

# Life & Health



WASHINGTON, D. C.

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shall I go to regain my health? is a question of the utmost importance to those who are sick. The exhausted mind, the worn-out body, the tired, irritated nerves, are in need of quiet, cheerful surroundings and a restful, home-like atmosphere.

## Nature

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is constantly at work to keep the human machinery in perfect condition, and to heal all diseases of the mind and body; but frequently the forces that make for ill health become so powerful that nature must have assistance, or give up the struggle.

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# Life & Health

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## THE TRAINED NURSE

(See article on page 268)



# Life & Health

## HOW TO LIVE

Editor

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Office Editor

G. H. HEALD, M. D.

VOL. 33

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### Health Food for Children—No. 1

LET us divide the children into three classes,—toothless, teething, and toothed,—and then deal with each class separately.

It goes without saying that the best diet for the baby or toothless child is the mother's milk. Every child, on coming into the world, has an inherent right to its mother's breast, and the only exception to this otherwise primary law of nature is when the mother is incapacitated from nursing by some grave disease. Under such circumstances, when nursing would be

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



prejudicial to the health of both child and mother, a thoroughly sound and healthy wet-nurse is the first choice. Here it is necessary to have the assistance of a conscientious and skilful doctor, who will most carefully investigate the health history of the proposed wet-nurse, and make an exhaustive examination of her physical condition before recommending her.

If a wet-nurse is unobtainable, artificial feeding is necessary; and the best and most successful artificial food for babies is humanized, or modified, cow's



•• Toothless ••



•• Teething ••



•• Toothed ••



milk. In selecting the milk for baby's diet, two things are of prime importance: First, to insure that the milk comes from a healthy cow or cows; and second, which is of equal importance, to insure that the milk is clean and free from contamination of filth and disease. In a large city it is oftentimes extremely difficult to obtain clean milk from healthy cattle, but every attempt ought to be made to insure that the milk supply coming into the home, not only for baby, but also for the older children, is free from the germs of tuberculosis as well as other disease-producing bacteria.

During the early months of feeding the proper quality of milk for baby is obtained by taking the upper third of the milk after it has been standing for four or five hours. This makes what Dr. Holt calls ten-per-cent milk, and it is so called because it contains approximately ten per cent of fat or cream. During the latter months seven-per-cent milk is used, containing about seven per cent of fat, and this is obtained by taking the upper half of the milk after it has been standing at least four hours. Ten-per-cent and seven-per-cent milk is used in place of the ordinary whole milk, because the latter is deficient in cream as compared with mother's milk.

The next step is to add a little milk sugar and limewater, and also the necessary proportion of boiled water. It is usual to prepare about twenty ounces at a time, that is, an imperial pint, which is then Pasteurized and protected from further contamination in a clean, cool, dry place until needed. To Pasteurize, use a double boiler and bring the milk to a temperature of 150° F. for twenty minutes, and then cool rapidly by placing the covered inner boiler in cold water.

The following tables with regard to both the preparation of the milk and the

size and frequency of feedings, are quoted from Dr. Emmett Holt's excellent book on "The Care and Feeding of Children:"

Cow's milk is readily contaminated by

**First Series of Formulas — for the Early Months**

	I	II	III	IV	V
Ten-per-cent milk ....	2 oz.	3 oz.	4 oz.	5 oz.	6 oz.
Milk sugar .....	1 oz.	1 oz.	1 oz.	1 oz.	1 oz.
Lime water .....	1 oz.	1 oz.	1 oz.	1 oz.	1 oz.
Boiled water .....	17 oz.	16 oz.	15 oz.	14 oz.	13 oz.
	20 oz.	20 oz.	20 oz.	20 oz.	20 oz.

**Second Series of Formulas — Middle Months**

	I	II	III	IV	V
Seven-per-cent milk ..	7 oz.	8 oz.	9 oz.	10 oz.	11 oz.
Milk sugar .....	1 oz.	1 oz.	1 oz.	$\frac{3}{4}$ oz.	$\frac{3}{4}$ oz.
Lime water .....	1 oz.	1 oz.	1 oz.	1 oz.	1 oz.
Boiled water .....	12 oz.	11 oz.	10 oz.	5 oz.	3 oz.
Barley gruel .....	0 oz.	0 oz.	0 oz.	4 oz.	5 oz.
	20 oz.	20 oz.	20 oz.	20 oz.	20 oz.

the careless milkman when drawing it from the cow's udder, and by carelessness in the farmyard through the use of utensils which have not been properly cleaned, and by a lack of personal cleanliness on the part of those who are obliged to handle the milk. There is also danger in the transition of the milk by rail or otherwise to the dairy from which it will be distributed; and it is not to be forgotten that porters are often careless, and have been known to drink directly from a milk can or to abstract the milk by the use of a dirty glass or cup, to say nothing about their dirty hands. Not all the dairy shops are as clean and sanitary as they ought to be, and there, too, abundant opportunity is offered for infection through dust and dirt. The milkman who does the round must be looked upon with suspicion until proved to be competent and cleanly in his person and methods.

And last, but by no means least, milk readily becomes contaminated in the homes of the people by careless handling or by the use of utensils that are not sterile. The greatest care possible should be taken in cleaning the milk bottles and nipples used in feeding baby, and the milk itself should be kept in a cool, airy, clean place until ready for use. Every



care should be taken to insure that the milk given to baby is not only clean but of the proper temperature, that is, blood heat, or about 100° F., and that it is served promptly at regular intervals ac-

Weaning should be done gradually. Begin by dropping off one nursing a day, and give a meal of cow's milk in the proportion of two parts to one of oatmeal, barley, or wheat-meal gruel. It

is also desirable to add a little cream. At first the gruel should be thin, and gradually be thickened as the child grows. In the course of a week another similar meal may be added in place of the breast. The weaning will probably require a month or two. By the time the child is fourteen or fifteen months old, it will be ready to take a meal of bread and milk, and later on milk gruels,

**Schedule for Feeding Healthy Infants During the First Year**

Age	Interval between meals, by day	Night feedings (10 p.m. to 7 a.m.)	No. of feedings in 24 hours	Quantity for one feeding	Quantity for 24 hours
	Hrs.			Oz.	Oz.
2					
2nd to 7th day .....	2	2	10	1 - 1½	10-15
2nd and 3rd weeks .....	2	2	10	1½ - 3	15-30
4th and 5th weeks .....	2	1	10	2½ - 3½	25-35
6th week to 3rd month .....	2½	1	8	3 - 5	24-40
3rd to 5th month .....	3	1	7	4 - 6	28-42
5th to 9th month .....	3	0	6	5 - 7½	30-45
9th to 12th month .....	4	0	5	7 - 9	35-45

cording to the age of the child. The natural position for the feeding child is semireclining, with the bottle so placed that the milk is readily withdrawn by the sucking action of the child's mouth.

#### TEETHING CHILDREN

When a mother is both willing and able to nurse her child, the feeding of baby is a comparatively simple matter, and the child has the best possible chance for healthy growth and development; but trouble is liable to come when the child is weaned and has to be spoon-fed. This is always a critical stage for all children, and great care, discretion, and patience are required by the mother or nurse in feeding infants in the teething stage. This stage continues from the twelfth to the fortieth month, approximately. Of course it is true that a healthy child gets two or three or even four teeth before it is twelve months old, but they count for little as far as mastication is concerned. We have then to deal with the second, third, and most of the fourth year of the child's life. During this period it is necessary to alter the diet almost month to month, according to the progress of the child. Generally, infants require feeding by hand from the time of weaning until the second year, although some learn to feed themselves earlier than others.

cream barley soup, an occasional curdled egg, a boiled or baked custard, junket, milk puddings, banana and other fruit purées, and similar preparations.

The diet will naturally be modified a little from month to month, according to the eruption of the teeth and the growth of the child. By the end of the second year a sound, healthy child should have from fourteen to sixteen teeth; and the full set of temporary teeth, that is, the milk teeth, will be completed during the fourth year. In this transitional period, when the teeth are making their first appearance, many, if not most, children are inclined to be fretful and irritable, and to require special patience and tact on the part of the mother. It is true that the eruption of these teeth is a natural process; still there is no doubt that the majority of children find this stage of development more or less trying. As the teeth become more numerous, it is a good thing to give the child a crust of bread or a plain biscuit [cracker] to chew, and this can usually be given by the eighteenth month and sometimes earlier. It is wise for the child to learn to chew its food as early in life as possible.

When a child has reached from fifteen to eighteen months, the number of meals may be reduced to three, which is quite



ample. Breakfast should be given soon after the child is dressed, for it is usually hungry in the morning. The midday meal should be between twelve and one; and the evening meal about five. The child should be sent to bed early, but if possible not until an hour has elapsed after the last meal.

Children should not be encouraged to drink with their meals, but should learn to eat their food with a spoon and to

masticate it well. Drinking when eating is very largely a matter of habit, and it is not a habit to be encouraged in children. Give the child a glass of water the first thing in the morning, and also encourage it to drink a glass of water about an hour before each meal. See to it that the meals are simple, and that there is but a small variety of food at a single meal, and that the food is plain but nourishing and digestible.

# FOOD SAVING<sup>1</sup>

## WHY and HOW

Lauretta E. Kress, M. D.  
Washington, D. C.



POSSIBLY never in the history of the world has the food problem received the universal consideration it has during the past year. In America, no actual shortage of food-stuffs exists as yet. The rise in prices of foods here is due to the world's shortage and the demands made by other nations. The problem before America is to supply her own needs and the needs of the nations that are dependent upon her.

Fifty million men in Europe have been called from productive labor to war. For every man at the front, three are needed at the rear for his support, so that not less than 150,000,000 have been drawn away from channels of production to channels of destruction. As nation after nation is swept into the war, it seems as if we should be brought, ere-long, to an actual *world* famine.

The total requirements of the Allies for this year are said to be nearly 1,000,-

000,000 bushels of grain. Heretofore we have never exported more than half of this amount; but to supply this added amount is not so great a problem as it appears to be. First, we must learn not to waste bread. More bread has gone to waste in the average American home than almost any other kind of food. Stale bread has been considered unfit to eat. It has not been thought worth while to utilize it in the preparation of other dishes. It would be easy to save a slice of bread daily in each home. One single slice of bread saved each day in every home would mean a daily saving

<sup>1</sup> Abstract of address delivered before District of Columbia Medical Society.



of a million loaves of bread. Laid side by side, the loaves saved in one year by this one-slice economy would reach around the world.

Since the present war has been precipitated, a large number of animals in Europe have been slaughtered. The herds are said to have been diminished by over 28,000,000 cattle, 54,000,000 sheep, and 32,000,000 hogs. As long as the war lasts the slaughter of animals will continue. The demand made upon America for meats and dairy products will naturally continue to increase.

Unfortunately, the number of cattle raised in the United States in proportion to the population is also decreasing. It has been estimated that there are twenty per cent less cattle in America today than there were ten years ago, with over a twenty-per-cent increase in population. So it is going to be a difficult problem to supply the demands of the Allied nations for meats.

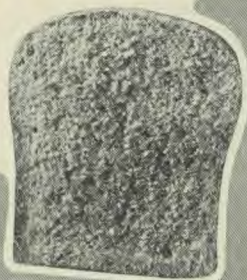
There is a shortage of sugar abroad. France, Italy, and Great Britain must import this year approximately 2,700,000 tons in order to maintain their normal consumption. They are forced to draw upon America's resources. To supply this demand makes economy in the consumption of sugar a necessity. The consumption of sugar in America has for years been excessive. From an annual consumption of less than 15 pounds per capita, it has risen to nearly 90 pounds. A reduction to 40 pounds per capita annually should not be regarded as a hardship, and would enable us to meet the European shortage of sugar.

Some countries are threatened with a famine in fats. Americans consume annually 70 pounds of animal fat per person. Before the war, Italy consumed less than 14 pounds, and Japan 18 pounds. Should we eat less fried foods and cut down our fat supply to 46 pounds per capita annually, we would enjoy better health, and would save 1,125,000 tons of fats, sufficient to meet the needs of the Allies.

The production of beer in America requires 104,000,000 bushels of grain, 55,000,000 pounds of grape sugar, 152,000,000 gallons of molasses, 3,000,000 gallons of glucose, or sirup, annually. The liquor industry in America has required the labor of 300,000 farmers, and the product of 7,500,000 acres of land. Directly and indirectly an army of 1,000,000 men have been employed in the interest of the traffic. According to Professor Fisher of Yale, "The net loss caused by brewing and distilling was equivalent to about 11,000,000 one-pound loaves of bread daily," representing a food value sufficient to nourish fairly well an army of 6,000,000 men. To stop the manufacture and sale of all intoxicants as beverages, would not impoverish the nutrition of any one, and would mean food for millions abroad.

During the past fiscal year there has been a tremendous increase in the use of tobacco. The returns to the Government in taxes on cigars, cigarettes, tobacco, and snuff amount to \$103,201,592, an increase over the year 1916 of approximately 18 per cent, or \$15,000,000. The increase in the production of cigarettes has been phenomenal, jumping from 21,087,901,113 of the previous year to 30,529,193,538. This shows the remarkable increase of 40 per cent. Thousands of acres of valuable land are being cultivated, and hundreds of thousands of men are being employed in the cultivation of this product which is neither food nor drink. All the labor and energy expended by this

*"One single slice of bread saved each day in every home would mean a daily saving of a million loaves of bread."*







*"The demand made upon America for meats and dairy products will naturally continue to increase."*

great army of workmen goes up in smoke. As tobacco possesses no food value, and is employed wholly for its drug effect, the land utilized for its production ought to be put to a better use, and the labor wasted should be turned into channels of production of foodstuffs. Should the \$2,200,000,000 paid out for drink and the \$1,200,000,000 paid out for tobacco last year be this year deposited in the United States Treasury, no one would be seriously injured, and it would go a long way toward financing the war. This would be a very practical way for the men of America to show their patriotism.

Not less than \$300,000,000 was paid out last year for drinks containing caffeine. Much of the irritability, nervousness, and ill temper, especially among women, is traceable directly or indirectly to the free use of these beverages which have no real food value. Here is another great leakage of wealth, and another opportunity for those who have been indulging in harmful practices to show their patriotism.

Changes in our diet are now demanded, but they should be made wisely. As a rule, Americans eat too much. In the last two generations the total individual daily consumption of food in America has increased about 30 per cent. This has not improved the health of our people. So long as food has been plentiful, this has been merely a health problem, but owing to the present scarcity and the rapidly advancing prices of food, and the fact that 2,000,000 men

may be withdrawn from productive occupations during the next year, it is becoming a serious economic problem.

Meat consumption has been excessive in America. Of the \$4,500,000,000 paid out for foodstuffs last year, \$1,800,000,000 was paid for meats. To reduce this tremendous expenditure for meats will undoubtedly greatly improve the health of our people, and will result in a great reduction of the living expense. The prevalent opinion that meat is the great staff of life, and that it is highly nutritious, is a mistake. Persons who are doing hard work do not need great quantities of meat. They will thrive better on wheat, corn, rice, nuts, beans, and peas. It has been demonstrated again and again that these are the foods that give physical vigor and endurance. [Yes, and pellagra!]

Meat is highly valued because it contains protein. Fortunately this important food element is furnished in other foods so that we are not dependent upon meat for it. A pound of meat, medium fat, it is estimated, supplies about two ounces of protein. Eight eggs yield practically the same amount. A pound of whole milk cheese contains about four ounces of protein, or a little more than is contained in two pounds of meat. The pound of cheese might cost twice as much as a pound of meat, and still be as economical a source of protein. If it costs no more than meat, its protein is twice as cheap.

The cereals as a rule are not deficient in protein. Wheat contains two ounces of protein to the pound — an amount equal to that obtained from a pound of meat.

Beans contain three ounces, and peas contain four ounces of protein to the pound. It is estimated that it takes about seven pounds of grain, when fed to a steer, to produce one pound of beef.



It pays, therefore, to eat the corn instead of feeding it to the steer or hog and then eating the beef or pork. [The corn should, however, be eaten with a liberal quantity of green vegetables or milk.—ED.]

Compared with meat, milk is an economical food, since about one third of the protein fed to the cow is recovered in the milk, but since a milk shortage is sure to come and children are dependent upon milk, adults should, as far as possible, obtain their protein from other sources.

We must also cut down our use of butter. Butter has advanced in price to such an extent that it is now almost out of reach of the poor. It will unquestionably continue to advance. The price will become almost prohibitive in the future. We can get on with much less butter. It should not be used in cooking, and much less should be served on our tables.

The foods of civilized countries are more deficient in the salts and vitamins than in any other element. At present, from thirty to forty per cent of the wheat is removed in milling. The bran and shorts containing the salts and vitamins have usually been fed to the cattle. The devitalized white flour which was left, has been utilized for bread and pastry purposes. Should ninety per cent of the grain be milled and converted into flour, it alone would mean a saving of not less than 100,000,000 bushels of wheat annually. Many homes have within the last few months installed a small gristmill, and are doing their own milling. This has many advantages. Whole-wheat flour when freshly ground possesses a sweetness and flavor not found in flour

that has been kept from six to nine months.

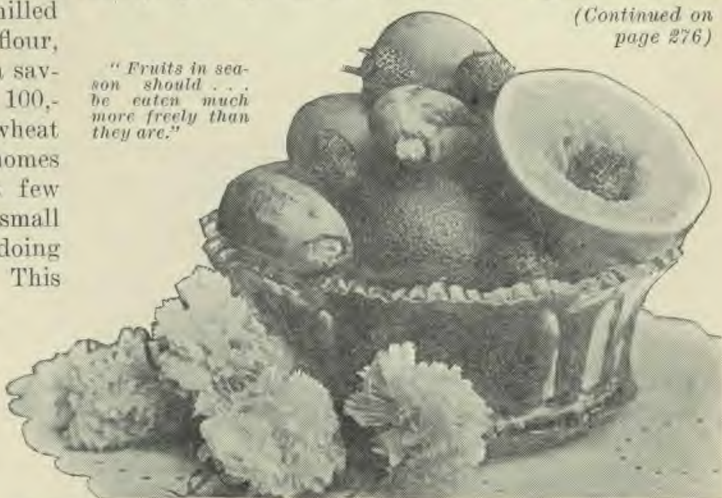
Both white bread and meat are deficient in the elements from which teeth are built. The animal subsisting on grain, which possesses all the elements of nutrition, utilizes the bone-forming elements in *building up its own bones and teeth*. The tissue-forming elements in the grain are converted into beefsteak. Beef, then, is lacking in bone-forming material. For this reason, the cat finds it necessary to eat the entire mouse, *bones and all*. The dog must be furnished bones to gnaw. We can readily see why in Australia and America, where white bread and meat are largely depended upon as food for children, tooth decay prevails.

The salts lacking in meat and white bread might be partially supplied by the use of vegetables, but unfortunately, the first water from potatoes, beans, and vegetables, which usually holds in solution most of these bone-forming salts, is poured down the sink. The water from vegetables should be conserved and utilized in making soups and gravies.

Cane sugar, when taken in a concentrated form, as is customary, acts as a gastric irritant. The free use of sugar is one of the exciting causes of gastric acidity, catarrh, and ulceration. The prevalent use of cane sugar and fats is

(Continued on  
page 276)

"Fruits in season should be eaten much more freely than they are."





# How to Prevent the Spread of Disease Through Mouth and Nasal Secretions

*[The following appeal, inaugurated by the Army Medical Corps, as a means of guarding the lives and health of our soldiers, has the hearty approval of Surgeon-General Gorgas, United States Army, who says that the health of our soldiers depends to a great extent upon the health of the civil population.]*

**R**ESPIRATORY diseases having caused practically all the sickness and death rate in the nation's new armies, the Medical Corps has begun a nationwide campaign of prevention against pneumonia, measles, diphtheria, mumps, meningitis, infantile paralysis, influenza, and tuberculosis.

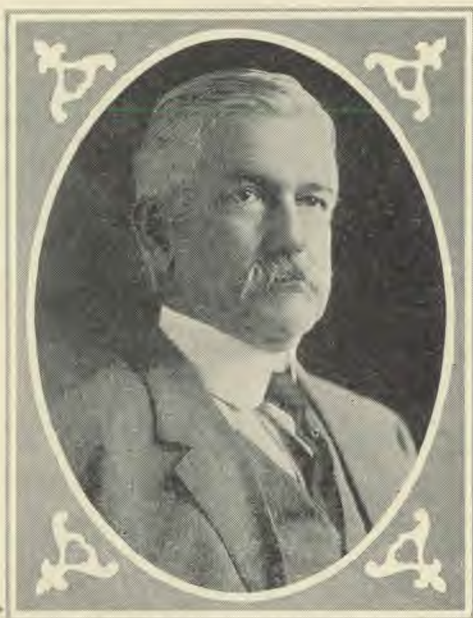
All the diseases mentioned are spread or communicated in the same way — through the transfer of nasal and mouth secretions. The sickness rate in camps throughout the country could be cut to the minimum if the soldiers, and the general public as well, stopped promiscuous coughing, sneezing, and spitting.

## DIFFICULTY OF CONTROLLING DISEASES

The difficulty of controlling these diseases lies in the fundamental fact that human beings scatter their nose and mouth secretions without any consideration, despite rules and regulations to the contrary. One sneeze in a crowded street car would infect many persons with pneumonia, or measles, or diphtheria, or mumps, or meningitis, or in-

fantile paralysis, or tuberculosis. One hearty cough could do the same. In either case, spread of any of these diseases could be prevented if the sneezer or cougher would use his handkerchief as a "cough catcher" to sneeze or cough in.

Unlike some disease germs, the germs which cause the diseases mentioned do not die or become harmless upon drying. So when they are dried and blown about with the dust, they are still capable of setting up disease in many other people. The problem of the respiratory diseases which confronts Surgeon-General Gorgas and the



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W. C. Gorgas, Surgeon-General United States Army

Army Medical Corps, is serious. Apparently, however, the public generally is totally ignorant of the immeasurable harm that is done through unguarded and promiscuous coughing, sneezing, and spitting. Army Medical Corps experts, who have given untiring study to this problem, have reached the conclusion that a national campaign must be inaugurated at once, not only in the camps, but in the homes, in the offices, in the street cars, and in all public



places, to stamp out this widespread habit of spitting and coughing, if health conditions for our soldiers are to be improved.

#### IMPORTANT AS "SWAT THE FLY" SLOGAN

They feel that such a campaign is as important in every way for the object to be achieved as was the now famous and eminently successful fly-swatting campaign which started some years ago. For this reason the Surgeon-General ap-

peals to the public to make the "Don't cough, don't sneeze, don't spit" slogan as widely quoted and effective as "Swat the fly." Dr. Gorgas appeals particularly to the press of the country to help with constant warnings, prominently displayed in their columns, in the form of articles and catch slogans that will serve as a reminder to the public that the health of our soldiers can be better safeguarded through vigilant co-operation in the anti-cough-and-spit campaign.

## Coughing, Sneezing, Spitting, Talking, May Transmit Disease

W. C. Gorgas

Surgeon-General United States Army

**T**HOUSANDS of our soldiers who have been treated in army hospitals for respiratory diseases since we went to war would not have had these diseases communicated to them had they and their fellow soldiers taken proper precautions against promiscuous coughing, sneezing, and spitting. I think it is safe to say that a large proportion of respiratory diseases in the camps would have been prevented had the men been more careful, and broken themselves of this disease-carrying habit of unguarded coughing and sneezing.

But coughing and sneezing are not the only ways in which a spray of mucus and saliva is propelled from the mouth and nose. When a man talks, even quietly, he sends out a finely atomized vapor

from his lips. If the speaker talks loudly and excitedly, the speech becoming more explosive, then the fine droplets laden with microbes are sent much farther into the air.

Now, think how often you feel the "hot breath of the enthusiastic talker" as he has stood closely facing you, telling you his story. This sensation is due to the impact on your face of the warm vapor from the speaker's mouth. That vapor is composed of myriads of microscopical droplets of saliva and mucus, each charged with myriads of disease

"Landing a direct hit"



"Keeping out of range"



germs. Just because these germs are invisible is no reason to disregard them and not take intelligent precautions to prevent them from



"landing a direct hit." The best defense in ordinary conversation is to "keep out of range." You do not have to push your face at a man to tell him something. Keep your distance, say four feet, and shower him with words if you like, but not with infected spray.

You would not use his toothbrush or drink from his glass, and you don't want the material which covers these two things sprayed in your face. Conversely, you would not offer your friend your toothbrush. Be just as considerate with your talk spray.

---

## Threatened Shortage of Nurses

What Shall We Do to Meet It?

L. A. Hansen

ONE of the serious problems connected with the war situation is that of supplying sufficient trained nurses for the army. The Red Cross has been active in enrolling nurses, and perhaps one third out of the 80,000 or 90,000 registered nurses of the country have been enrolled for special service. There are a number of practical nurses and graduate nurses who are not registered; this brings the entire list in the United

States up to approximately 200,000 nurses. There are 40,000 student nurses in accredited training schools, and 13,000 are graduated from these schools annually.

During the first part of the war about 1,000 nurses were enrolled each month. Volunteering was not so free as was hoped, so urgent calls have been made, and considerable activity has been put forth in order to secure the needed number.

A statement sent out by Surgeon-General Gorgas a few months ago invited nurses to enter the Regular Army Corps, and made a call for all graduate nurses,



whether registered or not, with professional, moral, and physical qualifications, to make application for admission for the war emergency. A statement was further made that it was not contemplated at the time to employ any but graduate nurses in the army hospitals, but should conditions indicate a shortage of graduate nurses, steps would be taken for the establishment of a course for nurses' aids in certain civil institutions in this country. These aids would be selected from among those women who had taken the course in Home Care of the Sick and Elementary Hygiene under the American Red Cross, and other



women considered suitable. These would be given practical instruction with a view to assignment as nurses' aids in army hospitals, if needed.

The demand for nurses for the army has made a drain that is being felt in the nursing profession serving civil institutions and the civilian population. For some time nurses' organizations have foreseen a serious shortage in graduate nurses, and steps have been taken by various bodies to augment the supply. Various nurses' registries have been unable to answer a large part of the calls made upon them. Certain rules have been formulated covering the employment of nurses with a view to conserving their service as much as possible. In some instances, only the most serious cases have been allowed the service of graduate nurses.

Old-time rules have been swept aside by some, opening the way for a short course of training for lay workers in the nursing profession. It has been recognized that an emergency demands quick provision to meet a serious need, and that there is not time to depend upon a regular three years' course for the training of professional nurses. Practical nurses, forming quite a large group, have been called into fuller service for all kinds of nursing, and an appeal has been made to nurses who have married and retired, to return to their profession.

A practical suggestion growing out of this situation, and one that should commend itself to all, is that our women, upon whom will rest the burden and responsibility of caring for the sick and injured among the civilian population, should take up the study of such subjects as might be mastered by the average woman. Considerable of the less technical work usually given professional nurses can be covered in a few weeks of faithful study and practical application.

We should give serious consideration to the question of what we shall do in the absence of the trained nurse. In fact, we may include the doctor to a

large extent as being among the absentees when it comes to securing help for the sick, for many doctors have been called into military service. However, the absence of doctors and nurses does not mean a lessening of sickness.

There is no reason to think that sickness among the civilian population will grow less, but on the contrary it is reasonable to believe that it will increase. With the rising price of food and fuel, and with scarcity of these, there come more privation and suffering. Liberal gifts to worthy war reliefs mean less money to spend for personal comforts. The calling of many, both men and women, into war and government activities leave more work—and harder work, too—to be done by those who are left. As able-bodied men enter the military service, unusual burdens are thrown upon the weaker men and women who stay. Interest in war matters means more or less neglect of personal health. Anxiety, sorrow, and bereavement help to bring on sickness.

The increase of war hospitals, the return of wounded men, make absolutely necessary the calling of more skilled nurses, and the scarcity grows more acute. Thus the need for persons who can give help to the sick becomes more emphatic. Many women will have to do things usually done by the graduate nurse, and they will be called to do them whether they know how to do them or not.

For the last year or two the American woman has been acquiring a good schooling. She has been learning how to adapt herself to new conditions which in some instances have been perhaps a bit trying. The Food Conservation program has included lessons that required both theoretical and practical work. New textbooks have been studied, and new subjects have been mastered. Today we have many who, if they are not ready to be graduated, have at least learned many profitable things.

The American woman can meet another situation if she must, and it looks



as if she has it to meet. She must now assume the rôle of nurse, even if she does not wear the uniform or carry the diploma. The children cannot postpone sickness until nurse gets back from the army. There are many things that will not be postponed, and the woman on the spot must be the woman on the job.

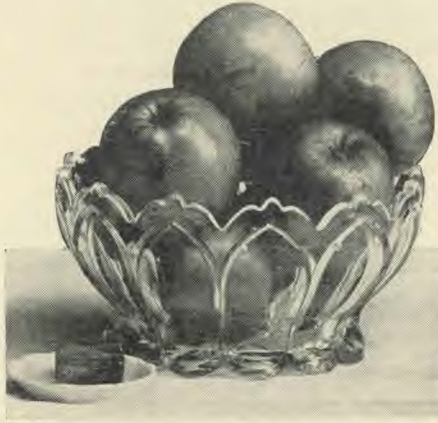
Now comes the time to learn how to make the bed for a sick person, and how to change the bedding and the patient's clothing with the patient in bed. There are simple treatments to give; such as sponge baths, fomentations, compresses, packs, etc., that have usually been given by a trained nurse. It is important to know how to care for communicable diseases, how to take temperature, pulse, and respiration, and how to read and care for the thermometer. Bed sores are bad things, and should be prevented. With all that has been learned about conservation methods of cooking, there may be considerable to learn in the preparation of special foods for the sick.

One of the most valuable measures at this time, as well as at any time, is to know how to prevent sickness. Obviously, the more that can be done in this line, the less will have to be done in caring for the sick; and again we can quote the old adage, "An ounce of prevention is worth a pound of cure." Here will apply the various principles of household hygiene, the care of the premises, the value of proper ventilation, the importance of pure water supply, what constitutes proper clothing and its uses, and the general following of a rational health program.

Fortunately, literature on health and the care of the sick is abundant. We foresee a popular discussion of health

principles, home nursing, first aid to the injured, and similar topics through our magazines and papers, just as we have seen in print a great deal about food and its scientific preparation.

In advising women to learn how to prepare to take care of the sick and injured, we must, of course, recognize that there are limitations to what can be done in this connection by one who has only a partial knowledge of the subject. The three years usually spent in training are not superfluous. They



embody hard work, and cover ground that is essential to the safe and proper care of the sick. The novice, be she ever so earnest or zealous in her good intentions, cannot comprehend in a few short weeks of study or in self-instruction all that is involved in the nurse's profession. Many phases — delicate, complicated, serious, and uncertain — must be left untouched. The administering of dangerous drugs and medicines by the untrained must particularly be guarded against. But there are many home remedies and simple treatments which may be used by the woman of good judgment and a practical turn of mind. The household emergency equipment should be prepared and kept in readiness. The use of bandages should be known. Instructions on what to do in accidents and emergencies should be kept handy.

To our readers who cannot prepare to do professional nursing, it is in place to suggest that every one can at least prepare to take care of one individual — himself. In these days self-care in matters of health will obviate to a large extent the necessity of calling in a doctor or a nurse, and is especially good when the doctor or nurse is not available. If



every individual will be his own health officer and see that he observes the health rules and regulations that are now becoming quite commonly known, and will study his own case in an effort to know better his best living régime, and will look after various items that pertain to personal hygiene, the shortage of professional help will not be so seriously felt. If each community will give attention to health ordinances and will organize itself in self-defense against the attacks of disease, much can be done to maintain the general health standard. If the

country at large will place itself on the defensive against conditions that favor disease, and will follow a health conservation program, we can spare nurses for oversea needs just as we have been able to send away foodstuffs by the practice of intelligent food conservation.

To those interested in securing instruction in nursing and first-aid work we can recommend the course conducted by the Fireside Correspondence School, Takoma Park, Washington, D. C., and suggest that they write to Prof. C. C. Lewis for terms and general information.

## MOUTH HYGIENE

### Fruit Eating Aids in Cleaning the Teeth

W. C. Dalbey, D. D. S.



**C**HILDREN, especially, naturally like fruit, and it is not difficult to include this as part of the meal diet. A mild acid fruit should be eaten at the very close of the meal. There is no fruit quite so good as a firm, tart apple to be eaten by the child the very last thing. The action of the fruit acid precipitates (throws down) the mucin of the saliva; that is, the acid makes the mucin let go its hold upon the teeth and surrounding parts, and thus allows a free removal of food particles. Also, fruit acids taken at this time (at the close of the meal) cause a marked increase in the flow of saliva. This new saliva is naturally of alkaline origin, and

further neutralizes fermenting particles that may have been left on the teeth from a previous meal.

When the teeth are forced through a firm apple, they are mechanically cleaned to a great extent, and the malic acid of the apple, acting on the mucin, completes the work fairly well. I say "fairly well," because, after all, it is only a rough-and-ready way of cleansing the teeth. The way of least resistance is not always the best way. So do not depend upon this as a system, but teach the child how to use the toothbrush.

At school or picnic lunch this is a very good way to clean the teeth, when it is not possible to resort to the toothbrush.



# FOOD CON



## FIRST DAY

### BREAKFAST

Baked Cornmeal Cubes with Sirup<sup>1</sup>  
Baked Beans and Wheatless Brown Bread  
Pears Apple Sauce

### DINNER

Nut and Tomato Bisque  
Baked Chick Peas<sup>1</sup> Mashed Potatoes  
Tomato Mayonnaise Oat Wafers  
Grape Jelly with Custard Sauce<sup>1</sup>

### SUPPER

Popcorn and Milk  
Brown Bread Nut Butter  
Cantaloupes

## SECOND DAY

### BREAKFAST

Rolled Oats Cream or Milk  
Nut and Olive Hash<sup>1</sup> Corn Pone<sup>1</sup>  
Peaches

### DINNER

Split Pea Soup  
Swiss Chard with Lemon  
Mashed Sweet Potatoes  
Buckwheat Muffins  
Steamed Rye Pudding<sup>1</sup>

## Conservation Menus

Wheatless

George

### SUPPER

Toasted Corn Pone with Milk Gravy  
Buckwheat Muffins  
Baked Sweet Apples

## THIRD DAY

### BREAKFAST

Scotch Oatmeal with Cream or Milk  
Fresh Tomatoes Corn Johnnycake  
Baked Sweet Potatoes  
Grapes

### DINNER

Fresh Lima Beans  
Creamed Potatoes Mashed Squash  
Rye Gems Peach Shortcake

### SUPPER

Fresh Tomatoes  
Boiled Rice Cream or Milk  
Rye Gems Watermelon

### FOOD

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# ERVATION



## a Week in September

Meatless

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Cranberry Jelly

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### FIFTH DAY BREAKFAST

Corn Griddle Cakes  
Rolled Rye with Cream or Milk  
Baked Potatoes  
Buttermilk  
Hoe Cake<sup>1</sup>  
Plums

### DINNER

Nut French Potatoes  
Olive Loaf with Savory Tomato Sauce<sup>1</sup>  
Oatmeal Gems  
Fresh Celery  
Gooseberry Pie

### SUPPER

Cream Corn Soup  
Oatmeal Gems  
Barley Nut Cake<sup>1</sup>  
Apple Sauce

### SIXTH DAY BREAKFAST

Rice and Egg Timbales  
Hashed Brown Potatoes  
Watermelon  
Corn Muffins

### DINNER

Cream Celery Soup  
Shelled Beans  
Baked Eggplant  
Apple Tapioca  
Savory Potatoes

### SUPPER

Corn Muffins  
Cream Hominy with Dates  
Cream or Milk  
Grape Sauce

### SABBATH

#### BREAKFAST

Date Barley Rolls  
White Cornmeal Mush with Figs  
Cream or Milk  
Fresh Peaches and Cream  
Nut Butter

### DINNER

Succotash  
Cauliflower Salad  
Mixed Nuts  
Barley Bread  
Ripe Olives  
Comb Honey

### SUPPER

Irish Moss Blancmange  
Fresh Celery  
Top Milk  
Barley Bread



This is the month when we should think of putting away for winter use a store of what has been raised during the summer. An abundance of tomatoes should be canned. While shelled beans and Lima beans are very nice canned, for the sake of conserving cans it is better to dry the beans. There are many people who prefer dried corn to canned corn. Canned fruits

will be likely to be scarce and high priced this winter, and every one who can, and especially those who raise fruit, such as pears and peaches, would do well to can a good supply.

#### BAKED CHICK PEAS

- 1 pint chick peas.
- 3 teaspoons salt.
- 2 tablespoons oil.

Chick peas have not been commonly used, but we are asked to use them now to help conserve meat. Chick peas contain more fat than any legume except the soy bean. They are a large pea, shaped, one may imagine, like a chicken's head, and, strange to say, they have a flavor somewhat resembling chicken. They make a very tasty substitute for meat.

Wash the peas and soak them overnight. In the morning drain off the water in which they were soaked. Put them into a bean pot. Add the salt and oil and water to cover well. Put into the oven, with the cover on the bean pot, and bake, as Boston baked beans are baked, from eight to eighteen hours. Boiling water should be added as may be necessary.

#### GRAPE JELLY

- 1½ cups grape juice.
- 3 tablespoons lemon juice.
- ¾ cup sugar.
- ¼ oz. vegetable gelatin (agar agar).
- 1 cup boiling water.
- A few grains salt.

Put the gelatin to soak in two quarts of moderately hot, not boiling, water; allow it to soak one-half hour, then turn the gelatin into a strainer to drain off the water. Put the gelatin to soak a



Corn Pone

second time in hot water. After a half-hour's soaking drain, and put to soak a third time in hot water. After soaking fifteen minutes, drain off the water and it is ready to use.

While the gelatin is soaking, mix together the grape juice, lemon juice, sugar, and salt. After the gelatin is drained the last time, put it to cook in the one cup of boiling water. Soon after it begins to boil, it dissolves, then strain it into the remaining ingredients. Mix well, and pour into cups wet with cold water. When it is cold, unmold, and serve with custard sauce.

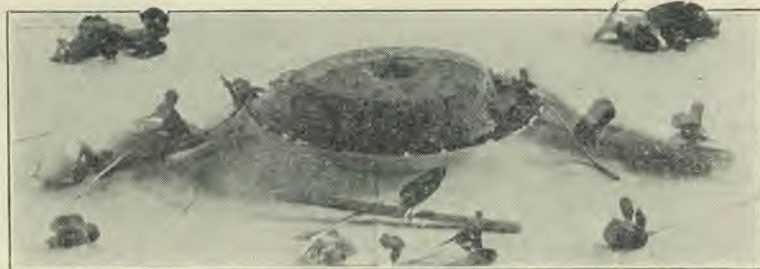
#### BAKED CORNMEAL CUBES

- 1 pint boiling water.
- ¼ teaspoon salt.
- ½ cup cornmeal.

Have the boiling water in the inner cup of a double boiler directly over the fire; add the salt, then whip in the cornmeal and stir till it does not settle. Set the inner cup into the outer cup of the double boiler, which contains boiling water, and cook one hour. (This should be prepared the day before.) After the meal has cooked one hour, pour it into a bread tin wet with cold water, and set away to cool. Run a knife around the cornmeal to remove it from the tin. Slice it into one-inch slices and cut the slices into one-inch cubes. Beat an egg slightly and add to it one tablespoon cold water and a few grains salt. Roll



the cubes in fine bread crumbs, dip them into the egg mixture, then roll in the crumbs again. Lay the cubes on an oiled pan, and bake in a hot oven till nicely browned. Serve with sirup.



Steamed Rye Pudding

#### RIPE OLIVE LOAF

- 1 pint milk.
- 1½ cups thoroughly dried crumbs of wheatless bread.
- ½ cup chopped ripe olives.
- 2 eggs, beaten.
- 1 teaspoon salt.

Soak the crumbs in the milk a few minutes, then add the remaining ingredients. Put into an oiled bread tin, and bake till set. Serve with tomato sauce to which a few chopped olives have been added.

#### TOMATO SAUCE

- 1 pint tomatoes.
- 1 small onion, cut fine.
- 2 tablespoons oil.
- 2 tablespoons cornstarch.
- ½ clove garlic, if desired.
- ½ bay leaf if desired.
- 1 teaspoon salt.
- ¼ teaspoon thyme.

Simmer the onion, tomato, garlic, bay leaf, and oil together for ten minutes. Stir in the cornstarch which has been stirred smooth with a little cold water. Rub through a fine strainer. Add the salt and thyme, and water to thin if too thick.

#### STEAMED RYE PUDDING

- 6 eggs.
- 2 tablespoons lemon juice.
- 1 cup corn sirup.
- 1 cup seeded raisins, washed and dried.
- ½ cup chopped walnuts.
- 2 cups rye meal.
- ¼ cup cornstarch.

Separate the whites from the yolks of the eggs. Beat the yolks till stiff, adding one tablespoon lemon juice. When

quite stiff, add the corn sirup and beat again. Beat the whites till creamy; add one tablespoon lemon juice, and beat till stiff. Dredge the raisins with one cup of the rye meal. Pour the beaten yolks into the beaten whites, carefully fold in the raisins and nuts, then the remaining one cup of meal and the cornstarch. Fold as carefully and with as few strokes as possible that

air may not be lost from the batter. Put into an oiled pudding dish, cover, and steam one and one-half hours. Serve with vanilla sauce.

#### NUT AND OLIVE HASH

To chopped potatoes add a few chopped nuts, chopped ripe olives, and a chopped onion that has been cooked in a little oil. Put into an oiled pan and place in a hot oven till well heated.

#### CORN PONE

- 2½ cups cornmeal.
- 1 tablespoon oil.
- 1 teaspoon salt.
- Cold water.

Mix the cornmeal with the cold water into a soft mush. Add the oil and salt. The mixture should be just thick enough to keep its shape. Put on an oiled pan in egg shapes with a spoon, and bake. Eat while hot, splitting the cakes and spreading them with butter or nut margarin.

The Southern white cornmeal is best for these cakes.

#### HOE CAKE

- 2 cups white cornmeal.
- 1 teaspoon salt.
- 3 tablespoons hard vegetable fat.
- ½ cup boiling water.

Scald part of the meal with the boiling water. Add the salt and fat and the rest of the meal. Mix in sufficient cold water or milk to make a soft mush. Put this in spoonfuls on an oiled pan, and bake in a hot oven. Eat while hot.



## FOOD SAVING; WHY AND HOW

*(Continued from page 265)*

partially responsible for the prevalence of appendicitis.

The sugar in fruits may be considered a form of predigested starch. Fruits in season should therefore be eaten much more freely than they are. In the place of the rich puddings and pies commonly eaten for dessert at the close of meals, fresh, thoroughly ripened fruit would be much better for all, and especially for children.

Wheat, rye, barley, and corn can be obtained cheaper than prepared cereals. These can be ground in the mill referred to, fine enough to make bread, or coarse enough for making excellent breakfast foods. These mills may be purchased at from three to five dollars.

Variety in food is beneficial, owing to the fact that some foods are rich in one element but deficient in others. Cereals furnish the acid salts, while vegetables furnish the alkaline substances. The

blood and tissue fluids should be kept in a neutral or slightly alkaline condition; hence the importance of variety,—not a great variety at each meal, but variety in the meals.

So far as mineral matter is concerned, bread is particularly rich in phosphorus. It should be supplemented by something which contains more lime and iron, especially in the feeding of children. Milk provides the lime, and fresh fruit and vegetables, the iron. If the latter are served in reasonable abundance, the kind of bread does not matter so much. If fresh fruits and vegetables cannot be obtained, use whole-grain flour to supply growth-regulating substances.

While the conflict between nations and the ruthless destruction of life must be regarded as a curse, food conservation to which it has given birth will prove to be a blessing to those who co-operate with the Government.



United States Fuel Administration

Family of Joseph Tumulty, Secretary to the President. Mrs. Tumulty urges American housewives to order coal early



# AS WE SEE IT

Conducted by G. H. Heald, M. D.

## CAN A MAN LENGTHEN HIS DAYS?

CAN one by careful living postpone his funeral ceremony? Can he, for instance, by a carefully selected regimen and by attention to the details of his daily life prolong it to the century mark? Books there are, a goodly number, replete with instruction on how to live long, a hundred years, even two hundred years! But strangely enough, it is not evident that those who wrote such books when young lived to a remarkable age. So far as the records go, they lived no longer than the average. And those who wrote at the age of seventy or eighty did not live long after the appearance of their instruction in the art of living long. In this, perhaps, they resemble the plants. When an annual plant has flowered, it dies. Perhaps these books on longevity are the flower,—so to speak,—the last and greatest effort before dissolution. The untimely death of the instructors in the art of living long is the irony of fate. It is the mockery of the grim reaper, who says: "You encroached on my territory. You as a trespasser must take the consequences." This is not written at random, but after learning, as far as possible, the age at death of the men who have written books telling others how to postpone death.

There are some excellent reasons why one cannot give any guaranteed directions for circumventing the last enemy. There are so many factors beyond his control entering into the longevity of an individual that it is hazardous in any case to predict what will result from a certain course of living. In the first place, some are born with a much better heredity than others. They seem more resistant to the inroads of disease, and notwithstanding abuse and exposure, they live to a fairly good old age. Others "catch" about everything that comes along, and with the best of care manage to eke out a comparatively brief and miserable existence. Moreover, the infectious diseases of infancy and early childhood may, with their complications, have left the child so handicapped with crippled organs that he is doomed to an unequal struggle. Thus the accidents of heredity, congenital influence, and childhood infections may so handicap a person that he can never hope to live a normal healthy life. The handicap may be a mental one, the person being too feeble-minded or too shiftless to give himself adequate care, even under most careful instruction.

Then even when most cautious, one may meet with an accident which he could not foresee or control. Many a life is forfeited prematurely in a railway disaster, to mention only one of many. Then there are more subtle accidents to which the unwary is exposed. The careful person, being vaccinated to prevent smallpox, may through no fault of his, contract some disease, such as tetanus, that takes away his life. Such an event is rare, and is mentioned only as an extreme example of how, even in the attempt to prevent any chance of infection, one may invite a more deadly infection. Even from certified milk one may contract a fatal sore throat. This again is a rare occurrence, and is



mentioned only to show that extreme caution may not always avert an accident. It is not intended to suggest that the care should not be taken.

One in pursuit of his duties in civil life may be called upon, just as one is in the army, to risk his life for the public good; and not a few men, faced with the alternative of neglecting duty or of injuring their health, have chosen the latter. Army surgeons do not hesitate to risk their lives for the sake of wounded soldiers, and in times of peace medical men have not hesitated to give up their lives in order to conquer some foe to the human race, such as yellow fever.

Perhaps, after all, the most worthy object is not to live a hundred years, or eighty, or sixty, but to live today so that tomorrow we shall not be ashamed of the record. It is highly commendable to maintain the body according to the best light we have, in the highest possible condition of health and efficiency. But health should be, not the end, but only the means to the greater good, — our contribution to make this a better world for our fellows. And when this greater good calls for the sacrifice of health, even of life, we will gladly make the offering if we are of the stuff our boys in Europe are made of. He who dies in a great cause lives on forever. He who saves his life by shirking duty, is twice dead.

The great question, then, is not whether a man can prolong his days. Life consists not in *duration*. It is not measured by the clock. Life is *action*, and is measured by noble deeds. The full lives are not the giant sequoias which have lived since the days of the Babylonian Empire, nor the giant South Sea turtles which have lived for centuries. The full lives are those that have contributed something substantial to the world's good.

#### A DOCTOR'S ADVICE TO THE MIDDLE-AGED

THIS is not a prescription guaranteed to keep you alive and well till you are eighty years old or more. Nature has possibly already decided against that through your heredity; and your youthful experiences have possibly confirmed the decision, so that you may not in any sense be a candidate for a place among the aged. Perhaps your inherited and environmental influences have so conditioned your life that with the best of care seventy years, or sixty or fifty, will be an extreme limit. My purpose will be to suggest such a course of living as will favor your reaching your extreme limit, whatever that may be.

The great secret of a long life, a sweet life, a life valued by your friends, and enjoyed by yourself, is moderation, temperance, and contentment.

Nothing so wears and tears on the physical organism and increases nervous tension and blood pressure as a discontented, fretting, worrying spirit, a temper like a powder magazine that explodes at every trifling circumstance, that is having trouble with the butcher, the baker, the clerk, the cook, that feels as if the world is full of idiots and knaves. Such a spirit of suspicion, and unrest, and antagonism constantly stimulates to the elaboration of poisons which are devitalizing to the body. This has been proved beyond the chance of a doubt. The first and prime essential to a healthy old age is a quiet, contented spirit. It is the spirit that meets the world and every circumstance



with a smile. If you see a man or woman of fifty who amid all the nagging events of life can maintain the smile inwardly,—not the smile mask that is sometimes placed on the outside,—you may be sure that, barring accident, that person is a candidate for a long life. Perhaps there is no other influence so potent as this, but it is not the only one.

Experience has repeatedly shown that one who is suffering from “dyspepsia” cannot well cultivate or maintain the smile habit. Dyspepsia and grouchiness naturally form a vicious circle. While one is doing all in his power to form the contentment habit, the smile habit, it is necessary to do everything possible in a physical way to overcome the dyspepsia. This may mean a course at a well-equipped sanitarium, where treatment will be given to correct the digestive disorder, and where the patient will learn under the advice of a competent dietitian what and how to eat, in order to maintain his digestive organs in the best possible condition. At any rate, whether or not it is possible to visit a sanitarium, it will be necessary to revise the menu toward simplicity. Perhaps there should be a general cutting down in quantity. There may be an excess of protein, particularly animal protein, as meat, fish, eggs. That is a very general fault. There may in some cases be an excess of carbohydrate foods, the starches and sugars,—too many desserts perhaps, too complicated dishes, too great a mixture of diverse foods.

Not rarely a chronic indigestion is found to be due entirely to the use of certain foods or combinations of foods. It is usually difficult to convince the patient of this fact, for generally they are the foods he likes best, and he would almost rather have his dyspepsia than forfeit the pleasure of his favorite dishes.

There are other moderations that favor a lengthened span of life. Certain things are best avoided altogether; for instance, the stimulants and narcotics, alcoholic drinks, tobacco, tea, coffee, and the habit drugs.

There should be moderation in exercise. One who has been an athlete cannot afford to drop down to an inactive life; if he does he will “go stale.” On the other hand, one who comes to middle life without having had adequate physical training should not attempt some of the athletic feats that might have been more proper at an earlier age. One should accustom himself to exercise, but not to violent or exhausting exercise. Exercise is most beneficial when it is pleasurable. This does not include such feats of endurance as Marathon races or extra long walks, or such straining feats as high or wide jumping, except for those who are in training.

One who desires long life should be careful to secure an abundance of sleep. And if for any reason the rest at night is broken, a nap should be secured during the day. It is worth everything as a reconstructive.

Do not neglect little ailments, such as a cough, sore throat, and defective teeth. If you have the care of a car, you know that a little neglect of some ailment, say a leaky valve or a loose nut, is liable in a short time to be extremely costly. So it is in the human body. Keep up the repairs. If in doubt, consult your doctor or your dentist.

It is well, say once a year or once in two years, for the middle-aged to have a careful chemical and physical examination, in order to detect in their incipency any conditions that might, if permitted to continue, materially shorten the life. But above all, such an examination should not be allowed to cause



worry. If the physician detects incipient kidney disease, it will not do to settle down in the thought that your case is ended. Show your courage by co-operating in every way with your doctor in his efforts to remedy the trouble.

In any case, keep up your courage, for courage in a large proportion of cases is more than half the victory.

What with the numerous health writers who have spun out fine theories, and with those who by some definite practice have rejuvenated themselves, and advise others to do the same, we might choose the latter, if they could but agree on some or on *any manner* of life that would in all cases "deliver the goods." One man is rejuvenated by an abstemious diet; another pays little attention to his diet, but takes a five-minute romp every morning in bed; another eats what he hankers after and whenever he is hungry, but chews till the chew is all chewed out; another is sure he has attained perfect health by omitting breakfasts. And so we might go on enumerating the various systems that have (possibly) brought vitality and longevity to the discoverer.

The one and only thing that seems to be common to all these systems — aside from the fact that they either reduce the fuel intake or increase the combustion — is the faith and enthusiasm of the authors: and that this is important is witnessed by the fact that there have been followers of all these systems who have been disappointed at the results. They Fletcherized, they Ben-netized, they Cornaroized, they may have even Hooverized, but they did not get the results, for they were mere camp followers and lacked the spirit of originators.

#### CASTING BALLOTS ON THE LENGTH OF YOUR LIFE

DID you ever think of it that way? Each time you eat, each time you drink, each time you choose what clothing you shall wear, each time you indulge in some strenuous feat of endurance, each time you take some "bracer," each time you neglect to get sufficient sleep, each time you give way to angry passion or that other kind, you are casting a ballot into the box — in the voting contest between you and the aged reaper. Some day the votes will all be counted and the old reaper will have won out. Your great-grandparents have cast some votes, and your grandparents; but mostly your parents, some of their votes having been cast before your birth, some afterward. Every time they indulged you in some forbidden food just to keep you from squalling, every time they permitted strangers to kiss you, every time they overdressed you in summer or underdressed you in winter, every time they permitted you to come in contact with an infectious disease, as whooping cough or measles, every time they neglected a defective tooth, or adenoids, or a cold, or other disorder, every time they gave you milk from some questionable source, or other inferior food, or inadequate food, every time they allowed you to sleep in a dark, un-ventilated room, they were casting votes in favor of the reaper and against you. All those votes have been cast. You cannot undo that. Neither can you take out the votes you yourself have already deposited in favor of the reaper. The best you can do is to cease voting for him, and by right eating, by avoiding all stimulants and narcotics, by moderation in exercise, by proper and adequate clothing, by a clean, hopeful, and cheerful life, to cast as many votes as possible against the reaper and in favor of yourself.



Can you do it? Have you sufficient character to right-about face and to inaugurate and keep up an efficient system of health building? Some have done it. Some who were given up by specialists — condemned to die — have “come back” and have done a good work, simply because they placed their determination on the right side. How about you? Can you do it? Will you?

#### HOW TO BE COMFORTABLE IN HOT WEATHER

THERE are a few principles which should guide those who desire to be comfortable in hot weather. The body should generate as little heat as possible, and should get rid of the excess heat as fast as possible.

To lessen the generation of heat, cut down the exercise, especially during the hot part of the day. Plan your heavy work for the early morning hours. During the hot hours walk slowly, if at all. Take your work leisurely, and seek the shade, when consistent. Eat sparingly, especially of meats and fats. It is impossible for one to keep as comfortable in hot weather on a meat diet as on a nonmeat diet. Live more largely on fruits and succulent vegetables. You will crave such foods rather than the heavy foods. Follow this craving rather than custom.

Avoid the use of spices, condiments, and all alcoholic drinks. Every drink of beer or other alcoholic beverage must be burned in the body, with the production of more heat.

Wear light clothing. Remember that every layer of clothing makes another nonconducting dead-air space, to hold in the heat of the body. Where the weather is very warm, the nearer one can come to wearing only one layer, the more comfortable he will be.

The clothing should be light in color rather than dark.

Drink six to ten glasses of water daily, principally at other than meal times.

Have a daily bath. It will make you fresher. It is denied by some that daily bathing has a hygienic value; but surely a feeling of cleanliness and a sense of self-respect must be conducive, if only in a minor degree, to a more perfect physical condition.

Above all, do not worry, and do not watch the thermometer and your feelings. Have enough worth-while matters to occupy you so that you will not be nursing your sensations. The weather seems hottest to those who are watching the thermometer and the weather reports.

Where a house is supplied with electric current, the small fans now on the market, which consume less current than an ordinary bulb, are very efficient little coolers, and may be used to advantage during the hottest hours.

Where the weather is dry and hot, the surrounding temperature may be cooled perceptibly by sprinkling, and by hanging up cloths kept moistened with water.



# QUESTIONS AND ANSWERS

Conducted by J. W. Hopkins, M. D., Washington (D. C.) Sanitarium

This is a service for subscribers to **LIFE AND HEALTH**.

If a personal reply is desired, inclose a three-cent stamp.

If you are not already a subscriber, send also the subscription price with your question.

Replies not considered of general interest are not published; so if your query is not accompanied by return postage for a personal answer, it may receive no attention whatever.

Remember that it is not the purpose of this service to attempt to treat serious diseases by mail. Those who are sick need the personal examination and attention of a physician.

State your questions as briefly as possible, consistent with clearness, and on a sheet separate from all business matters. Otherwise they may be overlooked.

For prompt attention, questions should be addressed to **J. W. Hopkins, M. D., Takoma Park, D. C.**

## Nasal Catarrh

"Give the cause and treatment of nasal catarrh."

This disease is often due to the excessive use of fats and sugar, causing defective action of the liver, and burdening the mucous membranes by the excessive amount of waste matter which they are compelled to throw off. The use of flesh foods and condiments also irritates the liver, producing this disease. A sedentary occupation with indoor life causes a low vitality, and predisposes to nasal catarrh. In the treatment, the skin must be trained, proper clothing should be worn, varying according to the daily needs. Daily morning shower or sponge baths, alternate hot and cold applications to the spine, salt rubs, alternate hot and cold sprays, and cold frictions are indicated.

Nasal obstructions are very important factors in producing nasal catarrh. Spurs and growths of the septum, hypertrophy of the turbinates or of the mucous membranes, hinder the drainage of the nose, thus collecting germs which produce infection. These deformities require surgical treatment.

The throat and pharynx should be thoroughly sprayed with an alkaline solution. For this purpose, a DeVilbiss spray is excellent. The curved tip should be inserted into the pharynx through the mouth. The nose and throat should be sprayed with the straight tip. For the alkaline wash, a solution made from Seiler's tablets may be used, or a solution consisting of a teaspoonful each of salt, sodium bicarbonate, and borax to the pint of water is good. Following this, an oily spray should be applied, consisting of about five grains each of menthol and camphor to two ounces of liquid albolene. These applications should be made two or three times a day.

## Chronic Cough

"When I was twenty-one years of age I took a very severe cold, followed by a gradual development of coughing and raising of phlegm and grayish and dark-colored pellets and masses. This is worse in a damp climate, but improves in a dry climate."

You should have a physical examination of your chest, and a microscopical examination of the sputum, in order to eliminate the possibility of tubercular involvement. It is possible that this is chronic bronchial catarrh. If so, your out-of-door life is the very thing. If there is

no tuberculosis present, your exercise can be more rapidly increased. You should get the elimination by means of the skin and the bowels, for if these organs are lazy there is that much more burden thrown upon the mucous membrane of the respiratory tract. Develop your chest by means of breathing exercises, carefully increased from day to day. Your out-of-door exercise should be progressive as well. If possible, wear a heating chest pack, having the inner part of the compress made out of very thin cheesecloth and wrung nearly dry before being applied; over this wear a flannel jacket. Wear this chest pack at night, and take one or two fomentations to the chest before applying the pack. Remove it on arising, and sponge chest with cold water, drying with vigorous friction. You will also get benefit by inhaling steam from boiling water containing one-half teaspoon or so of compound tincture of benzoin. This may be prepared by adding one or two drams of oil of eucalyptus to the ounce of compound tincture of benzoin. This is very stimulating to the respiratory tract, and as the secretion increases, the amount used in the boiling water should be decreased. Keep the feet warm.

## Pellagra

"What causes pellagra?"

Pellagra is found in conditions of poverty in small towns and villages. It is seen mostly in white people at the ages of from twenty to forty. It is always seen in those who have not had the proper diet. The diet is insufficient in that the essential vitamins are absent. Some investigators consider pellagra an infection, but this is probably not true.

Pellagra can be prevented and eradicated by the use of a well-balanced diet,—fresh milk, eggs, beans and peas, either fresh or dried, but not canned, and the addition of a plentiful supply of vegetables, as lettuce, celery, spinach, carrots, raw cabbage. The use of the legumes, as beans, peas, and lentils, is especially important in the prevention of pellagra.

It is of still greater importance to avoid the use of soda breads and the excessive use of soda in any kind of cooking. With study and persistent effort the housewife will be able to entirely avoid the use of soda. Pellagra cannot be cured by medicines. The same diet which prevents it should be used in its cure, and the foods should be cooked without soda and given



the patient in a finely divided state. Some raw foods should be administered if the condition of the bowels will allow. It may be necessary to use mild laxatives in some cases, but for the most part the symptoms should be controlled by enemas, by bathing, and by other hydrotherapeutic measures. Rest and fresh air are of great importance. Pellagra is neither contagious nor infectious.

#### Blackheads

"Please give the cause and cure of blackheads."

The cause of this condition is the lack of care in washing and scrubbing the skin, especially of the face and neck. The oily glands become clogged with dirt and oil, thus lowering the vitality of the glands. Then a little parasite makes its home there, irritating the lining membrane of the gland, and causing infection with germs from the surface of the skin. Treatment: Give fomentations to the face or neck, or steam the skin on these parts, then soften the skin by the application of oil or vaselin and squeeze the gland until empty. Apply fine sulphur ointment, or wash with a disinfectant soap or lotion, and then use cool water. With careful training of the skin and the above treatments this condition will disappear.

#### Onions

"Are onions regarded as a harmful article of diet?"

Onions are very nutritious, but contain an essential oil which is objectionable to some people. In these cases it can be removed by cooking. Individuals with slow digestion or with sensitive stomachs should not eat raw onions, but may perhaps take them without difficulty if they are thoroughly cooked. Those who have fairly good stomachs may eat raw onions if they masticate them thoroughly.

#### To Reduce Blood Pressure

"Do you recommend medicines to reduce blood pressure?"

Medicines for this purpose, as nitroglycerin, etc., should be used in emergency, and that only for a short time. The reduction of high blood pressure necessitates increasing the elimination, improving the action of the liver, skin, kidneys, and bowels, and changing the other habits which produce the disease. A strictly vegetarian diet is necessary. The patient needs more than the average amount of rest. The direct action of these medicines in dilating the blood vessels is better done by hydrotherapeutic measures, as warm baths, mild massage, and friction.

#### Pyorrhea

"Please give me a reliable treatment for pyorrhea."

Pyorrhea, or Riggs's disease, is an infection of the space between the gum and the teeth by the ameba (*Endameba buccalis*). It requires careful attention by a good dentist. The teeth should be treated locally for some time, and the home treatment includes careful brushing with a good tooth paste or powder. There are some remedies which are beneficial, as alkaline anti-

septic solutions, or glycothymoline, also antiseptic solution or listerine. These medicines, diluted with four to six parts of water and used to cleanse the teeth three or four times a day, will bring good results. Many cases require application of iodine also. Emetine, the alkaloid of ipecac, is a specific in the treatment of this disease, but it should be applied by a surgeon dentist. Recurrences must be treated promptly.

#### Grape Juice Tonic

"Do you approve of grape juice as a tonic?"

Yes. The best tonics are sleep, rest, fresh, pure air, proper food in the right amounts and at the proper times, and carefully regulated habits of bathing. Grape juice is one of the best food tonics. The food in it consists of grape sugar and fruit acids. The sugar is predigested, changed by the action of the sunlight, and is ready for immediate absorption, thus making it a ready source of energy. The fruit acids are disinfectant in the alimentary tract, and are cooling to the tissues. In the tissues they are oxidized to alkaline carbonates, and uniting with the waste matters from the body, help to remove them. Physiological tonics, as those above mentioned, are to be much preferred to arsenic, strychnine, nux vomica, etc., in that they are not poisonous, and have no bad after-effects to overcome.

#### Chronic Dyspepsia

"I have chronic dyspepsia, gases forming in the stomach and giving me great pain, so that I have to stop or stand quite still, when walking or going up a hill. This has been rapidly getting worse, and is perhaps aggravated by the work and worry of my business as inspector of munitions. What do you advise?"

This condition may be primary in the stomach, and may be due to chronic gastrointestinal catarrh. It may, however, be secondary to chronic heart trouble. You should have a general physical examination, to determine the exact condition of the heart, blood pressure, and circulation. You must also have a test meal, and if possible a barium or bismuth meal, with an X-ray examination of the alimentary tract. The trouble can thus be accurately diagnosed and the proper treatment prescribed.

#### Sleepy Spells

"Are sleepy spells at the menstrual period during menopause due to sluggish liver and poor blood, or to the effect of the time of life upon the nervous system? Give treatment."

This symptom may possibly be due to a mild disturbance of the nervous system at that time of life, but most likely it is caused by constipation, intestinal indigestion, and the resulting torpidity of the liver.

Treatment: Maintain regular habits of sleep, exercise, bathing, diet; secure regular actions of the bowels at least two or three times a day. Avoid all excitement, especially games, reading, etc., which will at all excite. Do not keep late hours. Do not overeat.



## NECESSITY OF ELIMINATING DRINK ❁ ❁ ❁ ❁ ❁



As we analyze the facts in a scientific and medical way, there can be no doubt of the injurious effects of alcoholic drinks on both the physical and the mental well-being of our population. There can be no doubt that the greatest single factor that we can control in the interests of the public health of the nation would be the elimination of alcoholic drink.

¶ In the slow evolution of civilization, many great wrongs persisted for centuries because people had become so accustomed to them that they were accepted as matters of course. They became so intrenched that it required either centuries of education or a revolution to extirpate or right them. Great epidemics and plagues were accepted as inevitable and as visitations of God. Government by autocratic power and divine right without the consent of the governed has been tolerated. Slavery with its horrors was defended. The unequal rights of women went long unquestioned. Among these great wrongs too long tolerated, none has done more injury to mankind than drink. Events now are moving rapidly in the convulsions of a world war. Women have demanded and will obtain, as they deserve the world over, their equal rights. The course of events is writing the death warrant of autocracy and rule by divine right; and science and education should eliminate not only the plagues and epidemics but also the curse of drink from the world.

¶ I want to plead for the united action of the organized medical profession of this country to secure protection by law against the injury that drink is doing to our people, not as a political measure, but as the most important public health measure that could be secured. In this crisis, when we and our allies are fighting not only for ourselves but also for humanity and civilization, we must organize the entire nation in the most efficient possible way, and this cannot be done without eliminating drink. Each member of the medical profession as an individual, each county medical society, each State medical society, should take an active part in the propaganda against drink, and secure national prohibition, not years from now, but now when it is so badly needed and will accomplish so much good, not only for our boys in khaki and in blue, but for the nation in arms. And when it has once been done away with, it could no more be resurrected after the war than could slavery.—*Arthur Dean Bevan, M. D., Presidential Address before the American Medical Association at the 69th Annual Session, Chicago, June, 1918.*



## NEWS NOTES

### Experimental Kitchen

The United States Department of Agriculture has been conducting an experimental kitchen in which various substitutes for wheat are being tested out. Some of the good old recipes in use fifty and seventy-five years ago, when corn, buckwheat, rye, and barley were in more common use are being tested and standardized. Before a recipe is made public, it must meet the criticism of the laboratory experts, and must also prove to be valuable in the hands of a practical housekeeper.

### Some Hooverizing

In the sugar plantations weeds grow luxuriantly, cutting down sugar products. The work of keeping down the weeds entails an enormous expense. A Hawaiian sugar planter by experiment demonstrated that the weeds could be effectually controlled by covering the ground with paper in long rolls like building paper. Through this paper the sharp young canes puncture holes, but the weeds, being deprived of sunlight, smother. The temperature under the paper is warmer than above, hastening the growth. It is said that this method increases the productiveness at least a ton of sugar to the acre; and the paper is made from the waste sugar-cane pulp.

### A Medieval Panacea

An editorial in the *Journal A. M. A.* describes some of the healing mixtures of a former generation, and comments: "Humorous, do we say? Perhaps some of our present-day nostrums or even prescriptions [!] will likewise be quoted a few centuries hence as instances of the perpetuation of quackery in all ages." Very likely.

### Preservation of Vegetables

Farmers' Bulletin No. 881 explains methods of preserving vegetables. To preserve by fermentation, the vegetables should be packed with layers of dry salt (3 lbs. of salt to 100 lbs. of vegetables) and kept in a warm place under pressure until fermentation occurs. When fermentation stops, the vessel is set in a cool place and covered with paraffin or in some other way rendered air-tight. Cabbage, greens, and string beans may be preserved in this manner. To preserve with salt, use 25 pounds of salt to 100 pounds of vegetables. This prevents growth of yeasts and molds. The salt and vegetables are packed in alternate layers and kept under pressure 24 hours. If they are not then covered with liquid, add brine (1 pound of salt to 2 quarts of water) to cover.



## THE HINSDALE SANITARIUM

Is beautifully located seventeen miles from Chicago on the Burlington Road, and is of easy access to the great metropolis of the Middle West.

Surrounded by spacious lawns and sixteen acres of beautifully wooded grounds, this institution provides a quiet, restful retreat for the chronic invalid.

The institution is also well equipped for the scientific and rational treatment of the sick, both medically and surgically, this equipment including Swedish movements, electric apparatus, radiotherapy, hydrotherapy.

Instruction in dietetics especially adapted to each patient, is part of the daily program; also individual physical training and mental diversion in the way of occupational therapy, both in and out of doors.

Private rooms with private telephone in each room and regular hotel service.

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*The Hinsdale Sanitarium - - Hinsdale, Illinois*



### Vaccination Rule Enforced

Owing to the increase of smallpox in Illinois, the State board officials have urged stringent enforcement of the vaccination rule, and advise that every person not vaccinated within a period of five years be revaccinated.

### Food for Nursing Mothers

According to R. B. Hoobler, in *American Journal of Diseases of Children*, "a diet composed exclusively of cereals, fruits, and vegetables does not supply a sufficient protein for elaborating milk protein, and causes a severe drain on the tissues of the mother. Of the various forms of animal protein, that which is derived from cow's milk seems particularly suitable for the production of human milk protein, as well as for the preservation of maternal tissues."

### Use More Beans

The Food Administration is urging the use of more beans. One bulletin says: "Beans are to be counted as substitutes for meat rather than for the cereals. They can well take the place of a meat dish on many occasions. Certainly with them in the diet, there is less need for meat." Most certainly "Boston baked beans have taken the place of meat in certain meals for a large section of the country for many years. They have become an institution. Bean loaf skilfully made can hardly be told from meat loaf, and there is little difference in nutritive value."

### Barley Flour Healthful

"There can be no question about the healthfulness of barley flour," says R. A. Dutcher, professor of agricultural biochemistry at University Farm, St. Paul. "Physicians quite generally prescribe barley gruels for infants and various barley preparations for invalids, and I cannot understand that there is any reasonable ground upon which to base the assertion that its general use would cause any trouble to one's constitution."

### Nickel Cooking Utensils

It has recently been suggested that cooking utensils be made of pure nickel. There would be a number of advantages. Pure nickel does not rust or tarnish; the danger of poisoning incident to the use of nickel-plated copper vessels is avoided. Though nickel is not so good a conductor of heat as aluminum the nickel vessels can be made much thinner, which will overcome this difference. The melting point of nickel is much higher than that of aluminum, and there is practically no danger of softening a nickel dish on a hot fire or from constant use. Nickel is also much more resistant to the action of acids than aluminum, and is absolutely proof against alkalis. Nickel vessels are easily cleansed, hot water and soda being all that is necessary. Now *don't* write in asking where you can buy nickel vessels, for the editor knows of no such place. Read again the beginning of this paragraph. This is—so far—only a suggestion. (Continued on page 288)

## TRI-CITY SANITARIUM

Located on the main line of the Rock Island Railroad, and also on several branch lines, making the institution easily accessible from several surrounding States.

The institution is situated in the beautiful city of Moline, on a high bluff, in good view of the great Mississippi River, only one mile away. The Sanitarium is equipped to give scientific and rational treatment to both medical and surgical cases, employing hydrotherapy, electricity, massage, and the X-ray.

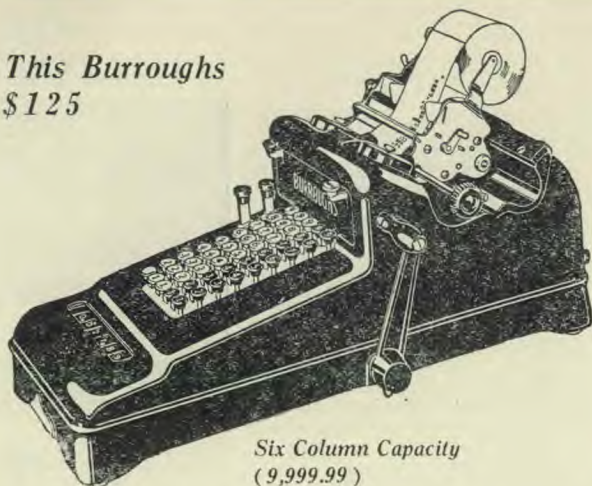


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Hartley Withers, editor of the *Economist*, of London, says: "Money spent in war time on things not needed is money given to the enemy."

**Things You Do Not Need**

If you think more of saving than of spending, you will be surprised to learn that there are many things which you do not need after all.

**Baltimore Wheat Saving**

The leading hotels of Baltimore have cut all wheat from their menus till next wheat harvest. The savings thus effected by cities and States are proving a wonderful help in bridging over the present wheat crisis. But every family should continue to do its utmost to save wheat.

**Fifty-Fifty Rule**

A Council Bluffs grocery store was robbed of five sacks of wheat flour one Sunday night. The next night it was robbed of five sacks of cornmeal. The grocer's explanation is that the burglar, upon finding that he had disregarded the 50-50 rule, was so conscience stricken that he could not rest until he had conformed to the Food Administration's ruling that one pound of other cereals must be obtained with every pound of wheat flour.

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"—that thou mayest prosper and be  
in health, even as thy soul prospereth."

JOHN 3:1-2.

## "HALF-HEALTH" —does it satisfy you?

**D**O you know that only one in twenty enjoys "whole-health"? The rest live on, day after day, in a state of "half-health"—not sick enough to go to bed—nor well enough to engage with zest and energy in the busy activities of the day.

How about yourself? How do you stand in your "physical inventory"? How do you size up to the measure of a man? Are you making your physical endowment yield its penny-most return? Or—are you content to drift along—idly, aimlessly—hoping that by some miracle you will suddenly blossom forth into the healthy, virile person you ought to be?

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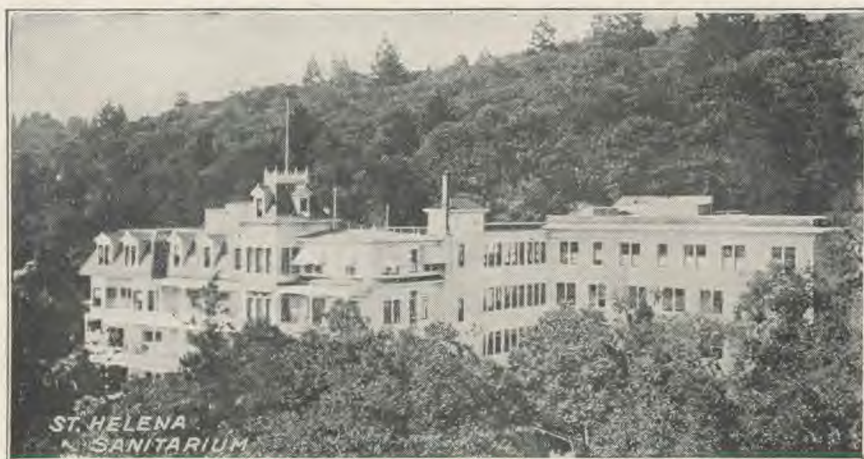
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# St. Helena Sanitarium



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**I**TS natural setting, in a forest of live-oaks, firs, manzanitas, and madronas, together with an almost unending variety of flowers and foliage, gives a beauty and fragrance to the place that beggars description. It must be seen and enjoyed to be appreciated.

**E**VERY modern facility favorably known to medical science in the treatment of curable conditions, has been incorporated into the institutional régime. Thus nature and science have combined to make the St. Helena Sanitarium all that can be desired by the diseased body or the weary mind.

## *Health is Contagious at St. Helena*

Sixty-five miles from San Francisco, easily accessible by either steam or electric line; three and one-half miles from St. Helena; 750 feet above the sea level; splendid climatic conditions at all seasons of the year; pure mountain water; beautiful view of valley, mountain, and plain; seven physicians, seventy nurses; excellent service, liberal cuisine,—these and many other advantages are to be enjoyed at this beauty spot of California.

## The St. Helena Sanitarium

Sanitarium, Napa County

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