GOOD HEALTH

EDITED BY J. H. KELLOGG, M. D.

APRIL

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PUBLISHED MONTHLY

Entered at the Post-office in Battle Creek, Mich., as Second-class Matter.

10 Cents a Copy $1.00 a Year

HOUSEKEEPERS' NUMBER

Our Health Waist

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We sell three qualities,—a medium weight jean twilled material, or lighter weight Batiste for summer wear, and a heavier weight sateen. White or Drab Jean or Batiste, bust measure 30 to 38, price $1.25; 40 and 42, $1.50; 44 and 46, $1.75. White or Drab Sateen, bust measure, 30 to 38, price $1.75; 40 and 42, $2.00; 44 and 46, $2.25. Black Sateen, bust measure, 30 to 38, price $2.00; 40 and 42, $2.25; 44 and 46, $2.50. All other measurements must be made to order, and cost 25c additional, which add to remittance. We carry in stock sizes from 30 to 42 inches bust measure, and in the even numbered sizes only.

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115 Washington Avenue, North, BATTLE CREEK, MICHIGAN

BETWEEN OURSELVES

(Our own page especially reserved to tell you a few things about "us")

Spring is here. Spring and—housecleaning. Housekeepers' troubles soon begin in earnest. Here's where the Housekeepers' Number of Good Health fits in.

Legitimately, spring began some little time ago, we presume. According to all authorities, from the author of the little red geography we studied in the third reader class to the chief of the weather bureau, spring springs into being about the 21st or 22d of March. But real spring—the genuine 18-karat quality—doesn't think of starting until the furniture is out on the front porch, the rugs on the line in the back yard, and the dog seeking mournfully and in vain for some place where the quietude of the winter fireplace still prevails.

✣

This is the Housekeepers' Number of Good Health. It's a good number. You will agree with us in that regard when you have looked it over. It is as good a number of Good Health as you have seen for some time. From cover to cover it contains good things for the housekeeper—and not for the housekeeper alone, but for every member of the household as well.

The pictures, too, are well worth considering. There is a story in every one of them. We had to search all the way from the Atlantic to the Mississippi to obtain some of them. It is our aim to give the Good Health family the best that can be obtained in pictures as well as in other things.

April, 1906

✣

Good Health has had a busy month since you received the last number. The month has gone by so fast that we have scarcely had time to mark its events.

✣

"Quarters" has been the cry of our counting department the past month. You remember we advertised to send twelve fresh "back numbers" of Good Health for twenty-five cents. The ad "took." The pile of surplus back numbers in the filing departments is considerably lower. Still those that are left are in just as good condition as those that were taken, and the supply will last some time yet. The offer still holds good.

✣

One of our Nashville, Tenn., friends this month accompanied her letter regarding Good Health subscrip ons with an assurance which sounds so good to us we will repeat it to you:

"Indeed, I am assured that I cannot afford to be without a thing which I value as much as Good Health, and I think it is this year even more to be prized than last. Its literary excellence and able editorial management gives it an honored place in the company of magazines, and the high standard of hygiene it upholds, I believe, is beyond any other with which I am acquainted.

"I am heartily in accord with the truth and purity of its principles, of which I am a grateful (I wish it were in larger measure) and continuous beneficiary."

✣

Still another writes:

"I have taken Good Health a good many years for my daughter, with whom I have lived. When I am invited to a wedding I make the couple a present of Good Health for one year. I have also sent it to a number of my friends. To some it has been a blessing. We are as choice of every number as of our Bible."

✣

Our boys are still busy selling Good Health. We will have some good propositions for those that prove most active and most valuable. We are anxious to get in touch with the boys. Boys of *to-day* are the men—the managers—of *to-morrow.* That is why we offer the first five copies free.

✣

One of the leading articles in the next number will be upon dress reform in Japan. This will "carry a few cuts" of prim Oriental maidens in the reformed healthful dress. Watch for them. Preparations are being made for the Outdoor Life number for June. This will be one of the best of the entire year.

An Armful of Good Reading for a Quarter

We have just been making more room in our filing and supply departments. To do this we had to reduce our supply of back numbers of GOOD HEALTH. As a result we have a few thousand of these that we are willing to dispose of.

Now, as you probably know, there really are no back numbers of GOOD HEALTH. No number is ever "out of date." So those "back numbers" are really just as valuable as if we had only finished printing them. Every copy is just as fresh and clean as if it had just come off the press—just as fresh as this copy you are reading. Put to proper use, these magazines could do a world of good. Can you blame us, then, for not wanting to waste them?

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Town----------

State----------

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AND·BLOW·THE·BIRDS·ABOUT·THE·SKY,
AND·ALL·AROUND·I·HEARD·YOU·PASS,
LIKE·LADIES·SKIRTS·ACROSS·THE·GRASS-
O·WIND,·A·BLOWING·ALL·DAY·LONG!
O·WIND,·THAT·SINGS·SO·LOUD·A·SONG!

I·SAW·THE·DIFFERENT·THINGS·YOU·DID
BUT·ALWAYS·YOU·YOURSELF·YOU·HID.
I·FELT·YOU·PUSH,·I·HEARD·YOU·CALL,
I·COULD·NOT·SEE·YOURSELF·AT·ALL-
O·WIND,·A·BLOWING·ALL·DAY·LONG!
O·WIND,·THAT·SINGS·SO·LOUD·A·SONG.

ROBERT·LOUIS·STEVENSON.

EMIL·RINGEL·—·06·

GOOD HEALTH

A Journal of Hygiene

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THE NATURAL WAY

·BY· J·H· KELLOGG·M·D·

THE natural method in diet involves, first, the kind of food. he natural food for man, provided he ust take his food just as nature gives to him, is fruits and nuts.

At the present time we hear a great eal about the "raw food movement." ome are trying to subsist on raw wheat id other grains. Raw grains are not a diet for man unless they are taken in e unripe state. In the ripened state these bstances are insoluble in the saliva, and t digestible. In the unripe state, how- er, when the corn is "in the milk," the rbohydrates are not yet in the form of arch; they are in the form of dextrin d sugar, and are easily assimilable by e human digestive organs. When ains are ripened in the sun, they be- me hard and dry for preservation. It only when they are subjected to the ocess of germination that the starch again digested and brought into a ndition in which it can be assimilated the human system without cookery.

Raw starch is a natural food for grami- orous animals, because these animals ve digestive organs adapted to its di- stion. Man's diet is naturally more ined,—a diet which has been sub- ted to a process by which it is prepared for the digestive organs, in a way in which the grains and cereals are not prepared in their natural state.

Take the apple, for example. The green apple contains a large amount of starch, but by the process of ripening under the actinic or chemical rays of the sun, this starch is converted into dextrin, sugar, and acids. In ripe fruit there is very little but starch and wood. The process of cooking partially digests the starch in green apples, converting it into soluble starch, or amylodextrin. If the temperature is high enough, it may even be carried on to the form of dextrin.

The ripening of fruits does for them just what cooking does for the grains. Cooking can hardly be said to improve the digestibility of ripe fruit. The ripe apple is quite as digestible taken in the raw state. There is probably an advantage in the use of raw food, provided we confine ourselves to those foods which are natural, as ripe fruit and nuts. It is not at all certain that nuts are improved by cookery. They are improved by mashing, but almonds, pecans, filberts, and pine nuts are not improved by cooking. The peanut, so called, is not a nut. It is really a legume, and should be classed with peas, beans, and lentils. The

peanut contains about fifteen per cent of raw starch, and is not digestible unless it is cooked properly. Roasting the peanut is not a good way to prepare it. It may be more digestible when roasted than it is when raw, but it is much better cooked by steaming, by boiling, or by a very moderate temperature which will not heat it to such a degree as to produce fatty acids and other products of the decomposition of fats.

If we are going to eat the grains, we must cook them, and the more perfectly they are cooked, the better. The more thorough the cooking, the more nearly we bring them to the condition of fruits and nuts. That is the reason why grains should be dextrinized,— because by this process the starch in the grain is carried one step further toward the state in which carbohydrates are found in fruits and nuts.

Having found out what to eat, the next thing is how we shall eat. The most important question in relation to the matter of eating, of much more importance than the number of meals, is that of mastication. Mastication is unquestionably greatly neglected, especially by the American people. The English do not neglect it so much as do the Americans, and that is perhaps one reason why they are so much less subject to dyspepsia. English people eat four or five times a day, but they do not eat much at a meal, and they eat deliberately. That is a better way than the American method of eating a great quantity of food, hustling it into the stomach, so to speak, and rinsing it down with several glasses of ice water, or cups of iced tea or strong tea and coffee, so that the food may be said to be floating about in a sea of dyspepsia-producing liquids.

This method of eating is certain to end in indigestion. It produces an over-distended stomach, and weakness of the stomach muscle.

The average American begins to suffer from slow digestion before he is thirty-five years old. He takes after-dinner pills, and begins to use a great deal of condiments, which seem to relieve the heavy feeling of the stomach.

The mouth is a mill in which the food is to be ground as nearly as possible to a liquid state, so that when swallowed into the stomach, the digestive fluid, the gastric juice, will come in contact with every little particle of it, and act upon it quickly. Everything which can not be brought to at least a semi-fluid state — a perfectly soft, finely divided state — in the mouth, should be discarded. The majority of people have gotten so into the habit of taking pills that they chew their food only sufficiently to get it to the consistency of pills, then take a sip of water to wash it down, just as they would an after-dinner pill or a capsule.

This practise results in a great loss, not only in the fact that the stomach is compelled to retain the food for an excessive length of time, but because one loses the benefit of the taste which the food contains,— the flavors, which are a sort of advertisement to the stomach of what is coming. When food is kept in the mouth the proper length of time, the taste-buds recognize the kind of food that is there, and send a notice to the brain and stomach of what kind of food is coming, and the stomach prepares the gastric juice that is required for that particular kind of food.

One who takes his food in ten instead of thirty minutes, gains twenty minutes of mouth work, but as a result of that, the food which should have gone down from the mouth in a liquid state, and which should have left the stomach in an hour or two at most, remains in the

stomach five, six, seven hours perhaps, and the stomach is struggling for hours to do the work which could have been done by the mouth in a few minutes. It is only by the friction of the particles of food one against another that it can be reduced to a liquid state in the stomach. The gastric juice can not penetrate these masses of food, and hence they are not broken down readily; so the digestive process is seriously interfered with. It is not profitable to spend so little time at the table, hurrying the food into the stomach, and then have to work for hours to get it out of the stomach. If the food is kept in the mouth fifteen or twenty minutes longer, hours of difficult work will be saved.

If all the people in the United States would at once begin chewing properly, three-quarters of the doctors would be put out of business. The patent-medicine men would have to turn their factories to some more reputable use. Human life would soon be doubled in length, and nearly all the digestive maladies would disappear; and if the digestive disorders disappeared, Bright's disease, liver disease, consumption, and most other maladies would disappear also; for at least nine-tenths of all the chronic maladies from which human beings suffer, grow out of disordered digestion due to dietetic errors.

IN THE HEART OF THE WOODS

SUCH beautiful things in the heart of the woods!
Flowers and ferns, and the soft green moss!
Such love of the birds, in the solitudes
Where the swift wings glance and the tree-tops toss;
Spaces of silence, swept with song,
Which nobody hears but the God above;
Spaces where myriad creatures throng,
Sunning themselves in his guarding love.

Such safety and peace in the heart of the woods,
Far from the city's dust and din,
Where passion nor hate nor man intrude,
Nor fashion nor folly has entered in.
Deeper than the hunter's trail hath gone,
Glimmers the tarn where the wild deer drink;
And fearless and free comes the gentle fawn
To look at herself o'er the grassy brink.

—*Margaret E. Sangster.*

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INDIANS TRAILING COWBOYS

What the White Race May Learn from the Indian

BY GEORGE WHARTON JAMES

II

IN addition to sleeping out of doors, nasal breathing and deep breathing, we may learn from the Indian how to keep the spinal column upright, how to have a graceful carriage in walking, and how to cure stooped shoulders. With all younger women and men of all ages among the Indians a curved spine, ungraceful walk, and stooped shoulders are practically unknown. The women produce this result by carrying burdens upon their heads. They will pick up an olla of water, containing a gallon or more, and, swinging it easily to the top of the head, will walk along with hands by their sides, as unconcernedly as if they carried no fragile bowl balanced and ready to fall at the slightest provocation. And they will climb up steep and difficult trails still balancing the jar upon the head. The effect of this is to compel a natural and dignified carriage. I know Navaho, Hopi, and Havasupai women who walk with a simple, native, unaffected dignity that is not surpassed in drawing room of president, king, czar, or sultan. Then, too, another reason for this dignified, healthfully erect carriage is found in the fact that neither men nor women wear high-heeled shoes. The moccasin is always flat, and therefore the foot of the Indian rests firmly and securely upon the floor. No doubt if the Indian woman wished to imitate the forward motion of the kangaroo or any other frivolous creature, she could tilt herself in an unnatural and absurd position by high-heeled shoes, but in all my twenty-five years of association with them I never found one foolish enough to do so.

The men, as well as the women, gain this upright attitude as the result of "holding up their vital organs" when they go for their long hunting and other tramps. It seems to me that fully one-half the white men (and women) we meet on the streets are suffering from prolapsus of the transverse colon. This is evidenced by the projection of the abdomen, which generally grows larger as they grow older; so that we have "tailors for fat men," and special implements of torture for compressing into what we call a decent shape the *embonpoint* of women. But, I ask, as I see the Indians, *why do white people have this paunch?* If we taught ourselves, as the Indian does, to draw in the abdomen and at the same time breathe long and deep, this prolapsus would be practically impossible. Most Indian men have muscles in their abdomen like bands of steel. These keep the transverse colon in position. Half the medicine that is sold to so-called "kidney sufferers" is sold to people whose kidneys are no more diseased than are those of the man in the moon. It is the pulling and tugging of the falling colon that causes the wearisome backache; and the lying and scoundrelous wretches who prey upon the ignorant, write out their catch-penny advertisements describing these feelings so that when the sufferer picks up their literature he is as good as entrapped for "a dozen or more bottles," or until his money gives out.

O, men and women of America, learn to walk upright, as God intended you should. Do not become "chesty" by throwing out your chest and throwing your shoulders back, at the expense of your spine, but pull in the muscles of

your abdomen, fill your lungs with air, then pull your chin down and in, and you will soon have three great, grand, and glorious blessings; viz., a dignified, upright carriage; freedom from and reasonable assurance that you will never have prolapsus of the transverse colon and its attendant miseries and backache; and a lung capacity that will help you withstand the approaches of disease should you ever, in some other way, come under its malign influence.

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Outdoor Life of the Indian

One more word on this subject before I leave it. I never knew an Indian woman who "needed a corset, don't you know, to brace her up, to sustain her weak back." Of course, if a white woman is large and fleshy, and values appearance more than health, I suppose she will have her own way, anyhow, but this other reason that women give for the use of the corset I never heard fall from the lips of an Indian woman. She is strong and well, and glories in her physical vigor and strength, and she wonders why her white sister is not equal to her in physical capacity. When I tell her that the white women pity her because, forsooth, "she has to do so much hard work while the lazy men sit by, smoking, and doing nothing," she looks at me in vacant amazement. Once when I was talking in this way one of them said: "Are your white women all fools? Tell them we not only don't need their pity, but we despise them for their habits of life that lead them to pity us. The Creator made us with the capacity and power for work. He knows that all beings must work if they would be healthy. We would be healthy, and therefore we do His will in working at our appointed tasks. We are glad and proud to do them. And as for the men; let them dare to interfere in our work and they will soon see what they will see. We brook no interference or help from them."

So their children (girls as well as boys) are all brought up from the earliest years to work and to work hard. Boys are sent out to herd sheep, horses, and cattle; to watch the corn and see that nothing disturbs it. And the girls, as soon as they can toddle, become "little mothers" to their younger brothers and sisters. As they grow older they grind all the corn, gather all the wild grass and other seeds, make all the basketry and pottery, and prepare all the food for the household. To grind corn in the Indian fashion, with flat rock and metate, is no easy task for a strong man of the white race, yet I have known a girl of fifteen to keep at work at the metate for ten hours a day for several days in succession in order that there might be plenty of flour when guests came to the Snake Dance.

While there are times of feasting when most Indians will gorge to repletion, we can learn from them that whenever they have hard work to do, they eat little, and they eat that little long. In other words, they masticate well enough to please Horace Fletcher. With a few handfuls of parched corn they will start off on a week's hard journey; and a little corn, chewed for hours, gives them sufficient nourishment to keep their bodies in perfect order for hunting, for war, or for the fatigue of long and arduous journeys either on foot or horseback.

Most city men regard a shampoo as a city luxury of modern times, except, of course, for the rich, who could always have what they desire. Yet the shampoo is more common with some Indians than with us, and they enjoy it oftener than we do. The Indian's wife takes the root of the *amole*, macerates it, and then beats it up and down in a bowl of water until a most delicious and soft lather results, and then her liege lord stoops over the bowl and she shampoos his long hair and scalp with vigor, neatness, skill, and dispatch. I have been operated upon by the best adepts in London, Paris and New York, and I truthfully affirm that a white man has much to learn in the way of skilful manipulation, effective rubbing of the scalp, and delicious silkiness of the hair, if he knows no other than such shampooing as I received.

Another so-called luxury of our civilization is an every-day matter with the Indians of the Southwest. That is the Russo-Turkish bath. The first time I enjoyed this luxury with the Indians was on one of my visits to the Havasupai tribe. I had been received into membership in the tribe several years before, but had always felt a delicacy about asking to be invited to participate in this function. But one day I said to the old Medicine Man, as he was going down to *toholwoh*, "How is it you have never invited me to go into *toholwoh* with you?" My question surprised him. He quickly answered, "Why should I invite you to your own? The sweat bath is as much yours as it is mine." "Then," said I, "I will go with you now."

The "bath house" consisted of a small willow frame, some six or eight feet in diameter, which, at the time of using, is covered over with Navaho blankets, etc., to make it heat- and steam-proof. A bed of clean willows was spread out for the "sweaters" to sit upon, and a place left vacant for the red-hot rocks. As soon as all was prepared I was invited to take my seat; one Indian followed on one side and the Medicine Man on the other. Then one of the outer Indians handed in six or eight red-hot rocks and the flap of the cover was let down and the bath was fairly "on." Directly the shaman began to sing a sacred song which recited the fact that Toholwoh was

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Dining Out of Doors

a gift of the good god, Tochopa, and was for the purpose of purifying the body from all evil.

As soon as the song ended, we were all sweating freely, but, when the flap was opened, it was not to let us out, but to receive more hot rocks. As we sang a second song the heat grew more penetrating, so that the words seemed to have real meaning. Our petition was that "the heat of Toholwoh might enter our eyes, our ears, our nostrils, our mouths," etc., each organ being named at the end of the line of petition. The song comprised a great long string of organs some of which I had never heard of before. By this time sweat was pouring off from our bodies, but the flap was opened only to receive more rocks. At the third time a bowl of water was handed in to my companion, which I was reaching for in order to enjoy a drink, when, to my horror and surprise, he sprinkled the water over the red-hot rocks. The result was an instantaneous cloud of steam, which seemed to set my lips and nostrils on fire and absolutely to choke me and prevent my breathing. Yet the two Indians began another song, so I determined to stick it out and stand it as long as I could. Of course, in a few moments the intense heat of the steam was lost and then I was able to join in the song. At its close the same process of steaming was repeated and then I sprang out and dived headlong into the cool (not cold) waters of the flowing Havasu, where for a long time, I swam and enjoyed the delicious sensations with which my body was filled. Then, after a rub down with clean, clear, clayey mud, and another plunge, I lay in the sun on a bed of willows, listening to the Indians tell stories, and I can truthfully say I never felt so clean in my life.

This bath is taken by thousands of the Southwest Indians once a week as a matter of religion, so that, as a fact, while their clothes are ragged and dirty, and they themselves appear to be dirty, they are really clean. It must be confessed, on the other hand, that too many Americans value the appearance of cleanliness more than the reality. They would far rather appear clean even if they were not than *be* clean and appear dirty. It is better to combine both reality and appearance, but, for my own sake, if I had to choose between the two, I believe I would rather *be* clean than only *appear* clean.

(To be continued.)

God's Gift, the Air

Now, is there anything that freer seems
  Than air, the fresh, the vital, that a man
Draws in with breathings bountiful, nor dreams
  Of any better bliss, because he can
Make over all his blood thereby, and feel
Once more his youth return, his muscles steel,
  And life grow buoyant, part of God's good plan!

O, how on plain and mountain, and by streams
  That shine along their path; o'er many a field
Proud with pied flowers, or where sunrise gleams
  In spangled splendors, does the rich air yield
Its balsam; yea, how hunter, pioneer,
Lover, and bard have felt that heaven was near
  Because the air their spirit touched and healed!

And yet — God of the open! — look and see
  The millions of thy creatures pent within
Close places that are foul for one clean breath,
  Thrilling with health, and hope, and purity;
Nature's vast antidote for strain and sin,
Life's sweetest medicine, this side of death!
How comes it that this largess of the sky
Thy children lack of, till they droop and die?

— *Richard Burton.*

The Household Workshop

IF modern flats have anything to recommend them or excuse them for being, it is that they have proved the falsity of the old idea, deeply imbedded in our grandmothers' breasts, that the larger the kitchen, the better results accomplished by the housewife.

The small, compact, and convenient kitchen of the present day is more or less of an evolution, which the long-headed builder of flats and apartment buildings helped to shape. It is not likely that he was conscious of being thus a benefactor. To him it was a matter of valuable space — a problem of dollars and cents. He took six or eight feet off the kitchen and made a reception hall, which he fitted with a window seat and electroliers. The would-be renter came, saw, and was conquered, and eventually learned that the " kitchen scarcely bigger than mother's pantry " was easier to keep clean, required less walking to accomplish the daily routine, and materially lessened the work.

Your kitchen should serve you, not enslave you. The amount of energy expended by the worker in a large, old-fashioned kitchen is only beginning to be realized. By the time the daily round is completed, the worker is usually qualified to enter a track meet, if she is not

A Mexican Cooking Stove and Utensils

ready to drop from fatigue, after the endless journey from table to stove, stove to sink, sink to pantry, and pantry to dining room and back again. Estimate the number of steps taken while you make and bake a " batch " of cookies and you will be convinced that the distance between table and gas range might be greatly lessened without damage to the dainties and with infinite benefit to yourself.

Madame Parloa and other authorities on household economics approve the kitchen 13 x 16 ft., urging the necessity of ample air space, that the worker may not be condemned to work in air that has been vitiated by fumes from the gas and vapors of the cookery. While fresh air and plenty of it, is most essential in the kitchen, as elsewhere, the desideratum may be acquired by a much smaller floor space if the windows and doors are properly placed and are of sufficient size.

The room should be bright and cheerful — on the side of the house where the morning sun can reach it,— and there need not be an ugly, and should not be a useless, thing in it.

The walls, if of plaster, should be painted and then varnished. They can then be cleaned with soap and water as easily as a piece of woodwork. Tiling and cement are used, as well as vitrified brick. All of these are more sanitary than wall paper, and when prettily tinted appeal to one's esthetic sense.

The floor, if of hard wood, may be oiled with boiled linseed oil and then varnished. A stain added to the varnish will give a dark rich tint, and if the floor is oiled twice a year and well cared for between times, it will not take long for it to acquire a fine glossy polish — proof against grease spots, that have ever been the thorn in the flesh of the particular housewife with the " scrubbed " floor of immaculate whiteness. If one is building, a more expensive floor, and one that has much to recommend it, is that of vitrified tile laid in hydraulic cement. These, however, tire the worker quicker than those of wood. If the floor is not

even of hard wood, cover it with linoleum; this proving too expensive, common oilcloth with a coat of varnish will lessen the labor and save much back-aching work.

Sinks of slate or stone are more easily kept clean, for the reason that they do not show stains. The modern sink plumbing is nickel-plated and all exposed, with the waste trapped directly down to the drain.

A kitchen cabinet, with closets and drawers and shelves in which may be kept all dry cooking materials, will save many steps and do away with the necessity of a large pantry, unless you are unfortunate enough to have supplied yourself with a wholesale stock of kitchen utensils. This is a mistake frequently made — the accumulation of an endless number of utensils. Some women can not pass a new-fangled potato masher or egg-beater without buying it. Of course it would not do to cling obstinately to the old if the new were better or a time-saver, but if you purchase the new article, give the old away. Do not clutter up your pantry and cellar with "assorted styles" of kitchen utensils. Get along with just as few utensils as will serve your purposes. It is a simple matter to turn the hot water over your spoon and wipe it and have it ready for the next concoction, but to the woman who has a drawer full of spoons, or an array of them on hooks in front of her, it will seem much easier to lay down the dirty and pick up a clean one for the egg yolks, or the salad, as the case may be. In the course of the morning's baking she will have a formidable pile of dishes and spoons and forks to wash, wipe, and put away.

Out-of-Door Laundering

A hinged table underneath a window, or in any convenient location, will be found valuable in the small kitchen and

do away with the necessity of the large kitchen table if one has table space in the kitchen cabinet and a good-sized dish drain. If there is room for the larger kitchen table, cover it with white oilcloth and save the time spent by many housekeepers in scrubbing it to snowy whiteness. It should also be fitted with casters, that it may be moved about at will.

Great care should be taken to screen the kitchen properly in the summer time. The window screens, for both pantry and kitchen, should be made the full size of the window and fastened from the outside.

Too much thought and care can not be spent by the housekeeper in planning and furnishing the kitchen — her private domain, and the source of much of the health and happiness of the family.

It should be a cheerful, sanitary room, as well equipped as the family income will permit. The sensible woman will not furnish her parlor at the expense of her kitchen. Too often the home which has its mantle overloaded with senseless bric-a-brac boasts of a kitchen equipped with worn-out, rusty, tin cooking utensils, in the company of which a daintily tinted enameled utensil would hide its head for shame at being caught in such society, and a self-respecting granite spoon would be impelled to elope with the first neighbor dish that called.

There is an inspiration in work done in a well-equipped kitchen that goes a long way toward lessening the labors of the home-keeper, arduous enough at best.

Dangers in Bed-Making

BY LOU B. HARRIMAN

HAVE you ever thought that, next to sweeping, there is no part of the household routine that is equal to bed-making as a dust-raising and dust-spreading procedure?

Do you realize that through the quiet night the bacteria-laden dust has settled about on the floors and the furniture and the broad bed surface, and that when the different articles of bed-clothing are tossed and shaken and spread in the bed-making process, all these dust atoms scattered through the air are again set in motion?

Experiments have proved that, after sweeping, nearly double the number of germs are found in the air, and that it takes at least two hours in a still room to free the air of the dust.

It is most essential, then, that the top bed cover be shaken out of doors to rid it of dust when opening the bed to air, and that after the making of the bed the dusting process in the bedroom be delayed some hours to permit a settling of the dust after the operation. This in the interests of the health of its occupants, who spend one-third of their lives in the bedroom.

Most housewives, nowadays, recognize the importance of fresh air in the bed-chamber, but to many the presence of dust is of no annoyance so long as it does not obtrude itself on the sight.

Have you ever seen a woman take a whisk-broom and brush her dresser scarf and table cover, sending little clouds of dust out into the air? Haven't you seen the same woman wipe the polished surface of her dressing-table, her desk, and chair, and then deliberately shake the dust-cloth out in the room and go on serenely to the chiffonier and bed?

In the course of the morning when she

comes back into the room she will likely exclaim over the dust that powders every article of furniture and declare she "never saw such a house for dust. Why, I dusted this room only two hours ago." And then she will, perhaps, call upon you to witness the verity of her statement.

You say to her, "*Why* did you dust, dear?"

And she will look at you with astonishment in her brown eyes as she replies: "Why, to make things clean and tidy for Tom. He is so particular, and his mother was such a wonderful housekeeper. I can't bear to have him find anything in his own home that he can find fault with even in his heart — he is too kind, bless him, to ever *say* anything. Now I shall have to dust again before he comes home or the chiffonier will be covered with it.

"I never knew before that housekeeping is so much work; everything at mother's always ran so smoothly. I don't remember that our maid ever dusted my room twice in one day. Things seemed to stay clean."

"No they didn't, you dear child," you reply. "It took eternal vigilance to keep that great house orderly and sweet and clean, but your mother understood the principles and applied them, and her maids were carefully instructed and obliged to follow them out.

"When she got a new maid she explained to her what sweeping and dusting are for: to remove dirt, not simply to change its location in the room. After the sweeping was done, the dust was allowed time to settle. Then the dusting was done scientifically. The tablecovers and dresser scarfs were removed and hung in the open air before the sweeping began. The dust on the floors and furniture was wiped up and *into* the cloth, which was either dampened or oiled, for in this way the dust plants are held and prevented from flying out into the air at the first flirt of the cloth. On articles which would be injured by dampness the dry cloth was used and frequently shaken out of the window.

"When the process was over, there was very little dust left in the room; it had not been simply swept off the polished surfaces where it showed, but it had been carried out entirely. The air was clear and sweet and the room a fit place in which to breathe and sleep."

"Well, I never thought of it in that way before.

"Anyway, I am very particular about airing the bed. It has been open for three hours now and had plenty of air and sun from these east windows. I will make it up now, and then I will dust again and do it scientifically this time." You smile and tell her that here she would make another mistake.

"You would better run down and make your caramel custard for luncheon after the bed is made and delay the dusting of the room until the dust has all settled again."

"Well, that had never occurred to me, either. But of course that is the right way to do and I'll begin to-day. What a lot there is for me to learn! Before I began I fancied myself a full-fledged housekeeper because I could make my own shirtwaists and had taken a few cooking lessons — but I am having revelations every day."

While Dorothy is down in the kitchen, you note the quiet taste in which the room is furnished — the soft-toned wall hangings of pale rose, the few pictures, and the absence of bric-a-brac on dressing table and desk. The windows, through which the morning sun shines warmly, are hung in simple draperies of cross-barred muslin, with side curtains of figured chintz, light in background and with a design of pink wild roses. The

bed is without canopy or draperies and has a coverlet of chintz to match that at the windows. The rugs are washable — pink and white, of the old-fashioned "rag" pattern. The few silver toilet articles are placed with precision on dressing table and chiffonier. On the desk is a single Chatney rose in a slender-stemmed vase. There is an air of peace, of repose, about the entire apartment that is soothing and restful.

When Dorothy re-appears you remark upon this, and a pleased smile comes over her face, flushed from her culinary efforts, as she replies: "I'm so glad you like it. You see Tom and I decided we didn't want it to be a combination 'den' and photograph gallery. We have both been through that stage. I wish you could have seen my room at boarding-school. It looked like an 'art' corner in a department store, with enough posters and Gibson sketches and pennants and flags and photographs on the walls to give one the nightmare, while my dresser fairly groaned beneath its weight of souvenirs, German favors, knick-knacks, and photographs that left scarcely room enough to lay down my comb. The room was small, and it makes me shudder now to remember the sense of confusion that pervaded it.

"Tom went through the same thing at college. His room, he said, resembled a 'junk-shop,' with its array of punching bags, tennis rackets, shin guards, and bats and pillows and hangings and what-not. We decided that this room must radiate peace and quiet cheer, and I am glad if it has impressed you that way.

"My friend, Puss King, came in the other day and she liked it so well that, so she told me afterward, she went home and emptied hers of two clothes-basketfuls of useless pictures and bric-a-brac.

"Lie down here on my comfortable box lounge, at the foot of my bed, while I look over my mending. I find that lounge such a convenience. In it I keep my summer gowns and shirtwaists. On it I take my after-luncheon nap, and in that way do not disarrange my bed. It is covered, as you see, with washable chintz, like my other hangings, and so are the pillows. I can't bear to lay my head on pillows of satin and tapestry and velour. Can you? I can never understand how people are so indifferent to their manifest uncleanliness. We would not think of sleeping on a bed-pillow whose case is not changed at least every week, and yet people let their couch pillows remain on for years simply because they are dark and don't 'show' the soil."

"It is the same principle as should underlie your dusting, my dear," you reply. "Cleanliness for health's sake and not for appearance."

Dorothy's face is hidden as she rises to place the screen where it will shield your eyes from the sun.

"This is another indispensable article of furniture in the bedroom," she remarks. "At night, when the windows are wide open, it protects the bed from drafts, and in the daytime it shuts out the strong sun from my couch. It is high enough to constitute a little dressing room in itself, and then it is pretty, besides," she added, with her head tip-tilted as she surveyed it with her pretty, critical little air.

"The one thing we disagreed over," she continued, snipping off a bit of thread, "was the bed. I wanted one with a canopy and pretty draperies, and Tom insisted that they were insanitary — were regular 'dust-traps.' He said he didn't care to have the air he breathed sifted through a screen of dusty silk and net draperies; that it was all well enough for the fourteenth century

knights, who were obliged to have curtains to keep out the cold, and for the period when kings reclined behind draperies of silk and gold brocade to grant audiences, but as he was just an ordinary American man (of course I didn't agree with him there, for he isn't the least bit ordinary), he wanted his bed for rest, and not as a piece of room decoration. So I compromised on that handsome brass bed with the best mattress and springs we could buy. They cost more than all the rest of the furniture put together, but they will last a lifetime."

And then she took you to her linen closet and showed you the neat piles of fine linen sheets and pillow-cases and the fleecy blankets. Across the hems of blankets and comforters were basted soft six-inch bands of cheesecloth to protect them from the chance soil of fingers and faces. Neatly featherstitched in dainty color, they were in no way a disfigurement and had the advantage of being easily washed and replaced. The scent of the sweet lavender that pervaded the place is still with you as you bid her good-by and she calls out after you, "I shan't forget your little text on dust."

The Fresh Spring Flowers

TUCKED under the sedges and close to the edges
Of fields that are kissed by the winds of the South,
Are the dear little flowers that Earth richly dowers
With showers and sunshine, ere summer and drouth.
Shy, pink-tinted blossoms, that wear in their bosoms
A sweetness unknown to the heart of the rose;
Fair violets of spring-time, who come in the wing-time,
And learn all the lore that the first blue-bird knows.

There's sheen on the rivers, where tenderly quivers
On banks green [illegible] over the new-budded leaf;
And dear Pussy [illegible]llow has stirred from her pillow,
And jonquils [illegible] yellow as wheat in the sheaf.

Soon wakes the pure lily, though mornings are chilly;
And bourgeons the snow-drop so fearlessly bold,
And through dark aisles glooming, the rare dogwood blooming,
Will lavish its splendor in forest and wold.

Sweet flowers that glisten, that wistfully listen,
To hear the faint call of the mother of love,
The dew and the shimmer, the dusk and the glimmer
Of star-beams and moon-ray, are yours from above.
Ye dwell like white maidens whom purity ladens
With dreams that come true in the light of the morn.
And ye pledge us the word of the all-keeping Lord,
That the gifts of his hands to our lives shall be borne.

— *Everywhere.*

Common Sanitary Errors of Belief and Practise

BY KATE LINDSAY, M. D.

AS a man thinketh in his heart, so is he," says the wise man. This is certainly true in regard to sanitary matters as well as all others, and in no direction is wrong thinking likely to do more evil and cause greater human suffering than in the matter of health preservation and disease prevention.

The people perish all over the earth by thousands for want of knowledge of how to prevent epidemic disorders. How many are crippled by disease from avoidable chronic disorders. A very common error is to suppose that a favorable climate or location gives license to violate all other laws and principles of health. The country resident feels that he has good country air, home-grown fruits and vegetables, fresh milk, butter, and eggs, and the farmer's wife boasts of her good home-cooking, and feels a pity for the poor city dweller who must inhale the foul city atmosphere and drink infected water from city taps.

Yet what are the facts concerning the sanitation of the average farmer's home, and the freedom of himself and family from disease? Every one admits that the dwellers in the city slums and tenement houses have bad air, foul water, unwholesome and often insufficient food; and missionary efforts in these cases are expended chiefly for improving the sanitary conditions of those in darkest Chicago, New York, or some other great crime and poverty center. No one would presume to say that this work is overdone in any of these needy fields, but surely the health of the country boys and girls should receive some attention. As the facts are, notwithstanding the advantages which come from absence of overcrowding, air contamination, and inferior food supply, the same diseases prevail among the rural population as among the less favored city dwellers. In fact, some infectious disorders are said to spread oftentimes from the country to the city, notably among which is typhoid fever,—a malady most often due to water or food contamination with excreta from some one previously ill with this disease.

Not infrequently the dairyman sends his milk to his customers in vessels washed from some spring, well, or stream into which drains all the sewage of the barnyard, closets, and cesspools of the establishment. This sanitary transgression of all the laws of water purity may cause nothing more startling than an occasional attack of cholera morbus in the farmer's own family and among his patrons who are grown up, and the death every summer, from cholera infantum, of a number more or less of the babies using the impure milk.

A time comes, however, when some member of the dairyman's family contracts typhoid fever. The out-of-door closet soon becomes infected; other members sicken with the disorder. Yet the milkman may go out and milk his cows directly from handling a child ill with the fever. The infection is freely distributed with the milk, infected in milking, and by cans washed in the unclean water. Soon there is an epidemic among his customers, the end and extent of which no man can predict. A few years ago in a Pennsylvania town of some fifteen thousand inhabitants, one case of this disorder in the country, by infecting the stream which was the town water supply, was responsible for twelve

hundred cases of typhoid fever and one hundred and thirty deaths.

There is needed a common-sense knowledge of the dangers of water contaminated by surface filth. It should be a matter for careful study, this keeping the rural water supply clean by proper location of the well or other source of supply, so that surface filth will flow away from, and not toward it. The top of the well should be kept covered and tightly sealed, so that no dirt can be washed into it by the spilling of the water in drawing. All animals should be kept from the vicinity of the domestic water source. If fever should occur, the first case should be properly treated by thoroughly destroying or disinfecting by heat or some germicide the excretions from the body. Municipalities consider it important to provide good water supplies, and it is just as important that every farmer should be responsible for the cleanliness and wholesomeness of his household water supplies.

No doubt the time will come when the farm, as well as the city home, will be subject to intelligent sanitary inspection, and the law used to compel a measure of sanitary improvement; but without a willingness born of proper instruction, leading to right individual thinking and acting, little can be done to improve either the physical health or the mind and morals of a community.

Bad air we are sure of in the city slum dwelling; and disease and death from tuberculosis, pneumonia, diphtheria, grip, and kindred infectious respiratory disorders find numerous victims among city dwellers, rich and poor. But why should these same disorders prevail in the more healthful country home, where the air is supposed to be clean from blowing over fresh fields of growing grass or grain, or, in winter, over clean snow? The infections causing these disorders are usually air-borne, and their prevalence indicates air contamination.

Let us inspect the winter air of the average country home, especially at night. Often the nose is sufficient to enlighten us as to the kind of night air the unconscious sleepers are inhaling. Doors and windows are all securely closed. Even the door and sash seams are tightly listed to keep out the supposed deadly night air. The coal-stove dampers are all closed; several standard oil lamps are leaking gas through open tops. Mixed with these foul fumes are the stale odors of the day's culinary operations and the exhalations from the skin and lungs of the sleepers. In many cases there is foul, damp air arising from an unaired basement, perchance the family storeroom for all perishable food supplies, part of which is always more or less in a state of decay and giving off foul, infectious vapors. No wonder the children wake up in the morning with a foul taste in the mouth and are irritable and out of sorts, while the father feels stiff and rheumatic, and the mother has no appetite, complains of a dull headache, and drags wearily through the day of work that must be done. The hours of darkness kindly given by Nature for all living beings to rest and recuperate in, and in which even the outdoor air of the city becomes comparatively clean, are lost, and the sleepers awake often more tired and exhausted than when they went to bed.

Everywhere to-day the tubercular patient is finding health and recovering from his foul-air disorder by sleeping outside, or on the housetop, instead of indoors. Why not avoid colds, bronchitis, tonsilitis, pneumonia, and other air-borne disorders by letting in the clean, fresh air and providing a means of escape for inside foul air?

Sunlight is a very effective germ de-

stroyer. So to avoid air infection from the ground, a sunny, well-drained building location should be selected. Never build in a hollow. Always see to it that the soil underneath is dry and clean. In winter when the house is closed, and the room air above is much warmer than that of the basement, much of the ventilation is from ground air currents out of the cellar, and is foul, more or less, as the basement is clean or filthy. On the same farm may be a sanitary soil, and less than a quarter of a mile distant just the opposite. The division of a farm homestead and the location of one son's home on the damp northeast side of the bluff, and the other on the sunny southwest side, where the soil was dry and warm, resulted in one family of five tubercular children, who all died before the age of twenty-five, while the other family reared four healthy boys and girls, all growing into vigorous manhood and womanhood.

Insect-borne diseases are also very common in many parts of the country, chief among which is malaria, more or less prevalent in most of the States of the Union, and very common and deadly in the South. To-day we know that the reason this disorder is so infectious and widespread as it is, is from failure to destroy and keep out of the house the mosquitoes. In the South, screens are almost unknown in farmers' homes, marshes are undrained, and the country dwellers go on passively year after year, shaking with chills and burning with fever every summer and autumn, just because they have no faith in the preventive measures of marsh drainage, house screening, mosquito destroying, and keeping the disease-bearing insects away from the sick so that they may not be the bearers of plasmodia to the uninfected.

The farm boys and girls are often styled the nation's future hope and backbone. If they are what the land has to depend upon for its future rectitude, strength, ability, and energy, it is surely of the utmost importance to feed them well. Give them good air to breathe and pure water to drink. Rear them in healthy homes, cleanly located. Keep them pure physically, mentally, and morally. Many farmers, intent only on what the farm will produce, settle back and placidly remark, "My children have as good as I had when young, and what was good enough for me must do for them." This attitude is responsible for much of the ill health and many of the early deaths of country folk.

Surely missionary work along health lines is needed just as much in the country as in the city. A large percentage of the million of consumptives in our land are to be found in the farm homes, with no one to help them to the knowledge of proper diet, clean air, and proper destruction of all infected exudates. Truly this field is large and the laborers few. And it is well to sow sanitary-instruction seed broadcast over the land, knowing that thereby some will surely be helped to healthful living and to avoid disease and premature death.

Vicarious Cruelty

A meat-eating philanthropist who was expostulating with a slaughterer for having selected such a calling, had the tables justly turned on him by the reply, "We're only doing your dirty work."

Every meat eater who does not do his own killing, or at least know that it is humanely done, is a participant in the unspeakable cruelties of the slaughterhouse.

Children and Disease

TIME was when it was considered as impossible for children to escape a certain category of diseases — commonly known as "children's diseases"— as to avoid the teething period. And to further the running of this gantlet of necessary evils and have done with it, as the anxious but injudicious mothers were wont to say, the poor innocents were often purposely exposed to contagion. As a consequence, the first ten or twelve years of the child's life, instead of being a time of unalloyed joy and freedom from trouble of body as well as of mind,— the rightful heritage of childhood — was, for the greater part, spent in one of the three stages of some disease — taking, having, or convalescing.

The intelligent mother of to-day has come to recognize the absurdity of this and many other once-popular fallacies pertaining to child-life. She knows that each time disease attacks the human system it leaves its imprint and lessens the power of resistance. She knows, too, that a sound body is essential to perfect mental growth; so, instead of inviting disease to come and be a guest in her home, she bars the door against it.

When, in spite of the ounce of prevention vigilantly administered, disease does come, this same wise mother informs herself so that she may not only be able to care for the patient intelligently, but keep the contagion from spreading.

One of the most powerful safeguards against disease, especially during the period of childhood, is the diet. A well-nourished body — that is to say, one that is supplied with food that it both digests and assimilates — has more resistance than the poorly nourished one. The brain of a child, which, like all the other organs of its body, is in a state of growth and development, has a direct and peculiar influence upon the digestive organs; hence the necessity of a diet suited to the needs of the young body becomes apparent. No rational mother would require her child of tender age to perform manual labor, yet how many of them who claim to be not only rational, but informed, will place the food of a man before the child and bid him eat. As a result the digestive organs are overtaxed and must make undue demands upon the blood,— the working force — thereby impoverishing the other organs and rendering them unable to perform their normal functions and an easy prey to disease.

To sum it up, the best safeguards of the health of children are: a suitable regimen, cleanliness, fresh air, pure water, and a due allowance of refreshing sleep. To the child thus armed, disease is not a frequent visitor. That prevention is better than cure in any case goes without saying. The old idea that ills must come, has now been evolved into the doctrine that sufficient knowledge and care will prevent almost any evil, and this is no less true of disease than of other things.— *New Idea Woman's Magazine.*

"AGAIN the blackbirds sing; the streams
Wake, laughing, from their wintry dreams;
And tremble in the April showers,
The tassels of the maple flowers."


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Let Us Live on Our Porches

WHAT does your porch mean to you?

Is it the summer house of the family; where you breakfast and lunch; where the baby takes his morning nap, and where you do all your odd bits of mending and sewing? Do you entertain your friends here during the long summer afternoons and evenings, or do you spend the day in the house with the shades pulled down, and serve your meals within the same four walls that have enclosed you three times a day throughout the winter and spring?

Is your porch furnished with hammock, comfortable chairs, and table covered with late magazines and books? Are there trailing vines and boxes of bright flowers about, or is it merely an architectural excrescence dominated by the umbrella stand and door mat?

Porch life is a habit, and if you have not already acquired it, begin at once.

People do not begin to realize the importance of outdoor life, nor how comparatively easy a matter it is for the entire family to spend many hours of the day outside the walls of the house. If porch life were more systematically adhered to, there would be less necessity for that "month in the country with the children," which closes up so many pretty homes and leaves a desolated house for father to return to at night. Three months of porch life is none too much for a family that spends the other nine months in a furnace-heated house where upholstered furniture and rugs and hangings abound, and where, in spite of constant care, the air is filled with bacteria-laden dust.

Begin to plan in the spring. If the porch hitherto has been bare of vines, plant some of the quick-growing varieties that will bring the desired results this season, and later put in the roots of perennials. Clematis, woodbine, trumpet flower, ivies, and honeysuckles are all favorite perennials, while the mottled Japanese hop vine, the scarlet and pink flowering bean, and even the old-fashioned, humble morning glory are rapid growers, and in the course of a few weeks give the coveted privacy and shade. One of the charms of these latter varieties is watching their remarkably speedy growth. One family, about whose east porch had been planted a quantity of the scarlet creeping beans, took the pains to ascertain the growth during twelve hours of one of these vines. A string was tied to the tip of an ambitious plant at seven o'clock one evening; at seven the following morning it had registered a growth of six and three-quarter inches. These beans are veritable magnets to the humming-birds, which hover about them all through the summer, their beautiful little bright-hued bodies a continual source of joy to the observing.

The boxes of flowers should be of the hardy varieties — the brilliant geraniums, salvia, many-colored petunias, combined with vines or plants of the climbing variety, such as nasturtiums and sweet alyssum, and with fringing ferns. If you are planning to have a general color scheme for your porch,— and this is an easy matter and most pleasing in its results,— be careful that the flowers do not form a jarring note to the general tone. We all have seen a purple clematis against a brick-red house and been glad to turn away, while we have been enchanted at the harmony in hammock, awnings, cushions and flowering plants perhaps across the street. The same

taste that you exercise inside your house should be devoted to the furnishing of your porch.

Porch furniture is growing each year more attractive and utilitarian. Instead of the light-weight canvas chairs that water-soaked or were carried off by a gust of wind, one can now procure artistically designed chairs of rattan, raffia, willow, and hickory, which are proof against rain or dampness, and are heavy enough to withstand even violent wind storms. Those done in the cool leaf greens are much in vogue, and combine well with almost any color scheme. They come in many styles. Those with broad arms suitable for writing and with baskets at the side or back for holding fancy work, papers, etc., are most convenient and popular. Rockers, both single and double, may be had, while the swinging chairs, suspended from the ceiling, are immensely popular.

A table, large enough for the family to gather round, and equipped with papers, books, and magazines, is another indispensable article of furniture. Many people have movable shelving to hold the porch literature, and this is an excellent arrangement, as it affords protection to books one wishes to preserve for more than one season. From the table during the afternoon may be served cooling beverages to one's guests, the delicious grape juices, mint lemonade nectars, and sherbets. Keep a stock of pretty Japanese napkins on hand, and use both at luncheon time and for the serving

Solid Comfort

of refreshments, thereby lessening the work of the laundress, who will appreciate the extra hour she is saved from ironing heavy damask napery.

The porch floor should be wiped up with clean water each morning, and if rugs or other floor coverings are used, they should be cleaned each day. The Japanese cotton rugs that can be washed, as well as the rugs of matting in the pretty Japanese or Indian weaves, are suitable for this purpose.

caring for the flowers and the vases, seeing that the latter are washed clean each morning and filled with fresh water and flowers. The field flowers — the daisies, buttercups, cowslips, columbine, larkspur, etc.,— are most effective arranged in this manner, and the search for them is always a delight to young hearts.

Have none but washable coverings on the pillows. For these the ginghams in plaid or plain, the barred crashes, and

Reception Porch

A pretty touch and one which gives an inviting atmosphere to any veranda are the hanging baskets and fernballs, suspended from the fret-work and ceiling, together with the wall vases of fresh flowers. Let the children take turns in

the denims are the prettiest. Have a half dozen or more of the rush porch mats conveniently near; as seats they are more desirable than pillows.

If you have no veranda worthy the name, and the family exchequer will not

permit of one being built, or the landlord is obdurate, utilize a bit of roof space.

Roof gardens have passed the experimental stage and are no longer regarded as fads, but are yearly growing more practicable and more numerous.

Used by courtesy of Suburban Life, Boston

A Corner for Health and Comfort

It was only ten or twelve years ago that roof gardens were introduced in New York, but they immediately captured the public's heart, and have increased in numbers and spread to practically every city of the union and opened up new avenues of happiness to thousands.

The hotels and clubs were among the first to utilize this most delightful way of escaping the dust and heat and noise of the crowded city. From modest efforts with awnings, flowers, vines, and palms where guests could dine on warm summer evenings and listen to the strains of a Strauss waltz by a Hungarian orchestra, the idea has grown into ambitious proportions, until recently the sum of twenty-five thousand dollars was expended in the equipment of the roof garden by one of the family hotels opposite Central Park. This means, of course, that architect and landscape gardener were given *carte blanche*, and as a result evolved what is regarded as an almost perfectly equipped roof garden. Here are ornate pillars and parapet, classic arcades and pagodas enhanced by rare plants, flowering shrubs, water plants, and a succession of sweet blossoming things that charm the eye and lend their fragrance to entice the memory from "the cares that infest the day."

While roof gardens would have ample excuse for being did they serve only to keep in the open air for a few more hours the seas of humanity that were wont to crowd into close theaters and other places of amusement where the cool evening air and the glories of the summer night were excluded, the idea in itself is even more far-reaching in its effects for good.

It was readily embraced by schoolboards, and in the crowded districts the

roofs of the school buildings heretofore not utilized, were converted into playgrounds and also used during a portion of the day for the vacation school work.

Settlement houses and parish clubs now conduct much of their summer work from the roofs of their buildings. Here the little kindergartners sing their "Good Morning Merry Sunshine" with the golden orb pouring the health-giving rays down upon them; here sick babies in the day nurseries get a daily sun bath that mitigates the damp foul air to which they return at night in their basement homes.

A few apartment houses are now being built with the recognition of that divine right of the child, to play. The roof-tops, formerly waste places, are equipped for that purpose, many of them being supplied with simple gymnasium apparatus. It is here that the children may conduct a county fair or even a circus without danger of being driven away by the eagle-eyed janitor. This transfer from the street to the housetops has much to commend it, lessening, as it does, one hundred fold the danger by accidents, and shielding innocent children from a multitude of street evils.

Hospitals now provide a roof space where convalescents may be conveyed in wheel chairs and receive the benefits of the outdoor treatment. Trailing vines screen them from the too intense sunshine, while vagrant breezes, laden with odors caught from boxes of mignonette and heliotrope and other fragrant summer blooms that grow contentedly on housetops, fan to delicate color cheeks that are wan from suffering.

It is this idea that may be most successfully carried out by the family whose porch life is confined to the "front stoop" of dimensions so meager that they preclude even the possibility of two chairs. If there be a bit of flat roof space it will be found a real delight to create a restful garden spot from the barren, uninviting place. It can be made a place of beauty to which the entire family may come for rest and inspiration.

Of necessity the furnishings must be simple and of the sort that withstand the elements. A deep chest will be found a convenience in which to place the hammock and cushions at night when the family retires. This will save the trouble of carrying them in and out each day and will lessen responsibility for some one. The wooden garden chairs, settees and table, and other articles of furniture that may be freshened each season with a coat of paint, will be found most desirable.

Strips of bright-colored canvas may be necessary for use as awnings during the heat of the day. These can be so contrived as to be rolled on window-shade rollers. Slack wires on which gay Japanese lanterns of fantastic design may be hung add much to the attractiveness at night.

There is a world of possibility open to those who will give the subject a little time and thought. Each member of the family may contribute something both in work and ideas: to the father, ingenious with tools, will fall the task of constructing the chest and perhaps even the table and chairs. Mother will fashion the pretty cushions, aided by helpful younger fingers; Jack will find that his manual-training experience will come into play in the making of the flower boxes, while Sue will care for and train the flowers and vines, perhaps carrying off a prize at the Outdoor Art association's flower-fest in the fall.

It will all evolve with little trouble and slight expense if there is a well-rooted desire for more out of doors and a community of interest on the part of each member of the family. L. B. H.

Care of Moist Foods

MOIST foods left over from one day to another should be recooked at boiling temperature. There is danger of mold when the food is stored in a basement cellar unless the apartment is more than ordinarily dry, light, and well ventilated.

If neither ice nor a cool room is available, perishable foods may be suspended near the water in a deep well, or put where a constant stream of cold water will surround the dish containing the food, as in a spring house. A pail placed inside a larger one containing cold water, which is changed as often as it becomes warm, or a tightly covered dish sunk in moist sand at sufficient depth to keep it cool, are other devices for the same purpose.

An effective method in common use in hot countries depends upon the cooling effect of the evaporation of water. The articles to be cooled are placed in a vessel which is wrapped in straw, moss, or other porous material. This is kept moist with water. The cooling effect is sometimes increased by suspending the containing vessel and keeping it swinging in the air.

Moist foods with a probable tendency to spoil before there is opportunity to use them, should be sterilized before setting away. Turn the food into a deep dish and after covering it with a basin or projecting lid, steam thoroughly for half an hour, then set away in a cold place until needed. Liquids may be put into bottles or cans, the top being first closed by a thick plug of cotton and then steamed for a half hour. The articles thus prepared should not be uncovered until ready to use. The principles involved in this method of preservation are: that germs are subject to the laws of gravity, so that whatever will shed water will shed germs; neither can they work their way through dry cotton. Any measures to prevent germs getting into food, to lessen greatly their activity, or totally to destroy them, are the measures which should be sought in the keeping of the foods.

Heat equal to the temperature of boiling water will destroy most germs, although there are a few which withstand a temperature upward of 240°. Many foods are thus rendered sterile by boiling and sealing when in this condition in air-tight receptacles, whereby they are preserved indefinitely. Milk and cream remain sweet for several days, even weeks, if well sterilized. E. E. K.

Contributed Recipes for Vegetarian Dishes

Rose Toast.— Use canned or stewed strawberries, drain in a colander, place the juice in a porcelain kettle, and let it come to the boiling point. Prepare cornstarch, rubbed smooth in water, in the proportion of two tablespoonfuls to one pint of juice, and add it to the boiling juice, stirring briskly. Be sure the starch is well done, then add the whites of four eggs beaten to a stiff froth, using a wire egg-whip to mix the whole well. Give some zwieback a rather quick dip in hot water. Serve with some of the dressing to each slice. Blackberries and raspberries may be used in the same way.

Stuffed Potato Balls.—Combine equal parts of nuttolene and protose, chopped fine, and seasoned with minced celery or

celery seed, sage and salt to taste. Then take one-half as much of beaten egg as of cream, to make the first ingredients quite pliable. Form some mashed potatoes, previously prepared, into balls, placing a piece of the stuffiing as large as a walnut inside of each ball. Place the balls on an oiled dripping pan, brushing the tops with cream, and bake in a rather quick oven until a nice brown.

Combination Pea Soup.— Take one quart of canned or freshly cooked green peas, and press through a colander to remove the skins. Have ready, cooked until tender, one cupful of grated or finely minced carrots; add this and one cupful of mashed potatoes. Season with parsley and salt to taste; combine all and boil for a few minutes, then thin with cream, milk, or water, as desired. Serve with croutons.

Pineapple Cream.— Take a pint of canned pineapple and drain off the juice, to which add water enough to make a pint of liquid. Place this in a shallow saucepan and let it come to boiling; then add one heaping tablespoonful of cornstarch previously braided in a little cold water. When this is well cooked, cover the cream with a frosting consisting of the whites of four eggs beaten to a stiff froth, sweetened, and flavored with lemon. Place in the oven until a very light brown. Serve with whipped cream.

Apple Custard.— Pare and core three moderately sized tart apples, sprinkle with a little sugar, and bake until thoroughly done. Then divide into halves as nearly as possible, and drop into oiled deep gem tins. Prepare a custard with two eggs, beating the yolks separately, two tablespoonfuls of sugar, a pinch of salt, one cup of new milk, and vanilla or lemon flavoring, mixing well with the egg beater, and adding lastly the stiff froth of the whites. Pour this over the apples, and bake until the custard is a nice brown. When done, lift out of the tins carefully with a spoon, and sprinkle over the top some desiccated cocoanut. Serve warm.

Protose Salad.— Select nice, tender lettuce, wash carefully, and place on individual salad dishes. Then place a thin slice of protose on the lettuce, and pour over it a dresing made as follows: Extract the juice from two lemons, being careful to remove all the seeds and pulp. Beat well the yolks of four eggs, adding a pinch of salt and one-half teaspoonful of sugar. Now add slowly, while stirring constantly, one-third cup of boiling water. When all is mixed, and the egg still has a rare appearance, let it steam for a few minutes, stirring briskly. Lastly add the lemon juice. Place a tablespoonful on each piece of protose. It may be served with whipped cream over the top; or a level tablespoonful of almond butter braided in water may be added to the dressing before steaming.

THE one theme of Ecclesiastes is moderation. Buddha wrote it down that the greatest word in any language was equanimity. William Morris said the finest blessing of life was systematic, useful work. St. Paul declared the greatest thing in the world was love. Moderation, Equanimity, Work, and Love — let these be your physician, and you will need no other.

And in so stating, I lay down a proposition agreed to by all physicians, against which no argument can be raised, which was expressed by Hippocrates, the father of medicine, and repeated in better phrase by Epictetus, the slave, to his pupil the Emperor Marcus Aurelius; and which has been known to every thinking man and woman since. Moderation, Equanimity, Work, Love! — *Elbert Hubbard.*

Lewis Connor, Trophy Winner

BY BRIAN DUNNE

NONE of the flesh pots of Egypt, nor of the Washington lunch rooms for Lewis Connor, a rising young athlete of the Washington (D. C.) high school. Plain grains, fruits, and nuts are his selections when preparing to reach for the laurel wreath.

Ever since he was old enough to formulate his own ideas of things he has abstained from eating meats. His case affords an important instance of an athlete becoming highly successful in competitions requiring the utmost hardihood and endurance without eating large quantities of rare beef and other training-table delicacies of a meaty, fleshy nature.

Lewis Connor

Mr. Connor's prowess on the cinder path and in the jumping pit have created a furor in Washington athletic circles. His first appearance in an event was the interclass cross-country run in 1904, when he surprised even Foley, his trainer, by his performance. He was pitted against such men as Al Hendley, who had won the mile in the High School meet of the year before and who was expected by every one to walk away with the cross-country. Other seasoned runners, who were thought to be far superior to Connor, had entered in this event. It was therefore taken almost as a joke when Foley prophesied that Connor would very likely win. But, nevertheless, win he did, and in a walk at that.

The same year he won the mile and the broad jump in the National Guard indoor meet.

The inter-high school spring meet was the next at which this athlete figured. It was at these games that he did the mile in 4 : 55, better by three seconds than any have done since.

At the Georgetown University meet on Labor Day of that year he won the broad jump easily, although he was pitted against a number of the best men in and about Washington and Baltimore. On New Year's Day, 1905, he captured first prize in the Carroll Institute cross-country run by defeating one of the largest fields that had ever entered in an event of this kind in the city.

In summarizing the work of Connor it will be found that out of the fifteen or more events in which he has entered he has won eight, finished second in three, and run third in one, making three the total number of times he has been unable to place in his entire career.

During all of Connor's work in the high schools he attended school and worked at the post-office from three in the afternoon until twelve at night. At the end of the second year by permission of Principal Wilson he studied during the summer of 1904, and that fall he took an examination which qualified him for the fourth class. Last spring he was graduated among the first of his class.

BY HELENA H. THOMAS

HER heart was so attuned to Nature's bursting spring-song, that exquisite April day, as she crossed the threshold of the erstwhile invalid, that she carried with her so sunny a presence that the mistress of the attractive home into which she was ushered, seemingly took exception to her manner, for the cheery greeting was met by the doleful rejoinder: —

"I have so little strength to face the spring that I do not welcome its heralds."

The tactful caller then endeavored to adapt herself to a mood more in accord with that of her hostess, but after she had listened to a tale of woe — protracted illness and its enervating effects,— she so forgot herself as to say, in a hopeful tone: —

"But cheer up, my friend, for spring is with us once more! I heard a robin yesterday!"

She saw her mistake, however, when the lines deepened on the pale face, and from the lips of the convalescent fell, in plaintive tone: —

"Don't talk of spring, for I actually worked myself into a fever this morning thinking of that and what it means to a housewife."

"I suppose you refer to the inevitable housecleaning?"

"Yes, something I have a horror of, at best; but now, in my strengthless condition it seems more formidable than ever. So much so that I have a nervous chill every time I think of it."

"Then banish from your mind what you so dread," was the reply.

"That is the way the man of the house talks," sighed the other, with a somewhat injured air, "but a woman is supposed to know better; especially one who has been in my condition as many times as you have."

"Frankly speaking, I do know better, you poor dear!" was the hearty rejoinder, "and my heart aches for you this minute. I wish I dared suggest your resorting to my method, when, as has been the case several times after a siege of *la grippe*, spring has found me utterly shorn of strength, as well as disheartened, in view of the avalanche of work awaiting me."

"Why, what can I do? What did you do?" was the half-aroused query.

"Why, I began what I so dreaded, in sheer self-defense — to tell the truth."

"Began! Why, you must have been beside yourself to attempt work if you were in my condition!" exclaimed the woman whose hands fell like lead at the very thought of labor. "It would surely bring on a relapse for me to follow your suggestion!"

"Then don't, by all means; but, as I told you, I did it in self-defense, for I found I was wasting my small stock of nerve-force in worrying over the inevitable. Now, of course, I would not encourage you in taking any risk, but it seems to me that it would be safer for you to begin little by little, as I did, than to continue to work yourself into a fever every day, as you confess you are doing, in thinking of what awaits you in the near future. Here it is but the

first of April, and by May you would, if so disposed, make quite a beginning toward the general upheaval."

"But what could I do in my weak condition to make a beginning?"

"Let me tell you of the experience of the spring that was such an eye-opener to me," was the evasive reply. "I had been ill all winter, and was in such a depleted condition at the opening of spring that, as I learned later, my physician and friends thought my living through it doubtful. But I had no thought of dying. I was planning to live and clean house once more, anyhow!"

Here the speaker's laugh was so contagious that her listener faintly joined in, which gave fresh courage to the one who continued: —

"At any rate, like you, I could think of little else. So one day I argued, 'I never can get strong folding my hands! I must and will begin somewhere.' Then, I recall how, as I mechanically looked about for a beginning, my eyes fell on a work-basket near at hand, and reaching for that, I began to rearrange it. When that was accomplished, I was completely exhausted, but I had made a beginning, and that meant much to one in my condition."

"Why, perhaps I could do that much," said the semi-invalid, in a less hopeless tone. "But go on."

"Well, the next morning I put to rights one of my bureau drawers, and after several hours' rest, did the same by another. The next day I accomplished double, and so I undertook a little more each day. At the end of a week I had not only sorted over letters, etc., and put to rights drawers and baskets in my own room, but my appetite and strength had so increased that all remarked at the change in me.

"And so I went from room to room on the ground floor, doing what can be done only by a housewife, and hinders so during the throes of housecleaning, until cupboards and drawers were in order. Then I went to the chambers (this I could do in safety, for, like yours, our house is steam-heated), and, going from room to room, worked until all was in readiness for stronger hands later on."

The observant woman had noticed, as she talked, the brightening eyes of her listener, and that she was looking about her as if planning to do likewise, and she was not surprised, when she finished, to see her pull out the drawer of a near-by table, and hear her say, with something of her old-time energy: —

"I'll make a beginning right here, this very day! But why is not yours a good plan to precede what can not be avoided every spring? The season would not be well over, as is usually the case, before order is restored if looking over drawers, etc., did not consume so much time."

"That is what I meant by saying that my experience that spring was an eye-opener to me," said the woman who arose to go, "for it taught me that having time-consumers out of the way robs housecleaning of half of its terrors."

Then cautioning her friend to "go slow," and adding, "Look for wisdom to the One who knows your frame," she bowed herself out and once more drank in the beauties of Nature.

The semi-invalid was so much on her mind, however, that as soon as she found herself in that part of the city again, she called at her residence, and was surprised when the door was opened by her friend, who looked so well and cheerful

that her caller could not help exclaiming thereat.

"Well, your experience has been mine," was the reply. "I proceeded step by step until, after two weeks, I not only feel like another woman, but I have so stolen the march on the 'inevitable' that the thought of it does not disturb me. I have learned one lesson for all time, too, which is that strength comes by the using, and that worry depletes nerve force as nothing else can."

The Cleansing of the Handkerchief

TOO little care is taken in the ordinary household in the matter of cleansing of that most necessary and frequently used article of attire — the handkerchief.

During the winter and spring, when colds and influenza are common, it is most necessary that great care be taken to keep the handkerchiefs of the persons affected separated from those of the remainder of the family, both in the laundry and in the clothes hamper. Indeed, it is advisable to use soft squares of cheesecloth, that may be burned after using, thus eliminating to a degree the possibility of infection from the discharge. This should be done, not only in the interests of sanitation, but out of consideration for the laundress, who ought not to be obliged to handle articles covered with loathsome matter.

It would be quite possible for her to contract influenza, catarrhal affection, or tuberculosis in this manner and convey it to her entire family — thereby making you directly responsible for suffering and hardship on those whose burdens perhaps, are already great.

In cases where the trouble is in the nature of chronic catarrh, and it is not found practicable to use the cheesecloth squares, the soiled handkerchief should be kept in an individual laundry bag until conveyed to the laundry.

When accumulated and ready for cleansing, they should be placed under water — cold is the best — for at least twenty-four hours (two or even three days is better). After a thorough soaking, during which time all foreign matter has been loosened but not yet removed from the handkerchiefs, it will be found a great convenience to manipulate them by a gentle pounding and swishing process, by the use of a wooden instrument, shaped like a potato masher at one end, and having a long handle, long enough to reach from the pail placed on the floor to the hand. These can be turned at small expense at a factory where such things are done. Lacking one made for a special purpose, an old croquet mallet may be used with excellent results. See that it is thoroughly scalded and sunned after using.

By working this instrument about gently on the soiled articles, much of the soil will be removed before touching the hands to them. This does away with the hard rubbing to which they are often subjected. Pour off this water, cover with hot water, and repeat the process. Then wash with soap and hot water in the usual way. After they are thoroughly scalded and rinsed, hang on the line in strong sunshine for a day.

If handkerchiefs are handled in this manner, the dangers of infection are greatly lessened. The small amount of extra work it entails in no way corresponds to the chances for immunity it affords the entire family.

The Dangerous Fly

IN dealing with these troublesome pests, preventive methods are of the first importance. It must be borne in mind that the usual breeding-places are outside the house, and that proper sanitary conditions out of doors are absolutely essential. It is said that petroleum sprayed upon their breeding-places, — stable floors, compost heaps, etc.,— is effectual in destroying the larva and pupa of the insect. The best of all remedies would be to permit no breeding-places about the premises, to allow no suitable conditions being found for their growth and development. This, however, is not always possible; for while one householder may take the utmost pains to keep the premises clean, a careless neighbor may supply breeding material for millions of the insects, which are quite as likely to seek an entrance into other homes as into that of their rightful owner. Upon their wings and feet they may carry the germs of tuberculosis and other diseases, and stopping upon some delectable dish in our food rooms or at meal time to satisfy their own hunger, leave there these very germs for our consumption. In country places and villages, where unscreened outbuildings serve the purpose of water-closets, it is very probable that such diseases as dysentery and typhoid fever are spread through the agency of flies. The fact that officers in soldiers' camps are seldom so subject to infectious diseases as are the common soldiers, is attributed to the fact that they have screened tents while the common soldiers are not so protected.

The story is told of a little boy who with his mother took dinner one day in a summer assembly dining tent. A heavy shower occurring just before the close of the meal kept the people captive under the tent for a time. To lessen the tedium of waiting they held a service of song. Among the familiar airs sung was "Throw Out the Life Line." The little boy, intent upon watching the busy, buzzing insects in evidence about the table, and not quite catching the words of the song, asked, "Mama, what makes them sing 'Throw Out the Live Flies.' Why don't they do it?" The question was a pertinent one, applicable not only to that particular occasion, but to all similar ones, whether in public or private dining-rooms where flies are permitted to walk over foods. Undoubtedly many epidemics variously attributed to other causes could be traced to flies which after alighting and walking upon all manner of filth do not stop to clean their feet before intruding themselves as unbidden guests at any meal to which they can gain access.

An investigator during the Spanish-American War sprinkled some lime about a cesspool known to be infected with typhoid germs and about which numerous flies were swarming. Two or three hours later he observed some of the same flies walking about the table with particles of lime adhering to their legs. Catching the flies, he placed some culture media where they would walk upon it, and the next day he found typhoid fever germs growing in the flies' tracks.

Care to have the doors and windows well screened early in the season, and the doors so provided with springs that they will close automatically behind the thoughtless people who pass through them, is a preventive measure of im-

portance. If there are open fire-places unused, it is well to have these screened also, as flies seeking shelter from the rain in the chimney are liable to make their ingress by this route into the dwelling.

Flies seem to prefer light and sunshine, and this fact makes it possible to decoy most of them from a room by a little painstaking effort. Brush the insects from the windows, then cover the windows with something dark. Pieces of black cloth pinned over the shades serve this purpose to some extent, but shades are seldom so dark as to obscure the light, and not fitting tightly about the window, permit the flies to crawl under and around, thus getting between the shade and the glass, where they will revel in the sunlight as contentedly as if the whole room were light. Darken all the windows of a room thus, leaving a small light space with an aperture at the top of one, and flies attracted by this gleam of light will pass through the aperture out into the open air. It is said that funnel-shaped holes made near the top of the screen by puncturing the wire netting from the inside with a sharpened lead pencil afford an arrangement by which the flies may go out, but may not easily return, and are therefore a means of lessening the number likely to congregate in any room.

Where rooms are not in constant use, the shades may be drawn, except on the half of one window, and if this be open, the flies will collect on the screen, which may be swung open from time to time, turning a score or more out into the air each time. Others may be driven on the screen or out into the air by the use of a fly driver made by tying long narrow strips of newspaper to a stick. Persistent effort will often thus largely rid a room of flies in a short time.

While undoubtedly flies are needed to preserve the equipoise of nature, they should not be tolerated indoors, and no conditions permitted which will attract or serve them as an invitation. The conditions most conducive to the health of the human family are the very conditions least conducive to the life and health of the fly family; hence the nearer we approach the ideal cleanliness and good sanitation, the less we shall be troubled with flies. E. E. K.

Some Interesting Facts in Regard to Baby's Teeth

BY B. R. PARRISH, D. D. S.

MORE or less has appeared in medical books and journals in regard to babies' teeth, but the mother knows less about this, perhaps, than about any other part of the body. In order to understand it fully, we must go back to the second month of fetal life. When their development begins, and even before this time, the expectant mother should exercise great care in keeping herself in the best possible physical condition. It is well if much time can be spent out of doors, and she should also be kept in the best of spirits during this time, as happiness is one of the best tonics known. It is very important that the mother should do all in her power to encourage general nutrition. Her diet should be of such a nature as to supply the necessary bone salts,— lime, soda, and phosphate. If the diet does not contain these elements, they will be taken from the mother to supply the wants of the babe, and thus impair the life of the mother, and break down the structure of her own teeth.

In the newborn babe there are, in the

process of eruption, twenty-four teeth, of which twenty are temporary. The eruption of the teeth occurs as soon as they are hard enough to bear pressure. The gum is absorbed by the pressure of the tooth, and the little capsule which has heretofore surrounded the tooth, becomes bony, and remains as a socket for the tooth.

The baby teeth are very different in structure from the permanent ones, but the parent is often confused and unable to tell the difference, owing to the way the teeth are erupted and shed. The shedding of the baby teeth is a perfectly natural and healthy process, and unless they have been neglected, there will seldom be any occasion for the use of much force in removing them. There are found in each half jaw one central incisor, one lateral incisor, one cuspid, commonly called canine, and two molars. The incisors are chisel-like in shape, for cutting. The name incisor is taken from the Latin *incido* (I cut). The cuspids are shaped like a spear, from the Latin *cuspis* (a spear). The molars, from the Latin *mola* (a mill), are so called because they are the grinders. The first teeth to make their appearance are usually the two lower central incisors, although in many instances the upper ones come first, and in the normal, healthy babe, they may be looked for any time between the fifth and seventh months. The two lateral incisors follow between the seventh and tenth months, the cuspids between the twelfth and fourteenth months, the first molars between the eighteenth and thirty-sixth months.

Three and a Half Years

One and a Half Years

One Year

Age, Nine Months

At Birth

Courtesy of the Illinois Post Graduate Dental College, Chicago.

There is often more or less worry connected with the time of teething, owing to the many important changes taking place throughout the whole body at this time. The digestive organs are being prepared to take the different kinds of food, and unless the child be very healthy, the nervous system is liable to be more or less irritated. Owing to the existing conditions at this time, the food should be changed gradually, and the child kept in as good physical condition as possible. The drooling so commonly seen at this time is a provision of nature, and is cooling to the gums. One may expect to find the gums full of heat and more or less red and in an inflamed condition. Frequent swabbing of the parts with cool water, and the application of a weak solution of menthol, locally, usually reduces the fever, and leaves a cooling sensation.

When the gums become dry and white and the baby seems to be irritable, the child should be taken to a dentist or a physician and the gums lanced thoroughly, which will give relief. There is not much pain connected with the operation. Babies that cut most of their teeth in cool weather usually have very little trouble, while teething in the warm season is almost always accompanied with more or less fretfulness.

The teeth of babies are supplied with nerves and blood vessels coming through their respective roots in the same way as the permanent teeth. The pulp chamber (in which is distributed the nutrition for the teeth and the sensation of the nerves) is larger in proportion than it is in the permanent tooth.

When decay is once started in a baby tooth, it usually soon destroys it unless arrested by stopping the decay, and an artificial covering used. Unfortunately, our teeth have not the faculty of repairing themselves, as do those of rodents, — the squirrel, rat, and mouse, for example.

As the period of the usefulness of the baby teeth is nearing the end, the roots are slowly absorbed until only the crown remains, then they usually drop out. They should, however, be kept in repair and allowed to remain the full length of time in order to give the right path for the permanent teeth which are to take their place. As the process is going on, the jaw grows larger by the pressure of the teeth in being erupted.

The Elimination of the Mosquito

A. H. Doty, New York (*Journal A. M. A.*), describes the habits of the mosquito, so far as they are known, with special reference to the extermination of the insect. The first important fact is that mosquitoes propagate only in water, and the commonest form, the culex, has a special preference for contaminated or foul waters. There is a salt-water mosquito which abounds on the Atlantic coast and breeds in the salt marshes, hibernating in the mud when they are not overflowed.

Mosquitoes can live for many weeks during the warm weather, and have been kept for weeks in captivity. The anopheles, or malaria-bearing mosquito, differs from the culex in not preferring contaminated waters, but breeds rather in surface water with green scum. It may be found together with the culex in offensive water, but this is rare. As a rule, mosquitoes do not go far from home, though they may be carried by the winds or public conveyances. In localities where they abound, their breeding-place is generally at no great distance. These breeding-places are sometimes in the most unexpected locations, and he gives an instance of malaria traced to an old cake-pan, nearly buried in long grass, which abounded in anopheles.

The prevention of the propagation of mosquitoes consists in abolishing or removing the water receptacles in which they breed, by drainage, filling, covering, and screening cisterns, and the use of petroleum oil as a temporary measure when these other measures can not at once be carried out. The oil is cheap, practically harmless, and destroys the larvæ. Chemicals, besides being possibly dangerous, are comparatively ineffective. All mosquitoes are most active after sundown. In the daytime they live in the high grass and underbrush, and in mosquito-infected districts this should be removed.

The Kitchen Refuse

What to do with the waste accumulating from preparation of foods is a question of no small importance. The too frequent disposition of such material is to dump it into a waste-barrel or garbage box near the back door, to await the rounds of the scavenger. Unless more than ordinary precautions in regard to cleanliness are observed, such a proceeding is fraught with great danger. The bits of moist food, scraps of meat, vegetables, and other refuse very quickly set up a fermentative process, which, under the sun's rays, soon breeds miasma and germs; especially is this true if the receptacle into which the garbage is thrown is not carefully cleaned after each emptying.

A foul-smelling waste-barrel ought never to be permitted under any circumstances. The best plan is to burn all leavings and table refuse as fast as made. This may be done without smell or smoke by putting the refuse between the top of the oven and the middle covers of the kitchen range, and opening the draft. The refuse thus comes in direct contact with the hot air or the flame and is soon reduced to ashes. The refuse should first be drained from all slop. This may be carefully done by placing in one end of the sink a wire dish drainer into which all fruit and vegetable parings are put. If wet, the water quickly drains from them, and they are ready to be put into the stove. Apple and potato parings, even watermelon rinds, are by this method soon reduced to ashes without checking the fire or interfering with the cooking. All waste products which can not well be burned, may be buried at a distance from the house, but not too much in one spot, and the earth should be carefully covered over afterward. Under no circumstances should refuse be scattered about on the surface of the ground near the back door, as heedless people are apt to do.

If the table refuse must be saved and fed to animals, it should be carefully sorted, kept free from all dishwater, sour milk, etc., and used as promptly as possible. It is a good plan to have two waste pails of heavy tin to be used on alternate days. All waste pails should have tightly fitting covers. There are fiber pails with fitted covers well suited for this purpose, but if one desires something at small expense, a tinner can make a cover to fit the galvanized waste pails obtainable of any dealer. When one is emptied, it should be thoroughly cleansed and left to purify in the air and sunshine while the other is in use. Any receptacle for waste should be entirely emptied and thoroughly disinfected each day with boiling suds and an old broom. This is especially imperative if the refuse is to be used as food for cows, since the quality of the milk is more or less affected by that of the food.

Mopping

What is termed mopping as generally performed is not the most healthful way of cleaning floors. To do good work by this method one needs at least two mops for drying besides the one used to wet the floor, one pail of suds, and one pail of clean water for rinsing. There are patent wringers which, attached to the pail, do away with the need of wringing by hand.

Mopping is not well suited to the cleaning of corners, and the careless worker is likely to leave marks and soil on the baseboards, while the article used is itself, unless taken entirely to pieces after each use and washed and dried with care, likely to become sour or musty,— a first-class breeder of germs, thus making of the mop as ordinarily used and cared for, a most insanitary implement.

An Up-to-date Dwelling

BY MRS. E. E. KELLOGG

THE health watchword of the hour is — Return to natural ways of living. Preserve the natural contour and poise of the body, eat nature's own food, drink her pure beverages, and breathe the free fresh air.

In these days a large majority of persons spend much of their entire lives immured between the walls of the office, shop, or dwelling, barricaded as completely against fresh air as some old knight in his castle from the encroachments of his enemies.

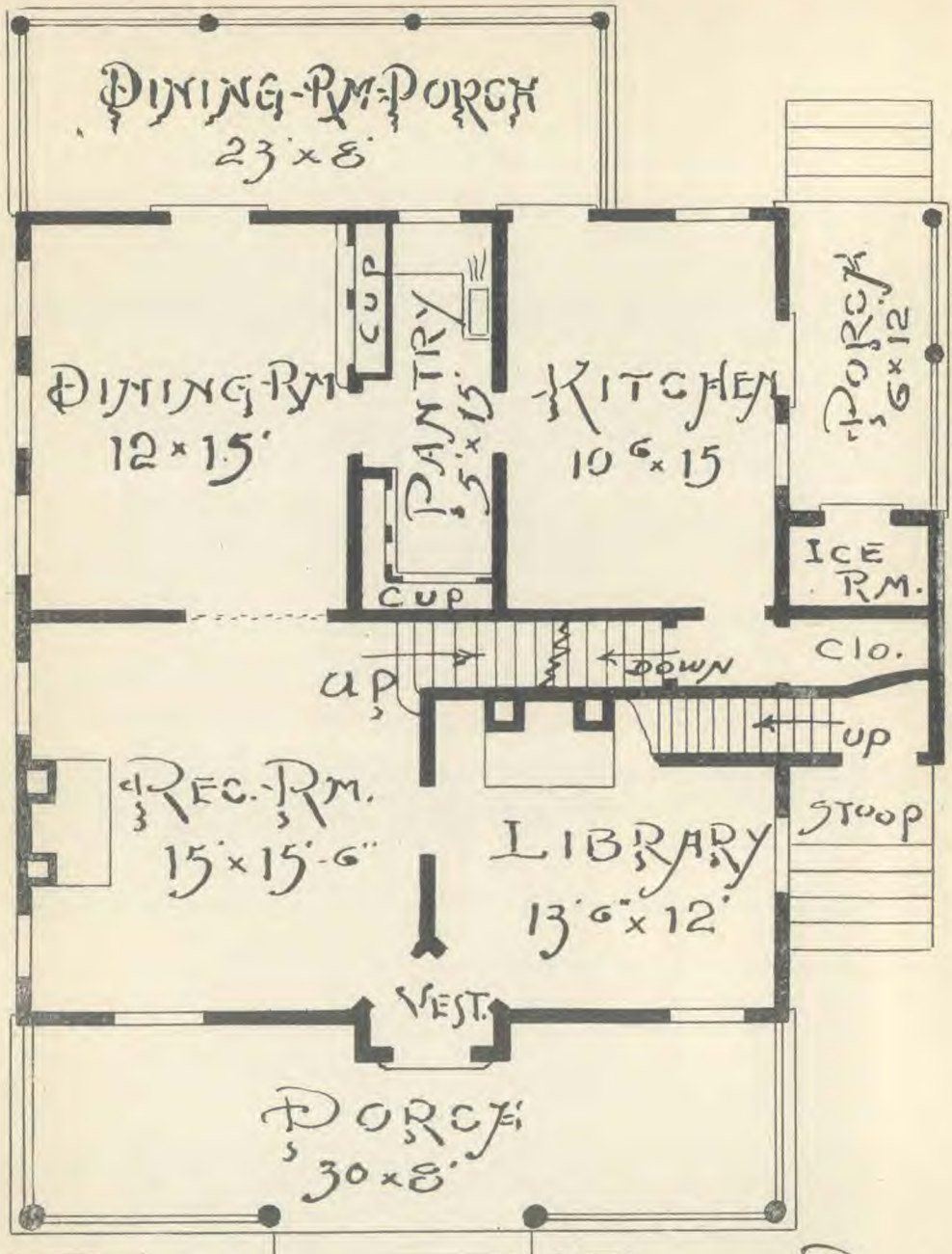
Modern house-builders seem to have aimed toward structures impervious to all the outside elements. Modern life has emphasized the "indoors" habit, with the reflex result of increasing disease and race deterioration.

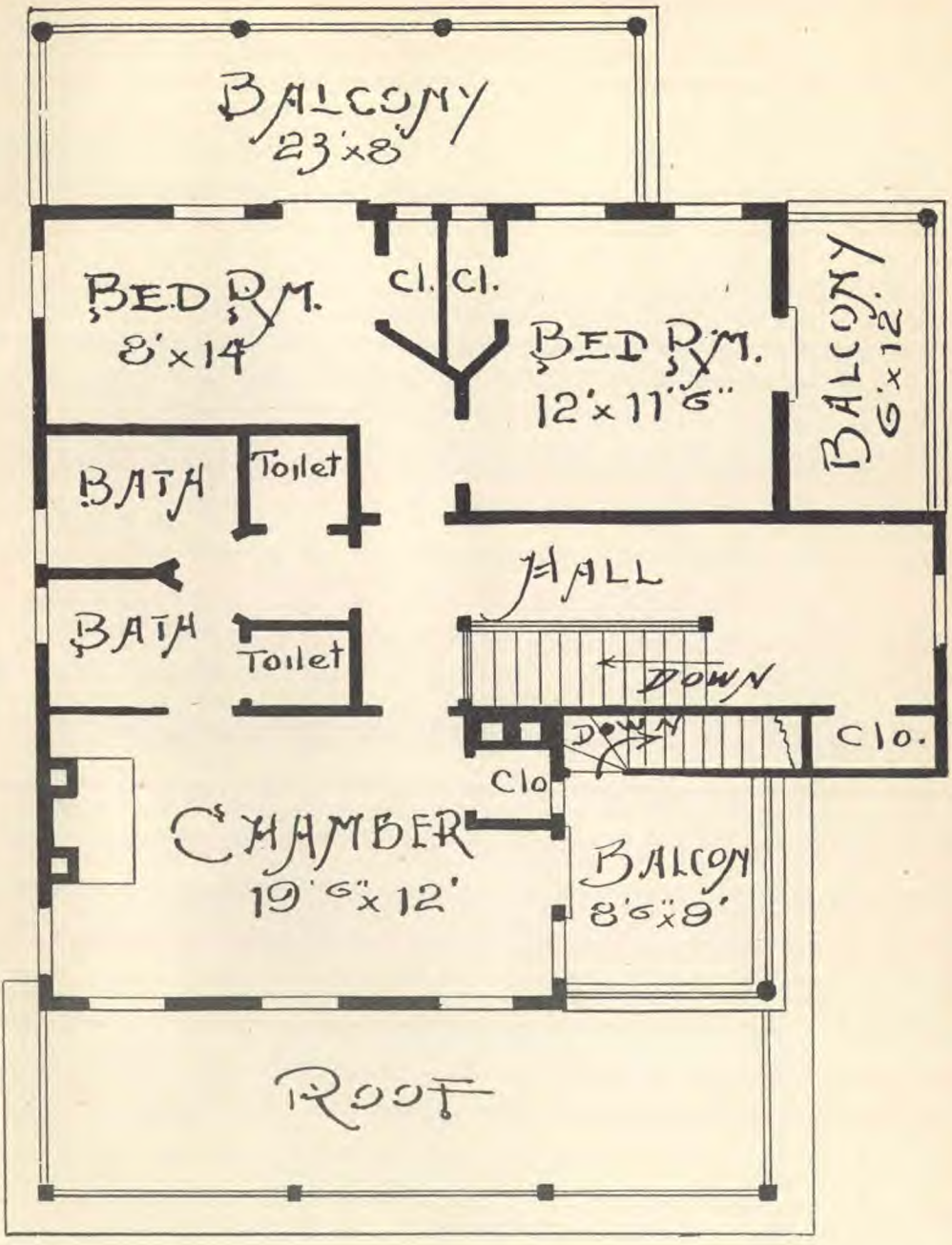
It has been aptly said: "When men lived in houses of reed, they had constitutions of oak; since they live in houses of oak, they have constitutions of reed."

In these days the open-air treatment is well recognized as an invaluable remedy in disease; it is of no less worth as a preventive measure. We need to reverse our order of living and spend the greater portion of our time in the open air. How to do this is the present problem. The accompanying plans of a moderate cost dwelling may prove suggestive of some ways in which this may be done in the home life.

While the house is designed to provide the very best sanitary arrangements for indoor dwelling when this is a necessity, it is intended that the facilities for living in the open air shall possess so much greater attractiveness that the hours spent within doors will number very few.

The rooms on the first floor are supplemented by a broad veranda in front, which during the warm months may serve as the living room for the family. It should be screened as protection from insects, provided with comfortable, restful furniture, and beautified with plants and vines. A southerly outlook is presumed, which gives to the porch both the morning and afternoon sunshine.


DINING-RM-PORCH
23'x8'
CUP
PANTRY
5'x15'
DINING-RM
12x15'
KITCHEN
10'6"x15
PORCH
6'x12'
ICE
RM.
CUP
CLO.
UP
DOWN
UP
REC.-RM.
15'x15'-6"
LIBRARY
13'6"x12'
STOOP
VEST.
PORCH
30x8'
FIRST FLOOR PLAN



SECOND FLOOR PLAN

The porch dining-room on the north is conveniently arranged for the service of meals out of doors whenever the weather will permit. A sliding window provides for the passing of foods and dishes from the pantry. Another out-of-door nook is the porch from the kitchen, where the housekeeper may arrange to do much of the preparatory work of the meal getting, and in numberless ways combine fresh air with her daily tasks.

To have an abundance of fresh air during the daytime is important, but to insure it at night is, if anything, more necessary, since it is during sleep that the processes of growth and repair chiefly take place. For their perfect operation large amounts of oxygen are necessary, so the second floor is planned with balconies for sleeping out, each connected with an ample room in which one may disrobe and dress in a warm atmosphere during the cold weather.

The large front chamber is so planned that it may be used as a day nursery, with outside sleeping arrangements, or it may serve the purpose of a sick room in case of illness. In case of contagious disease the sealing of the doors into the hall and egress by the stairway from the balcony will make isolation complete.

It is a large, light room with a sunny exposure. The many windows provide opportunity for sun treatment, the balcony a place for lying or sitting in the fresh air. Screened in summer, in winter enclosed in glass, the balcony becomes an ideal sun parlor. In case the room be used for nursery, the broad roof above the front porch may be converted into a roof-garden playground for the little ones. The possibilities of such a room are numerous. When not demanded for other use, it may serve an admirable purpose as a "rest" chamber, — a corner where weary ones of the household may relax and rest in sun or shade in quietude.

The cost of this dwelling complete would range from $2,500 to $3,000, depending upon location.

He who would build a house that all may see
In Truth should dig the deep foundation ways,
Should lay the corner-stone of Love, and raise
The walls of Steadfastness, then tenderly
Bedeck the halls with Song and Poesy,
And keep Contentment on the hearth ablaze,
The windows Hope, the ascending gables Praise,
And over all the roof of Charity.

Then let the tempests rage, the flames consume —
Time's self were impotent to seal the doom
Of such a house, where wanderers may find,
Blazoned in gold above the welcoming portal:
Who enters here leaves hopelessness behind —
The true home is the heart, and hence immortal.

— *Richard Nixon.*

Health Dependent upon Careful Housekeeping

Aim to simplify housekeeping in all its departments; study to save steps by the most convenient arrangement of the tools and materials in relation to the work in hand; by sitting down in quiet and thinking out the best ways of doing things before beginning. Make a program of the duties of the day, and live up to it as nearly as possible in a business-like way. Study to *keep* clean, rather than to *make* clean. Let health be the ruling principle, to which all else subserves. Housekeeping is a profession worthy the best energies of any woman, but it is pitiful indeed to see one wholly engrossed in performing the mere mechanical operations involved, with no thought beyond the immediate visible results of her work. Whether one knows it or not, whether one cares or not, the fact remains the same, that in the greatest measure is the life and health of the entire household dependent upon the faithfulness and intelligence with which the processes that go forward day by day in the household laboratory are carried out.

The Clothes Closet

It is cleanliness in the little things that makes up the sum of healthfulness in a home. Storing places are a necessity in every well-ordered household, but all such should be light, that the dust may be easily seen and removed. If possible, they should be lighted by a window through which at some time during each day the sun's disinfecting rays may shine freely. The ideal clothes closet should be not less than two and a half feet in width and of greater proportionate length, and provided with some means for the entrance of both air and sunlight. The closet should be regularly well aired each day.

All clothing of wool or other rough-surfaced fabrics should be well shaken out of doors and brushed free from dust before being hung in the closet. All footwear should likewise be carefully wiped and cleaned.

As a recompense for the care thus given the closet and its contents, the clothing will be likely to wear longer and keep in better appearance, and the health of the household will be more secure, and the atmosphere of the house purer, and untainted by the stale smells which accompany old and soiled clothing; neither will frequently aired garments in a well-kept closet be likely to be infested with moths. These household pests do not thrive in the light. It is the darkness and the fact that the contents of a closet are left undisturbed for a long time that give them an opportunity to do their mischief.

For the soiled linen a separate closet should be provided unconnected with any sleeping- or living-room. A long narrow room near the laundry, with light on one side and good ventilation, is the most desirable for this purpose.

Keep the Dishcloth Clean

Be particular with your dishcloth. Do not hang it in a damp warm place in the sink cupboard, there to breed disease germs. Wash it in soap and clean hot water each time after using, and then hang where it will dry in the sun and fresh air.

Clean dishcloths and towels are as necessary for health as is clean, inviting tableware. Even though rinsed and carefully dried each day, they should be placed in the wash each week and put through the same process to which other soiled articles are subjected.

Too many housewives neglect to oversee this highly important part of the

household machinery. Ignorant domestics frequently use one dishcloth until it has become so greasy, stained, and ragged that it is hardly fit to touch, to say nothing of being fit to wash the family plates and cups.

Soft pieces of the checked linen crash, hemmed (in order that the raveled ends may not make work for the plumber), make the most satisfactory cloths for the silver and china; while coarser pieces of crash, unbleached, may be used for the enameled and tin ware and the iron cooking utensils. The cloth should be soft and pliable and easily absorbent. Good results can not be obtained from a harsh, starchy cloth. Do not use old pieces of muslin; the lint and ravelings will work havoc in the drain pipes if you do.

It is a very simple matter to keep clean cloths in use, and any woman with a well-developed sense of nicety will make this a part of her household discipline.

They Must Bathe

When one is thoroughly accustomed to the daily bath, he feels the need of it, and realizes his uncleanliness more if deprived of it for a day than one not so accustomed would if deprived of bathing facilities for weeks. To the Japanese a daily bath is one of the necessaries of life, and the most scrupulous attention is paid to personal hygiene. The Jap laborers at the Berwind mines in Colorado sent a letter to their chief in which they stated that they would not go to work until supplied with a bath-house. The president submitted to the inevitable, and ordered a bath-house to be built. The use of this is not confined to the Japanese laborers, but the " fad " is spreading, and the prospects are that soon every laborer in the Berwind mines will bathe regularly.

Common Salt in Rheumatism

Dr. Haig has called attention to the fact that the elimination of uric acid is interfered with by the free use of common salt. The strong acid associated with sodium and common salt diminishes to a greater degree the alkalinity of the blood, which is essential to encourage oxidation of waste elements, and is especially important as an aid to the solution and elimination of uric acid and allied products.

THE teacher was trying to get the boy to say " dessert."

" What is it that comes at the end of a banquet, Tommie? "

" Dyspepsia, ma'am."

FROM the standpoint of health, it seems unwise to set the table for breakfast the night before, or to keep it set from one meal to another, unless carefully covered with a cover thick enough to prevent the dust from accumulating upon the dishes. The plates and glasses should then be placed bottom side up and turned just before mealtime. No food of any kind should ever be allowed to remain uncovered upon the table from one meal to another. The cloth for covering the table should be carefully shaken each time before using, and always used the same side up until washed.

Music in Anesthesia

A German physician claims to have demonstrated that by employing music during the administration of an anesthetic the resistance and distress of the patient may be greatly diminished, and that the patient is less liable to suffer afterward from the nausea, which is one of the most distressing accompaniments of anesthesia.

Two Walking Clubs

BY ENOS A. MILLS

LEGS greatly helped to make the Lewis and Clark Expedition a success. Westward the star of empire walked its way. With the journey completed, legs seem to have gone out of use. Walking, with its delightful accompaniments and numerous benefits, is now but little enjoyed.

However, people are hearing the call of the wild, and some are again walking with Nature. In Jackson, Mich., there are two walking clubs. The "Sunshine" is composed of a number of young ladies, and the members of the "Overland" are mostly young men.

J. M. Hutchinson in Racing Costume
This kind of suit is worn by the O. W. C. members when doing fast walking and running

The aims and activities of these clubs are similar. The dues are moderate, and the walking garments of the members are neat, simple, and easy-fitting.

Each member must walk at least four hundred miles per year. One evening of each week the members meet and take a tramp of from five to thirty miles — either along the roads or across the country.

Usually in midsummer those most enthusiastic, and who can afford it, take the train to some historic spot or scenic realm and there spend two or three weeks doing these places afoot. Next summer the ladies of the Sunshine will follow the picturesque shores of Lake Superior for miles. The young men of the Overland will

ride to the Rockies, and in Colorado walk to the Cliff houses on Mesa Verda, tramp through the Garden of the Gods, and scale rugged Long's Peak.

Once or twice per year the clubs unite and have contests on the athletic field. These contests are given chiefly for the purpose of popularizing walking. Most of the contests are walking races, and a feature of these is the backward walking race. A few times each year the clubs also unite and enjoy social evenings.

Each individual in these clubs has good health, and all are noted for their good nature and excellent complexion.

Walking not only gives health, pleasure, and wholesome self-reliance, but it also develops that rich, rare quality which we call individuality.

Walking enables one to go beyond the fence line, where Nature is sweet, unspoiled, and harmonious. The walker who deserts the road soon feels that, go where he will, this is a beautiful world, and that every bit of Nature will give joy. Nature is a mass of interesting stories and instructive conditions. A little information concerning plant or animal life will not only add pleasure to every walk, but will also give constant and growing pleasure to life.

Overland Walkers who walked through New England in July, 1905

Reading left to right: Ed. Buckley, E. Fox, C. Fox, J. M. Hutchinson, W. D. Hunt

Mrs. Patrick O'Conner, President of the Sunshine Walking Club

Mrs. Patrick O'Conner has regained her lost health by taking up walking as an exercise

Views afoot get the walker acquainted with Nature, with his companions, and, above all, with himself. All these acquaintances are important for the living of a successful, honorable, and happy life.

Mrs. Patrick O'Conner, the founder and the president of the Sunshine Club, took to walking for the benefit of her health. Succeeding, she became enthusiastic and organized the club. She is an enthusiast, has the complexion of health and an interesting personality.

Both the Sunshine and the Overland clubs really owe their existence to the

happy and persistent efforts of the founder and president of the Overland,—James M. Hutchinson. Though the busy manager of a department store, he walked three thousand miles in 1905. He is skilful and speedy afoot and has taken scores of prizes. He takes part in contests solely for the purpose of demonstrating what diet and walking will do. His pranks and wit make the life of the weekly walks. He has written some excellent lines concerning the benefits of walking. He constantly does a heavy correspondence with those interested in walking, or with those he hopes to interest in it. His good letters have put many invalids upon their feet and led them to health and pleasure. He is doing a good work, and all who hold communion with Nature or who believe in a "sound mind in a sound body" owe him their words of appreciation and encouragement.

An April Study of Trees

BY JULIA ELLEN ROGERS

THE prevailing fashion among the April-blooming trees is to deck their leafless twigs in chenille fringes. They are largely catkin-bearing trees whose pollen is abundant and light and adapted for wind distribution. The April breezes blow among the pendulous catkins, shaking out the golden dust as soon as the scales loosen, and the burdened anthers burst with the pressure of the ripened pollen they contain. In birch trees we study this month, the two kinds of catkins are borne on the same tree. The pistillate catkins are small and green and stand erect. The staminate catkins hang down, are large and loosely constructed, and usually are feathery in appearance.

Let us begin with the poplar family, easily recognized by the picture of the aspen flowers shown last month. Though blooming in March, there will be flowers still on the same trees in April, and we have not yet spoken of the cottonwood, a poplar much planted far and near. It grows rapidly without care, and does not mind dust or smoke. Have you seen its angular twigs hung with silky pink catkins as large and long as your forefinger? These are the pollen-bearers, and they fall very early. Pick up one of them, yet fresh, and examine the lacy, silken-fringed border of the scale that bears the individual flower. It is the sum total of those hairs which, poked out of the bud scales in the end of winter, form the soft gray pussy. The poplar family bears the green pistillate catkins on different trees. One does not notice them without looking particularly, though they are in plain sight on the bare limbs. They are usually hung out on the upper twigs. These catch pollen, set seed, and we may see children early in May stringing the green beads the catkins bear. They are the unripe pods, which, if left until June, open and discharge minute seeds, each with its cottony float attached. The best place to find them is on the wire netting that screens doors and windows in the neighborhood of one of these fertile trees.

Have you time to take a second look at the twigs of these cottonwoods? The buds are waxy. A sister species, the balm of Gilead, has buds that fairly ooze and drip with the fragrant wax in April. Bees throng these trees, carrying the wax away to their hives. With it they fill weather cracks, and repair any other damage that lets in cold and rain.

They frugally store what is not needed, seeming to know that it will be a year before another supply can be obtained. Bee-keepers call this wax "propolis."

Everybody knows the too-much-planted Carolina poplar. Do its buds show wax? How about buds of the quaking aspen?

The birches are known by their thin silky outer bark, which has long narrow slits for breathing holes, and curls back in horizontal flakes from the furrows. The supple twigs show their staminate catkins all winter — stiff little fingers an inch or more in length. In April many birches lengthen and loosen these catkins until they are as long as your forefinger. Out of buds near by, the pistillate catkins come, little green catkins standing erect, with scales apart, waiting to receive the golden dust from the larger staminate ones that hang down and tremble in every breeze.

The only tree you are likely to mistake for a birch by looking at its bark is one of the cherry family. The catkins are entirely wanting, and a cherry twig has a very bitter taste, like the pit of a peach. This taste is from the hydrocyanic acid in the sap. Birch twigs are aromatic, but not bitter.

A hornbean has staminate catkins like those of birches, but the bark of this tree is close and grayish, with swollen ridges, like muscles or distended veins in a blacksmith's arm. It lacks the birch's slit-like breathing holes. Its twigs are finer and more tough than those of any birch. They are like piano wire. The tree well earns its nickname — *Ironwood.*

Butternut and black walnut trees are dangling out their green, clumsy catkins by the last week of April. It is easy to find them earlier, for they are not covered even in winter. They become several inches long. The oaks will deck themselves out in May with abundant fringe, but few will be seen in April, except in the warmer States. Below Washington, oaks blossom in April.

Without hesitation the early-blossoming fruit trees in our gardens and in the wild cover themselves with white flowers. The shadbush is one of the most delicate and beautiful of this group of tree families. It is known as the June-berry and the service-berry in some localities. Its ripe berries delight the birds. The cherry and plum trees follow the shadbush. Flowering almond and quince are close by in the flower procession — close relatives of the trees named just before them. Apple trees may show bloom in some varieties, but as a rule they wait until May. Notice the points of resemblance between trees of this group by examining and comparing their flowers.

By the brook-side a copious undergrowth of hazel bushes and alder may attract the attention of the Club. The shrubs I name, show not a leaf, but catkins hang abundantly on all their twigs. Both sorts of flowers are there — pistillate and staminate. Do you note the rich dark red of the alder catkins? They turn yellow when the pollen cells burst. Can you find the little red star flowers that are the hazel's nut-flowers? The alders still bear the hard oval cones, now empty of last year's seeds. The hazel's husks are all fallen.

The marvel of April is the opening of the leaves. I suggest for study the method of opening of a cherry tree and a poplar. Note if all the leaves on one tree are folded similarly in the bud. What trees hold onto their bud scales and lengthen them as the shoot opens? Next month the procession of the tree flowers is at its height. But we must see it coming on. Can not we go out to see it twice a week in April? "Going out" need not mean a Club Excursion to the woods. It may mean a few steps outside to keep watch of the dooryard trees.

How to Win the Birds About Our Homes

BY BELLE M. PERRY

A LITTLE intelligent forethought and loving care will bring the birds about our homes. Even the first year's interest is sure to bring a few very delightful results, and a half dozen years will accomplish almost whatever you will. One devoted bird-lover was able to report twenty-seven nests on her lot after four years. A pair of cat-birds would eat from her hand, and the brown thrush would bring its young to her door to be fed. It is a matter of food, desirable nesting-places, water, nest-making material, freedom from cats and English sparrows, and confidence in the people.

I visited an old friend, in a suburb of St. Louis in 1904, who had identified more than fifty kinds of song-birds on her lot. She had been interested in birds for about a half dozen years. Her children of ten and twelve shared this interest and were able to identify any bird they saw. It was a delightful revelation of what may be done with the children.

There is a widespread awakening to the pleasures of bird study, the value of birds, and the things to be done if we would have them with us, that is a most hopeful sign of the times, and the awakening comes none too soon. In only three States of the Union have our valuable native birds held their own in the ruthless destruction that has gone hand in hand with the extending and developing of our "civilization." For the fifteen years previously to 1898, according to the report of the New York Zoological Society of that year, birds had decreased forty-six per cent in thirty States and territories. In four only was there an increase of bird life; viz., Kansas, Utah, Washington, and Wyoming. In Michigan the decrease is given as twenty-three per cent, or nearly one-fourth of our native birds. It is time to begin to make amends for the cruel sacrifice. And the task is sure to be so pleasant it will prove a joy. If the children can only be interested, the case is won. And a general interest among them must come through the public schools. As would naturally be expected, the work is already introduced in the public schools of Worcester, Mass., through what is called

Ten to One Clubs

This name does not signify ten children in one band, as might be supposed, but an effort on the part of all the members to help bring about the conditions that will give us ten of our valuable native birds where we now have one,— a very significant title, when thus understood.

It is most encouraging to know the popularity of the movement with the children there from the first. They were told briefly of the need of the work and the pleasure it would bring. This was followed by queries as to how many would like to have swallows, orioles, robins, bluebirds, etc., build nests near their homes, how many would be willing to do everything possible to protect such birds and nests, and how many would like to band together in this work and have meetings to talk about best ways to attract the birds. Dr. Hodge says, "I must confess that even my optimism was taken by surprise at the way the children tumbled into it. 'Every child in the room,' was no uncommon report." Within a month it had proved its

value to such an extent that, by order of the superintendent, the meetings of the Ten to One clubs were made a regular part of the nature work and held in school hours. The story of this work, with a copy of the constitution and by-laws of the club, is given in a very valuable Nature Study pamphlet of twenty-three pages on Our Common Birds, by Dr. Hodge, of Clark University, Worcester, Mass., which should be used in every school in the land.

What Birds Eat

The question of food is of the first importance in winning the birds. We have seen how this can be met in winter and how the birds respond. At other times of the year it is a matter of insects, seeds, fruits, etc., and this means grass, plants, trees, and shrubs. When a genuine interest in the birds is aroused, it abides, and places will be found to put the growing things that will attract them. A small lot will permit of a great deal being done, and the work may well extend to school grounds, other public grounds, streets, roadsides, farms, etc. Ways and means open as we grow in the work.

Cone- and nut-bearing trees have an important place as bird bringers, and abundant places are awaiting that would be made beautiful by a tree here, a group there, a windbreak somewhere else, if we will keep our eyes open. When our boys and girls get to thinking and observing along this line, there is some hope of staying the pitiless sacrifice of the all-too-few individual trees and tree groups to be found near roadsides, and scattered occasionally here and there about farms and elsewhere. Many of these are prized landmarks for men and women who played under them as children. I recall a beautiful cluster of five elm trees at the roadside near my home when a child. It was a favorite place for the children of the neighborhood to gather. A few years ago the old farm was sold and four of the fine trees went into cord-wood. Several instances of such wanton destruction have come to my notice within a few weeks. We need the wholesome and stringent laws of Germany to protect our trees.

Every bird lover should have a list of the native trees and shrubs that bear food for birds, as well as those not indigenous to his locality which will thrive there. Getting acquainted with their habits, etc., is a pleasure in store for every one actively interested in the "ten to one" plan of restoring to our land its rightful heritage of birds.

And in planning to set trees and shrubs, care should be given to plant some which bear fruit at the same time with our garden fruits, as the birds prefer the wild kinds, and this is the only wise and humane way to protect the others from the birds. However, not all of the work of birds in our cherry trees is depredation, as witness the following from the pamphlet referred to above: —

"Last year the way the robins behaved was most interesting and suggestive. They literally stormed the tree by dozens before the cherries were fairly ripe, just as the first premature, wormy cherries were turning red; but after this, for three weeks, while the fruit hung rich and black, I did not see a robin in the trees, and the cherries were remarkably free from worms."

From a valuable "Food Chart of Our Common Birds," prepared by Miss Helen A. Ball from reports of the Department of Agriculture, Washington, and first published for use in the Worcester schools, I have gathered a list of trees, shrubs, plants, and vines which produce fruit or seeds for the birds. The chart, by the way, is published in full in Dr.

Hodge's pamphlet. The list follows: Chokecherry, black cherry, elderberry, Juneberry, Virginia creeper, dogwood, viburnum, mountain ash, strawberry shrub, bittersweet, hackberry, bayberry, pokeberry, cedar, frost grape, barberry, spice bush, buckthorn, greenbrier, juniper, wild grape, holly, hawthorn, blueberry, huckleberry, bush cranberry, partridge berry, sarsaparilla, false spikenard, euonymus, blackberry, mulberry.

One fine mulberry tree near my house has been a revelation to me of what may be done to attract the birds. Scores of goldfinches fed there day after day and week after week last summer, besides many robins, as well as orioles, kingbirds, and phebes. The fact that these berries do not ripen all at the same time, but continuously, week after week, for quite a long period, makes this a very desirable tree for bird food, and the fruit ripens in cherry time, which is another advantage. It is a rapid grower and begins to bear fruit young.

Birds as Planters

Given one thrifty mulberry tree in a neighborhood, the birds will look after the planting of as many more as can be utilized, by transplanting, in any locality, if the residents will do their part. We discovered a half dozen little bird-planted mulberry trees on our grounds last summer. A friend in another part of the town told me last fall that they had found a handsome shrub, evidently ornamental, at the rear of their place. No one could name it, and the manner of its getting there was a mystery. Our experience with the mulberry trees made me suspect that this also was one, which proved to be the case. And of course they were indebted to the birds for their new shrub.

It is better that these trees be set not too close to clotheslines or to walks, on account of the falling of the juicy fruit, but it is delightful to have one close enough to the house for a busy mother to enjoy, at least from a back porch, the birds that will throng there. The patches of bright color flitting here and there among the branches, the contented twittering of the goldfinches, their frequent delicious song, their wavy flight to and from the tree, and the sweet notes that come down to us when they are on the wing, make it well worth while to plan for them, when we know for a certainty they will come year after year for so simple an inducement as the setting out of one little mulberry tree.

While talking of the goldfinches I want to tell how they cleared my golden-rod last summer of the hundreds of little red plant-lice that infested the stalks. I frequently noticed them there in numbers of a half dozen or more, and on examination found that the lice were disappearing. The birds made a pretty picture swaying on the slender stalks, as they did later on the sunflowers when the seeds began to ripen. And this leads me to suggest the planting of a few sunflower seeds each year for the birds.

With the providing of trees, shrubs, plants, and vines, and a care to let the long grass grow in out-of-the-way corners as much as possible, the question of nesting-places will be largely solved. I might say in passing that those trees and shrubs which bear thorns on their branches are the favorite nesting-places of some of our most desirable birds. The thorns give them a sense of security. It remains for us only to entice with boxes and bird houses, the wrens, bluebirds, and martins, as we have already noted, to see to it that the chimney-swifts are not the victims of summer fires, and that the much-neglected barn swallows have a fair chance. Time was when every farm barn in the country was lined under the eaves with swallows' nests and the rafters were thick with their little

mud houses. Ask the average farmer to-day if he has swallows around his barns and he will answer, No. And why is it? Farmers have not themselves realized the value of these beautiful birds, and the modern, painted barn, minus the old-time openings for swallows at the gables, is responsible in part. If the swallows have gained a footing, when the time comes that the barn must be painted, the nests are perhaps ruthlessly scraped off and the swallows lose heart to try again. Some friend of the birds has recommended that rough boards be fastened under the eaves of the modern barn on purpose for the swallows. Let us pass the idea on and look after the barns close at hand for ourselves.

I well recall the large number of swallows to be seen around my father's barn in summer when I was a child. I saw the old barn two or three years ago and not a swallow's nest was to be seen. There were as many birds as of old, but they were that pest of the bird world, the English sparrow, which is another cause of the passing of the barn swallow, — one of the most useful and beautiful of our summer birds, with its steel-blue coat of changing rainbow colors, its rich buff beneath, its swift graceful flight, and its musical notes when on the wing.

A few words in regard to nest-making material. A pan of mud will be appreciated by the robins in a dry time. Swallows will find their mud with less difficulty, being such high and rapid flyers. But a convenient puddle of mud is quite likely to bring them, and it is a privilege worth going a long way to enjoy, to watch them coming and going, and filling their broad mouths with straw and mud for nests. One never realizes their marvelous coloring until he has seen them thus close at hand. The orioles and chipping sparrows will use plenty of horsehair. I put out a fresh supply almost every day last summer during nest-building time. Wool and cotton batting will be freely used by goldfinches and other birds, and the robins, orioles, and vireos will utilize bits of twine cut in foot lengths and scattered about on bushes and trees. All this will afford a delightful chance to observe the birds. The orioles and goldfinches made hundreds of trips daily during nest-building time last summer to one little snowball bush near my house.

A Bird's Watering-Place

An abundant supply of fresh water in a shallow pan is one of the essentials for birds. And the nearer this is to trees and branches, the safer the birds will feel in their baths. On the ground or platform near an outdoor hydrant is a good place if there are low-growing branches near by. Unless this is the case, the birds will be too easy prey for prowling cats in the helpless flight which goes with wet feathers. The top of a post is a good place if a tree is near. Broken branches may even be attached to the post, to come above the dish at one side. It is a pity that the average public fountain is not provided with drinking and bathing places for the birds. Here is something for schools and women's clubs to think about.

Cats are a burden on the hearts of all bird lovers, and there comes a time when, no matter how much they have loved their feline pets, these will be weighed in the balance of their affections and found wanting. People who will keep cats and allow them to roam about in the nesting season and when young birds are taking their first lessons in their struggle with the world, ought at least to put bells on them, that a warning tinkle might proclaim their presence. Every stray cat should be quickly disposed of.

At another time I shall have something to say about winning the confidence of birds.

CHAUTAUQUA SCHOOL OF HEALTH

Cultivating Lung Capacity

BY J. H. KELLOGG, M. D.

NO physical endowment is of more importance for a long and a vigorous life than capacious lungs. The intensity and efficiency of an individual's life depend very largely upon the amount of air he habitually passes in and out of his lungs, just as the intensity of a fire, granting plenty of fuel, depends upon the rate at which the air is brought in contact with the fuel. It has been found that lung capacity depends very largely upon the height; thus, the taller a person, the greater his lung capacity, other things being equal. The following table shows the lung capacity, or rather the amount of air which can be forced out of the lungs, the so-called vital capacity, for men of different heights: —

Height (inches)	Weight (pounds)	Vital Capacity (cu. in.)
64	115	205
65	126	228
66	126	230
67	133	244
68	134	248
69	140	254
70	141	256
71	150	272
72	151	287

The proper time for the development of the chest is in childhood and in youth. The best of all means for increasing the chest capacity is running and active sports of all sorts. Mountain climbing, going up and down stairs, and all kinds of exercises which produce strong breathing movements are effective means of chest development. Exercises of this nature are far superior to breathing exercises, so-called, of whatever sort. Breathing exercises in which the lungs are forcibly compelled to take in more than the ordinary amount of air, very soon become tiresome. The effort is wholly voluntary, and the muscles soon weary. When, however, a thirst for air is created by some active exercise which fills the blood with carbonic acid gas, so that deeper and more rapid breathing is necessary to rid the body of this poisonous gas and to take in a supply of oxygen in its place, the act of breathing is no longer difficult, embarrassing, or tiresome, but is, on the other hand, a pleasure and a gratification. The impulse which comes from within, from the so-called respiratory centers, so excites the respiratory muscles that they cause the chest to execute the strongest breathing movements with the greatest ease, ventilating every portion of the lungs, filling every air cell to its utmost capacity.

Runners always have large and active chests, whereas sedentary persons have chests of limited capacity and rigid walls. When a chest is not stretched to its utmost capacity many times daily, it rapidly loses its flexibility. This is especially true after the age of thirty. In persons who have passed middle life, the rigidity of the chest is so great that there

can be no very considerable increase in size. By development of the respiratory muscles the chest capacity may be to some degree increased, but the proper time for chest development is in childhood and youth. At this period, also, the integrity of the heart renders possible without injury those vigorous exercises which are essential to secure the highest degree of chest development.

Probably the best of all exercises for the development of the chest and breathing powers is swimming. The position of the body, the head held well back and the chest well forward, and the active movements of the arms and limbs render swimming a most efficient breathing exercise. The contact of cold water with the skin also actively stimulates the movement of the chest, while at the same time it renders possible prolonged and vigorous muscular movements by increasing the energy and activity of the muscles.

Special breathing exercises, as well as those active muscular movements which induce a thirst for air, are beneficial to the lungs by maintaining the flexibility of the chest, strengthening the respiratory muscles, and ventilating the lungs. These movements also exercise a most extraordinary, beneficial effect upon the stomach, liver, and other organs which lie below the diaphragm. Each time the diaphragm contracts, it gives the liver, stomach, and adjacent organs a hearty squeeze, so to speak, emptying out the blood contained in these parts as one may by compression empty a moist sponge. All movements which increase the strength of the abdominal muscles are an important means of aiding and improving the breathing function.

An Individual Menu for One Day, Showing Amount Needed and Food Units for Each Article

BY ESTELLA F. RITTER

BREAKFAST

		Calories
Apricot Toast	3oz	159
Granose Biscuit	½ "	49
Malted Nuts	½ "	76
Total Calories for Breakfast		284

DINNER

Fruit Soup	8oz	272
Walnut Roast	3 "	309
Tomato Sauce	2 "	13
Scalloped Potatoes	5 "	222
Graham Bread	1 "	76
Butter	1 "	228
Lemon Pie	4 1-3 "	369
Total Calories for Dinner		1,489

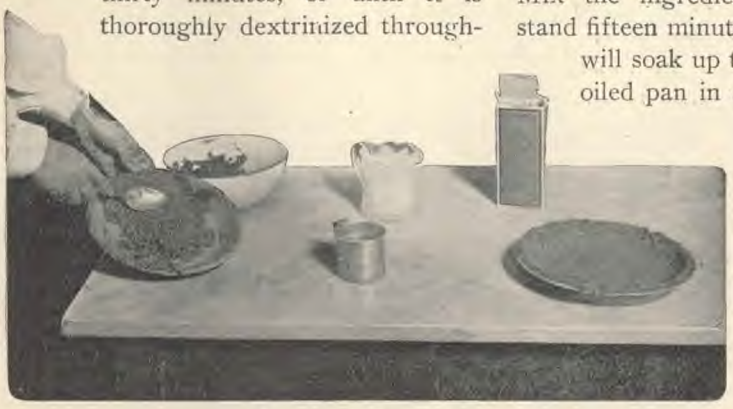
SUPPER

		Calories
Fruit Salad	2½oz	48
Cream Rolls	1 "	117
Nut Bromose	½ "	68
Grape Juice	6 "	138
Total Calories for Supper		371

Total Calories for Breakfast	284
Total Calories for Dinner	1,489
Total Calories for Supper	371
Total Calories for One Day	2,144

Apricot Toast.—Soak one ounce (one-eighth cup) of apricots in three ounces (one-third cup) of water overnight. Then

put to steam in a double boiler for forty-five minutes. Rub through a colander to remove all skins and to render them homogeneous. Prepare a piece of toast by cutting a slice of bread half an inch thick and baking in a slow oven for about thirty minutes, or until it is thoroughly dextrinized throughout. Moisten the toast with two tablespoonfuls of hot cream. Add one teaspoonful of sugar to the apricots and serve on the toast.



Preparing the Granola Crust

Fruit Soup.— Take one-half ounce (one tablespoonful) of raisins, one-half ounce (one-fourth cup) of dried apples, and one ounce (four) prunes. Soak together in one and three-fourths cups of water overnight. Then put to cook in a double boiler for three quarters of an hour. Rub through a colander to remove all skins. Then cook one-fourth ounce (one teaspoonful) of sago in the juice until boiled clear.

Lemon Pie with Granola Crust

Walnut Roast.— Take one-half ounce (one-eighth cup) of granola, two teaspoonfuls ground walnuts, one-fourth egg, two and one-half ounces (one-eighth cup) milk, and two and one-half ounces (one-eighth cup) cream; salt to season. Mix the ingredients together and let stand fifteen minutes, so that the granola will soak up the liquid. Bake in an oiled pan in a moderate oven until browned.

Tomato Sauce.— Heat two and one-half ounces (one-third cup) of strained stewed tomatoes to boiling and thicken with one-fourth teaspoonful of flour rubbed smooth in two teaspoonfuls of water. Let boil from five to ten minutes.

Walnut Roast

Scalloped Potatoes.— Pare and slice a potato, using three ounces. Put the slices in layers in an earthen pudding dish, dredge each layer lightly with flour, using one teaspoonful of flour in all. Add salt, and pour over all three ounces (one-fourth cup) of cream. Cover, and bake rather slowly until tender, removing the cover

just long enough before the potatoes are done, to brown nicely.

Lemon Pie.— Prepare a crust, using one ounce (one-eighth cup) of granola and moistening with one ounce (two teaspoonfuls) of cream. Turn immediately into a small pie tin, and spread and press evenly with a spoon over the bottom and sides of the tin. To moisten the teaspoon in cream while forming the crust makes it smooth and firm. Bake the crust slightly brown.

Then fill with a lemon custard, using one-half ounce (two teaspoonfuls) lemon juice, a little grated rind of lemon, one and one-half ounces (one and one-half tablespoonfuls) of sugar. Beat the lemon juice and sugar together. Braid one teaspoonful of corn starch with as little water as possible, and pour over it, stirring constantly, one ounce (one-eighth cup) of boiling water to thicken the starch. Add the lemon and sugar to the starch, and let it cool, then stir in one-fourth of an egg. Beat thoroughly, and pour into the pie crust. Bake in a moderate oven.

Fruit Salad.— Use one ounce (one-fourth cup) seeded oranges cut in small slices, the white part being carefully removed, and one ounce (one-fourth cup) of sliced pineapple. Cover with orange dressing made with one tablespoonful of orange juice, one-half teaspoonful of lemon juice, and one-half teaspoonful of sugar.

The Sitz Bath

AS indicated by its name, this bath is simply a sitting in water, or immersion of the hips in water drawn in a properly shaped vessel. Especially constructed sitz bath-tubs are most convenient, but sitz baths may be taken in a common wash-tub. When a wash-tub is used, it is more convenient to raise one side two or three inches, as in the cut.

Utensils for a Sitz Bath

The feet are also generally immersed in a foot-bath which is hot when the sitz bath is cold, but of the same temperature as the sitz bath when higher temperatures are employed.

Next to the full bath the sitz bath is perhaps the most important and useful of all forms of tub baths. Since it was popularized by Priessnitz something more than eighty years ago, the sitz bath has come to be extensively employed in all civilized countries. Like the full bath, the sitz bath may be administered at various temperatures. There are also certain other important modifications of the bath, which will be mentioned: —

The Cool or Cold Sitz Bath.— The temperature may be 75° to 55°. When the lower temperature is employed, the duration is very short, usually not more than one to three minutes. The patient or an attendant rubs the parts immersed in the cold water continuously during the bath. Such a bath has strong general tonic effects, and promotes the circulation of the blood in the pelvic organs by producing a strong reaction in these parts.

A cool sitz bath at 80° to 70° may be prolonged for ten or fifteen minutes, but continuous rubbing must be applied during the entire time by either the patient or an attendant or both, so that the surface of the parts immersed will not become chilled. It should be accompanied by a hot foot bath at 102° to 104°.

The Neutral Sitz.— This is an ordinary sitz bath administered at a temperature of 92° to 96°. The duration of the bath may be fifteen to twenty minutes, or even longer. The foot bath is unnecessary unless the feet are cold, in which case a foot bath at 102° should be administered.

The hot sitz bath is highly valuable as a means of relieving pelvic pain. The most effective form is the revulsive sitz, in which the patient enters the bath at a temperature of 102°, the temperature being raised by the addition of hot water until 110° to 120° is reached. The temperature of the bath should be made as hot as the patient can bear, a very hot foot bath being given at the same time. The skin of the parts immersed should become fairly red. As the patient rises from the bath, cold water is dashed over the hips, or the reddened surface may be rubbed over for a few seconds with a cold wet towel and afterward well dried.

The prolonged sitz bath may be used instead of the full bath as a means of inducing perspiration. When this effect is desired, both the patient and the tub are surrounded by blankets so as to prevent the escape of heat and steam. After a prolonged hot sitz, a cooling bath of some sort, as a wet sheet rub, cold towel rub, or pail pour, may be administered to tone the skin.

J. H. K.

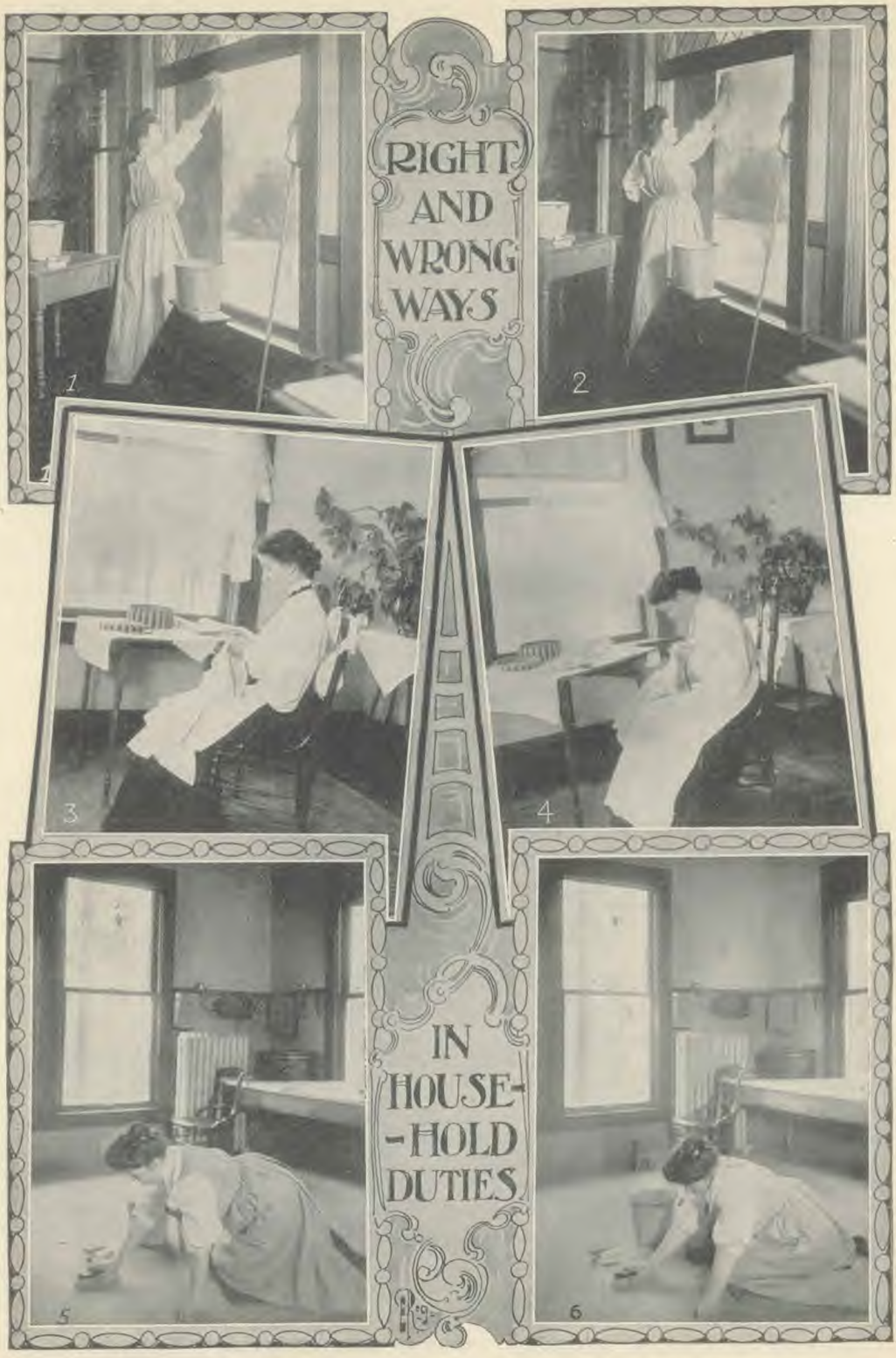
Chautauqua School of Health Search Questions

CULTIVATING LUNG CAPACITY

1. Upon what does lung capacity largely depend?
2. When is the proper time to develop the chest?
3. What are some means for this development?
4. What is the best exercise for developing the chest and breathing powers?
5. What effect do special breathing exercises have on the liver, stomach, etc.?

THE SITZ BATH

1. What is the sitz bath?
2. Give directions for taking a cool sitz bath.
3. Also for the neutral sitz.
4. What is meant by the revulsive sitz?
5. Of what special value is the prolonged sitz bath?
6. What treatment should follow the prolonged sitz bath?



1. Stretching upward in window washing, hips well back that the upward push may come in a straight, not in a bent, line.
3. Right position, Sewing. Cushion support for back.
5. Floor Scrubbing, bending at hip and knees so that the work is accomplished with the arms and not the back.

The Bradleys at Home

BY NELSON BARNES

"WELL, boys and girls," said Papa Bradley when supper was over and Harry and Evelyn and Marie and Baby John left the table, "there's no school to-morrow, you say. What are you going to do?"

"S'ide down hill," lisped Baby John, who had a vague idea that there must be some snow somewhere even if it had melted all around the house.

Papa Bradley laughed. "You'll have to go and visit the Eskimos then, I guess," he said as he took John on one knee and Marie on the other.

"Let's build a playhouse," suggested Evelyn.

Harry was afire in an instant with the idea. "Yes, let's," he shouted, his eyes dancing with animation as he thought of the fun they would have. Marie and Baby John too caught the fever at once and all joined in clamoring as loud as they could for a playhouse and asking papa for his ideas.

Papa Bradley held up his hands in mock dismay and begged them to be quiet. "What kind of a playhouse would you have us build, Harry," he asked when their cries had ceased.

"Oh, a log house, just like the Pilgrims used to live in — just like grandpa and grandma lived in when the Indians used to come and see them," Harry answered.

"A regular wigwam would be nice," Marie said.

"No, let's have a real little house with a porch and something for a stove and a little kitchen and cupboards and everything," said Evelyn. She was the older of the two girls and only a little younger than Harry. "Let's have a playhouse where we can keep house just like grown-up folks."

"Et's make a church with a teeple on it," said Baby John.

"Well, it's nearly bedtime, now," said Papa Bradley. "So let's all dream about it until to-morrow morning. Maybe while we're all asleep a playhouse will grow out there, who knows?"

And that was all that papa would say. No teasing could induce him to say anything more about it. So finally the children reluctantly went in to Mama Bradley and allowed her to undress them and put them to bed. They were still thinking about the playhouse when they went to sleep, for the last thing that papa and mama heard was a drowsy voice calling, "Let's have the playhouse under the apple tree, Marie."

* * * *

The girls woke up with a start the next morning to hear Harry shouting in their ears, "Get up quick and see our new playhouse."

It was broad daylight, so they quickly clambered out of bed. Of course they thought Harry was joking. How could a playhouse have planted itself in the backyard during the night. Why, that was just like a fairy story. But Harry insisted that it was so. He kept on telling them that a playhouse was planted right in the back yard under the apple tree — probably had grown there during the night.

So running to the window they looked out, — then rubbed their eyes and looked again. Sure enough, there *was* a playhouse. And *such* a playhouse. What do you suppose it was?

It was a large roomy tent. Yes, a real tent, large enough for all of the children to live in. There it was, standing right where they had been planning to build the playhouse, too — right under the apple tree, one end in the shade and the other out in the sunshine by the lane.

They couldn't get their clothes on quickly enough. It was a grand scramble for down stairs and such a hardship as it was when Mama Bradley said, "Breakfast first, play afterward."

Papa was reading the morning paper. Nothing could induce him to tell where the tent playhouse came from.

"It just grew there, I guess," he said laughingly as he carried Baby John out to breakfast on his shoulder.

And such a scramble as there was when breakfast was finally over and mama said, "Now you may go." They were out of the door like a shot out of a gun. Harry, of course, was the first to reach the tent, but the rest were not far behind, even to Baby John.

Harry let out a whoop. "Hurrah," he cried. "Look at it. Isn't it great. A real tent, just think of it! We can live just like the soldiers do."

With eager fingers he untied the cords which fastened the front flap and threw it back. All four children stood in the doorway and gasped. "Oh, my," they said, "isn't it fine, though!" For there it was, just like a real house, fitted up with everything needful for housekeeping. It had a real floor, a sort of platform, and there were two rooms. The first had folding tables and camp chairs in it, cupboards at the sides, and pictures fastened to the canvas walls. And there was a real stove with coals in it. But the cries of amazement upon seeing the inside of the tent were as nothing compared with the delight the girls experienced when they began to ransack the cupboards and drawers. There they found just the things they wanted to keep house with. Each new nook revealed something else, and when they had finished looking around, their happiness was complete.

Evelyn and Marie were just going through the cupboard when they heard a cry from Harry, who with Baby John had gone into the second room. They ran to see what he had found. It was a work bench and a chest of tools — an anvil, a vise, saws, chisels, a plane, hammers, augurs,— everything, in fact, that a real workshop ought to contain.

Harry was more than delighted as he investigated each new tool and looked over the entire equipment. Baby John shared his delight, too.

And so it went on. It was dinner time before they had any idea of it, but when they were washed and ready for the table they found themselves hungry children. For with the fresh air sweeping from one end to the other of their tent-playhouse, they had enjoyed the best that nature could give, and they had a healthy appetite for the wholesome dinner mama had prepared.

It was still a mystery, though, where the tent had come from, and they didn't

find out at the dinner table, either. But that afternoon, just as they had seated themselves in the tent to talk it over, a funny thing happened.

In through the back door walked the funniest looking old man they had ever seen. He was only about as tall as Harry, but was almost as round as an apple — at least he looked that way at first. His cheeks were as brown as a hazelnut, and his hair snow white. If he had only had whiskers, he would have looked for all the world like the pictures of Santa Claus. The children were frightened for a moment, but they soon got over it, for the little old man stood there blinking and smiling in such a comical way that they had to laugh with him. When he spoke, it was funnier still; he had such a strange, piping voice.

"Well, do you know who I am?" he asked after a moment's hesitation.

"No, sir," Harry answered politely, sobering down.

The little old man stood there for a minute or two without saying a word, simply blinking and smiling.

"Have you ever heard of your Uncle Ned?" he finally asked.

Their Uncle Ned! The children were thunderstruck. Had they heard of him? They had spent whole days talking about him — Uncle Ned, who had followed the sea since he was old enough to be a cabin boy, and who had written Papa and Mama Bradley from almost every country on the globe! Could this funny little man be the wonderful Uncle Ned?

He guessed what they were thinking. "Yes, I'm him," he said. "I've just come from a long voyage — clear from the other side of the world. I'm in port now for a long stay — just as long as my sea legs will let me be a land-lubber. So we'll have some good times together, my hearties, won't we?"

"Did *you* get us this tent?" Harry asked abruptly, the idea just occurring to him.

"Well, maybe I did have something to do with it now, I declare," said Uncle Ned mischievously, with a comical wink. "You see it will give you girls a chance to show your old Uncle how good you are at housekeeping.

"Then on warm days we'll start out from here — after the girls have done up the housework — and take long walks while I tell you about some of the things I've run onto in the strange countries, since these hairs started turning white. On wet days we'll sit in here and watch the rain fall while we work at one thing and another and tell stories. What do you think of that?

"That isn't all we are going to do, either; for this tent can be taken up and carried with us when black-berrying time comes, or we can take it down the river with us in a boat when summer comes — but then we'll have to wait for summer before we begin to think of that."

"Hurrah," cried Baby John, who understood that there were stories and good times coming, and who liked them as well as anybody else.

"Hurrah for Uncle Ned," cried Harry, and the children all joined in with a will, cheering him at the tops of their voices.

And there were many good times in the tent-playhouse that spring. Uncle Ned soon made it shipshape inside. Almost every nice day, with the playhouse as the starting-point, they took long trips through the woods and over the hills. When it rained, the stories Uncle Ned told them on these tours were continued inside the tent while the girls did their housework and while Harry fashioned queer things in the workshop under Uncle Ned's instruction.

By the Editor

Neurasthenia

NEURASTHENIA is more often a toxemia than any other thing. It is more often the symptoms of general autointoxication, a poisoning due to morbid changes in the foodstuffs in the alimentary canal. All flesh foods contain more or less poison, and it is these poisons generated in the alimentary canal which produce the great majority of chronic diseases.

These poisonous substances generating in the colon, are capable of producing all kinds of chronic disease; as, hardening of the arteries, from which comes apoplexy, Bright's disease, cirrhosis of the liver, and dropsy, heart disease, angina pectoris, and many other incurable maladies — paralysis of the spinal cord, locomotor ataxia. Various things have been proposed for remedy. Professor Swartzenberg studied the germs in the alimentary canal, and found that there are one hundred and twenty-eight trillions of germs produced in the alimentary canal every day. Professor Metchnikoff, of Paris, one of the most renowned of scientists, successor to Professor Pasteur in the Pasteur Institute, has called attention to this fact, and asserts that he has positively proved that the poison produced by these germs in the colon constitutes the cause of old age; that if this poison could only be eliminated, we would not grow old; at any rate, not nearly so soon as we do. So thoroughly is he convinced of this that he suggests that we would be better off if we could lose our colons. He says the colon is a vestige of old times when we had to live on coarse foods, and was necessary when we had to browse in the forests, but that in these modern times, when we have found out how to make our food so easily digestible, we do not need it; and because it is there, food lies about in this enlarged portion of the intestine, which often becomes abnormally enlarged, becomes a hold for putrefactions, and the poisons absorbed are the cause of the greatest share of chronic diseases from which we suffer in this age. He has not proved that the colon is unnecessary, but he has proved that, treating the colon as we do, we would be better off without it. He carries the argument further, showing that many diseases come from the retention of foodstuffs in the stomach. It is not that we have the colon and the stomach, but it is that there is stasis, as the scientist calls it; the food stagnates in the stomach until it becomes a cesspool, until it becomes a veritable seething garbage box.

The small intestine is the great digestive organ. The stomach is only the antechamber where food is liquefied, prepared for work by the small intestine; and the colon is simply a receptacle where food is retained for a little while, while the absorption is taking place; so that these pouches at each end of the alimentary canal — the stomach at one end, and the colon at the other end — are really a disadvantage to us unless they are taken care of with every possible precaution. We must see to it that nothing gets into the stomach that can not easily get out of it in the right way.

The majority of people make the mistake of eating too fast. The mouth was not in-

tended to be a hopper. The mouth is the mill; the lips are the hopper. When the food gets into the mill, it ought never to go down the food-pipe until it is liquid — until reduced to the consistency of thin gruel. Unless food is reduced to this form, it ought never to be permitted to leave the mouth, except by the front door. When food enters the stomach in a liquid state, the stomach can dispose of it in an hour and a half or two hours. If food is not made liquid in the mouth, it requires anywhere from two to twenty hours — sometimes three weeks to liquefy in the stomach. I have known food to stay in the stomach three weeks and not be fully liquefied then. Twenty minutes' more mouth work will often save five hours of stomach work. Isn't it worth while to remember that? Five hours of peristaltic woe can be saved by simply twenty minutes' more chewing — less than that: fifteen minutes' more chewing than the average man gives to his food will save the stomach from three to five or six hours of distressing work. If the food is swallowed in chunks, the gastric juice can come in contact only with the outside of it, and it makes slow work; it must slowly melt it down, just as warm water will slowly melt a cake of ice. If you have not time to chew, instead of taking ordinary food, drink a glass of apple-juice. That does not require mastication, because it does not need to be liquefied. It is already digested, and needs only to be absorbed, although even apple-juice is best taken slowly to insure insalivation.

Thorough mastication, simple life, healthful habits, living close to nature,— these are the essentials for the cure of neurasthenia.

King Edward Has Stopped Smoking

KING EDWARD has been known as a great smoker, as was Unser Fritz, General Grant, and President Mc Kinley. General Grant died from cancer of the throat from smoking. So did Unser Fritz. President McKinley died also as the result of chronic nicotin poisoning. A man with good kidneys and clean blood might easily have recovered from such a wound as President McKinley's, as demonstrated by the experience of hundreds of Japanese soldiers during the late Russo-Japanese War.

King Edward has been very greatly overworking his liver and kidneys in the elimination of surplus nicotin for many years, and has finally reached the point where the degenerative effects of this form of chronic poisoning have become so apparent that his doctors have informed him that his smoking days are over. It is said that at the last opening of Parliament his face was ashen pale, and his voice so feeble as to be sometimes scarcely audible, and the reading accompanied by deep gasps for breath — an evidence of the cardiac weakness which always results sooner or later from chronic nicotin poisoning.

Tobacco is no respecter of persons. It kills a king just as certainly as it does a street loafer, sheep ticks, or greenhouse pests.

That tobacco is a poison is not a new idea. The fact has been known ever since tobacco was known. The first dose is always followed by symptoms of poisoning. The smoker gradually becomes able to tolerate larger doses of the poison, the same as when one takes arsenic or opium, or habitually resorts to any other drug. Once accustomed to its use, the smoker imagines that he is suffering no harm because he feels no immediate effects, but all the time his liver, his kidneys, and his heart are being steadily deteriorated and worn out through dealing with one of the most irritating and highly toxic of all known drugs. The smoker, with child-like assurance says, " When I find tobacco hurts me, I will stop its use," little realizing that when the time comes when he appreciates that

tobacco has actually damaged him, he will be a physical bankrupt, with a contracted kidney, a cirrhotic liver, diseased blood-vessels, and tobacco heart. These are the smoker's harvest, and when the harvest-time has come, it is too late to sow a new crop; there is nothing left but to reap the harvest of tares.

The rich spendthrift never feels the pinch of poverty until his money is all gone. He is then compelled to reform his habits, for his checks are no longer cashed. He has no money in bank. This is exactly the situation with the smoker who discovers that tobacco hurts him — his vital capital is gone; he is bankrupt. By renouncing the poison at once, he may lengthen out his life a little while by the exercise of the greatest care; but the splendid capital of vital energy which might have carried him on through years and years of useful work is gone for ever, literally "gone up in smoke."

The same principle applies to the use of tea, coffee, alcohol, and to every other bad habit. Vital capital, once squandered, can never be regained. Serious organic injury to any vital part can never be perfectly repaired. There is always left behind a crippling scar. There must always be the sad reflection of what might have been.

King Edward has stopped smoking by order of his physicians, but too late to save his life. The slow fires of nicotin intoxication have been burning in his vitals for many long years, and are now bursting out through the roof, so to speak. The whole bodily edifice is gutted.

Fire fighters attack the destroying element at the earliest possible moment after it is discovered. There is a loud clanging of firebells, a furious clattering of hoofs upon the pavement as the engine rushes by; and the incipient conflagration is extinguished by a deluge from the hose-pipes. Firemen do not wait until the little flame has swelled into a great conflagration before they come to the rescue.

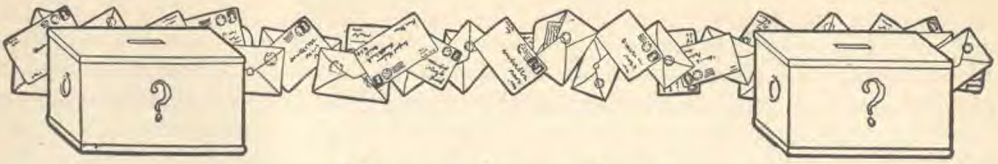
The medical profession is the fire department of human society. Smoking, drinking, and all other habits which produce disease, are but so many flames which devour the house we live in. Why should the doctor wait until the house is falling into ruins before taking measures to extinguish the fires which are undermining its very foundations and consuming its supports? King Edward's case ought to be a warning to every smoker. If you are a habitual smoker, stop before you have to stop. When you are compelled to stop, it is too late. Your constitution is broken down, your liver and kidneys are nearly consumed: it is time for you to make your will and arrange for a funeral.

Advantage of a Milk Diet

Persons have been benefited by a diet of milk and eggs, but they were benefited because milk and eggs taken alone are better than milk, eggs, beefsteak, pickles, mustard, pepper, cheese, *pate de foie gras,* and such things taken together. It is better to eat two things, or one thing, no matter what it is, than to eat that one thing with fifty more; but there is no special virtue in the milk diet. If you are going to take only milk, you would better take buttermilk or kumyss. Milk swarms with germs. You may Pasteurize it, but that does not kill all the germs. Buttermilk, however, contains lactic acid, which destroys the germs. In kumyss ordinary germs are killed by the lactic acid, so it is comparatively free from infection. Being already curdled, it does not form curds in the stomach and intestines.

Clean Food

A gentleman whose family had begun the use of a natural dietary observed that the change did away with much of the dish-washing. It was only necessary to rinse the dishes in cold water to make them clean. Said he, "There is no grease, and it has occurred to me that this is why we do not have that bad taste in our mouths any more, because the thing that keeps dishes clean, keeps mouths clean, keeps stomachs clean. That is, clean food."



Question Box

10,296. Inflammation of the Eyes.— J. H. W. B., California: "Suggest treatment for inflammation of the eyes in one who does stenographic work and wears glasses while at work."

Ans.— Bathe the eyes with very hot water two or three times a day for three or four minutes. Consult a good oculist.

10,297. Nervousness.— A. V. H., Ontario: "1. Why should a nervous person awake suddenly at 3:00 A. M., and lie awake until seven, and then sleep soundly for an hour or so? 2. What treatment on first waking would tend to produce sleep soon again? 3. What bed-time treatment would prevent the early awaking? 4. What causes headache or a sense of weight and constriction in the back of the head and neck? 5. What treatment will give temporary relief? 6. What causes headache over one eye, with vomiting of green matter? This attack causes prostration for three days. 7. What treatment will temporarily relieve these attacks? 8. What will prevent smothering spells in a weak, nervous person?"

Ans.—1. Probably because he eats a hearty or late supper. Omit the supper, and this symptom will no doubt disappear.

2. Practise deep breathing rhythmically, counting the breaths from one to one hundred. You will probably fall asleep before you reach one hundred.

3. The moist abdominal bandage is also very helpful in such cases. This consists of a towel wrung dry out of cold water, wrapped around the body and covered with mackintosh, and still further covered with several layers of flannel, to secure quick and permanent warming of the bandage.

4. Neurasthenia probably, connected with slow digestion.

5. A very hot foot bath, a fomentation over the stomach, cold rubbing, or hot and cold applications to the spine and back of the neck; horseback riding; swimming for fifteen minutes in water at a temperature of 75° to 78°; or such a simple exercise as lying upon the back and raising the legs to the perpendicular position thirty or forty times.

6. Indigestion. The green matter is bile. There may be catarrh of the stomach. The case should have the attention of a competent physician. It would be wise for you to spend a month or two at a sanitarium.

7. Washing the stomach out by means of a stomach tube is the best means of affording relief. If you can not do this, drink a large quantity (two to four pints) of hot water. The addition of a little lemon juice may be of benefit. If the water is vomited, never mind, drink some more. This will wash the stomach out and secure relief a little later. In many cases it is well to administer a large enema. A fomentation over the stomach, followed by a bandage wrung out of cold water, covered with mackintosh and flannel, is also a good remedy in these cases; as are also a very hot foot bath, hot sponging of the chest, fomentations to the back between the shoulders, and special care in diet. Take great pains in masticating the food. Discard animal foods as largely as possible, also meats of all sorts. Make the diet consist chiefly of bread and fruits, with the addition of a little butter on the bread, or nuts rich in fat, such as pecans or pine nuts.

10,298. Fountain Syringe — Cold Bath —Franklin Mills Flour—Breakfast Foods — Granulated Eyelids — Hyperpepsia — Hypopepsia.— A. K., Pennsylvania: "1. Does the fountain syringe reach further than the lower bowel? 2. Is not that sufficient in case of constipation? 3. Should a very nervous person take a cold bath every morning? 4. Have you any book on combinations of food for sick people and for those in health? 5. Can you recommend wheatlets and the wholewheat flour manufactured by the Franklin Mills? 6. Is there a better breakfast food than fruit (fresh or cooked) with wholewheat bread? 7. How should cereals and grains be eaten if soft foods are not healthful?

10,299. Catarrh.— D. J. H., Massachusetts, asks if there is a cure for "eating" catarrh in the head.

is introduced, and the pressure is sufficient, the whole bowel may be filled.

8. Can granulated eyelids be relieved or cured? 10. Of hypopepsia?"

2. In many cases of constipation the introduction of a small amount of cold water, half a pint to a pint, into the lower bowel is sufficient. In cases of dilatation of the colon, however, it is often necessary to fill the entire colon.

3. Extremely nervous persons must sometimes avoid very cold baths, especially at the beginning of hydriatic treatment. A bath at 80° secures better results in such cases than lower temperature.

4. Send to the Battle Creek Sanitarium Company, Ltd., for a booklet in which you will find many helpful suggestions on the question of diet. You will also find valuable suggestions in a book published by the Modern Medicine Publishing Company, entitled "The Stomach."

5. Yes, although as a rule we consider mushes less wholesome than the dextrinized cereals.

6. If the whole-wheat bread is well toasted and properly masticated, it is undoubtedly as nutritious as any other cereal preparation.

7. The bread should be taken in the form of zwieback, or freshly prepared toast, made dry and browned throughout.

8. Yes. By a good oculist. There is no medicine or special formula which is appropriate for either case.

9. The only reliable symptom is the presence of an excessive quantity of acid in the gastric juice or fluid obtained from the stomach after the test-meal. But with hyperpepsia there is usually the development of an acid state of the stomach about three hours after a meal, with or without pain.

10. In hypopepsia the extreme acidity is likely to occur five or six hours after the meal. The patient suffers from symptoms of slow digestion, often has little appetite, and complains of heaviness after eating. He is also very likely to have coated tongue, constipation, prolapse and dilatation of the stomach, headache, and drowsiness after eating, but there are no positive symptoms. The only way to determine whether a person has hypopepsia or hyperpepsia is to take a test-meal, obtain

expert.

Ans.— Yes, ulceration of the nose may be readily cured by a skilled nose specialist. There is no formula which can confidently be commended in such a case. Thoroughly cleansing the nose with a solution of a teaspoonful of salt to a pint of water, at about the temperature of the body, is a good remedy. But in most cases a slight operation is necessary.

10,300. Acidity of the Stomach.— A. G. B., California: "1. Are sweating baths beneficial for acidity of the stomach and constipation? 2. Is honey a laxative, and good in my case? 3. Are raw eggs laxative? 4. Is an egg-nog necessarily made with milk besides whisky and wine? 5. If made with milk, will it produce biliousness? 6. Will plenty of eggs, daily, cause biliousness? 7. Can one eat too many eggs? 8. Are fresh prunes a sweet fruit? 9. Are they harmful if eaten plentifully as a laxative? 10. Will they in time prove injurious in my case? 11. Is raw fruit preferable to cooked? 12. Is a quart of water, daily, harmful? 13. After using distilled water for a year, my stomach feels distended. Is it the cause? 14. Is water taken immediately after a meal, or half an hour afterward, injurious to the gastric juice? Have been ordered to do this because of the two sweat baths weekly and on account of constipation. 15. What do you think of castor oil taken twice a month in my case? 16. What is the effect of bicarbonate of soda? 17. Are pears good for me? 18. Do you recommend pepper?"

Ans.— 1. Sweating baths are helpful in cases of extreme acidity of the stomach, but they increase constipation.

2. Honey is slightly laxative, but tends to produce acidity of the stomach by overstimulating the acid-forming glands.

3. No.

4. No. Neither milk, whisky, nor wine is necessary for egg-nog. At the Battle Creek Sanitarium egg-nog is prepared with apple juice, grape juice, or any acid fruit juice.

5. Persons who have prolapsed or dilated stomachs usually complain of "biliousness" after using milk or cream. In some cases even very small quantities of milk or cream will produce such unpleasant effects.

6. Some persons can not digest eggs, even in small amount, without suffering inconvenience. There seems to be with them an idiosyncrasy against eggs, as with some persons against strawberries.

some of the fluid, and have it examined by an

9. What are the symptoms of hyperpepsia?

7. Yes. Eggs are highly nitrogenous, and when taken freely, especially in connection with other nitrogenous foods, such as milk, nuts, etc., it is quite easy to take an excess. For example, a single egg contains 26.3 food units of proteid. The total amount of proteid required for a day for the average man is 160 to 200; hence six to eight eggs would contain a sufficient amount of proteid for a day's ration, and if eaten in connection with other foods, nearly all of which contain more or less proteid, and some a large amount, one might easily take an excess of this element, and consequently might suffer from what is commonly termed biliousness.

8. Some prunes are sweet, others sour.

9. Most persons can eat prunes without difficulty if care is taken to exclude the skins.

10. In some cases sweet prunes tend to increase acidity through stimulating the acid-forming glands.

11. Doubtless raw fruits contain some elements beneficial to the system which are destroyed by cooking. Raw fruit is one of the most natural of all foods, and is exceedingly wholesome.

12. In hot weather more water is needed than in cold weather. A person taking little or no liquid food at meals requires more water than if he takes much liquid food and fruit. The average man eliminates daily four to six pints of water, and must necessarily take this amount in the form of food or drink.

13. It is quite possible that you are taking too much water at a time. You would better take a small quantity, say half a glassful, hot, and at intervals of an hour or two. Too much water in the stomach at one time may overload it.

14. Water may be taken in moderate amount, say four to eight ounces, at almost any time, without injury. A person who takes sweating baths should drink freely before, during, and after the bath; otherwise the sweating bath will produce constipation by diminishing the amount of liquid in the body.

15. Castor oil is quite unnecessary if the diet is properly regulated. A handful of pecans taken after each meal is a much better and more palatable remedy than castor oil.

16. Harmful.

17. Yes, but only as other wholesome things are good. They have no specific value.

18. By no means. The experiments of Voix show that pepper has six times the power to produce gin-liver that gin has.

10,301. Catarrh of the Stomach.—A. G., aged twenty-seven, Nebraska: "1. Please enumerate the very best articles of your Sanitarium foods and others for catarrh of the stomach, the mucus being unusually thick and ropy. Have had stomach trouble for years, and catarrhal condition for nine months. Stomach is prolapsed three and one-half inches, dilated, and there is a tendency to hyperpepsia. Proteid digestion very poor. Am nervous and can not sleep. 2. What foods should I avoid?"

Ans.—1. All cereal foods are especially adapted to such a case. Corn flakes, granose flakes, granuto, granola, zwieback, and the various gluten preparations are particularly good. Buttermilk is also to be commended as a good food for this condition. Fruits and fruit juices are also to be recommended if there is not an irritable condition of the stomach which produces pain. Such a stomach should be washed out at least two or three times a week. Very acid fruits will probably have to be avoided. The digestion is necessarily poor in cases of chronic gastric catarrh, as the gastric juice is generally lacking in pepsin—an element necessary for the digestion of proteids.

2. Avoid the use of meats, and fats in the form of butter or oils. Fats should be taken in the form of an emulsion, as found in the yolks of eggs, and nuts, such as almonds, pecans, and pine nuts, and in cream. But in some cases of this sort, cream and milk do not agree, and should be taken only in the form of very thick cream, well sterilized. Sometimes cream must be avoided altogether, and a little butter may be preferable. Fried foods must be avoided altogether. Such a case requires treatment at a sanitarium, under conditions which will permit of a careful study of every feature of the case and a careful training of health habits, together with such treatment as is required to restore the stomach, so far as possible, to the normal condition.

LITERARY NOTES

"Uncooked Foods, and How to Use Them." A treatise on how to get the highest form of animal energy from food. With recipes for preparation of healthful combinations and menus. By Mr. and Mrs. Eugene Christian. 250 pages, 12mo., cloth, price, $1.00. The Health-Culture Co., 153 West 23d St., New York.

These exponents of the raw-food diet have set forth their ideas in a very readable manner in this volume. Their theories are based upon elementary truths in scientific health reform, which, however, are made the guideposts to a new and peculiar field of speculation. While standing on common ground with the followers of modern research in advocating the free use of ripe fruits and nuts in the natural state, they object to the use of grains in any but the raw form; they adjure against the converting of cereal starch into dextrin and decry zwieback and other dextrinized cereals as abomination. The work is dedicated to the women of America, whom the authors hope to release from the thraldom of the kitchen range when cooking is forsaken.

Few people realize to what extent the great dream of the Pan-American Railway has already been realized. For many years it has had the approval of such practical men as Andrew Carnegie, A. J. Cassatt, and Senator Davis. A permanent Commission has long been in existence and has made valuable reports, and, with the co-operation of the various South American Republics, missing links in the chain of this great system are building all the time. In the April **Scribner** Charles M. Papper, a member of the Commission, gives a most stirring account of this dramatic project, and vividly pictures the rapid progress of the work, with a full belief in the near approach of the day when New York and Buenos Ayres will be connected by one continuous railway.

GOOD HEALTH

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J. H. KELLOGG, M. D., EDITOR

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In "**The Uncompahgre Valley and the Gunnison Tunnel.**" published by Marsh and Torrence, Montrose, Colo., Barton W. Marsh has told in a delightfully graphic manner the story of the struggle for irrigation facilities by those who had unbounded faith in the picturesque Valley of Uncompahgre, and the proving of the feasibility of reclaiming its 185,000 acres by means of the sparkling waters of the Gunnison.

The account of the exploration of the Black Canyon is a fascinating one, and is profusely illustrated with pictures taken by Prof. A. L. Fellows, of the U. S. Reclamation Service, and W. W. Torrence, of Montrose, and others who faced the perils of the canyon. A comprehensive idea of the resources of the country and its adaptability for the production of fine fruits, grains, and vegetables will also be found by the reader of this little book, which may be had for 65 cents by application to the author, Montrose, Colo.

"**Food in Health and Disease.**" By Robert F. Williams, M. A., M. D., Professor of Principles and Practise of Medicine in the Medical College of Virginia, Richmond.

The volume will be a convenient 12mo of about 350 pages. Its price has not yet been fixed, but it will probably be about $2.00, net, delivered to any address.

It is divided, for convenience, into two parts: Part I dealing with Food in Health, and Part II with Food in Disease.

In Part I the needs of the body for different kinds of foods and the manner in which they

are utilized, are explained. The principles of cooking foods and detailed descriptions of the different articles of food in common use are given, with chapters on the proper nutriment of infants, children, adults, and the aged.

Part II deals with the variations from the normal diet in health, necessitated by the more common diseases, and includes a chapter on general methods to be observed in feeding the sick, as well as the special directions for nourishment in diseases of different kinds.

There exists to-day a need for a small practical book on foods and how they should be used, which will give the facts, as known to-day, in a brief and clear manner, with the fewest possible technical terms.

The importance of a work of this kind, which is simple enough for a child to read, and yet absolutely trustworthy and based upon the scientific achievements of accepted leading authorities, is obvious. Such books are in line with the best principles of hygiene, and make for the betterment of the present, as well as future, generations.

"**Ethical Addresses**" for September, October, November, and December — the initial numbers of Vol. XIII — contain notable lectures by well-known ethical teachers. In the September number are four of the principal addresses given at the convention of the Ethical Society in connection with the twentieth anniversary of the Philadelphia Society of Ethical Culture, May 14, 1905. They are: "The Progress of the Ethical Movement," by S. Burns Weston; "What the Ethical Idealist Has to Fight For," by Walter L. Sheldon, "A Moral Credo," by William M. Salter, and "The Independence of Morality and What It Implies," by Felix Adler. Mr. Sheldon believes that the ethical idealist should engage in a "fight for a kingdom of spiritual forces." "There is something worse than starving or aching bodies," says he. "If we do anything for men's bodies, its ultimate purpose is that we may reach their spiritual nature and build up the soul."

The October issue contains six lectures, as follows: "The Radicalism of the Ethical Movement," by David Saville Muzzey; "The Needs Which the Ethical Movement Comes to Serve," by Leslie Willis Sprague; "The Ethical Movement as an Experiment Station in Education," by Anna Garlin Spencer; "Preparation for Membership in the Ethical Societies," by John Lovejoy Elliott; "Closing Address at the Tenth Convention of Ethical Societies," by Felix Adler, and "Religious Conformity," by Leslie Willis Sprague.

November contains a reprint of the lectures given on "The Punishment of Children," by Felix Adler. Two lectures comprise the December number — that on "Midwinter Joy," by William M. Salter, and "The Ethics of Epithets," by David Saville Muzzey. Published monthly: Ethical Addresses, 1415 Locust St., Philadelphia. Single copy, 10 cents.

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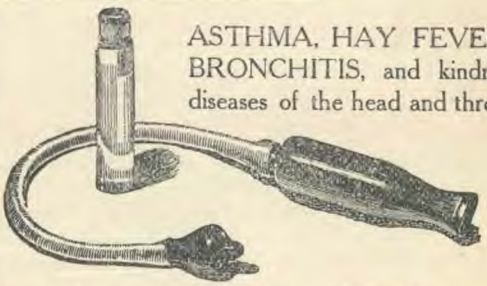

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