of human babies is too precious, too sacred, for them to be reared on this animal basis of "a fair percentage." It might do for the ignorance of barbarous and savage times, but it is utterly unworthy of a civilized community; for we now have the knowledge by which a very large proportion of baby deaths might be prevented. But with this knowledge we need a public conscience that will cause us to feel that the community as a whole is responsible when certain of the women are allowed to assume the responsibilities of motherhood without the knowledge that is required to safeguard the lives of their children.

There is no fact more patent than that thousands, yes, millions of mothers suffer their infants to die of preventable disease, and then as a rule, with hopeless agony look upon the death as a dispensation of Providence or of fate. Notwithstanding the fact that practically all infant deaths can be charged to parental ignorance, there is a general impression that with maternity the woman in some way acquires an instinctive knowledge of what to do for her child, and that instruction in the art of motherhood is

One of the many families where outside help is needed. This room was cold, and the "little mother" had her hands full.

entirely superfluous; and often the mothers will resent any attempt to instruct them.

Frequently the parents are not fitted for the advent of the child. Poverty, ill health, and insanitary environment are factors calculated to mar its prospects as it enters the world. When to these are added parental ignorance, there is little prospect that the life will be more than a few months of suffering.

But the child, having been brought into the world, has a right to life, and health, and strength,—a right which brings a responsibility not only to the parents, but also to the community. In order that this responsibility on the part of the community may be discharged, there must be an efficient and unending crusade of education, whereby mothers shall be given that knowledge which every mother should possess.

It is with this end in view that numerous organizations have been established to improve the lives and the environment, first of the parents, and through them, of the offspring. And the task does not terminate with the first few months of the child's life. There is still need for the guidance of the mother, or for the doctor's or the nurse's assistance and training; and these the associations are trying to bring into the homes of the poor, to the end that nothing will be omitted that might be for the welfare of the child.

In Chicago the United Charities has been working along this line with remarkable results, which prove the wisdom of the labor and the heroism of the laborers. While it may appear a little out of the regular routine for an organization of this kind to undertake such a work, there is every reason for its existence, and many reasons for gratitude on the part of hundreds of families for the good that has been accomplished. A part of the labor is the day-nursery, where the children are brought each day at an early hour by parents whose labors

The "little mothers" are taught practical lessons of helpfulness.

A mothers' sewing class at the day-nursery.

must keep them from home. Here the infant and the little child are given care and training that are even more beneficial than that which they could or would receive at home.

Physical examinations as to the conditions of the applicant are made, and its antecedents are recorded before it is admitted. If any lurking disease is noted, an effort is made to cure it before it has had an opportunity to gain headway. The child receives the proper kind and amount of food, and the regular bathing, exercise, sleep, and training that will be the means of increasing its physical and moral well-being. Many babies are brought to such institutions suffering from disease, and are taken away sound in body. In case of serious or contagious disease, the child is at once sent to some institution where it can have proper medical attention.

A practical lesson in the art of bathing.

The mothers are shown just how to care for their infants,— how to bathe, clothe, feed, and otherwise minister to the children's welfare. This work has been followed by the most gratifying results. Practical training proves to the mother how much depends upon her care in the daily life of the baby to keep it well. Hearsay evidence and mere oral instruction are insufficient to insure this. A practical training by the nurse at the nursery and in the mother's home, gets results that would be manifest in no other way.

During the warm months, when the baby demands plenty of fresh air and sunshine, there are summer camps, where mother and

(*Concluded on page 688*)

THE FARM BABY

Edythe Stoddard Seymour

I

BEFORE THE STORK ARRIVES

For Good Health of Mother and Baby

IT is as necessary to have fresh air indoors night and day as it is to have out-of-door exercise when the mother is not too tired. A drive will give rest and air and fresh interests; housework furnishes muscle-firming exercise. Rest is necessary when tired; too much work will sap the strength of mother and child, and cause nervousness, as will too much excitement and worry.

All clothing should be comfortable, and supported from the shoulders. There should be no tight bands anywhere; a *Brassière* (bust supporter) should be worn instead of a corset.

Food should be nourishing and digestible, consisting principally of fruits, cereals, and vegetables, excepting the cabbage family and peas and beans. Avoid much meat or eggs. Some light nourishment should be taken even if the mother is nauseated, unless she is actually vomiting.

To Prepare the Lying-In Chamber

Remove all unnecessary articles. Have a bed, couch for nurse, table, wash-stand, bureau, baby basket if desired, low rocker, straight chair. If the room is small, use an adjoining room for some things. Perfect cleanliness of every article prevents danger of infection.

For the Bed

For the bed use a rubber or oilcloth sheet, or a thick layer of clean newspapers, with the edges well lapped over; these can later be rolled off to the edge, removed, and burned. Over this tuck in tightly a clean sheet. Put more newspapers or rubber sheeting across the center of the bed, well over the right edge; cover with a large clean cloth, or old, soft cloths, which are better. Fasten the corners with safety-pins. Extra pads (a dozen) can be made from clean newspapers, opened in the middle and covered with cloth; sew along the edge with long stitches, and fasten corners well. Have handy changes for the bed, underclothes, gowns, supply of towels, safety-pins, toilet soaps, chamber-pot, slop-bucket, wash-bowl, pitcher, and a good supply of old, soft, clean cloths, or new cheese-cloth that has been washed.

For the Baby

There will be needed sweet-oil or vaseline to cleanse the baby before washing, and a boracic solution to wash the eyes and mouth. Five cents' worth of boracic-acid powder will furnish a fresh solution daily for some time. Dissolve a quarter teaspoonful of the powder in a cup of hot boiled water; use when cold. Dip absorbent cotton or squares of clean cloth into this for the cleaning, keeping such cut and covered. Special soaps should be used for the baby, Castile, boracic, or resinol, at first, and all the time if possible. Have a hot-water bag handy. A large willow clothes-basket can be cushioned for a crib, and made dainty with curtains.

II
THE FARM BABY'S CLOTHES

The Layette

The layette must contain two flannel bands (to be worn until the navel is healed), two little shirts, booties or stockings, two warm petticoats, two dozen diapers, one dozen diaper-sized old, soft cloths for first use, or the same number of cheese-cloth diapers, three dresses, two squares of cloth suitable for head shawls, two blankets or shawls to wrap Baby Bunting in. Night slips, extra dresses, white petticoats, little jackets, etc., can be added to this list according to the mother's taste and pocketbook.

Baby's first clothes should not be heavy from thick material, length, or ruffles. They should be loose, of simple design, and have flat seams and small flat buttons.

Trim the dresses with a little light lace, drawn-work, hand embroidery, or beading insertion. Three-quarters length is best,— twenty-seven to thirty inches; or short clothes can be used from the first if a blanket is wrapped around the baby.

Petticoats can be made sack-shaped, with sleeves; and if it is not necessary for warmth, use no extra shirt. Trim only with featherstitching or embroidery.

The one-piece style garments for long or short clothes have the sleeves cut in one with the body. This requires less time and material in making; and as there are no shoulder or arm seams, such garments are comfortable.

Never use enough clothes to make baby perspire, for this will cause him to take cold easily; but use enough so that the hands and feet are always warm. Moccasins soon get out of shape, and are readily kicked off. Slippers or soft-soled shoes are best after the dresses are shortened. Kicking is a good exercise, and should not be hampered by the clothing; shorten it early.

For a creeping baby, aprons are preferable to rompers. The hooded cape makes an ideal wrap for the wee baby.

III
THE BATH

The First One

For this, use olive-oil, vaseline, or even lard. Leave the oil over all folds of the flesh, the head, and any spots that seem to need it. If the baby is then rolled in his blanket, with an open space left for breathing, and a hot-water bag laid against him, he can be left several hours if it is not convenient to give the water-bath.

The Water-Bath

Have the room warm, and everything ready before starting. Wash the eyes and mouth with a boracic solution (the doctor usually does this as soon as the baby is born, but do it again). Dip cotton applicator into the solution; hold it close to the eye; hold eyelids open; drip the solution into the eyes; pat the closed lids dry. Wind absorbent cotton around finger to wash the mouth. Dip it in the solution, and cleanse every corner of the mouth carefully. Be gentle, for the lining is very delicate. Keep the baby on the lap, having him well covered excepting the part being bathed. Use plenty of soap, rinse well, and *pat* dry with *soft* towel. Dust talcum powder or cornstarch lightly in folds of flesh and over the navel. Wrap the navel in absorbent cotton or a square of cloth. Wind the band over this firmly enough to hold dressing over the navel, but not tight. Fasten the band, and dress the baby. Then give him to the mother to nurse.

The Usual Morning Bath

Continue using the boracic solution for the eyes and mouth for several weeks. Begin at once to use it again if any redness (inflammation) of the lids or eyes appears, or a white spot comes in the mouth which seems like a curd of milk hard to remove. Usually wash the eyes with a clean cloth dipped in a cup of

clean, warm water. A half-teaspoonful of salt added to a cup of warm water makes a good mouth wash. Cleanse the entire head before undressing baby, to prevent chilling. After the navel is healed, give baby tub baths. Use soap sparingly, excepting over the buttocks; rinse well. Powder lightly in creases of flesh. Olive-oil is best to cleanse the scalp of scales; leave the oil on awhile, then wash, rinse, and dry. If a circular movement, in about inch circles, is used on the scalp, and the hair left to dry that way, it can be trained curly.

A delicate baby can be made fat with an oil-bath applied every day after the water-bath. For the oil-bath use a tablespoonful of warm olive- or coconut-oil, rubbed in well with the flat of the fingers over the entire body. Take an upward direction on the limbs and back, and a circular one on the chest. On the abdomen, use the circular movement also, following the direction of the bowels, as follows: Begin on the left side, going across the lower part, up the right side, crossing above the navel, and going down the left side. This rubbing over the bowels is good for colic, as it will help expel gas.

IV

THE BABY'S FOOD

Nursing

The baby's first food should be what the mother's breast secretes; this is not milk, but is good for the baby, and will clean out the bowels. The nursing should be at regular intervals; for most babies every three hours is often enough. If this does not seem sufficient, nurse every two hours. Wake the baby for the first week so the milk will be drawn into the breast. After that let baby sleep as long as possible if the breast is not too full.

Gradually lengthen the intervals between feedings and drop out night feedings, until at five months baby gets nothing more than a drink of cool boiled water or barley-water between 9 P. M. and 5 A. M., and at twelve months is not getting over four meals a day.

A delicate, poorly nourished baby may require food oftener for a time. The oil-bath will help nourish such a baby.

Every baby should have its mother's milk if possible. Do not allow the little stomach to be weakened while waiting the first few days for the mother's milk to come in, by feeding anything more than a little hot water, unless the doctor directs otherwise.

Feeding

If the mother can nurse only part of the time, or not at all, a little pure weak milk may be given. The milk used should be fresh, drawn from a washed and dried udder and teats, into a clean, scalded, sunned dish, then cooled at once, and not left to stand in the stable at all. Strain a quart into a clean jar. After it has set an hour, take one tablespoonful off the top, dilute it with two tablespoonfuls of boiled water, or until watery looking, and sweeten slightly. Stir the cream down in the jar each time before using. Bottles, nipples, and all baby's milk dishes should be washed daily with washing-soda and hot water (after rinsing with cold), scalded, drained, and sunned when possible.

Goat's milk resembles mother's milk nearer than cow's milk, and can be used instead with better results, if the same care is taken of the dishes, etc., that has been mentioned with regard to cow's milk. Goats should not, however, be allowed to nibble weeds around drains, nor encouraged to eat poison-ivy; even if it is good for the land, it will spoil the milk for the baby. Running the animal, beating or frightening it, will also make the milk unfit for use, just as the same things will do for a cow, or as worry or overwork will do for the human mother.

What will agree with one baby will not always agree with his brother. If the baby's stomach refuses to give him sufficient nourishment with one food, keep on changing until one is tried that makes his bowels better, and he begins to gain

on it. Then if he gets sick again, give barley-water, and return to his food as soon as he is a little better. Make the food very weak if necessary. Plain milk or drug-store foods can be mixed with barley-water instead of boiled water to make them stronger. If baby is not doing well on his food, it is best to consult a good physician.

After three months the slightly beaten white of a fresh egg can be added once a day to a bottle of food at the right temperature to drink. Orange-juice or fresh grape-juice should be given bottle babies between feedings; begin with a few drops, gradually increasing the amount.

When five or six months old, the baby can be fed long-cooked, strained cereal gruels, rice- or barley-water, by bottle or spoon, to give extra nourishment. A teething baby can get some nutriment from pretzels, dry bread, crusts, or toast. These are better than rubber or bone toys to chew on.

By about the ninth or tenth month a well baby can have thicker cereals, dry bread or toast, crumbled, and moistened with meat broth, baby food, good milk, or orange-juice. When the baby is a year old, add a mealy roasted potato, the white of an egg lightly cooked, and toast with sweet butter. At eighteen months, use scraped raw apple and baked apple; mashed or roasted potatoes; scrambled or very soft-boiled or poached eggs; spinach or young peas, in their season, rubbed fine.

Drinking too much milk makes a baby too fat, and weakens the muscles, so he is apt to be late in walking. Babies do not require meat nor general table food. A little rice pudding, corn-starch, gelatin, sponge-cake, or a piece of candy, can be given a well child one and one-half or two years old, after dinner.

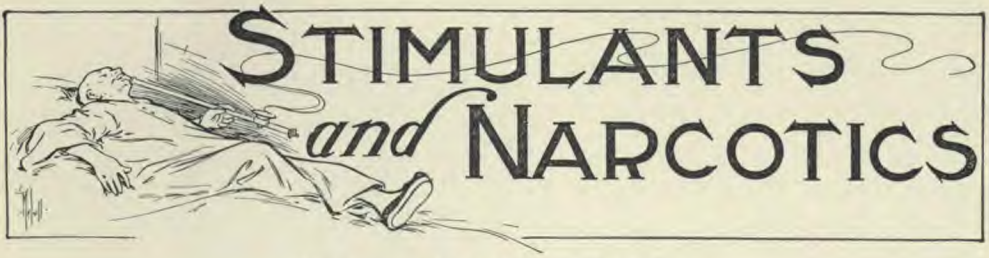
"WHAT FOOLS THESE MORTALS BE!"

(*Concluded from page 669*)

aided and abetted them at it, and sat there and enjoyed it all, feeling a certain snug complacence and satisfaction in seeing every one *happy*.

And only to-day did it occur to me how sanely I had acted in the stable, and how *insanely* in the house. Only *two* apples to the horse, and, figuratively, tons of indigestible truck to those I love best in the world, and whose real good and interest should be my most tender care!

Aye, indeed, "What fools these mortals be!"



THE ALCOHOL FAMILY

A. B. Olsen, M. D., D. P. H.

IT appears that from time immemorial both savages and civilized peoples have been acquainted with alcohol in some form, and have used it in various kinds of intoxicating beverages. History tells us that the ancient Hebrews, Egyptians, Greeks, and Romans, yes, and the Chinese and Hindus too, very early in their development discovered alcohol and soon became familiar with its use. In the first place, alcohol was probably obtained by the spontaneous fermentation of fruit-juice of one kind or another. It is a well-known fact that fruit-juice of any sort keeps fresh only a few days; then it begins to decompose by a special process called fermentation, and a portion of its sugar is broken up and changed into alcohol.

Definition

It would be difficult to formulate a better or more accurate definition of alcohol than the following from the Standard Dictionary: "A volatile, inflammable, colorless liquid of a penetrating odor and burning taste, found diluted in fermented sugar or starchy substances, from which it is obtained by repeated rectification; the intoxicating principle of wines and liquors; ethyl alcohol; aqua vitæ." In this connection rectification means distilling the fluid containing alcohol in order to obtain it in a pure state. The Latin phrase, *aqua vitæ*, literally means the "water of life." "In the twelfth century," according to Sir Walter Gilbey, Bart., "when Henry II invaded and conquered Ireland, the inhabitants were in the habit of making an alcoholic liquor called *usqebagh* (*uisgebeatha*, or water of life), a term since corrupted into whisky, which is therefore synonymous with the classical aqua vitæ.

The Indians of North America were not nearly so favorably impressed with alcoholic beverages; for they give all such drinks the significant name fire-water, not at all inappropriate considering the penetrating and burning taste to which the definition calls attention.

Derivation

The word alcohol has a very interesting history, which furnishes a good example of how, in the course of time, the meaning of a word may become more or less completely changed, and take on an altogether new and unexpected significance. The term alcohol, also spelled alcohole and alkohol, is the same in the French, Spanish, Portuguese, and Italian languages. It is derived from the medieval Latin alcohol; "originally, in the sense of a fine, impalpable powder, black sulphid of antimony, afterward extended to any fine powder, . . . then to essence, quintessence, or spirit, especially the rectified spirits of wine, and finally used as at present." The word is derived from the "Arabic, *al-koh'l*, from *al*, the, *koh'l*, the fine powder of antimony, used in the East to paint the eyebrows, from *kahala*, stain paint." It is thus evident that the word alcohol is a very ancient one, coming to us almost unchanged from the Arabic language.

The Alcohol Series

Ordinary alcohol is only one of a series of sister fluids. At the risk of becoming technical, I shall append herewith a few varieties of the alcohol family, and also

give their chemical composition, so as to show the intimate relationship which exists between the various members of the group.

Let me explain to begin with that the symbols used stand for different elements as follows: —

C is the chemical sign for carbon.

H stands for hydrogen.

O is for oxygen.

The figures 2, 3, 4, etc., and 5, 7, 9, etc., simply indicate the number of atoms of these elements which are bound together with oxygen to form the respective fluids. I quote from "Foods; Their Composition and Analysis," by A. Wynter Blyth, M. R. C. S., M. O. H., and I have added to this table the "Toxic Doses per Kilogram of Animal" from "Diet and Dietetics," by Gautier: —

ALCOHOLS	FORMULA	GRAMS PER KILOGRAM
Wood-spirit, or methyl alcohol	CH_3OH	7.0
Spirit of wine, or ethyl alcohol	C_2H_5OH	7.75
Trityl, or propyl, alcohol	C_3H_7OH	3.8
Tetryl, or butyl, alcohol	C_4H_9OH	2.0
Fusel-oil, or amyl alcohol	$C_5H_{11}OH$	1.6

The first in the list — wood-spirit, or methyl alcohol — is used largely in commerce and in various industries, but is rarely taken as an intoxicating drink except in the case of the most depraved drunkards. The second in the series, C_2H_5OH, represents the ordinary alcohol or spirit which is so widely taken throughout the civilized and uncivilized world in the form of almost innumerable more or less intoxicating drinks, and it is also utilized in certain industries. The last in the series, fusel-oil, is an exceedingly poisonous variety of alcohol, and is not used as a beverage in any form.

Of the above series, ordinary alcohol is the least toxic, or poisonous, and therefore requires a larger dose to produce fatal effects. Of course, the size of this dose depends very largely upon the physical conditions and resistance power of the animal; in this particular case it was a dog, and the figures given must be looked upon as an average. Next comes methyl spirit, which does not differ very greatly from ordinary spirit as far as its poisonous qualities are concerned. Each succeeding member of the series is increasingly poisonous, and a much smaller amount causes death.

Gautier further states that "1.5 grams to 3 grams of ethyl alcohol per kilogram weight of the body, cause transitory drunkenness; at 6 grams the results are very severe, and death comes in two or three days." I should explain that one gram is equal to about 15.5 grains, and that a kilogram is about 2.2 pounds.

The Preparation of Alcohol

We are now considering ordinary alcohol, or spirit. This is always produced, in the ordinary beverages in which it is found, from the fermentation of sugar by yeast, according to the well-known equation: —

$$C_6H_{12}O_6 = 2CO_2 + 2C_2H_5OH$$

(sugar) (carbon dioxid) (alcohol)

There are different kinds of sugar, and different varieties of yeast, but the essential process, whereby the sugar is broken up and carbon dioxid and alcohol are obtained, is the same. I may say in passing that carbon dioxid is one of the chief wastes of the human body, the bulk of it passing from the lungs out through the breath. Fermentation is a destructive change which is in reality a form of decay, decomposition, or putrefaction. Sugar, which is a concentrated and consequently a very nourishing food, is destroyed, and its place is taken by a more or less poisonous gas which is dangerous to breathe, and a poisonous liquid, the drinking of which harms the body in proportion to the quantity taken. In order to obtain alcohol from any one of the fluids which has been undergoing fermentation, all that is necessary is to distil and redistil it until one gets the alcohol in an almost pure form. Beer, ale, stout, and similar drinks, as well as

wines, are sold in the form in which they are produced without distillation; but whisky and other strong alcoholic beverages require distillation in order to obtain the large proportion of alcohol present.

As we all know, yeast is simply a mass of living organisms, the yeast-plant being made up of yeast-cells. They belong to the vegetable kingdom, and each cell is an entity by itself, and possesses the various essential properties of life. The cell increases in number, or multiplies, by a curious process known as budding. In other words, tiny projections appear, as shown in the accompanying illustration; and these little bodies, which are called buds, ultimately become fully developed yeast-cells. Sugar appears to be the natural food of the yeast-cell, and in its presence, together with moisture and a certain degree of warmth, both of which are essential, the yeast-cell thrives and multiplies enormously. Sugar is a food, while carbon dioxid and alcohol are the chief waste products which are constantly being discharged by the cells in their process of nutrition. The yeast-cell eagerly accepts sugar as its food, and looks upon both the gas and the alcohol as matter for excretion. If the alcohol and the gas are removed as they are formed, the yeast-cells continue feeding upon the sugar almost indefinitely; but if these wastes are not removed, the process soon comes to a standstill, and the cells themselves seem to be benumbed by the poisonous influence of the alcohol, and cease activity.

Yeast. *a*, yeast-cell, with spores forming. *b*, *b*, yeast-plant, showing formation of buds.

Restaurant-Keepers Must Not Serve Drinks

RESTAURANT-KEEPERS in Iowa can not serve drinks to their patrons, nor permit them to send a waiter out for liquor to be used in connection with their meals. This is a recent ruling of the Iowa Supreme Court.

No Drinking in the Canadian Navy

THE use of alcoholic liquors in any form or shape has been forbidden in the Canadian navy. This prohibition also applies in the British navy. Some governments, at least, are learning that it does not pay to spend millions of dollars for a war-ship, and man it with men who dabble in liquor.

Alcohol and Pneumonia and Other Diseases

WE have it on competent authority, says the *Journal of Inebriety*, that fully eighty per cent of all cases of pneumonia have a history of the chronic use of alcohol.

Diphtheria, typhoid fever, and other infectious diseases are much more fatal in alcoholic cases than in others.

Alcohol is given by the report of the English lunacy commissioners as the third most active cause of insanity.

Wisconsin Saloon-Keepers Seeking for Law

THE Wisconsin saloon-keepers have been trying to obtain a law imposing heavy penalties on minors who purchase intoxicating liquors under false pretenses. Presumably, they are doing this for their own protection, for I never knew of any saloon-keeper who objected to minors drinking.

The Saloon and Vice

REV. WALTER L. SUMNER, who was at the head of the Chicago Vice Commission, and who has never been known as a temperance advocate, recently gave voice to the following expressions: "I have never been in a saloon fight, and I approach the subject without bias. I think the vice commission has as a whole approached the subject without bias. We came to the conclusion that there is no more damnable institution than the saloon as at present conducted. It is the one thing that is breaking down our political system. It is the one thing in every community that is breaking down the community. We found that it is the greatest supporter of the social evil, and we found that the saloons make on the liquor furnished to houses of ill fame $8,000,000 a year. Is it any wonder that the saloon is in favor of the traffic, and that it supports the social evil? It protects the houses, and assists in every way possible to keep the traffic going."

EGGS

George E. Cornforth

THE question why we use milk, which is an animal product, was considered in the preceding article. We are sometimes asked a similar question about eggs,— why we eat eggs, but do not eat chicken. We believe that the only eggs fit to be used are strictly fresh ones, laid by hens that are fed upon wholesome food, and not allowed to feed upon filth and garbage. Eggs have not been alive, and do not contain the waste products of life; and if they have been produced under the conditions named, they contain neither disease germs nor the poisonous products of decomposition. But when we consider the difficulty of obtaining such eggs, we must regard ordinary eggs as a more questionable source of nourishment than fruits, nuts, grains, and vegetables.

FOOD VALUE OF COOKED EGGS IN CALORIES PER OUNCE

	PRO.	FAT	CAR.	TOTAL
Whole egg	16.2	31.7		47.9
Egg white	15.1	.5		15.6
Egg yolk	18.7	87.9		106.6

By weighing a number of eggs, I have found that one egg white weighs one ounce. Therefore the following is the —

FOOD VALUE OF ONE EGG WHITE IN CALORIES

PRO.	FAT	CAR.	TOTAL
15.1	.55		15.6

One egg yolk weighs six ounces; therefore the following is the —

FOOD VALUE OF ONE EGG YOLK IN CALORIES

PRO.	FAT	CAR.	TOTAL
11.2	52.7		63.9

FOOD VALUE OF ONE WHOLE EGG IN CALORIES

PRO.	FAT	CAR.	TOTAL
26.3	53.2		79.5

By comparing these figures with the table given in the first article on "Legumes," and remembering the statement that cooked legumes are about one third as nutritious as the dry ones, it will be seen that eggs are one of the most concentrated forms of nitrogenous food, containing considerable fat also. They rank next to meat in this respect. In fact, eggs closely resemble meat in nutritive value, being richer in fat and poorer in protein than medium fat meat. This places them among meat substitutes. But let us not forget that nuts are much higher in nutritive value than any other food except the oils and fats.

These figures also show that the white of egg is almost pure albumen, one form of the protein, or nitrogenous, food element, containing very little fat; while the yolk is rich in fat. The white consists of a solution of albumen encased in minute sacks, or cells. When the white is beaten, the sacks are broken, and the albumen, being viscous, or sticky, catches air, and increases to many times its bulk when unbeaten. The beating makes the egg white a little more digestible, because the sacks are a slight hindrance to the digestion of their contents.

The yolk of the egg contains less water than the white, considerable fat, and a little more nitrogenous matter and mineral matter. The fats are in the form of an emulsion, hence very easily digested. Eggs are rich in some of the mineral elements which are most important to the body, namely, iron, phosphorus, and lime; and these minerals are in organic combination, and prepared for the use of the body, while iron and phosphorus in the form of drugs are not so organized. Eggs, especially the yolk, are therefore a valuable food for anemic

and nervous persons, also persons suffering from tuberculosis. But we do not think it advisable to give tuberculosis patients such large quantities of eggs that they take a great excess of the protein food element. White of egg contains sulphur also, which is the substance that discolors silverware. There is no foundation in fact for the belief that eggs with dark shells are richer than eggs with light shells, for they do not differ in composition.

Eight or ten eggs are about equal in nutritive value to one pound of medium fat meat. Therefore when eggs are cheap, they are a cheaper source of nourishment than meat; and when they are moderate in price, they are about equal to meat in that respect.

The age of an egg may be determined by placing it in a glass of water. If it is fresh, it will lie on its side in the bottom of the glass. If it is three weeks old, the large end will be slightly raised. If it is three months old, it will stand upright in the water, the small end resting on the bottom of the glass. If considerably older than this, the egg will float on the top of the water. If the egg has been preserved in some way, it will probably be older than this would indicate.

Eggs are caused to spoil by germs that make their way through the shell, which is porous. The water in the egg also slowly evaporates with age. To preserve eggs, then, they must be protected from germs and from evaporation. The usual method of keeping eggs on a large scale is by cold storage. For home use, the best way of preserving eggs is by the use of silicate of soda, or water glass. Use perfectly fresh, clean eggs, but do not wash them. Pack them in a crock, and cover them with a solution of one part silicate of soda to ten parts of water that has been boiled and cooled. Put a cover on the crock, and put away in a cool place. The silicate of soda can be obtained at a drug store. Eggs preserved in this way will keep six or eight months. The flavor of the egg is not affected. They will be found to be as good as store eggs. If it is desired to boil them, the shell should be pierced with a needle. When using a number of eggs, always break each separately into a small dish to avoid spoiling the whole by any stale egg that might be in the lot.

To separate the yolk from the white of an egg, break the shell gently in the middle either with a knife or by tapping the egg against the edge of the dish into which the white is to be put, open slightly, and allow the white to run out. Turn the yolk from one half of the shell to the other till all the white has run out. Be sure that not a particle of the yolk gets into the white, because this will prevent it from beating very stiff. Also be sure that not a particle of oil or cream or milk or anything greasy gets into the white, or is in the bowl or on the beater; for these will prevent the white from stiffening. Also have the white cold. Never beat the whites till you are ready to use them, because they gradually go back to the unbeaten state, and it is not possible to beat them stiff a second time. If you have whites or yolks left over, the whites may be kept, unbeaten, in a glass or bowl in the refrigerator or in a cold place; and left-over yolks may be kept nicely by covering them with water. The water should be poured off when the yolks are to be used.

It is sometimes convenient to know the weight and measurement of eggs. They are as follows: —

9 eggs weigh about one pound
5 eggs equal one cup
9 egg whites equal one cup
12 egg yolks equal one cup

A little experimenting with the white of an egg will help us to understand better its composition, and will teach us how eggs should be cooked to make them most digestible. Slightly beat the white of an egg; or, better, put it on a plate, and with two knives thoroughly cut it up by crossing the knives like scissors, with the cutting edges toward each other, resting the ends of the knives in the egg white on the plate, and then drawing the knives together and past each other. Stir a teaspoonful of this cut-up egg white

A dish in which to poach eggs; a skimmer with which to remove the eggs from the water; and a poached egg on corn flakes, garnished with two sprigs of parsley.

into one-half glass of cold water, and let it stand. You will then see the little bluish-white sacks in which the albumen was contained. They are called albuminin. Strain the mixture through several thicknesses of cheese-cloth. This removes the albuminin, and you have a clear liquid left. You might think there is no albumen left in the water. If there is any, it must be in a state of solution. Heat this water over hot water. The whitening and thickening shows that albumen is present.

Put a little of the cut-up egg white into hot water, then bring the water to a boil. The albumen turns white and becomes hard, and the hotter the water and the longer the boiling, the tougher it becomes. The tougher the white, the less easily it is dissolved by the digestive juices. This teaches us that to cook an egg so as to have the white most digestible, it should be cooked at a temperature that is high enough to coagulate it, but not high enough to toughen it.

Albumen begins to coagulate at 145° F. It sets into a jelly at 165° F., and becomes hard and tough at the boiling-point of water, 212° F.; therefore, to be most digestible, eggs should not be boiled nor fried. They should be cooked at a temperature below the boiling-point of water.

Dropped, or Poached Eggs

Use a basin about six or eight inches across, and from two to two and one-half inches deep. Have it full of hot, not boiling, water, salted with one-half teaspoonful salt to one quart of water. Break the eggs into a small dish, then slide them into the water. Let them cook till the white is set, then with a small skimmer remove the eggs from the water to a hot dish, or serve them on zwieback that has been dipped in hot cream. Oiled muffin-rings may be put into the water, and the eggs dropped into them to hold them in shape better. Or an egg-poacher may be used. Do not try to poach eggs in barely enough water to cover them. The water should be one and one-half inches deep, or deeper. Dropped eggs may also be served on toasted corn flakes, or hash, or in nests of boiled rice or mashed potato.

Eggs Cooked in the Shell

Put the eggs into water at 165° F. by the thermometer, and leave them five minutes if desired very soft, eight minutes if desired medium, or longer if desired hard. The white of the egg will be of a jelly-like consistency resembling soft custard, in which condition it is more easily digested than when raw. If it is desired to keep the eggs hot after they are cooked, the temperature of the water should be reduced to 145° F., at which temperature they will cook no more. To obtain this result without the use of the thermometer, use one and one-half cups of water for each egg to be cooked. Have the water in a dish in which it will be deep enough to cover all the eggs, and which has a tight-fitting cover. Bring the water to a boil. Set the dish off the stove. Put the eggs into the water. Put the cover on the dish, and allow the eggs to remain in the water from five to ten minutes, according to how much it is desired to cook them.

The yolk of an egg is most digestible when hard and mealy. To cook the yolk thus the eggs should be boiled about three hours. The white may then be made digestible by grinding to a powder through a food-chopper, using the nut-butter cutter, or by rubbing through a very fine sieve. Or separate the white from the yolk of the egg, and steam or boil the yolk for three hours.

EDITORIAL

"THE DAWN OF THE HEALTH AGE"

THE aptness of the above expression, which was used as the title of a recent book, will be apparent to those who realize the significance of the fact that the Fifteenth International Congress of Hygiene and Demography, recently held in Washington, D. C., was the most cosmopolitan meeting ever convened in this country. No occasion, no gathering of any kind, has ever drawn such a representative company of distinguished men from all quarters of the globe as has this congress. The only congress that has ever approached it in this respect was the International Congress on Tuberculosis, held in Washington in 1909. Every country of any note was represented among the three thousand delegates and members of the recent congress.

That eminent scientists from every continent and every clime, and from every country of any importance, should make the trip to America, in some cases covering immense distances, to have part in the deliberations of this congress, is significant of the aroused interest in all parts of the world in the subject of hygiene, and in itself justifies the appropriateness of the expression, "The Dawn of the Health Age."

* * *

This does not mean that we have arrived at the time when everybody is to have good health, or even when everybody is to do all he might to avoid disease and promote vigorous health; but it does mean that there has been an awakening among the intelligent of all nations to the fact that disease is very largely preventable, and to the importance of systematic and united study into the causes of diseases and their means of prevention. Already great strides have been made in the conquest of disease. We no longer think of bad air, or even of bad water, as a cause of malaria, as was the case not so very long ago, because we now know definitely that malaria is always caused by a minute animal organism, and that this organism is transmitted to man through the bite of a certain species of mosquito. Thus we have also definite knowledge regarding the hookworm, and we are in a position absolutely to stamp it out just as fast as the people can be taught to cooperate. So we know definitely that plague, formerly supposed to be a visitation from God, is caused by a certain microorganism, and that ordinarily this organism is transmitted from the rat to man by means of the rat flea. Here, again, the problem of eradication is one of sanitation, or in other words of decent cleanliness, in cellar and storeroom and stable, as well as in the parlor. If these diseases come as a visitation, it is as a punishment for that kind of "housekeeping" which specializes on the rooms the guests are likely to see, and neglects the others. This much our study of modern hygiene has taught us. We have learned that the rat is an enemy, the fly is an enemy, the flea is an enemy, and that the insects and vermin that mean careless housekeeping also mean disease. And so we might go on to enumerate; but there are still other and grave problems to be solved, such as the nature and cause of pellagra and some other diseases, and, possibly even more perplexing, how to get the mass of the people to put into practise the knowledge we already possess.

The opening address by President Taft has been characterized as one of the most vigorous of his career in the White House; and certainly no President has had such opportunity to study hygiene and sanitation at first hand as has Mr. Taft. With his personal experience in the Philippines, in Cuba, and in connection with the Panama Canal, he has been led to appreciate as few men, perhaps even among physicians, the importance of an organized campaign for the prevention of unnecessary disease. Mr. Taft was enthusiastically cheered at intervals during his address, but at no time more appreciatively than when he spoke of this international congress of scientific hygienists as making for universal peace.

But though this international body, through the better understanding and cooperation it is bringing about between different nations, is making for universal peace, it is to war, according to President Taft — the Spanish war — that we owe our first impetus in America to establish a really efficient organized public health work. By this I suppose he refers to the governmental work, for the American Public Health Association has been in existence and doing good work for forty years, and the International Hygiene Congress has been meeting at intervals for about the same length of time, heretofore always in Europe. "Out of war," said Mr. Taft, "of very short duration and of comparatively little importance in the number of men engaged, the cost, and the lives lost, had come to this country a series of problems, the most important of which included questions of sanitation, the transmission and cure of tropical diseases, the adoption and enforcement of a system of hygienic law, and the establishment in the tropics of governmental institutions of research by army, navy, and civilian physicians, which have brought to the attention of the whole country the necessity for wide-spread reform."

Doubtless this war has exerted a marked influence on the progress of hygiene in this country; but possibly the President, from his viewpoint, has taken rather an exaggerated view of it, as we may surmise from the fact that the immense progress of hygiene in this country is fully paralleled by that of other countries. It is indeed the dawn of the health age, not only for the United States, but for civilization; but as yet, it is only the dawn.

That this hygiene congress will indeed inaugurate the dawn of the health age for the United States, we may safely predict from past experiences; for in each country where an international congress has been held in the past, there has been a remarkable awakening on the subject of hygiene, and by that I refer to those branches of hygiene that have to do with the prevention of transmissible diseases and the prevention of infant mortality. That such an awakening will also take place in this country we may safely predict; for as a famous surgeon from abroad has just said regarding surgery, and possibly the remark applies elsewhere, "You Americans do not originate much, but you certainly carry to perfection that which you borrow from over the water." It can not be truly said that in the matter of hygiene and sanitation the American physicians have originated nothing. Their record will stand proudly beside the accomplishments of other nations. But our men will doubtless carry to perfection what has come to them through meeting the world's hygienists at this congress.

The International Hygiene Congress

THE congress consisted of nine sections and two subsections. The first section discussed the relationship of germs and parasites to disease, and considered such diseases as infantile paralysis and hookworm disease, and other topics less familiar, though no less important, to the layman. The second section, Dietetic Hygiene and Hygienic Physiology, was devoted quite largely to physiology, and so far as a hygiene congress is concerned, most of the papers considered in the section were of only academic interest.

Another and important section was that devoted to the Hygiene of Infancy and Childhood, and School Hygiene, and under this was the subsection on Mental Hygiene, to which was devoted only one forenoon, though the general interest in the subject indicates that in future congresses it may be thought advisable to devote an entire section to this topic.

The fourth section, Hygiene of Occupations, or, as we sometimes call it, industrial hygiene, received attention commensurate with its importance.

The fifth section, on the Control of Infectious Diseases, while apparently overlapping the work of section one, in reality dealt with the administrative features, the what-to-do and how-to-do-it, whereas the work of the first section was rather in the nature of a laboratory inquiry into bacteria, serums, vaccines, and the like.

The sixth section, State and Municipal Hygiene, as its name would indicate, had to do with the work of the health officers.

The seventh section related to the somewhat neglected but very important subject of the Hygiene of Traffic and Transportation. It dealt with the sanitation of cars, and the prevention of the transmission of infection by rail or water.

The eighth section, on Military, Naval, and Tropical Hygiene, was related to the problem of making inhabitable those parts of the earth which have in the past been familiarly known, because of their extreme unhealthfulness, as "the white man's grave," and of improving the sanitary conditions wherever our men may be sent. This section represented the work we have done and are now doing in Panama, in the Philippines, in Porto Rico, and the South, and what we have done in Cuba, to make all these countries more inhabitable.

Section nine had to do with vital statistics. In this section was considered the importance of adequate laws providing for the compulsory reporting of all births, deaths, etc., without which it is impossible to prepare adequate statistics, and to compile figures from which to study the effects en masse of various conditions of living. It is a matter not to be proud of that the United States is behind all other civilized nations in the matter of its vital statistics. In this respect, we stand on a level with Turkey and China. It is true that a certain proportion of States have adequate registration laws, and the statistics from this registration area are valuable as far as they go; but every State should have such laws.

* * *

Red Cross Christmas Seals

ELSEWHERE we have given a few items of interest in connection with the Red Cross Seal campaign, and we wish further to call the attention of our readers to this worthy movement. It is somewhat remarkable how well the people have in the last few years responded to this excellent plan for raising money with which to combat the ravages of the white plague. Doubtless one reason for this ready response is that the funds so col-

lected are afterward used in the community where the seals are sold, so that each buyer contributes to his local work. Two fundamental principles govern the Christmas seal campaign. First, all money derived from the sale, after expenses have been deducted, shall be devoted to the antituberculosis work. Second, this money shall be spent in the community where the seals are sold. The American Red Cross simply acts as a central supply and distribution agency.

Inasmuch as the money derived from the sale is devoted entirely to tuberculosis work, practically all the State and local agencies carrying on the sale of seals are antituberculosis associations, affiliated with the National Association for the Study and Prevention of Tuberculosis. This latter association devoted much of its energy during the fall months to the promotion of the sale of Red Cross Seals, working in cooperation with the American Red Cross.

A prominent leader in antituberculosis work in a Western State, where the Red Cross Seal campaign is always a particularly vigorous one, says that if his association did not realize one cent profit from the sale, and even if they lost money, he and his associates would consider all of their labor amply repaid because of the educational value of the seal movement. This testimony will be approved and duplicated by scores of antituberculosis workers.

The Red Cross Seal is indeed more than a money getter. It affords one of the best possible mediums for educating the public on the prevention of tuberculosis. The prevention of tuberculosis demands money, it is true, but it demands also intelligent, earnest, public cooperation. The Red Cross Seal furnishes both of these. The National Association for the Study and Prevention of Tuberculosis hopes that its usefulness will long continue.

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Insurance and Health

ONE may be sure that the insurance companies in their propaganda are working principally and fundamentally for the lengthening of life. The fewer the deaths, the smaller the premiums necessary in order to keep the policies paid up, and hence the greater the amount of business the insurance companies can do. That, we may say, is the business side. The other side is that these companies see that they have the means of increasing the general length of life without great cost to themselves by a campaign of education; and the most progressive of the companies are taking this opportunity to conduct a propaganda for health. It is not altogether a matter of self-interest.

As a part of this propaganda, the Postal (and doubtless other companies) is advising its policy-holders to write to their congressmen, urging the passage of the Owen Bill. Life insurance men know that an efficient federal health department will have an influence in lengthening the average of life. The health service of the federal government, having control of our great seaports and the incoming immigrants, and having also a large responsibility in the prevention of the entrance of yellow fever and other tropical diseases, should be made as efficient as possible.

It is an absurdity to have the health work of the government divided among three or four petty bureaus or subbureaus segregated in different departments, whose interest is mainly financial or agricultural or anything else in the world but health.

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Getting Ready for the Scrap-Heap

SOME of the most forceful sermons on the importance of caring for the vitality when there is apparently a superabundance of life and energy, are hid away in medical books, where they are not likely to meet the eye of the ordinary reader. Dr. L. F. Bishop, an authority on diseases of the heart and circulation, some time ago published for the use of the medical profession, a small book on blood pressure,[1] in which is given the

[1] "Heart-Disease and Blood Pressure," E. B. Treat and Company, New York, 1907.

following, containing a lesson which many a young man would do well to heed: —

"I was much struck recently by a description of his own case as given by a gentleman who has achieved success in life through the able manner in which he has managed a railroad. He is suffering from circulatory failure, and says: 'I think I am like one of the old engines on my railroad,— about ready for the scrap-heap. You may be able to patch me up and keep me going for a little while, but you can not make me new again.' He said that when an engine first came out of the shop, it could do two hundred miles a day, and at the end be just as good as at the start. After a while there would be a little leak in one of the valves, and it would have to go to the shop to be repaired. Later on another valve would leak, and then there would be trouble with the fire-box. When this once began, though each time the engine came out of the shop it would appear to be all right, it would always be going back again, and at the end of a hundred miles one might always expect something to be wrong. He said further: 'I employ a master mechanic to overhaul the engines every morning, and in this way we manage to keep them going, even though they are old; but there always comes a time when repairs do not pay, and then they are sent to the scrap-heap.'

"There is something about a piece of machinery that has borne the stress of hard usage that is very like the behavior of the human body under the same conditions. It pays in the long run to buy new machinery, and it would certainly pay to get a new body if it were possible. A new automobile can be managed and kept running by one of little experience; but to keep an old one running requires the knowledge of an expert."

A moral at the end of a story is often odious. It reflects on the intelligence of the reader, who usually feels capable of drawing his own moral. I shall risk the odium of saying that as an automobile or an engine does not show hard usage while it is new, but if used carelessly it sooner gets to that condition where it must constantly have skilled attention to keep it going, and sooner reaches that final condition where it must go to the scrap-heap, so the human body. The hardest lesson for a young person to learn is that a wild life, or a too-strenuous life, or a too-indulgent life, may be hurting him permanently, even though he can not perceive any immediate ill effects. He is hastening the time when it will take the greatest care on his part, and the most skilled of medical assistance, to keep him off the scrap-heap for a little longer.

* * *

Cotton Versus Wool Undergarments

We have for a long time had a decided preference for cotton underwear, though in the face of some of the august authorities that uphold wool, we have not spoken very plainly on the subject. We are pleased to note that the editor of *American Medicine* is with us on this subject. He says in a recent issue: —

"The use of wool next to the skin seems to be disappearing, and the use of vegetable fibers becoming more common. Cotton absorbs extra perspiration like a towel [I wish it did here in Washington.— Ed.], and evaporates it to the outer layers much more quickly than wool, which becomes sodden. The woolen garments then seem to keep the skin too wet, and subject to colds from chilling, while the skin under cotton is [more likely to be.—Ed.] dry. Wool seems to be designed by nature to keep outer dampness from reaching the skin, and no wool-clothed animal has sweat glands. So the ideal cold-weather clothing seems to be cotton undergarments and wool outer garments, but all varying in weight and number of layers sufficient to retain warmth, but to keep the skin dry."

There has been much made of woolen because of its great power to absorb water, and its tendency to give it off very slowly, and thus avoid the danger of chilling from too sudden evaporation. But the outer garments can attend to this.

* * *

A Grave Warning

Dr. Howard D. King, instructor in tropical medicine in the Tulane University, a man who is an authority on this subject, says: —

"The United States is to-day confronted with a problem of momentous import, and one whose very gravity should awaken the entire country from north to south, east to west, to immediate action,— the danger of plague invasion. Plague has manifested itself in Porto Rico, an American possession, and Cuba, an American dependency, two of the principal islands of the West Indies. No longer may we consider it a disease only of the Old World."

"The idea of plague ever ravaging the Mississippi Valley or sweeping the Atlantic seaboard of this country, may be dismissed by some persons as an unfounded fancy, notwithstanding the preponderance of proof to the contrary. It is my opinion that the sections

of the United States above mentioned will yet have that problem for solution."

As an evidence that this is not merely a cry of the alarmist, it may be stated that the Public Health and Marine Hospital Service is making strenuous efforts to awaken the public to the importance of exterminating rats and other rodents.

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Vaccination Versus Smallpox

THIS nasty virus that the cowpox doctors put into our helpless children is a terrible thing, if we may believe the testimony of some well-meaning persons; but it is well enough once in a while to consider the other side. For some months there had been in Los Angeles, Cal., a mild epidemic of smallpox, similar to that existing in many other parts of the country; but recently the disease took a malignant form, the mortality reaching twenty-four per cent. One case in this epidemic, mentioned in *Public Health Reports,* August 30, is significant. To quote: —

"In one family in Los Angeles the father and three children, none of whom had ever been vaccinated, were attacked. Three of these cases ended fatally. The mother, who was the only member of the family who had ever been vaccinated, was the only one who did not contract the disease. None of the other fatal cases in the city were in persons who had ever been successfully vaccinated."

A few lessons may be drawn from this epidemic. First, we should not, on account of the present mildness of the disease, come to think that smallpox is a disease that we need no longer protect ourselves against. A disease which is capable of showing a mortality of from twenty-four to sixty-seven per cent is not entirely harmless. Second, it is sometimes very fortunate for a person that he has been "poisoned" with some of that "terrible and nasty virus," the very mention of which is to some people what a red rag is to a mad bull. We showed in a recent issue the pictures of some children, protected by vaccination, who remained in contact with others not protected, who had contracted smallpox, the vaccinated ones escaping the disease, which ended fatally with some of the unvaccinated ones. Such incidents have a significance for people who think and who are not carried off their feet by epithets.

WELFARE WORK FOR CHILDREN

(*Concluded from page 672*)

child can obtain rest and recuperation, and where the mother incidentally learns how to care for the child. As it is not convenient for all mothers and babies to go to the summer camps, summer tents have been pitched on the roof of the day-nursery and elsewhere, and here the same lessons in child welfare are conducted under favorable conditions.

The child receives proper care, and the mother learns the value of sunshine and air. She is taught that there is wisdom in ample but proper feeding.

The essentials for the betterment of her children are made plain to her by practical lessons. She sees the improvement under the nursery methods; she notes the effect of the daily bath, the pure and wholesome food, given with regularity and with care, and notices the comfort of the child when properly clothed and cared for. She sees the necessity for sufficient air in the home, both day and night, and comes to understand that there is an unlimited amount of good to be gained from proper care in rearing her offspring.

The practical training under the care of the doctor and the nurse opens her eyes. She now believes possible what she at first thought foolish and an intrusion. Her mother-love and her maternal wisdom have been broadened, and her gratitude has been increased for those who have made possible the well-being of those little ones who are the very mainspring of her life and the cause of her labors and her joys.

THE MEDICAL MISSIONARY AT WORK

A DAY AT THE SOONAN (KOREA) DISPENSARY

Mrs. Ella Camp Russell

THE dispensary hours begin at eleven o'clock as a rule, but at five o'clock this morning I was called to hurry through the flying snow down into the village to the little hut where my most serious case is at present; and from that time until after sunset I have been kept busy. Just to give you an idea of our work, I will go into the details of the day's service.

My early morning call took me to the bedside of a young woman of twenty-two, who is now suffering intensely and unnecessarily as a result of treatment at the hands of a native doctor. Her face was somewhat swollen, so she sought relief from a native who had inherited the right to practise. She was told that "bad blood" was in her face, causing it to swell; and taking from his purse some long, sharp needles, which were wrapped in a soiled rag, and selecting the largest, he said he would draw out the blood, and so cure the patient. She declined, whereupon the members of her household overpowered and held her helpless, while the needle was thrust one hundred times into her face. The blood flowed freely. The treatment failed to give relief, and the swelling continued. So daily for four days the needling was continued, something like three hundred punctures being made in all. Leaving orders that the blood stains should not be washed off the poor woman's face, the doctor returned to his own village.

When I was called, the face was so swollen that the eyes had been closed for four days. I shall not go into the details of my treatment from that time; but this morning I cleaned up the sores; for as the needle was dirty, large abscesses came on the upper and lower eyelids of both eyes and under the chin, and these discharged pus freely.

While at breakfast, another call came to go a mile across the fields to see a case of septic fever, following childbirth. I sent directions, which I hoped would be followed.

The usual number of scabs, and children with worms, came to the dispensary. Children are not well disciplined, and I am frequently called upon to administer the dose of santonin, as the mother confesses she can not make her son "eat the medicine" if she takes it home. I have a powerful ally in Cong Pong Ho, my dispensary boy, in giving the dose.

To-day a stalwart youth of twenty asked me what I thought was the matter with him. "Why, you look well; what do you want?"

"I want some good medicine," he replied.

"What for?" I asked.

"O, sometimes I have a little headache."

"What kind of work do you do?"

"I do not work; I am a student."

"How long have you been a student?"

"Six months."

"Did you work before you were a student?"

"Yes, I was a farmer; but of course

students can not work. I went to see the doctor in Ping-yang, and he said I was not sick."

I told him the same thing, and gave him some good advice. Koreans can eat two quarts or more of cooked rice at a meal, with a quantity of pickled turnips and red pepper. A student of the old Korean school is content to sit on the floor, and commit Chinese characters to memory; if he goes outside, he walks very slowly, and not far.

Then there came a woman with a cataract on each eye; a man who had cut off the end of his thumb; and a baby girl, three years old, suffering from tubercular hip. A young man looking very sick and weak came in, saying he had indigestion. Cong Pong Ho removed his jacket, that I might use the stethoscope. Placing the instrument over his heart, I noticed a bad rash over his chest, arms, and face.

"What is this?" I asked, thinking it might be itch.

"Smallpox."

"Indeed! when did it commence?"

"This week."

"Well, you go out quickly, and stay in your house."

The next few moments were spent in fumigating and vaccinating ourselves.

During the day I saw twenty-six patients at the dispensary, and made three calls, returning from the last one by twilight.

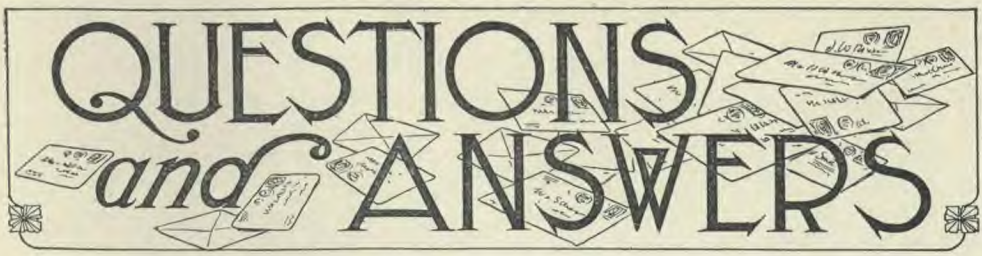
SAMOA

T. Howse

IN my visiting I find many cases of sickness, and where it is possible I give treatment. Not far from where we live a baby was sick, so I treated it, and the next day it was better. I spoke to the mother about her smoking, and told her that she would lose the baby, just as she had lost another, if she did not give up the smoking. She has nearly given it up, and the baby is flourishing, having not a single sore on its body, such as all Samoan children have.

I was asked by a man to come and see his son, as he was sick and had been for some time. He had tried the doctors, but no relief was given. I treated him for three days, and the fever broke, and he is well. These people are afraid of cold water, and especially if they are sick, when they will not bathe for days. One day, being asked to treat a case of fever, I gave a quick, cold bath, and the poor mother looked on as if I were going to kill the child. Had I the time, I could be constantly treating the sick. While visiting a chief whose son had a high fever, I met the doctor and asked his permission to give treatment to relieve the fever, and he willingly gave it. The next morning before I arrived at the village, the boy was asking for another bath. So our work is appreciated, and I know the Lord blesses our feeble efforts.

It is hard for these people to give up their old heathen customs, especially as they have been allowed to follow them and profess Christianity at the same time. They are a people who assent with their mouths, but not with their hearts. We know there is power in the gospel to change even a Samoan's heart, and because of this we labor on, knowing that if we be not weary in well-doing, we shall reap, and our joy will be full, for we shall be joint heirs with Christ in souls saved in the kingdom.



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.

Varicose Veins.—"What is the cause and best treatment for varicose veins?"

The cause is some impairment to the strength of the vessel walls by long standing. For relief, stand as little as possible. Give the vessels support by wearing an elastic stocking. Skilful bandaging from the feet up with a flannel bandage is good, but the elastic stocking gives less trouble. In very bad cases surgery must be resorted to.

Tomatoes.—"I once had a doctor advise me when suffering from torpid liver, to avoid tomatoes. Have you any objection to tomatoes? I have never understood the doctor's reason for telling me to avoid them."

I know of no reason why you should avoid tomatoes unless you have an acid stomach. I do not think a torpid liver would be any reason for not using tomatoes.

Bad Teeth and Bad Health.—"Do you not believe that bad or defective teeth generally are associated with a weak constitution, as the same mineral elements necessary for the making of good teeth are also necessary for the bones? Do you believe that those who have perfect teeth generally have robust health?"

Bad teeth are certainly associated with a weak constitutional condition, and with fragile bones. Bad teeth cause poor nutrition, and poor nutrition in turn causes bad teeth. They work in a circle. People with perfect teeth are more apt to be in good health.

Coryza.—"Can you recommend a remedy that will break up an attack of cold in the head, in a person who is subject to frequent recurrences of this trouble?"

We do not recommend the internal use of drugs for this or for any other disorder, because they are liable to indiscriminate use and to abuse by patients. There is one remedy, hexamethyleneamin, which, because it is partly secreted in the air-passages, has been found to act favorably in coryza, and also in acute bronchitis and in pleurisy. In fact, taken in doses of fifteen grains, *well diluted,* four times a day, it seems to have proved a very good remedy for an "attack of cold." But while this remedy is comparatively harmless in such doses, we should not suggest its use except on the advice of a physician. No remedy confines its effects to one part of the body, and while it is apparently beneficial to one condition, it is just as likely as not to do damage in some other direction. For this reason the self-administration of medicines is to be deplored, for the bad effects of medicine are not always apparent at the time.

Yawning.—"What is the significance of persistent yawning?"

Yawning is a physiological reflex indicating drowsiness or monotony. It is probably the protest of the body against a stagnation of fluids in the tissues. When one yields to the impulse to yawn and uses considerable muscular effort in connection therewith, he feels better afterward. Persistent yawning is present in certain diseased conditions in which the hemoglobin is dissolved out of the red blood-corpuscles and enters the blood (hemoglobinemia). In malaria, which is probably one form of hemoglobinemia, yawning is often present. Most frequently, perhaps, yawning simply indicates sleepiness or need of exercise.

Felt Shoes.—"Please tell me in your Questions and Answers, department whether it is healthful to wear felt shoes."

Where one has a tendency to cold feet, I can see no objection to felt shoes. In fact, for house wear they are decidedly comfortable; and inasmuch as they equalize the circulation, they are to that extent a means of prolonging the lives of old people. For outside wear, they have the disadvantage, unless the soles are protected by some impervious

material, of taking up moisture from the ground. But in the cold weather of the north, where everything is frozen, this objection probably does not exist. Another objection may be that they take up dust and filth easily; but as far as that is concerned, there is probably nothing filthier than the average unventilated leather shoe after it has been used awhile. I do not think the ideal foot-wear has been invented as yet.

Relief of Chilblains.—"What may one do for relief who has a tendency to chilblains?"

Such a tendency may be due in part to an imperfect circulation. Particular care should be taken not to allow the part to be chilled, and if it is chilled, not to warm it too rapidly. For relief of the burning and itching, try painting with tincture of iodin.

Chilblains.—"How may one avoid chilblains?"

Keep the hands and feet warm. Wear thick shoes, and dry, thick stockings. When in the cold, wear warm gloves; and when it is extremely cold, protect the ears. If a part gets badly chilled, warm it slowly. Chilblains result from sudden warming of cold parts by standing over a register or getting near a hot fire.

Calomel.—"Please tell me what the after-effects are of taking calomel?"

Calomel is a preparation of mercury, or quicksilver. There are two chlorids of mercury: the single chlorid is known as calomel; the double chlorid is known as mercuric chlorid, or bichlorid, or corrosive sublimate, which is a pretty violent poison. The calomel in passing through the body is partly transformed into the bichlorid, but only in very small quantity. When small doses of mercury are long continued, or when larger doses are used, symptoms of mercurial poisoning manifest themselves, such as fetid breath, swollen gums, and the like, ordinarily known as salivation. If the use of the drug be continued, nutrition will be greatly impaired. There will be nervous disturbances, emaciation, pallor, ulceration, headache, sleeplessness, and many other symptoms which the user of the drug may not suspect are due to calomel. No one should ever think of attempting self-medication by means of this drug.

Chronic Skin Disease.—"I have received no permanent relief from a very annoying skin disease, which has troubled me for many years. It begins on the lower limbs, and gradually extends all over my body, increasing in intensity between the thighs and over the trunk, breaking out in red spots and pimples as thick as in measles. Scratching only increases its intensity, and I have to leave my bed several times during the night, and apply a strong brine with a sponge, standing uncovered for a short time till relieved by exposing the rash to the cold air. What should you advise me to do? Is there any cure for the trouble, and what is it called?"

I should advise you to see the nearest skin specialist, and be put under his care. This is something that probably can not be cured by home treatment.

Nervous Prostration.—"I have suffered from nervous prostration for many years, and am a nervous wreck. I have received several great shocks at different times; after eating, I bloat, and gas arises from my stomach. I am forty-one years of age."

It would be impossible to treat nervous prostration satisfactorily by mail. The history of the shock does not explain your trouble. Many persons have shocks who do not have nervous prostration. Your best plan is to place yourself in charge of a physician who can carefully study your past history, and learn just what has brought on this trouble.

Your stomach trouble may be due to eating some wrong food; you may not be chewing your food enough; you may be mixing foods that do not agree, such as milk and fruit, or fruit and vegetables. There may be certain kinds of food that do not agree with you, such as apples. Apples will often cause bloating, especially if eaten with the skins, and not chewed thoroughly.

But in the stomach trouble we often find that the teeth are very much neglected, that they are loose or decayed, and that the first thing necessary is to have the mouth put in good order by a competent dentist, and then keep it in order. You can never have good digestion with bad teeth.

Spitting Blood.—"Thirteen years ago I began spitting blood; that is, the sputum was mixed with blood, sometimes just a little yellow, and occasionally a little redder. Of late it is more frequent. It has an offensive smell, makes a bad taste in my mouth, and my breath is bad. I have no cough, and my lungs hardly ever hurt. Overexertion sometimes makes me sore. Can anything be done to better my condition?"

You ought to be under the care of a good physician. A person who has a suspected lung trouble is in no condition to care for himself. However, if you prefer to study your own case, and do what you can for it, you might get one of the following books, either direct from the publishers, or through this office: "Tuberculosis as a Disease of the Masses and How to Combat It," by Knopf; paper, 25 cents; cloth, 50 cents; published by Fred F. Flori, 16 West Ninety-fifth St., New York. "Consumption, Its Prevention and Cure Without Medicine," by Dr. Davis; price, $1; published by E. B. Treat & Co., 241 West Twenty-third St., New York. "The Conquest of Consumption," by Woods Hutchinson; price, $1; published by Houghton Mifflin Co., Boston, Mass. But as stated above, I think the safest plan would be to place yourself under the care of a physician, have a careful examination, and have him give you directions from time to time.

Miss 318; A Story in Season and out of Season, by Rupert Hughes. Fleming H. Revell Company, New York.

This is a Christmas story which has a purpose, a story which will make one's blood boil if he has any blood to boil. Not that the things related are not open to the eyes of every observer, but we are not all observers, and we are all so obsessed by the proposition that "whatever is is right," or at least can not be bettered by us, that we are content to let it pass as a necessary evil.

The campaign for sensible Christmas shopping will receive added impulse from this book, which furnishes a strong incentive to every reader to think of the girls behind the counter, and, by early Christmas shopping and *light* shopping, to perform an act of real Christmas fellowship. It is for the shop-girl what "Black Beauty" was for the horse, what "Uncle Tom's Cabin" was for the slave. Where it is read, it will influence those who have been thoughtless to be more considerate.

Incidentally, it may help some young girls thrown on their own resources to understand some things regarding the dangers surrounding the working girl, which are to their interest to know.

Lame and Lovely; Essays on Religion for Modern Minds; by Frank Crane. Price, $1. Forbes & Co., Chicago.

Opening the book in order to write a criticism, I continued to read it for the real benefit and interest I found in it. Crisp, abounding in metaphor, epigram, and paradox, the brief chapters often carry home conviction by the rudeness with which they jolt one's mass of undigested opinions, which from his youth up he has absorbed without much challenge. This may be a confession, but every one must confess, if he would give the matter thought, that however much he may have used his brain, he has taken many things for granted without testing them, just as we take coins for the reason that they are accepted at par value by others. Mr. Crane has been applying the acid to some of these coins to prove them counterfeit. We may not agree with the author on all points, but we can not help being edified and strengthened by the general tenor of the book.

Control of Heredity, by Casper Lavater Redfield. Alfred C. Clark, publisher, Chicago.

The author gives in simple language a good account of the two dominant theories of human heredity, with a brief historical sketch of former beliefs. He contrasts the views of Lamarck, who believes that acquired characteristics can be transmitted, with those of Weismann, who teaches that heredity is a matter of control altogether by the germ-plasm, and that this is unaffected by the acts of the individual; in other words, that the acts of the parent do not affect the heredity of the progeny. This is the view now generally received by advanced thinkers on the subject; but Mr. Redfield does not accept them, and offers many objections. He contends that Lamarck's theory is the correct one. He says: "We have in Lamarck's laws a clear and distinct statement of the cause of variations, but Lamarck did not give any adequate proof of their truth." He believes that in this book he gives the only adequate proof of the correctness of Lamarck's theory that has been given. To the writer of this review, Mr. Redfield's objections to Weismann's theory, and his proof of the Lamarckian theory, seem inadequate.

Based on the Lamarckian theory, the author has elaborated a system of hereditary control which seems somewhat fantastic. There is silence on the subject of Mendelism, and he does not seem ever to have heard of the work of Mendel and his followers, which has wrought such wonders in the explanation of the phenomena of heredity among plants and the lower animals, and is evidently destined to occupy a more prominent part in the consideration of human heredity.

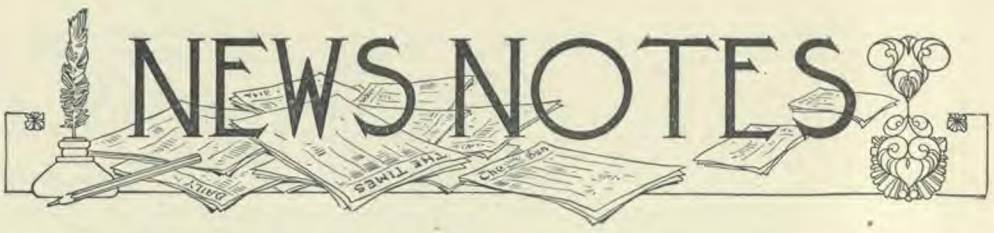
The author's thesis seems to be that the older the parents are, the more they are developed in all their functions, and the more they can bestow upon their children. To what extent this thought is pushed may be gathered from this quotation, in which he suggests, as the result of proper physical instruction, "The average age of reproduction may be advanced from generation to generation, and man may yet live as many hundreds of years as he now lives scores of years."

The fatal error of the author seems to be that he confuses hereditary transmission with maternal transmission of qualities by the mother to her immediate offspring, for he says:—

"If it be true that all the qualities, good and bad, with which a man is endowed when he is born have their origin in the chemical composition of the germ-plasm, or in its divisions, or in its conjunctions, and consequently are absolutely independent of any action of the parents arising from free-will, then the parent has no moral responsibility arising from parenthood except such as arises after the child is born."

The fact is that parents, especially the mother, may influence the unborn child for

(*Concluded on page 695*)



Typhoid and Flies.— A recent typhoid epidemic in Brooklyn is attributed by the water-supply bacteriologist to the flies in the cellars of new buildings, which have escaped the eye of the inspector.

Poisoned by Picric Acid.— The London *Lancet* records a case of fatal poisoning due to the use of picric acid as a dusting powder for a burn. Picric acid is excellent to relieve burns, but it is far from being a harmless remedy, and should never be applied when the skin is broken.

Healthiest Countries.— New Zealand and Australia are the healthiest countries in the world, if we may judge by the low death-rates, —9.75 per thousand in New Zealand, and 10.5 in Australia. In 1884 the death-rate in Australia was about one half more than its present rate, and this 1884 rate compared favorably with our present rates.

The Red Cross Seal in Past Years.— Last year over 32,000,000 seals were sold; in 1910, over 31,000,000; in 1909, about 23,000,000; and in 1908, the first year of the sale, only 13,500,000. In all, the sale in the four years has realized nearly $1,000,000 for the antituberculosis campaign, since all of the money from this movement goes for the prevention of consumption.

International Prohibition Conference.— The third International Prohibition Conference will be held in Milan, Italy, Sept. 22-28, 1913, in connection with the meetings of the fourteenth International Congress Against Alcoholism, for which the Italian government is issuing official invitations to all the governments of the world to appoint accredited delegates to attend.

Treating Diphtheria Carriers.— A modern treatment of diphtheria carriers which seems to be successful is to spray the nose and throat with a pure culture of the golden pus germ (*Staphylococcus pyogenes aureus*). It is a case of diamond cut diamond, or, if you will, backfiring to stop a prairie fire; for the golden pus germ is capable of doing a little mischief on its own account, on occasion.

Body Weight.— Some recent investigations by careful measurement and study under conditions of rest and of mountain climbing, have shown that, under normal conditions, the daily changes in weight are largely dependent upon the water balance in the body. In other words, any change in weight means an increase or decrease in water, not in tissue. This does not mean that all gain and loss in weight is due to this cause.

Buttermilk for Infants.— A German physician reports the treatment of four cases of diarrhea in infants from three to five months old, who were losing weight. He substituted buttermilk for two of the regular feedings each day, and had almost immediate improvements of the stools, and later a gain in weight and health. He attributes the virtue of the buttermilk to the small quantity of fat and the large proportionate quantity of lime and albumin.

The Red Cross Seal Campaign.— The campaign for selling Red Cross Seals will be carried on in practically every State and Territory in the United States, and even in Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands. No less than 100,000 volunteer agents, including department, drug, and other kinds of stores, motion-picture theaters, and individuals, will be engaged in the work. Before the sale is completed, it is expected that at least 100,000,000 seals will have been printed and distributed, besides several million posters, display cards, and other forms of advertising literature.

Spanish Concealed Plague.— The health commissioner of Cuba charges that there have been cases of plague in the Canary Islands for a number of years, and that this fact has been carefully concealed by the Spanish government. The commissioner thinks that the disease may have been carried to Cuba and Porto Rico from the Canaries. It is asserted that the Spanish policy is to fight the plague in every way known to science, and to deny its existence. This is at least a little better than the situation in San Francisco a few years ago, when only the latter part of this policy was carried out by the short-sighted men in control of the situation.

The 1912 Red Cross Seals.— Seventy-five million Red Cross Seals are now being printed for the holiday sale of these antituberculosis stickers in 1912. The National Association for the Study and Prevention of Tuberculosis, which in cooperation with the American Red Cross will conduct the sale, makes this announcement, and states further that the outlook this year is bright for a larger sale than ever before. The seal this year is said to be the best of its kind that the Red Cross has ever issued. The design is in three colors, red, green, and gray. A Santa Claus head in the three colors is shown in the center, surrounded by holly wreaths. In each corner is a small red cross. The seal bears the greeting, "Merry Christmas, Happy New-year, American Red Cross, 1912."

Woman's Work.— At the San Francisco meeting of the Federation of Women's Clubs, the retiring president showed that it is to the clubwomen that we are indebted for the Food and Drugs Act commonly known as the Pure Food Law, the preservation of Niagara, attention to health and housing, and instruction in sex hygiene. The federation now proposes to work for a decent substitute for the atrocious comic supplements of the Sunday papers, and will also work for the systematic instruction of teachers, parents, and pupils in sex hygiene, and for further legislation to protect women and children in the industries.

Results of the Opium Conference.— Twelve Latin-American countries — Bolivia, Chile, Costa Rica, Cuba, the Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, and Salvador — have notified the United States that they intend to sign The Hague convention, pledging themselves to join in suppressing the opium traffic. In accordance with The Hague agreement, the United States has been at work securing these pledges from other American countries. Why, then, is the government so apathetic about the liquor situation in our own country? — Simply because that is backed by some of our capitalists, and we must touch *them* lightly. The whole thing is one with that interesting piece of business between the New York police and the gamblers. *Don't disturb the men who are making the money!*

Less Alcohol Consumed in Germany.— The Social Democratic party has been conducting a temperance propaganda in which all working men are urged to avoid the use of liquor. As a result, we are told, in Germany there is a decrease of more than 11,000,000 gallons a day in the consumption of liquor. This is stupendous, if one considers the population of Germany. It would look almost like prohibition. One wonders how much the Germans drank before the decrease.

(*Concluded from page 693*)

better or worse, but this influence is only on that child, not on the germ-plasm transmitted with the child. Such is the theory of Weismann; and if we may judge from heredity of plants and animals, it may be inferred to be the same in man. After the union of the sperm-cell with the germ-cell forming a new being, all other influence upon that new being comes under the head of environment, and not heredity, and affects that particular individual rather than his posterity.

Undoubtedly the age of the parents may and does affect favorably or unfavorably the child, but this is far from saying that this is a hereditary influence affecting the future generations. This fact may explain why so few really great men have a posterity that measure up with themselves.

The book is a very readable one, though scarcely what one would call closely scientific in its method.

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An institution of physiological therapeutics equipped with every appliance that modern science can provide for the treatment of the sick; including **Galvanic, Static, Sinusoidal,** and **Faradic electricity, X-ray, Violet ray,** and radiant heat of all kinds. A gymnasium and a Swedish mechanical movement and massage department are at the disposal of the patient. These are all fully equipped, and include vibration of every kind that is beneficial to invalids.

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to

LIFE AND HEALTH

FOR 1912

Vol. XXVII Nos. 1-12

Note.— The twelve numbers begin with the following pages, respectively: January, 1; February, 65; March, 129; April, 193; May, 257; June, 321; July, 385; August, 449; September, 513; October, 561; November, 609; December, 657. Subscribers may obtain missing numbers, while they last, to complete their files, at ten cents a copy.

LIFE AND HEALTH :: Takoma Park, Washington, D. C.

"The Beautiful"

A snow scene for the cover of the December SIGNS MAGAZINE. An appreciative scene to many, and attractive and interesting to the unacquainted. The sun hangs low in the sky, and the clouds are so heavy that the orb shines yellow and red through the heavy bank that will soon precipitate the frozen flakes. The beech-trees and the firs cast their bluish-purple shadows, and one almost feels the cold. It is a very pleasing cover for this month of the year, and will prove a strong selling feature of the magazine.

THE CONTENTS

A NEW PHASE OF SPIRITUALISM takes up the announcement of Miss Stead that she has had a communication from her dead father, who was lost with the wreck of the "Titanic." She makes some very startling statements, and the editor, in writing the article, draws some very contrasting statements on the authority of the Word of God. This article should be given a wide circulation.

THE HEAVEN-OPPOSING POWERS OF EARTH is another article in the series being presented in the magazine from a well-known writer, Mr. Charles L. Taylor. Although embracing history nearly three thousand years old, some important applications are drawn bearing directly on momentous questions of the present day.

THE SECOND COMING OF JESUS, by George W. Rine, is given continued prominence in the magazine. This is a very important series of articles, and we can recommend them to our readers

THE GOVERNMENT AND THE TRUSTS, an article showing how ineffectual the famous lawsuit of the government dissolving the Standard Oil Company has turned out to be. After this gigantic trust has been dissolved by the United States government, it has increased in value about five times. Not much of a dissolution. You will want to read the whole article and the prophetic application that is made at the close.

Mrs. E. G. White contributes an article on the times of William Miller. It explains the work of this great man so much misunderstood by the people of to-day.

THE FREEDOM OF THE WILL. An illustrated article which shows the real trend of religious laws, or laws uniting church and state, or any measures that tend toward religious persecution.

INCREASE OF METALS as a sign of the times, by Frank S. Weston. It is something new and will be of considerable interest to a large number of our readers on account of its statistics.

The Bible Reading is also an interesting feature of the magazine, and as usual will have a very comprehensive study on some phase of Bible doctrine.

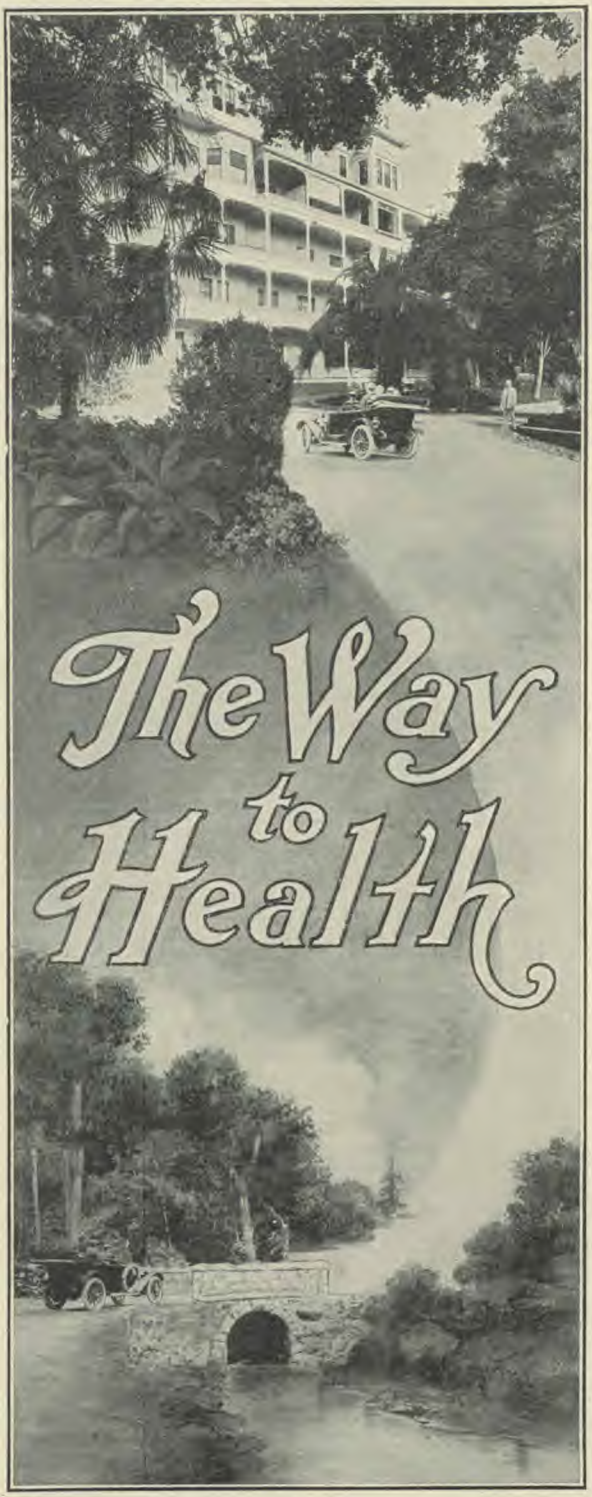
The Home Department has a very interesting contribution from the pen of Mrs. L. D. Avery-Stuttle, the author of "Making Home Happy" and "Making Home Peaceful." She is a well-known writer, and this is an added attraction to our magazine.

Among many important current topics, those dealing with the revelations of Thomas Lawson are of more than usual interest. He gives in most graphic language conditions of to-day, and points out the remedy. This work is given some consideration in the light of the Bible.

Ten cents in coin or stamps for a copy

AGENTS WANTED

SIGNS OF THE TIMES
MOUNTAIN VIEW, CALIFORNIA



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