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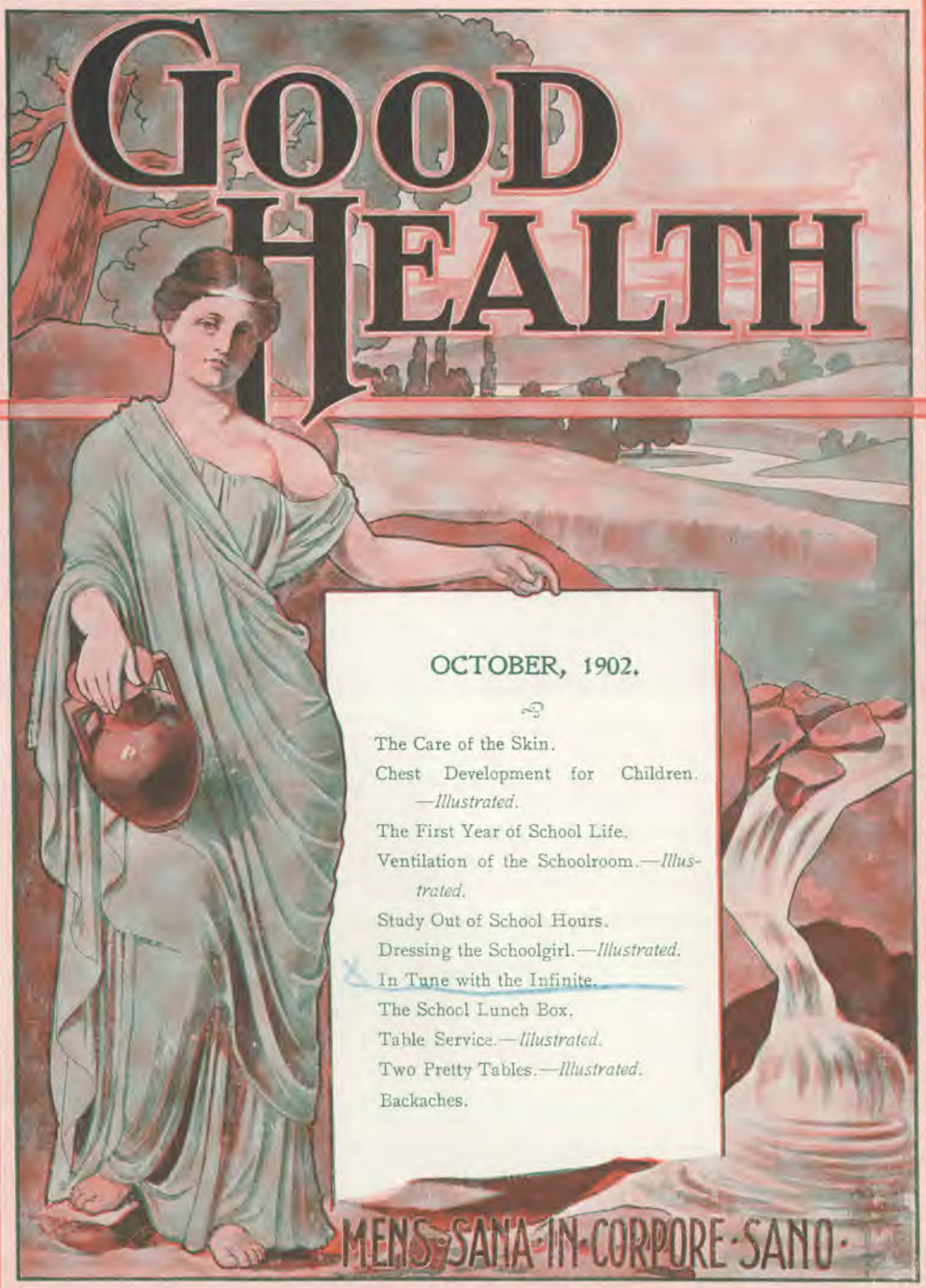
GOOD HEALTH



OCTOBER, 1902.

MENS·SANA·IN·CORPORE·SANO·

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FOR SHAMPOOING
TOILET, BATH AND NURSERY

THE STANDARD
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GOOD HEALTH

A Journal of Hygiene

VOL. XXXVII OCTOBER, 1902 NO. 10

THE CARE OF THE SKIN.

BY J. H. KELLOGG, M. D.

THE outer covering of the body is remarkably adapted to its protection. When viewed with a microscope, its surface is found to be made up of several layers of horny scales, which form a protective layer that is a poor conductor of heat and electricity, but affords a considerable degree of resistance to the entrance of foreign bodies, the bites of insects, and the introduction of poisons. It also protects against the entrance of germs. Beneath this layer are found the active portions of the skin, glands, nerves, and blood vessels, by which are performed the various functions that are carried on by this remarkable organ. Of the glands, there are two kinds; we may, perhaps, say three. They are the perspiratory, or sweat, glands, consisting of a long tube leading from the surface to the deeper layers of the skin, ending in a little coil. The walls of these tubes are filled with blood vessels. The number of sweat glands in the skin has been estimated to be two and a half millions, and the walls of their tubes, if spread out, would cover a surface of ten or eleven thousand square feet. These glands secrete water containing salt and various waste substances. Under certain conditions, the sweat may also contain a slight amount of acid. Under ordinary conditions these glands pour out perspiration upon the skin, at the rate of about one and a half ounces per hour. Heat and exercise may increase their activity to more than forty times that amount. It is even possible for a person to perspire one fifth of his weight in twenty-four hours.

There are found in the skin small glands which secrete fat. This is poured out upon the skin as a protective measure. Probably to some extent the fat glands also act as purifiers of the blood, by removing wastes.

Here and there in the skin are found little pockets, from which grow the hairs.

The skin is very rich in blood vessels, the capillaries of which, by a peculiar arrangement, are made to lie between bands of muscular tissue. These, under some circumstances, are able to contract and compress the vessels in such a way as to almost completely empty them.

The Temperature Nerves.

The skin is a most remarkable structure in the large number and variety of the nerves which it contains. It receives special nerves for its glands, others for its blood vessels, nerves which appreciate pain, pressure nerves, the tactile nerves, which enable one to recognize the location of any part which is touched, and the temperature nerves of two kinds — the so-called hot and cold nerves. In all there are at least seven or eight different kinds of nerves in the skin alone.

By the aid of the temperature nerves, the skin becomes, like the eye, an organ by which it is possible to recognize light. The skin may, in a certain sense, be considered an extended eye. Some lower animals possess no other eyes than their skins, which are, however, extremely sensitive to light. This function of the skin is quite generally overlooked. Its importance can scarcely be appreciated until we have learned something more of the nature of light, one of the most wonderful of all the forces with which we are daily in contact. A word further, however, in reference to the thermic, or temperature, nerves.

There are two kinds of temperature nerves, which can be easily determined by touching the skin with hot and cold points. It will be found that the hot points are felt at certain places, and the cold points at certain other places. Those parts of the skin which are sensitive to cold are not sensitive to heat, and vice versa. These hot and cold areas are, of course, very small, and can only be detected by very careful observation. The information communicated by the thermic nerves is relative rather than positive. An object is felt as cold when it has a lower temperature than the skin, or some other object which has just before been in contact with the skin. In this way, one hand may be made to report an object as warm, while the other hand reports it as cool or cold. Very hot and very cold objects are not felt as such, but give rise to impressions of pain. Temperatures near that of the body are said to be neutral, because they do not stimulate either the hot or the cold nerves. The skin is more sensitive to cold than heat, and cold is more quickly felt than heat. Objects that are good conductors, and so transmit heat to the skin or withdraw heat from it, rapidly feel warmer or colder than other objects whose temperature is the same, but which are not good conductors of heat. The temperature sense becomes quickly fatigued. It is for this reason that water which is so cold or so hot as to be at first painful, after a few seconds can be readily tolerated.

Light, and its Effect upon the Skin.

Modern researches have shown that a sunbeam contains at least three different kinds of light rays; namely, heat rays, luminous rays, and chemical rays. When the ray of light is decomposed by a prism, as seen in the rainbow, the heat rays are found chiefly in the red portion, the luminous rays in the yellow portion, while the chemical rays have a violet color. There are also invisible heat rays and invisible chemical rays. All these different rays act upon the body through the skin, but in different ways. The thermic nerves are especially stimulated by the luminous and heat rays. The chemical rays without doubt act upon other nerves. So-called "sunburn" is produced by excessive action of the chemical rays, and is an inflammation rather than a burn. The browning of the skin produced by exposure to the sun is due to the action of the chemical rays. These are also the rays that are useful to the photographer. For though invisible to the human eye, these rays are recognized by the eye of the camera. All these visible and invisible rays are associated with the sunbeam, and exert a powerful influence upon human beings, as well as upon animals and plants. The powerful stimulating effect of light is shown by its influence upon vegetation in the spring.

Unquestionably, the civilized portion of the human race suffer greatly because of their exclusion from the influence of the sun's rays by thick and dark-colored clothing, and by dwelling so much in-

doors. This evil should be remedied, as far as possible, by out-of-door life and frequent exposure of as large a portion of the body as possible to the active influence of the sun's rays, by swimming in the open air, by means of the sun bath, the air bath, and the sand bath. Every school, and when possible, every home, should have connected with it a large out-of-doors gymnasium, in which the benefits of the sun's rays may be enjoyed in the summer time. Sun rooms should also be connected with every home, where the beneficial effects of light may be enjoyed to the fullest extent possible, as one means of counteracting the deteriorating influence of civilized modes of life.

Skin Training.

An enormous amount of time is devoted to the training of the hand, the eye, and the brain; but the training of the skin is seldom thought of. Nevertheless, a well-trained skin is more essential to health than almost any other kind of bodily culture. The neglect of the skin must be regarded as the foundation cause of a large number of chronic maladies. It may almost be asserted that a man who will keep his skin in a thoroughly healthy condition may defy almost any known disease. The experienced horseman knows very well the importance of attending to the skin of the animal under his care. A horse which has a hidebound skin, with the hair dry and rough, is by this fact alone known to be in a state of disease. A man whose skin is hidebound, with the hair dry and dingy, dull and lifeless in appearance, and harsh and brittle to the touch, shows by this fact that his whole body is in a state of disease.

A healthy skin is warm, slightly moist, smooth, reddens quickly when rubbed or exposed to the action of hot or cold water, is supple and elastic, perspires readily under exercise or the application of heat, and is free from pimples, eruptions, and discolorations.

To maintain this condition, the skin must be subjected to daily bathing and grooming. Horsemen rub and groom their charges daily. Wild and domestic animals left free in the field habitually groom themselves by vigorous rubbing against trees or other objects. Hunters are familiar with this fact, and often secrete themselves near a "rubbing tree" as a means of getting an easy shot at their game. Man, of all animals, neglects to groom himself, and this is especially true of civilized man; for, as is well known, the savage and half-civilized nations from time immemorial have practiced rubbing of the body as a means of maintaining health.

OPPORTUNITY.

A CRAVEN hung along the battle's edge,
And thought, "Had I a sword of keener steel,
That blue blade that the king's son bears — but this
Blunt thing!" he snapped and flung it from his hand,
And lowering, crept away, and left the field.
Then came the king's son, wounded, sore bestead,
And weaponless, and saw the broken sword,
Hilt-buried in the dry and trodden sand,
And ran and snatched it, and with battle shout
Lifted afresh, he hewed his enemy down,
And saved a great cause that heroic day.

— *Selected.*

CHEST DEVELOPMENT FOR CHILDREN.

BY JOHN W. HOPKINS.

THE development of the chest is undoubtedly of the greatest importance in a child's physical training. A full, broad, deep chest, inclosing healthy lungs which are used vigorously, not only once, but several times a day, has a powerful influence over the functions of the body, and is a mighty factor in the maintenance of health. Nothing will bring the body to purity and vigor of the highest standard so quickly and so well, as will the use of the lungs, and the exercise needed to develop them.

It is probable that if every person had been born with an innate purpose to sit and stand erect; if incorrect positions in sitting, standing, or walking were developed only by the individual himself, there would be comparatively little need of special exercises to correct these evils. But how few we see who are born with even a fair physical inheritance. We inherit from our parents a partial development, only an imperfect, one-sided affair; consequently we must faithfully and persistently labor to correct our physical defects.

This work must begin with the young. As you walk the street, glance sharply at the first score of youngsters you meet. How many heads and necks are carried erect? Notice the hips; does our future citizen carry them back, or does he push them forward, and carry his chest behind his back? Not more than two, I warrant you, if that many, are really specimens of which you can be proud.

To change this state of affairs, each child must be personally interested in himself. A desire to know if "*my* chest is full," if "*my* waist is large enough," if "*my* legs and arms are shapely," must be aroused. This is something which can be easily brought to him. Let him know about the chest. Perhaps a short lesson like this would be interesting to him: —

"This part of the body — the chest — is a very skillfully constructed piece of machinery. The walls are part bony and part muscular. The back wall is formed by the spinal column and ribs; the sides, by the ribs; the front, by the ribs and breastbone; these are the bony walls. The diaphragm, a large flat muscle, is the floor.

"The ribs are joined to the spinal column in a very oblique manner; also to the breastbone, or sternum, in the same way, only they are connected to the sternum by cartilages. This oblique manner of fastening the ribs makes it

MERRY-GO-ROUND, OR GIANT STRIDE OF MODERN GYMNASIA.

JUMPING THE ROPE.

possible to expand the chest greatly, both sidewise and from front to back. Then there is quite a movable joint between the sternum and the two collar bones. We must not overlook this, as by it we are able to raise that part of the chest, and make it full.

"Neither must we forget the diaphragm; it is wonderful how this muscle works up and down serving as a pump to aid in bringing the air into the lungs, and also to assist in the circulation of the blood, and in the digestion of food. So we must keep the clothing loose about the waist and lower chest; for if we compress these, we take away the ease and freedom natural to the heart, lungs, and stomach, and make them do their work in a half-hearted manner."

A few minutes given to the children this way will awaken in them a keen interest in themselves, and you will see even the tiny tots persistently trying to walk straight, in order to show a powerful little chest; they will even call your attention, occasionally, to an error in your own carriage.

Of all work to widen and deepen the chest, and to bring the lungs into vigorous action, something calculated to bring the element of play into the work, is best. Any play in which the weight of the body is partly or wholly suspended by the arms is a good chest developer. Such is the old-fashioned merry-go-round, or giant stride of modern gymnasia. This gives the boys and girls all the work and advantages of swinging by the arms, with the running added. Two or three of these tall poles, with a half dozen or so ropes on each of them, ought to be in every school yard; the girls, especially, should be encouraged to take several good, long swings a day, yes, several times daily. The trapeze, the rings, and the bar should also be easy of access. And, running,—how I wish that every boy and girl, especially in the crowded city schools, could get a chance to run and exercise more and study less. Superintendents and principals should see

FIG. 1.

PULLING THE TUG OF WAR.

that the teachers encourage and teach more gymnastics; or if the teacher cannot, that some one is provided who can. A short program, carefully planned, of Swedish gymnastics or light dumbbell exercises, followed by either a stationary run or a run in place; a score or more jumps in place, landing with bent knees; a series of hops, ten on one foot, then ten on the other, nine on one, nine on the other, then eight, and so on; — such work as this, followed by a little arm, body, and leg work, will aid deep breathing, and do wonders toward strengthening the respiration, digestion, and circulation. It will make both young and old lead happier, healthier, and purer lives.

And the teacher in the average schoolroom cannot plead the lack of room or equipment as an excuse for not giving the needed daily calisthenic drills. There is an infinite variety of movements from which a selection can be made, that will gain the interest of the pupils, and, holding it, will bring gratifying results. There are many good books on these subjects published, such as "Progressive Gymnastic Day's Orders," by Chas. Enebuske, A. M., Ph.D., and both parents and teachers may easily inform themselves.

FIG. 2.

Other outdoor sports, such as jumping the rope, pulling the tug of war, if taken with judgment and care, are excellent. These active exercises call for air, not in the lungs alone, but deep down in the tissues of the body, — they cause a hunger, a thirst, for air, which makes the child take long, deep breaths.

Each child must be encouraged to take a few individual movements for his own special benefit. The following

are splendid exercises for widening and deepening the chest: The child stands with bent arms; elbows, shoulder high and back of the shoulders; hands in front of the chest, but not touching it; fingers well extended. Now he may exhale as he moves his elbows together, crossing each hand under the opposite arm, and bending the head forward (Fig. 1). Then with the raising and bending backward of the head, he may inhale, and pull the elbows as far back as possible (Fig. 2). This will broaden and develop the upper chest.

Another: Stand with the hands on the hips, thumbs back. With the head and neck well back, and the chest powerfully arched, bend forward, inhaling deeply at the same time. Raise the body, emptying the lungs.

One more: Have the arms extended sidewise, palms turned up. Turn the body well to the right, and in this position raise the arms upward and bend the head backward. The arms should be kept back well in the plane of the shoulders; and a deep breath may be taken as the arms are raised, the exhalation taking place as the arms are lowered. This may be repeated on the left side, and several times on either side.

These simple movements may be taken at home, and are of incalculable value in body building for the little ones. But the keynote of all teaching for the child is: "Breathe deep and full and free all the time; move with erect carriage every day, and every hour in the day." When he learns this, then will he have mastered his lesson in chest culture, and will keep it in practice.

THE FIRST YEAR OF SCHOOL LIFE.

BY MARY WOOD-ALLEN, M. D.

TO-DAY all over our land hundreds of children are, for the first time in their lives, starting to school. From hundreds of homes mothers are watching them as they go, some with smiles to think that for a few hours a day they will be relieved of their care; but many more with tear-dimmed eyes as they

> "Think of a possible future morn
> When the children, one by one,
> Will go from their home out into the world
> To battle with life alone,
> And not even a baby be left to cheer
> The desolate home of that future year."

The faces of the children are aglow with eager expectancy. They feel that they have now really taken the first step on the road to becoming a "grown-up."

It is indeed a day of great import, for never again will the child be the same. New duties, new experiences, new influences will touch and mold, and develop, or blight, stain, and deform. Well may the mother's eyes be dim, and wise will she be if she make herself aware of the dangers around her child so as to counteract them at home as far as possible.

What are these dangers? Up to this time the child has lived a life of unrestrained freedom. The "home close," to use a beautiful English phrase, has been his domain, and within it he has been free to disport himself. In and out of the home he flitted at will. He climbed, ran, jumped, turned somersaults, played hoop or ball, raced with the dog, whistled, sang, called, laughed, and enjoyed his "holler"-day as only a child can. But "we have changed all that." For only a few hours each day will he now be free from restraint. When he enters school, he must train

his active feet to stand, or to march "in line" into the schoolroom, where he is assigned a place to "sit still." Perhaps the seat is not comfortable, but no complaints are listened to. That is the place, and he must fit himself to it, which he does, with the result of a twisted spine in later years, accompanied with discomfort in the present. His attitude is made more injurious by the desk before him, and he probably acquires the habit of standing principally on one foot. In consequence he grows one-sided, one shoulder and hip too high, the other correspondingly depressed, chest sunken, and shoulders rounded.

To be sure, these results are not at once noticeable, but the physical examination of grown-up young people shows that not one in a hundred is straight and symmetrically developed. Even the more superficial observation of boys and girls in their teens, shows the result of these influences, in the ungainly attitudes, the compressed chests, the rounded backs, the ill-balanced heads.

There are schools where these evils are guarded against; but they are, comparatively, very few indeed.

Another result of unnatural postures in sitting is the crowding down of the internal organs, and that means the lessening of their power to do good work. Dr. Chas. Emerson says, "There is no physical defect as general as this — that the vital organs are from one to four inches too low in adults, and in children down to the age of five or six years. Before this the organs are high."

This, you see, corresponds with the beginning of school life, and there is scarcely the shadow of a doubt that it is a result, as well as a coincidence.

What can parents do to prevent in any degree this undesirable condition? They can know what kind of seats are used in the school; whether they are so high that the child's feet cannot reach the floor; whether any attention is paid by the teacher to the attitudes of the children in sitting and standing. They can help to secure the public opinion that will demand proper seats and due care. Then they can themselves pay attention to the child's postures, and instruct him how to sit and stand as he should, and why he should do it.

Not long ago I was in a home where the ten-year-old son carried his right shoulder at least an inch higher than the left, and his parents had never noticed it. When I called their attention to it, they said indifferently, "O, it is only a habit." That was probably true, but it was a habit that was producing a curvature of the spine and all its resulting evils. The limits of this article compel it to be merely suggestive, not exhaustive, but it should set the parent to thinking. The teacher who secures the stillest schoolroom may be the best disciplinarian, but may also be doing the children the most harm by a too rigid repression of that physical activity which means a relief to tense nerves, and secures growth.

The beginning of school life marks also the period of second dentition, at which time the nerves are more easily irritated and susceptible to untoward influences. Too long and strained attention of the brain and eyes may be manifested in twitchings of the face and hands, betokening nerve fatigue and lack of nerve control,— symptoms which should never be regarded as unimportant.

The cramped attitudes of the schoolroom interfere with perfect circulation of all the fluids of the body, consequently with nutrition. The cramping of the lungs, together with the vitiated atmosphere of the schoolroom, lessens the oxidation of the blood, and imperfect elaboration of food results; and

here may be the beginning of future dyspepsia, as well as of hemorrhoids, constipation, and all attendant evils.

The tradition is that school children are always hungry, and so when they come home from school clamoring for "a piece," it is furnished in the shape of bread and butter, cooky, apple, or cake; and the children "munch and munch," and the evil "grows by what it feeds on." If mothers understood that the feeling of the child is not hunger for food, but a complaint of fatigue and a starvation for oxygen, their treatment of it would be different.

Hunger is not located in the stomach, but is a demand of the whole system. The stomach is simply a muscular reservoir in which is done certain work preparing the food for further elaboration. As a muscle it needs room in which to work, and after work it needs rest. The cramped sitting posture interferes with its freedom of movement, and work done under difficulties is fatiguing. So the stomach complains of being tired, and its cry is not understood, but is translated into a demand for food. If, instead of being given work to do, it were washed out with sips of pure water, and allowed to rest while the lungs were fed with that most important of all foods, pure air, the child would be — perhaps not so well satisfied for the moment — but ultimately far better off.

There are other dangers, however, in addition to the physical ones that beset the first year of school life.

The child, with his limited experience, and having been hitherto guided by the judgment of the mother, comes now into a realm where he must, to a great extent, decide his own course of conduct. He meets children of all classes, all conditions of mind and body. He is subject to all kinds of contagion, and the query is, How can he be best protected?

Many a mother seems to feel that a child who says a bad word, or does a wrong deed, is a little reprobate, and in need of condign punishment. She would not scold or punish him, with strong expressions of moral disapprobation, if he failed in spelling, or could not say his school lesson perfectly. She would realize that he cannot know these things without study and instruction. But if he uses a bad word, the meaning of which he probably does not comprehend, he only imitates what he has heard, but he is punished as a willful sinner. He cannot understand the justice of the punishment; but he learns from it one evil lesson, and that is, that if he does not want a whipping, he must be reticent in regard to what he learns at school. So the wall is built up, day by day, between him and the mother, and she loses her opportunity of knowing what evil is being done. No matter how bad the language he has heard, the mother should not shrink from learning about it. How can she cure the wound if she refuses to find out how deep it is?

No matter what the injury done to the moral nature of the child, no matter how it may make the mother's blood run cold, or her heart to still its beatings, she should never refuse to let him tell her what he has heard; but after hearing, she should be ready to cleanse the vile wound by her own sweet, pure teaching, and so keep ever open the channel of confidential communication between him and herself.

Many a vital confidence of the child is stopped midway by the mother's indignant exclamation, "Don't ever let me hear you say such words again! I am shocked that you should repeat them to me!"

He hears, and heeds. The mother is no longer troubled by his confidence, but in the little heart the evil grows

and festers; and shocked indeed would the mother rightly be, could she see the taint spreading through the little mind and corrupting the innocent heart.

Much of the evil of school life might be averted if mothers would forestall evil with good. There are certain queries which arise in the mind of every intelligent child, and which he will propound in all innocence to her. "Whence am I?" he asks, in his own childish phraseology. If she refuses to answer truthfully this philosophic and intelligent question, he will soon find among his childish companions those who will give him the information, but so soiled, and with such evil suggestions, that his thoughts of self, of father, mother, home, and life are for him forever tainted and polluted.

"But I would not want to be the one to teach my child evil," says the mother.

Surely not, but God's thoughts are not evil, but good. His plans are the outcome of his thoughts. We may think after him, and find in the study of the mysteries of life that which renders life sacred, which opens to us a sight of God himself. Then with vision so clarified, we are able to teach our children the facts which will render life in all its manifestations henceforth forever sacred.

THE VENTILATION OF SCHOOLROOMS.

BY ETHEL TERRY REEDER.

SINCE time immemorial man has most valued that for which he has paid most dearly; and for the very reason that they are bestowed "without money and without price," many of Heaven's choicest blessings are thought of little value. Of all the blessings in this good world of ours, none is so free or so abundant as pure, fresh air, and yet it is safe to say that more people are suffering, even dying for want of it today, than for any other one thing.

During the last few years much has been said through the press concerning the necessity for fresh air in our homes and places of public assembly. Accident and experiment have abundantly demonstrated the fact that human life and health cannot be sustained in a vitiated atmosphere. Unless some systematic plan is in operation whereby the requisite amount of pure air is constantly entering, and the foul air passing out, the atmosphere of a crowded room of any sort becomes unfit to be breathed in a very few minutes.

In our dwellings there are perhaps half-a-dozen people living in as many rooms, with the doors almost constantly opening and closing, and perhaps an open fire still farther aids in the ventilation. But in the average schoolroom from twenty to sixty children are assembled in a single room, sometimes altogether too small for their accommodation. The little bodies are constantly throwing off, through lungs and skin, the poisonous refuse of the living machinery, and that school is blessed which does not have among its numbers those whose sick or unwashed bodies or clothes furnish more than their quota of air pollution. Unless some systematic provision is made for removing this vitiated air and furnishing a supply of fresh air in its place, those confined in the room are bound to suffer both mentally and physically.

With the opening of the school year and the coming on of the season of closed windows, the question of how this fresh air is to be supplied for our school,

and still maintain the temperature necessary for health and convenience, is no doubt agitating the minds of many.

In order to have good ventilation, from fourteen hundred to thirty-five hundred cubic feet of fresh air must be furnished hourly for each occupant of the room. If the room is large, there may be as much as three hundred cubic feet of space for each pupil, but ordinarily there is in the neighborhood of two hundred cubic feet of space per individual. Under these circumstances the entire air contents of the room must be changed every 8½ minutes, or about seven times each hour. If the proper care is exercised, this can be done without causing dangerous draughts. However, if the room be small or crowded, lessening the space allowed each pupil, the interchange of air would have to be so rapid as to cause disagreeable and even dangerous draughts. Could the circumstances be traced and the facts gotten hold of, no doubt many cases of chronic invalidism could be traced to the haphazard ventilation of crowded schoolrooms. One case at least is extant of a little girl of nine years who was so unfortunate as to sit near a window which was opened by a thoughtless or uninformed teacher, for the purpose of ventilating a crowded and overheated schoolroom on a cold wintry day. The next day the child was missing from her seat, and the family physician diagnosed a case of pleuro-pneumonia, from which the child rallied only after the foundation had been laid for years of uncertain health and much suffering. Perhaps this case is extreme, but every child who enters a schoolroom where the matter of ventilation has not received the necessary attention, is subject to like danger.

It is estimated that, to insure pure air without draughts, fifteen square feet of floor space should be allowed for each inmate of the room. At this rate a room eighteen by twenty feet could be properly ventilated for only twenty-four inmates. With this amount of space for each child the entire air contents of the room should be changed once every 8½, or at least every nine, minutes. In the cold season the air must be warmed before it enters the room, and this brings us face to face with the problem of the expense of ventilation. To the frugal and uninformed it seems little short of wanton waste to let a roomful of air out to be cooled almost as soon as it is heated. Who of us has not been admonished to "shut the windows and keep in the heat"? Yet the morbid conditions which always accompany the crowding together of human beings, and for which fresh air is the only antidote, have been so clearly proved to exist that there is little use of further discussion on that point. The question to be answered is not why, but how? Dr. D. F. Lincoln, in his little work entitled "School and Industrial Hygiene," makes the following suggestions on the subject: —

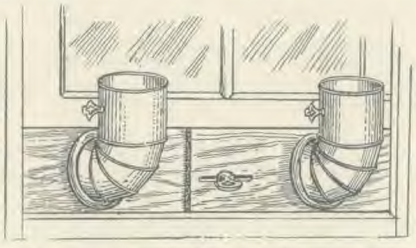
"All heating apparatus, with trifling exceptions, ought to be apparatus for supplying fresh air. It is impossible to consider the problem of introducing air without considering that of discharging it.

"It is well to have the inlet of the air duct for a furnace protected from the more violent winds. It is very desirable to place it at a sufficient height (say ten or twelve feet) from the ground, in order to avoid low-lying strata of polluted air. The neighborhood of privies is certainly not a desirable one; yet even this circumstance may exist, as was recently the case in a school in one of the large Northern cities, with most disagreeable results. A large furnace is best, — one large enough never

to need to be made red hot. Slow combustion is economical, but much more than that, it seems to supply air which has not been 'killed' or 'burnt.'

"Apparatus for heating by steam or by hot water is generally to be praised. The great point to attend to is, that the air be not heated in excess.

"Stoves have several objectionable points. In the first place, they overheat a part of the room, and leave other parts cold. This is obviated in a degree by a screen. But a still more important objection to most stoves, is the want of a method for introducing fresh air. Almost any ordinary stove can be altered, however, at moderate expense, so as to give a large supply of fresh air. A cylindrical metal screen may be placed around the stove; it should reach to the floor, and rise as high as the stove. Under the floor a pipe is to be laid from the space inclosed by this screen to the outer air; the pipe passes through the house wall, and may have a valve at any convenient place. This converts the stove into what is commonly called (when placed in a cellar) a 'portable furnace' with 'hot-air box.' The fresh air enters the room over the top of the screen. This plan removes the objections which attach to air-tight stoves.



A unique device for admitting fresh air without draughts. The dampers are useful in regulating the amount of air admitted. (Used through the kindness of W. B. Saunders, Publishers, Philadelphia.)

"Further use may be made of the stove funnel by causing it to warm another tube, which serves for ventilation only. Thus, the smoke funnel may be inclosed in a larger pipe, which is not closed either above or below, but starting at a proper point in the room, rises with the funnel through the roof, and discharges its own quantum of impure air sucked from the room.

"Then there is a contrivance for letting fresh air enter a room unwarmed without striking the inmates. One of the best and simplest is to place a narrow piece of wood under the lower sash. The effect is to leave a narrow opening between the sashes, which admits air in an upward direction.

"Then there is a contrivance for letting air enter through a sifter of cloth, in the upward direction; but the cloth can easily be perceived to lessen the ventilating effect most essentially. A better method for sifting the air (because simpler and cheaper) consists in simply tacking very thin flannel to a mosquito-frame, in the place of gauze, and inserting the frame as is usually done.

"These inlets for fresh air, however, will not always let air pass. On a 'close day,' when there is no wind, even wide-open windows will not sufficiently ventilate a room full of people. If windows are placed on two sides of a room, ventilation is much more likely to do good; if on opposite sides, all the better; but in schoolrooms there is an objection to this plan, owing to the interference of the light. The true value of these window arrangements seems to me to depend on the existence of a chimney or other similar draught-compeller in the room. If air is sucked out by the flue, it will readily enter by even small openings in the windows; but if not, a window opened several feet will often have but little effect."

Close akin to the question of ventilation is that of temperature. The overheating and uneven or irregular heating of schoolrooms has no doubt been

the cause of much sickness among school children. Great care should be taken to have the temperature the same in all parts of the room during the entire day. To this end several thermometers should be hung in different parts of the room, and frequently consulted. For healthy children who are properly clothed and given frequent opportunities for exercise, 65° F. is not too low, and 70° F. should be considered the maximum.

No doubt when good judgment and science are brought to bear properly upon the heating and ventilating of our schoolrooms, many of our so-called educational problems will be much easier of solution, even if they are not solved.

OCTOBER.

THE birds have all sung their farewell songs
To the woods they love so well,
And sped them away with courage strong
To a warmer land to tell

Of the dear, green North — of its waving trees,
With their quivering shadows flung,
Of the sunshine fair, the cooling breeze
That softly the nestlings swung.

Sharp and cool is the morning air,
The early mist is here;
The shortening days, though skies be fair,
Tell of the waning year.

What if the fairest flowers have fled —
We know they might not stay;
The beech and the walnut are thick o'erhead:
Let us up — to the woods away!

He loves who loves our woods aright,
The hush of October's noon;
And he who would ride on a perfect night
Must ride by the hunter's moon.

—*M. Algon Kirby, in Outlook.*

STUDY OUT OF SCHOOL HOURS.

BY M. V. O'SHEA.

TO require home study of pupils or not to require it has been for years, and is now, one of the questions which has vexed parents and teachers. Teachers, some of them, have said it was necessary; others that it was unnecessary. Parents, some of them, have said their children needed the home hours for recreation; others, that they should be kept at their books so that they would not get into mischief. Meanwhile no one has made a thorough study of the question to determine whether pupils succeed as well without as with study out of school hours. However, the *New York Evening Post* is authority for the statement that experiments have recently been conducted in three

San Francisco schools, apropos of a bill prohibiting the requirement of home study by pupils in certain grades of the grammar schools, which is now awaiting the governor's signature. In commenting upon the experiment, the *Post* says: —

"The principal of one school, after making a careful comparison of the work achieved by the class from which home work was not required with that of other classes, confesses his surprise that the 'no-home-study' class holds its own with the rest. 'I have watched the work closely,' he says, 'and the examinations were carefully prepared and conducted. I desire to continue the experiment further.' From another school there came a joint report signed by several teachers, declaring: 'The work of the no-home-study section has equaled in every respect that of the home-study sections.' The teachers add that in their judgment pupils should do the greater part of their work within school hours. The principal of the third school reported that the percentages of the pupils not required to study at home were as high as and even higher than they had been when home work was imposed. He added that in addition to the good results shown in the lesson, there was also an improvement in the deportment of the pupils under the new system. The experiments are to be continued on a more comprehensive scale, and the San Francisco papers hope that the Board of Education will see the wisdom of relieving childhood from one of the onerous burdens put upon it by the present system of public education."

School people as well as laymen are earnestly discussing the question whether a pupil's time out of school could not be devoted more profitably to getting acquainted with the world of men and things about him than in being confined unceasingly to his books. The fetish of "book larnin" which our ancestors worshiped on bended knee, is not commanding so fully the reverence of the world to-day. We see the unhappy results of a régime which keeps the child's eye on the printed page from the moment he gets out of bed in the morning until he returns to it at night. A pupil reared in this fashion is made able to adapt himself easily and effectively to books, no doubt, but he is likely to be left awkward and weak enough in dealing with the great world of realities outside. By learning precepts, one never acquires ease and skill in adjusting himself to his friends and neighbors, although our educational practice would often seem to argue otherwise. It is not difficult to understand why our forbears (and many worthies of our own day, too) have had so much confidence in the training which books give; but the marvel is that they have had so little faith in the virtue of experience with life, especially since every great teacher, from Aristotle down, has emphasized the thought that one gets to know the world only by coming into immediate contact with it, and through the discipline of daily hand-to-hand encounters with it, learns how it must be met, and then establish into habits those modes of conduct which will lead to the happiest outcome for one's fellows and for one's self.

"Pray remember," says Locke, "Children are not to be taught by Rules which will be always a-slipping out of their Memories. What you think necessary for them to do, settle in them by an indispensable Practice as often as the Occasion returns; and if it be possible, make Occasions. This will beget habits in them, which, being once established, operate of themselves easily and naturally, without the Assistance of the Memory." And he adds a very signifi-

cant phrase: "Keep them to the Practice of what you would have grow into Habit in them, by kind Words, and gentle Admonitions, rather as minding them of what they forget, than by harsh Rebukes and Chiding, as if they were wilfully guilty."

The tendency of the times is indicated in the attitude taken by Superintendent Parlin, of Quincy, Mass, in his last annual report. He asks if it is not a mistake to require the amount of home study which we now are doing. In maturity, conditions may require that one carry his business into the evening hours, but ought we to deliberately create these conditions for children? Much of what a child needs to know cannot be gained at school, is not found in books; such, for example, as "good health, strong nerves, buoyant spirits, and the knowledge of one's fellows and the common affairs of every-day life." This again suggests Locke as he pleads for the teaching of a knowledge of the world, and for choosing for the young tutors who are first and foremost men trained in the school of life. *Non sed vitae scholae discimus,* which troubled Locke so greatly, has not yet been wholly remedied in our schools.

Superintendent Parlin goes on to say that "five hours a day of faithful work is enough in any grade below the high school. At the end of this time let the children go home free as the laborer from his toil. Play, childish enterprises, home duties, and outside reading may well fill up the rest of the day and evening. Children must have time for play, and a great deal of it.

In many homes the services of the children are needed outside of school hours, and the conditions are such that home study is almost impossible without robbing the children of sleep, which should never be allowed. But the regular performance of these home duties is not an unimportant factor in a right education.

It is said that without home lessons the pupils cannot do, in the time allowed, the work required by the course of study. Then let the course of study be changed. Courses of study are made for the service of children, not children for courses of study.

Shortening the School Day.

There seems to be a growing conviction that pupils spend too much time in the schoolroom, idling away a good many precious moments, and thereby contracting habits which will be of great disadvantage to them in after years. The statement has frequently been made at educational meetings of late, that children ought to do all the work of the school day in a single hour if their attention could be concentrated upon the tasks in hand. Many who have felt that the school keeps too long hours have yet believed that this was an overstatement of the case, while others have taken an altogether different view of the matter, and have argued that, instead of shortening the school day, it should be lengthened. It will be remembered that a proposition to increase the school day by an hour or so, that teachers might the better earn their salaries, was seriously discussed in Chicago recently, but happily the step has not yet been taken.

An interesting experiment relating to this matter has been in progress for four or five years in Ithaca, New York, under the direction of Superintendent Boynton. He has been shortening the school hours for children in the primary grades, and the results indicate that fully as much is accomplished in one hour under the new régime as in four hours in the old-fashioned way. In his last

report he says that a one-hour class was opened two years ago in connection with the training department school. A number of children were entered for this class, and they were kept at their books only forty-five minutes a day at first, but later the time was extended to one hour, and in the spring quarter it was lengthened to one and one-half hours. In the middle of that year a second class of about the same size was organized in a similar manner. The children in both classes were regarded as below the age appropriate for undertaking the work of the primary grades; but, and this is very suggestive, the first class did without difficulty the work of the first grade, and the second class made corresponding progress. When the report was made the first class was doing the work of the first half of the third grade, and the second class the work of the first half of the second grade.

Mr. Boynton says that the children were in no wise exceptional, and in his opinion the children in the primary schools of any city "can be divided into small sections on short time with the same satisfactory results."

In a private letter he writes:—

"During the past year our first primary grade pupils who entered school in September, 1900, have not been in school to exceed two and a half hours daily. Teachers are very enthusiastic over the change, and the amount of work done exceeds that of any previous year. . . . In two of our primary schools not only is the work of the first year being done, but nearly one half of the second year will be completed by the close of the school year, June 27. No attempt at crowding has been made; simply, children have worked well while they were in school. When their work was over, they have gone into the open air to play or to go home."

We need further experiments along this line before we can dogmatize on the virtues of short school days; but it is certainly not hazardous to say that if we could reduce our classes in the primary schools to one third the ordinary size, so that a teacher could keep them all vigorously at work, and follow carefully each mind under her care, as much could be accomplished in one hour as in four hours under the ordinary régime, and with far better results to the health and habits of the children. As it is, in class rooms where there are fifty or sixty children, half of the time of the teacher is devoted to nagging pupils; and both the pupils and the teacher suffer greatly under such conditions.

DRESSING THE SCHOOLGIRL.

BY DINAH STURGIS.

THE importance of dressing schoolgirls properly need not be argued with any reader of GOOD HEALTH. The first question comes on what is "properly," and all the rest of the argument hinges upon how to secure the desired end.

The proper dress for schoolgirls, like the proper dress for all girls and women, clothes the body evenly, and does not overheat it at some points and leave it insufficiently clothed at others. It is as light in weight as is consistent with the necessary warmth, but the warmth of clothing should be apportioned, not only to the season, but to the climate; what is suitable for midwinter in New York City is inadequate for midwinter

in Dakota. The weight of proper clothing is evenly distributed; the hips are not overloaded while the shoulders carry no weight; also, the shoulders do not carry it all; the weight is distributed evenly over the body.

In addition to the foregoing essentials to proper clothing for all women, the dress of our schoolgirls should be especially loose. No woman should ever wear tight dresses; they are uncomfortable, unhealthful, and unlovely; but for schoolgirls, a dress that is loose enough when first made is often too tight before it is worn out. Allowance should be made in a girl's dress for growth. This means not merely allowance for added height. From a health standpoint it really does not matter whether a sleeve or a skirt is an inch longer or shorter. The important provisions for growth are around the waist and across the bust.

School suit of blue Venetian, blouse of unshrinkable striped flannel in lighter blues. Washing silk cravat. Hat of blue beaver with fancy mohair braid bands. Jacket belted in to figure at back and sides for warmth. Fronts fasten with hooks and eyes.

The growing schoolgirl needs room for breast development; and if anything were needed to prove how little this is understood and provided for, a glance at most of the so-called *health* waists will answer. Most of them strap up the figure in a way that is as injurious as the regulation corset. The truth is that growing girls should wear neither corsets nor the ordinary corset waists. They should have perfect freedom, and if they are allowed this their muscles will provide the "support" needed, and correct clothing will provide the warmth.

To begin at the beginning of dress: the schoolgirl should wear union undergarments, woven of some elastic material; most people find merino agreeable in cold weather, but some skins cannot bear wool in close contact, and there are some parts of this country where lisle or cotton or linen

woven union suits are warm enough in the winter, providing extra warmth is added to the outer dress when needed. Readymade woven underwear is so common nowadays, and so cheap in very good qualities, that it is within the means of everybody if everybody did but know it. The mothers or others in charge of schoolgirls, who for economical reasons feel obliged to make use of old-style, unhygienic underwear, should cut it over to make it as unobjectionable as possible, and replace it as soon as worn out with the new-style garments. The old-style "vest" and separate underdrawers can be made into very fair substitutes for woven undergarments by cutting off the superfluous portion of the vest below the waist line, buttonholing a flexible edge around it to prevent raveling, and attaching the drawers to it after divesting them of their cotton band, and similarly treating the raw edge, by narrowly lapping the edges of drawers and shirt, and darning them together; the darning back and forth keeps the joining elastic.

Chemises and muslin drawers should be banished from the schoolgirl's wardrobe. In hot weather muslin drawers may be tolerated under thin skirts, if they are cut and made in one with an underwaist, but not otherwise. In winter they are worse than useless. Over her union undersuit the schoolgirl should put on her stockings, and these should be supported by elastics that are in turn attached to an underwaist. The extension straps that go over the shoulders are uncomfortable. Over the stockings she should wear a pair of woven "equestrian tights." These are to take the place of the clumsy, thick underskirt which weights down the body and lets the cold attack it at the same time. For cold weather the union suit should reach to the ankles, to the neck, and to the wrists. The tights should reach down far enough to be held by the tops of the boots when the skirt of the dress is below the boot tops. When it is not, the tights should reach over the knee, and the legs from the boot tops to the knees should be protected by warm gaiters, that fasten easily and securely so that they can be taken off upon reaching school, and be put on when leaving. Most children are dressed too warmly indoors, and not warmly enough out of doors.

If a petticoat is deemed necessary, it should be of light-weight, though warm, flannel, of the color of the dress, never of the heavy moreens lined; and should be attached to a shaped hip yoke, which in turn is fastened to the underwaist.

A schoolgirl's underwear should be guiltless of any bands of any description. Her dress ought by good rights to be of the one-piece, semi-princess style. But people who make dresses have such a queer antipathy to undertaking this style of dressmaking, it is of little practical use to recommend it. And there is a type of separate-skirt-and-waist dress that can be made perfectly healthful.

The illustration shows such a dress. The lining of the blouse is fitted loosely, but does not pouch, and therefore supports the skirt firmly when that is attached to it. The skirt may have a "fly" belt with buttonholes in the fly, by which it is fastened on to the buttons around the lower edge of the blouse, or the buttonholes may be made in the skirt belt direct, and after being fastened in place they may be hidden by a belt of ribbon. Leather and other inflexible belts should not be permitted.

The illustration is of a school dress that has many admirable points. The style of the skirt allows of its being lengthened without the alteration being

apparent. If the jacket becomes too small it can also be easily altered by moving the upper lapping portion, and letting it out under the arms. The sleeves have the wide cuffs buttoned through close to the hand for warmth.

"But it looks like a stylish dress!" says some reader who thinks that a dress must be outlandish in effect if it is to be healthful and comfortable, a common and greatly mistaken notion. If mothers would take a little pains to plan for their girls dresses that conformed to the rules of health and also looked attractive, girls would not rebel against hygienic dress, and throw it aside as soon as they are free to do so. There is as much reason for wishing to look well as there is for wishing to be surrounded by beautiful nature and art. Few people understand that it is possible for wholesome dress to be attractive.

The dress illustrated may be made warm enough for the coldest weather by adding a cape or flat fur collar, according to the climate. This gives the necessary warmth across the lungs, back, and front, and over the upper part of the arms. Keep the hands warm with warm gloves.

Long cloaks should be worn by schoolgirls only when they drive long distances. They are too heavy and cumbersome to walk in.

One of the best materials for school skirts and jackets is steam-shrunk, Venetian cloth. It is practically waterproof. By making the jacket with a tailor's lining of canvas it becomes warmer than heavy cloaking, and both looks better and is better in every way for cold weather. In the place of rubbers, waterproof leather walking shoes are to be preferred for all except the spring thaws in out-of-town places, when long rubber boots are needed occasionally. The ordinary "rubber" and "foot hold" are serviceable for occasional emergencies; for instance, if one is caught in a storm while wearing thin-soled shoes. But in preparing a schoolgirl's outfit for the winter, thin-soled shoes should be reserved for the house.

It is a good plan to provide a schoolgirl with a real storm dress of actual waterproofed cloth, but as she so often goes to school in fair weather and returns in an unexpected storm, it is wisest to have her regular school dress of cloth that does not quickly wet through, and is not injured by wetting. Braids to trim school dresses should be shrunk before they are used.

In brief, dressing the schoolgirl is not a difficult problem in any sense; it merely requires the exercise of the good sense and judgment that the mother of any schoolgirl should have, and which she will have if she gives the matter the study it deserves.

"IN TUNE WITH THE INFINITE."

BY J. H. KELLOGG, M. D.

THE human body may be represented as an instrument, a harp of a million strings, at which two players preside, the one human, the other divine; the one fallible, erring, the other infallible, unerring. When these two players move in harmony, the song of life is sweet and melodious, a symphony; when the human player strikes even one discordant note, the harmony is broken, the melody is spoiled. The one thing needful for success, for happiness in life, is to live in harmony with God, to keep "in tune with the Infinite," to make the human

will conform in every purpose, in every voluntary thought or act, with God's order of life as revealed to us by the instinctive voices which speak to us from within, by the teaching of experience, and by the inspired instruction of Holy Writ, the garnered, winnowed wisdom of the ages. To live "in tune with the Infinite" is to walk with God; it is to be in harmony with all the laws of being, physical and mental; it is to live at peace with one's self, as well as with the world about him. "Her ways are ways of pleasantness, and all her paths are peace." Prov. 3:17.

The man whose stomach is the seat of fermentations, putrefactions, gaseous commotions, and chemical reactions, suffers burnings, pains, pangs, aches, twinges, depressions, and miseries of various sorts. He is out of tune. He is not in harmony with God. He is at war with him, either consciously or unconsciously. The man whose mind is full of forebodings, worries, doubts, and suspicions, is equally out of tune. "Thou wilt keep him in perfect peace, whose mind is stayed on thee." Isa. 26:3. To have one's mind stayed on God is to be ever studying his will, and earnestly endeavoring to do his will as revealed to us in the Bible and the book of nature, and especially in ourselves. We are not competent to care for the temple of our body unless we study it, unless we seek earnestly to become acquainted with all its parts, and to know their several needs, and to find the divine method of satisfying them.

We are often out of tune with Heaven because we foolishly attempt to draw a line of distinction between physical duties and spiritual duties, forgetting that everything physical which has a relation to the well-being of the temple has a spiritual significance. Life is a unit, not a duality. It is impossible to divide life into a spiritual and a physical part. There is but one life, and that is the life of God. As manifested in man, this life presents various phases which we call physical, mental, moral, or spiritual; but these all spring from one foundation, and are as necessarily related as the several branches of a tree. Nothing could be more absurd than to imagine that the highest welfare of one can be secured while neglecting the interests of the others. As well might two players at a single instrument expect to produce melody by taking care to harmonize a portion of their cords, while striking discordant notes in others. Every note must harmonize. The whole human life, physical, mental, and moral, must conform to the great decalogue which is written upon the human constitution itself, and which is revealed to us through nature, the inspired Word of God, and in human experience. The highest of all human attainments is to reach a state of absolute harmony with the Infinite, to bring the truant human will into perfect accord with all the principles which govern mental, moral, and physical action, including eating, drinking, exercise, and every other physical relation of life, as well as those obligations which are commonly denominated "Christian duties," but which include but a very small part of our moral obligations.

Every intelligent human being who recognizes this great truth, the universal dominance of law, the absolute and incessant dependence upon the infinite indwelling presence, will no longer be able to call some things sacred, other things common. All things become sacred. Every eating and drinking is a sacrament, a partaking of God's substance sacrificed for our sustenance. Every action will be an act of worship; for every nerve impulse sent to a muscle is but an appeal to God for help, a request

for power, and there should be at the same moment a consecration for service. Man has no power of himself. Every particle of energy which he exhibits in his actions, good or bad, comes to him direct from the source of all energy, is loaned to him by God. That he is able to direct it, thus making God to serve in his conduct, whether it be good or bad (Isa. 43:24), is due to the fact that the Creator of all the universe bows his neck to the yoke of labor, carries all the burdens, performs all the toil for all his creatures, in order that each may fulfill his mission in the world as representing some divine thought or purpose; and for man especially, that he may be a fit representative of the God who made him, a true witness to the world and to the universe of the power that dwells within, a noble image of the personality which conceived him, and modeled him from clay, and animated him by making him the temple of the living God.

THE SCHOOL LUNCH BOX.

BY ANNA CLIFF WHITE.

THE mother who can pack a delectable basket for the school lunch, yet vary its contents daily, is a veritable treasure. The school lunch basket is one of the most perplexing of household problems, and one which city mothers, fortunately, do not often have occasion to solve. But in the country, where the children cannot return to their homes during the noon hour, the planning of a wholesome and appetizing lunch is one of the day's essentials.

The small square boxes of papier-maché, now procurable for ten or fifteen cents at any store, provides the first requisite for a nice lunch. The pretty paper napkins, obtained at any book-store for six cents a dozen, meet the second demand. Mother must provide the rest, and it is in this provision that parental care, wisdom, and housewifely originality must be shown.

A few hints in the packing of the box may not be amiss. Always line it with one of the paper napkins, and use a second for wrapping sandwiches; paraffine paper is also nice for this. If possible, let each child possess his own knife, fork, and spoon; pretty individual sets are easily bought for a moderate sum, and make dainty and useful birthday or holiday gifts. Use covered jelly glasses for fresh berries or canned fruit, cooked rice, granose molds, custards, etc. A small catsup bottle with a tin screw top is the nicest way to carry lemonade, milk, or fruit juice. Pie and layer cake are the "mussiest" things in the world, and have no place in the small compass of a lunch box, especially when they can be replaced by so many more wholesome articles. Always put in a couple of extra napkins; it pays in the end to cultivate in children fastidiousness in the small details of eating and drinking.

Above all things avoid monotony in the contents of the box. A cold lunch at noon, even when of the very best, is in itself but a poor substitute for the tempting hot meal at home; but when not varied day after day, the tired, study-worn child loses all healthful appetite, and in its place comes the craving for candy, lead pencils, chalk, and other unhealthful substances.

As to the food to give the child,— it should be such as is easily digested, and as shall make the bones grow and the muscles develop. There should be proper restriction as to the amount eaten. Don't put in any more food than the child can eat. A meager sufficiency is better for the child who is studying than ar oversupply which tempts him to gluttony, or at least to wastefulness. Always manage to put fruit, either fresh or preserved, in the lunch box, and salad-dressing sandwiches make a nice change from the usual routine.

Here are some recipes which may help out some perplexed lunch packer: —

Fruit Sandwiches.— Chop finely together pineapple, oranges, dates, and figs. Add mayonnaise dressing made as follows: five tablespoonfuls lemon juice, four tablespoonfuls water, three tablespoonfuls sugar, one-quarter teaspoonful salt, one tablespoonful butter. Mix well, and add to mixture the well-beaten yolks of four eggs. Heat in double boiler till slightly thickened. Spread between thin slices of whole-wheat or graham bread.

Ambrosia Sandwiches.— Blanch filberts, hazelnuts, and English walnuts, and crush them with a rolling pin. Add figs or dates, and chop all finely. Mix with this enough grape juice to flavor. Spread on thin buttered slices of bread.

Mock-Chicken Sandwiches.— To one-half pound of protose add two well-beaten eggs, salt to season, and one-half cup of powdered granose flakes. Mix well, and form into thin patties. Dip each patty into well-beaten egg, then into granose flakes, and brown in oiled pan. Place between thin slices of bread.

Queen Sandwiches.— Pass one-quarter cup each of cooked lentils, nuttolene, and kidney beans through the colander; mix, and add to the mixture one-fourth cup cream, salt to flavor, and if desired, a pinch of summer savory or sage. Place between crisp lettuce leaves on thin slices of buttered bread.

Cocoanut Granose.— Steep (not boil) three or four tablespoonfuls of desiccated cocoanut in a pint of milk for twenty minutes. Strain out the cocoanut; add enough milk to make a full pint; one tablespoonful of sugar and two beaten eggs. Cook, until creamy, in a double boiler. Remove from fire, sprinkle in a little salt and four cups of dry granose, or enough to make it quite thick. Put it into cups to mold. A little dish of meltose or malt honey added to the lunch, is nice to eat with these molds.

IT PAYS.

It pays to wear a smiling face
And laugh our troubles down;
For all our little trials wait
Our laughter or our frown.

Beneath the magic of a smile
Our doubts will fade away,
As melts the frost in early spring
Beneath the sunny ray.

It pays to make a worthy cause,
By helping it, our own;
To give the current of our lives
A true and noble tone.

It pays to comfort heavy hearts,
Oppressed with dull despair,
And leave in sorrow-darkened lives
One gleam of brightness there.

It pays to give a helping hand
To eager, earnest youth;
To note, with all their waywardness,
Their courage and their truth;

To strive, with sympathy and love,
Their confidence to win;
It pays to open wide the heart
And "let the sunshine in."

— *Lutheran Observer.*

TABLE SERVICE.

BY LULU TEACHOUT BURDEN.

OF the many volumes which have been written upon table etiquette, some of the suggestions contained are practical, while others are useless. What is considered proper at one place or time is not approved under other circumstances; and those desirous of observing the usages of good society are often sorely perplexed to keep pace with the variations of fashion. But if, instead of following mere arbitrary rules from the low standpoints of "style," we would take for our guidance the best definition of true politeness as given by Dr. Watts,—"Love manifested in an easy and graceful manner,"— we need never be at loss as to "what to do and what not to do," and no impolite and inconsiderate person can be truly contented and happy.

No mother ever realizes fully how much of her children's own happiness and the comfort of those with whom they may come in contact, depends upon the training she gives them in the simple courtesies and proprieties of life. The mother should, for the sake of both the health and happiness of her family, make her table service as pleasing as possible. There is no doubt that many a case of dyspepsia might be traced to an ill-ordered table, at which the habit of rapid eating was early formed.

"Think not of yourself, but of what will contribute most to another's comfort or convenience," remembering that for the time being utter deference should be paid to the evident arrangement of the house at which you are. No selfish person can ever be truly polite.

Every one may have clean, if not fine, table linen. An undercovering of cotton flannel or felt made to fit the table is desirable, as it prevents noise, and a linen

cloth may be laid over it more smoothly than over the bare table. It also prevents a highly polished table from becoming marred. Thin tablecloths remain fresh longer if stiffened slightly with very thin starch, but heavy damask requires no stiffening. Keep the cloths in a drawer large enough to hold them without much folding. In laying the cloth, place the center of it in the center of the table, and have the folds straight with the edges of the table. Crease the cloth around the edges of the table, that it may drape smoothly.

Lay the plate right side up for each person. If possible, arrange the plates opposite each other. Place the napkin, ordinarily, at the left of the plate; it may be laid inside the plate, if the table is crowded. The knives should be at the right of each plate together with the bread and butter plates and the water glass. Place the forks at the left of the plate, and the spoons either in front or at the right side of the plate. The number of each, the knives, forks, and spoons, will depend upon the number of courses, and they should be placed according to the way the courses are to be served; the one being needed first is placed nearest the plate. The fruit dish or flowers should occupy the center of the table; the salt and sugar shakers at the corners. Place the various dishes on the table in regular order, straight with the table, or, if at an angle, let there be some uniformity, never helter-skelter. The cups, plates, and dishes for hot food should be heated in hot water or in a warming oven.

Do not allow the table to become disordered during the meal. The dirty dishes and plates should be removed noiselessly, one by one, and never piled one upon another, after the hasty fashion of second-class hotels. It is conducive to the "hotel" feeling, which should be carefully shut out of the home.

After the meal, brush up any crumbs that may have fallen, lest they be trodden into the carpet; collect the knives, forks, and spoons by themselves. Put any food that may be used again on small dishes, never on the dishes used in serving. Scrape the dishes empty, and rinse the cups, and pack all neatly near where they are to be washed.

Dish Washing.

Do not pile the dishes into the dish pan. Begin with a pan half filled with hot, soapy water. Keep the soap in a shaker made for the purpose, or in a cup; make a strong lather in the cup, and use as needed. Never leave the soap in the dish pan to waste and stick to the dishes. Wash glasses and glassware first, and wipe at once, without draining or rinsing. Wash the silver and wipe at once, as it keeps bright longer if wiped out of hot, soapy water. Keep a cake of silver soap or polish at hand, and rub each piece of silver as soon as discolored. Then wash the china, beginning with the cups, saucers, pitchers, and last, the greasy dishes, changing the water as soon as cool or greasy. Place these dishes in the rinsing-pan, with the cups right side up, and plates resting on edges, that they may be scalded inside as well as outside, and drain quickly. Scald and wipe immediately. Where there is but one woman for "cook, waitress, hostess, and kitchen girl," it is well, after the table is cleared and the dishes neatly packed, to wash first the kitchen dishes, and pots, and kettles; then with clean water and towels wash and wipe the table dishes. The hands will be left in much better condition than when the pots and kettles are washed last.

ARTISTIC TABLE ARRANGEMENT.

MRS. L. T. BURDEN.

BREAKFAST TABLE.

Each setting contains the service plate, fruit plate, napkin, coffee cup and saucer, water glass, and the knife, forks, and teaspoon. In the center of the table is a table mirror upon which is placed a cut-glass bowl containing nasturtiums. The coffee service is at one side of the table, and a tureen holding protose hash at the other.

TABLE LAID FOR LUNCHEON.

The centerpiece is made up of a Battenberg mat upon which sets the table mirror with a bowl of nasturtiums; sweet peas make a beautiful decoration also. Watermelon is served in cone-shaped pieces upon a grape leaf, care being taken to have it ice cold. Water, fruit nectar, or lemonade is served in the glasses. One cover is laid with the fruit plate holding the melon, which plate may be set in a service plate if cake is also to be served; the fruit knife, two teaspoons, a fork, and a napkin. Malt-honey candy makes a pleasing sweet to serve with this.

GENERAL TOPICS.

HELPS AND HINTS FROM OUR EXCHANGES.

Child Labor in the South.

Twenty thousand little children are "toiling out their lives in the textile mills of the South," says Mrs. Irene Ashby-Macfayden; and she blames, not the Southern people, but the New England capitalists who own the mills. Many of these little toilers work for ten cents a day, and she knows "of babies working for five and six cents a day." The "day" is often from 6 A. M. to 6 P. M., or, worse, from 6 P. M. to 6 A. M., when she found "little children working from dark until long past dawn, kept awake by cold water being dashed into their faces." She says of night work: —

"Without regulation of hours, there is no reason to prevent the mills working at night, and when they can do so profitably, they avail themselves of this permission. I have talked with a little boy of seven years, in Alabama, who worked for forty nights; and another child not nine years old, who, at six years old, had been on the night shift eleven months.

"A clerk in a cotton mill told me that little boys turned out at two in the morning, for some trivial fault, afraid to go home, would beg him to allow them to go to sleep on the office floor.

"In Georgia it is a common sight to see the children of cotton operatives stretched on the bed dressed as they came from the mills in the morning, too weary to do anything but fling themselves down for rest.

"In South Carolina, Miss Jane Addams, of Chicago, found a child of five, working at night, in fine, large, new mills. Only a few weeks ago I stood at 10:30 at night in a mill in Columbia, S. C., controlled and owned by Northern capital, where children who did not know their own ages, were working from 6 P. M. to 6 A. M., without a moment for rest or food, or a single cessation of the maddening rack of the machinery, in an atmosphere unsanitary, and clouded with humidity and lint.

"The physical, mental, and moral effect of these long hours of toil and confinement on the children is indescribably sad. Mill children are so stunted that every foreman, as you enter the mill, will tell you that you cannot judge their ages. Children may look, he says, to be ten or eleven, and be in reality fourteen or fifteen years of age.

"A horrible form of dropsy occurs among the children. A doctor in the city mill, who has made a special study of the subject, tells me that ten per cent of the children who go to work before twelve years of age, after five years contract active consumption. The lint forms in their lungs a perfect cultivating medium for tuberculosis, while the change from the hot atmosphere of the mill to the chill night or morning air often brings on pneumonia, which is frequently, if not the cause of death, a forerunner of consumption.

"How sternly the 'pound of flesh' is insisted on by the various employers is illustrated by the case of two little boys of nine and eleven, who had to walk three miles to work on the night shift for twelve hours. One night they were five minutes late, and were shut out, having to tramp the whole three miles back again. The number of accidents to those poor little ones, who do not know the dangers of machinery, is appalling.

"In Hunstville, Ala., in January, just before I was there, a child of eight years,

who had been a few weeks in the mills, lost the index and middle fingers of her right hand. A child of seven had lost her thumb a year previously.

"In one mill city in the South a doctor told a friend that he had personally amputated more than a hundred babies' fingers mangled in the mill. A cotton merchant in Atlanta told me that he had frequently seen small children without fingers or thumb, and sometimes without the whole hand.

"So frequent are these accidents that in some mills applicants for employment have to sign a contract that in case of injury in the mill the company will not be held responsible, and parents or guardians sign for minors.

"No mill children look healthy. Any one that does by chance, you are sure to find out has recently begun work. They are characterized by extreme pallor and an aged, worn expression, infinitely pitiful and incongruous in a child's face. The dull eyes raised by the little ones inured to toil before they ever learned to play, shut out, by this damnable system of child slavery, from liberty and the pursuit of happiness, often to be early robbed of life itself, are not those of a child, but of an imprisoned soul, and are filled, it always seems to me, with speechless reproach. There is, unfortunately, no question as to the physical debasement of the mill child."

Elbert Hubbard has also made a trip through the South, recently; and the condition of the mill children impressed him so deeply that he writes a feeling article in *The Philistine*, in which he says: —

"I know the sweat shops of Hester Street, New York; I am familiar with the vice, depravity, and degradation of the Whitechapel district; I have visited the Ghetto of Venice; I know the lot of the coal miners of Pennsylvania: and I know somewhat of Siberian atrocities; but for misery, woe, and hopeless suffering, I have never seen anything to equal the cotton-mill slavery of South Carolina — this in my own America — the land of the free and the home of the brave!

"I thought to lift one of the little toilers to ascertain his weight. Straightway through his thirty-five pounds of skin and bones there ran a tremor of fear, and he struggled forward to tie a broken thread. I attracted his attention by a touch, and offered him a silver dime. He looked at me dumbly, from a face that might have belonged to a man of sixty, so furrowed, tightly drawn, and full of pain it was. He did not reach for the money — he did not know what it was. There were dozens of just such children in this particular mill. A physician who was with me said that probably they would all be dead in two years, and their places filled with others — there were plenty more. Pneumonia carries off most of them. Their systems are ripe for disease, and when it comes, there is no rebound, no response. Medicine simply does not act — nature is whipped, beaten, discouraged, and the child sinks into a stupor, and dies."

Mrs. Ashby-Macfayden says that there is hope that the Legislatures of Alabama, Georgia, and South Carolina may, at their next session, pass laws prohibiting the employment of children under twelve, although the efforts in that direction have met with uniform failure thus far.

On the other side, *The Manufacturers' Record* (Baltimore) says that Mrs. Ashby-Macfayden "and others of that class should bear in mind that the South is slowly but surely working out its own salvation in labor matters as in others, and that interference on the part of theorists and sentimentalists with eyes on one point alone, can only complicate the conditions and bring disaster and suf-

fering upon the very class they would benefit."

The *Galveston News* is of like opinion. It says: "Women and children who work in factories are made up largely of those who have no other opportunities. The main question is not whether they have just what we prefer that they should have, but whether they have, bad as it may be, the best they can get. Has any provision been made for them elsewhere? Are their sympathetic friends ready at the door to receive and provide for them? Is their condition in the mill, laundry, cannery, factory, bakery, or shop as good as the condition of thousands of others who would gladly exchange places with them? Will it really help them, to deprive them of a chance to work even in a mill? Most of these questions must be answered with a negative. We would all prefer it otherwise; but eloquent appeals to the pride and sympathy of the people, and to the natural love of the young, have not yet made it so." At this time, as the *News* sees it, the opportunities of the young as well as the old should be doubled over again by a general multiplication of manufacturing establishments in grand old Texas, and "nothing should be done to discourage the good work which we have so well begun in this line."

Worry and Indigestion.

Worry, says *Physical Training*, is but one of the many forms of fear; so that worry tends to the production of indigestion. Indigestion tends to put the body of the subject in a condition that favors worry. There is thus established a vicious circle which tends to perpetuate itself, each element augmenting the other. It is necessary to secure a cheerful, wholesome atmosphere for the dyspeptic. He should eat his meals at a table where there is good fellowship, and where good stories are told. He should himself make a great effort to contribute his share of this at the table, even if it be necessary, as it was in one case under my care, for him to solemnly and seriously collect funny paragraphs from the press, and at first interject them spasmodically during lulls in the conversation at the table. The very efforts and determination of the man to correct his own silent habits at the table, to correct his feelings of discouragement and worry, were in themselves a promise of success. The effort made was adequate to the obstacles to be overcome. He succeeded, and the spectacle of that man trying to be funny at the table when he felt thoroughly discouraged and blue, is one I shall never forget.

Laughing is in itself a useful exercise from the standpoint of digestion. It stirs up all the abdominal organs, it increases the circulation of blood, it increases peristalsis, it increases the secretion of gastric juices. Five minutes' deliberate laughing after each meal would be an excellent prescription for some people. —*The Dietetic and Hygienic Gazette.*

Ideal Food for the Vegetarian.

According to the *Montreal Pharmaceutical Journal*, M. Balland recently described before the French Academy of Science a curious plant that promises to be of some value. This is believed to be the only plant known which combines within itself in due proportion all the elements required for the nourishment of man. This plant is known as Voandzou, and is a native of tropical Africa, where it is largely cultivated by the negroes. It is common in Southern Asia, but does not grow in America, excepting in Brazil. Its nutritive portion consists of large masses inclosed in

pods like beans. When raw it tastes like ordinary beans, but when cooked it has the flavor of chestnuts. It is not thought that this plant can be successfully grown in temperate latitudes, but the writer thinks that means should be taken to cultivate it wherever it can be grown. It contains about 10 per cent water, 19 per cent nitrogenous matter, 6 per cent fats, and 5 per cent starch, with 4 per cent of celluloids. It contains a much larger proportion of nitrogens than any food now available in the vegetable kingdom, but it has not yet been shown that the nitrogen exists in an assimilative form. Ordinarily, members of the vegetable kingdom containing a large quantity of nitrogen, possess it in a form difficult of digestion.

The world is beautiful and fair;
Though there be troubles, evils, there.
A goodly part of it is sad,
And just as much of it is bad;
The greatest part, though's full of beauty,
For there's the sense of love and duty.
There's death and sickness, evil passions,
Injustice, falsehood, and oppression;
But there is life and light and reason,
The change of nature every season,
And, even if darkness comes with night,
The sun is there to bring back light.
And what if people sometimes err,
Their conscience prompts them to forbear.
When measured, good is more than bad;
And this alone should make us glad.
If there be still the wrong of wore,
The right is gaining more and more,
The future tempts us to progress,
The ignorance is growing less,
And day by day we come to learn
That what we want we have to earn.
Not money earning do I mean,
But raising our pure selves within;
And when the soul within is pure,
For the sore outside there's certain cure.
Self-preservation, sparing others,
And holding mankind: sisters, brothers;
The chance for deeds of love and duty,
Is one that fills the world with beauty.

—*Jennie Motch, in The Commons.*

Care of the Ears.

Never drop anything into the ear unless it has been previously warmed. Never use anything but a syringe and warm water for clearing the ears. Never strike or box a child's ears; this has been known to rupture the drum and cause incurable deafness. Never wet the hair if you have any tendency to deafness; wear an oiled-silk cap when bathing, and refrain from diving. Never scratch the ears with anything but the finger if they itch; do not use the head of a pin, hairpins, pencil tips, or anything of that nature. Never let the feet become cold or damp, or sit with the back toward a window, as these tend to aggravate any existing hardness of hearing. Never put milk, fat, or any oily substance into the ear for the relief of pain, for they soon become rancid and tend to incite inflammation. Simple warm water will answer the purpose best. Never be alarmed if a living insect enters the ear; the bitter cerumen will soon cause it to come out, or pouring warm water into the canal will drown it, when it will generally come to the surface, and can be easily removed with the fingers. A few puffs of smoke blown into the ear will stupefy the insect.—*Health.*

Practical Suggestions about Mold

A technical description of the characteristic forms of mold fungi might not be interesting to many, and would have little practical bearing on the problem of the housewife, but it is interesting to note that few kinds of mold are in themselves dangerous. Mold is not desirable about the house, however, because it indicates the presence of filth and of unhealthful dampness and darkness.

Mold itself may be innocuous, but the conditions under which it thrives are bad for the human animal and should be combated by letting in the light, drying up the moisture, and making an effort to secure perfect

cleanliness. Up-to-date housewives, when house cleaning, will add much to the sanitary condition of their homes by using in the water some cleanser, disinfectant, and germ destroyer like sulpho-napthol, which is now very inexpensive, and can be obtained at any drug store.

A curious thing about mold is, that it grows from spores, or seeds. These spores rise in the form of dust when a bit of mold is disturbed or shaken. Their minuteness can be more easily comprehended, perhaps, when it is stated that on the point of a needle enough spores were lifted to produce over one hundred mold plants.

These spores are hard to kill, and they remain unharmed sometimes for months and years, until the conditions of heat, light, and moisture are right for their germination and growth. It is comparatively easy, however, to destroy the life of the growing mold, so that perhaps the surest way of killing a spore is to encourage it to germinate, and then destroy it before it has had time for reproduction.

A temperature of 150 degrees is usually sufficient to destroy the life of the growing mold. The housewife who has trouble in making her cans of fruit "keep," will sometimes succeed if at the end of twenty-four hours she resterilizes the fruit. Even then nature has provided these tenacious plants with a way of upsetting the best-laid plans for their undoing.

Spores can, and do, under certain conditions, so far not understood by science, pass into a resting stage, when instead of sprouting at once as a normal growth would do, they simply lie dormant for an indefinite period, whimsically germinating at their own sweet will. In the case of one kind of mold, a German scientist has discovered that a spore may lie quiescent for two years, and then, with encouraging changes in the way of heat and moisture, may germinate and develop into a sturdy growth. This is the probable explanation why canned fruit will sometimes exhibit no mold for months, and then make sick the housekeeper's heart with a thick, green growth.—*The Healthy Home.*

When your heart is warm with love
  Even for your enemies;
When your words come from above,
  Not from where the venom is;
When you see the man entire,
  Not alone the faults he has,
Find a somewhat to admire
  Underneath the paltry mass,—
Not till then, if you are wise,
Will you dare to criticize.

—*Amos R. Wells.*

Hot Air as a Therapeutic Agent.

After calling attention to the early date at which hot-air treatment seems to have been found efficacious for some complaints, Wightman (*New York Med. Jour.*, Aug. 17, 1901) sums up its advantages thus: Dry air is a valuable pain reliever, without any of the depressing effects common to drugs. In connection with constitutional and medicinal treatment, it is a positive curative agent. It is a stimulant to rapid repair and absorption. It is one of the most valuable eliminative agents the physician possesses. Where indicated, it possesses a sedative action on the nervous system, obtainable by no other means.—*Therapeutic Gazette.*

"Gutter Snipes."

The gathering of cigar butts is to be suppressed, according to an ordinance recently passed in the council, in the city of Chicago, Ill. The penalty for violation of this ordinance has been fixed at a fine of not less than $10, nor more than $100, for each offense. The law

covers the manufacture of cigars from tobacco thus collected, and no one shall buy or receive such material. There is a movement on foot in New York and other cities to prohibit this nefarious practice.— *The Texas Medical News.*

Less Meat Means More Health.

A prominent Philadelphia physician writes the following letter to the *New York World*: —

"I have been greatly pleased with your advice to the people to turn the tables on the beef trust by eating other food than meat for a month or so, and leave the trust's stock to rot on its hands.

"My pleasure is not only or mainly because such a course would surely smash the trust, but because I know it will be good for the great mass of our people to eat less meat than they do.

"Rheumatism, gout, and all the diseases that are caused by uric acid, are on the increase among us. Uric acid is a meat product. Less meat and more grain and vegetable foods would improve the health of nine out of ten Americans."

The doctor's advice is somewhat on a par with a letter written by John Wesley, in 1747, to the Bishop of London, in which he says: —

"Thanks be to God! Since the time I gave up the use of flesh meat and wine, I have been delivered from all physical ills."

AN OLD LADY'S LAMENT.

BY MRS. M. A. LOPER.

I NEVER see sech sickly folks as walk the earth to-day;
They've nearly ev'ry blessed one got somethin' wrong, they say.
One has the gout, rumaticks one, an' one has "headake so;"
Newralgy has grown populare, an' backake's all the go.

When I was young, we used to think o' sickness as disgrace.
In talkin' with the people then, small ailments found no place.
But you are out o' fashion now, unless you feel somewhere
A pain or ake, with some big name to make it populare.

Some people wonder why it is that everybody's sick.
The problem haint so awful hard as some in 'rithmetick.
I never studied cause an' 'fect, but one thing's very plain:
We didn't use to live as tho' we's ketchin' some fast train.

The people went to bed o' nights, an' got up with the sun;
They didn't turn the day around as many now have done.
A weddin' breakfast didn't mean you'd wait till afternoon,
An' dinners warn't served them days by candle light nor moon.

The wimmen didn't squeeze their waists, an' wonder why it was
Their stomachs didn't quite accord with all o' Nature's laws.
We didn't eat all times o' day — much less all times o' night;
There warn't much use for doctors then to fix the stomach right.

But now the doctors fairly swarm, to remedies no end;
An' on 'em, every blessed one, poor creatures now depend.
They think they've solved the mystery why ev'rybody's ill,
An' then they've got a remedy that's "sure to cure" — or kill.

They flourish dictionary words, an' tell in glowin' terms
About backtery an' toemaines an' multitudes o' germs.
(Well, mebbe backtery does explain these backakes that we meet,
An' toemaines tell the cause o' corns on ev'rybody's feet.)

They boil the milk so as to kill the germs before you eat 'em;
An' to make ice an' water, too, most healthful, you should heat 'em.

They take the poetry all out o' songs that childhood learns,
The dear "old oaken bucket" now is covered o'er with germs.

Well, what o' that? If they'd do's they ought, germs wouldn't have sech sway;
An' Nature'd cure their akes an' pains, if pills were thrown away.
How sweet the blest assurance given, when here we bid farewell,
There surely are no "germs" in heaven, an' none have ills to tell.

Vegetarians Weaklings?

Karl Mann, the German vegetarian, who won the great German walking match, from Dresden to Berlin (124½ miles), covered the distance in 26 hours, 52 minutes. Mr. Mann is a clerk in a commercial house, and does not touch animal food of any kind. His diet is fruit, nuts, whole-wheat bread and crackers, and salads. This is the second great walking match he has won. Out of thirty-two competitors, there were twenty-six athletes who had trained on flesh foods — the remainder were vegetarians. All the flesh eaters were outclassed, outwalked, and left far in the rear.

The German flesh eaters now claim that the vegetarians won because they do not drink liquor. But why is it that vegetarians have no desire to drink liquor, and why is it that flesh eaters do? It is because the former are free from the poisons inherent from flesh foods, which create a craving in the latter for liquor to burn them up.

If abstinence from liquor drinking caused the vegetarians to win, it is one of the strongest arguments in favor of a vegetarian diet.— *The Universal Republic.*

ONE of the greatest lessons in life is to learn to take people at their best, not their worst; to look for the divine, not the human; the beautiful, not the ugly; the bright, not the dark; the straight, not the crooked side.

A habit of looking for the best in everybody, and of saying kindly instead of unkindly things about them, strengthens the character, elevates the ideals, and tends to produce happiness. It also helps to create friends. We like to be with those who see the divine side of us, who see our possibilities, who do not dwell upon the dark side of our life, but upon the bright side. This is the office of a true friend: to help us discover our noblest selves.— *Exchange.*

Leper Colony in the Philippines.

The island of Kulion, distant from Manila about a twenty hours' sail by steamer, was recently visited by the commissioner of public health and the sanitary engineer of the Philippines Commission, to perfect arrangements for the establishment of a leper colony thereon. The island is about twenty miles long, ten miles broad, and contains many fertile valleys suitable for agricultural purposes. It is also well watered and timbered, and well adapted to stock raising. It is the intention of the commission that the colony, after its establishment, shall be self-supporting. It is expected that about six hundred lepers will be established on the island before the first of April, though the thorough carrying out of the plan as contemplated will require a number of years.—*Boston Medical and Surgical Journal.*

IF.

IF any little word of mine
May make a life the brighter,
If any little song of mine
May make a heart the lighter,
God help me speak the little word,
And take my bit of singing
And drop it in some lonely vale,
To set the echoes ringing.

If any little love of mine
May make a life the sweeter,
If any little care of mine
May make a friend's the fleeter,
If any life of mine may ease
The burden of another,
God give me love and care and strength
To help my toiling brother.

— *Anon.*

How to Sweep an Invalid's Room.

We all know how untidy a sick room becomes, and how annoying the dust of the sweeping is to the patient. "To remedy this," said a trained and capable nurse recently, "I put a little ammonia in a pail of warm water, and with my mop wrung dry as possible go all over the carpet first. This takes up all the dust, and much of the loose dirt. A broom will take what is too large to adhere to the mop, and raise no dust. With my dust cloth well sprinkled I go over the furniture, and the room is fairly clean."— *Doctor's Magazine.*

ONE of the lessons in life is to learn to be absolute master of one's own mind, to clear it of its enemies, and to keep it clear. A well-trained mind will never harbor thought inimical to success and happiness. You have the ability to choose your mind's company; you can call up at will any guest you please. Then why not choose the noblest and best.— *Success.*

Swill Milk and Oleomargarine Prohibited.

The orders issued by Health Officer Allen, of Louisville, prohibiting the feeding of still slops to dairy cattle and the selling of oleomargarine butter, went into effect in the city of Louisville, March 15, 1902. The grocer and persons who handle butter seem to be very well contented with the arrangement, and are disposed to obey the order to the letter; most of the dairymen are also disposed to cease feeding their cattle still slop. Some, however, will not obey the rule until forced to do so by law. If the fact is known that the dairyman feeds his cattle on still slop, it will be quite sufficient to induce the public to boycott him, because the average citizen is fully aware of the fact that the milk from cows that are swill fed is not first-class; in fact, is not fit for use. It will not remain uncurdled long enough to permit the cream to rise to the top. It is an unhealthful food, wholly unfit for children, and equally deleterious to many adults.—*The American Practitioner.*

Labeled Bottles and Babies.

"I was called," said a physician, "to attend triplets. The three youngsters, a few weeks old, lay side by side in a crib, and it was a physical impossibility to tell one from the other. Each had a different ailment. The mother knew that one had a cough, but did not know which it was. Mother and doctor waited for a cough before deciding to which one of the trio it belonged.

"A different medicine was prescribed for each, and the anxious mother was perplexed to know how she should avoid giving the wrong medicine to the wrong child. The doctor came to the rescue by placing a piece of red flannel around the neck of one bottle and a strip of similar material around the arm of the child to whom it was to be given. White linen and a piece of green cloth were used respectively for the other two."— *Philadelphia Times.*

Fruit as Medicine.

Nature has been lavish in providing remedies for many of the common ailments. Fruits often relieve diseased

conditions of the body by encouraging natural processes. Taken early in the morning, an orange acts decidedly as a laxative, sometimes amounting to a purgative. Other laxatives are figs, tamarinds, prunes, mulberries, dates, nectarines, and plums.

The astringent fruits are pomegranates, cranberries, blackberries, raspberries, dewberries, barberries, quinces, pears, and wild cherries.

The diuretics are grapes, peaches, strawberries, whortleberries, prickly pears, black currants, and melon seeds.

The refrigerants are gooseberries, red and white currants, pumpkins, and melons of all kinds.

Those coming under the head of stomachic sedatives are lemons, limes, and apples.

Pomegranates relieve a relaxed throat and uvula. The bark and root, in the form of a decoction, is especially obnoxious to tapeworm.

Figs, split open, form excellent poultices for boils and abscesses.

The juice of a lemon will remove tartar from the teeth.

The oil of cocoanut has been recommended as a substitute for cod-liver oil, and is much used in Germany for phthisis.

Barberries, after being made into a drink, are used for fever patients.

Apples are useful in nausea, and even in seasickness and pregnancy.

Bitter almonds are useful in a cough.

Grapes and raisins are nutritive and demulcent, and are gratefully received in the sick room.— *Ella Bartlett Simmons.*

The Effect of Disease.

If we imagine, as we sometimes do, that after a disorder or disease from which we have recovered we are as before, we are mistaken. No disturbance of the normal course of the functions can pass away and leave things just as they were. A permanent damage is done, not immediately appreciable, it may be, but still there, and, along with other such items which Nature in her strict account-keeping never drops, it will tell against us to the inevitable shortening of our days. It is through the accumulation of small injuries that constitutions break down long before their time. And if we call to mind how far the average duration of life falls below the possible duration, we see how immense is the loss. When to the numerous partial deductions which bad health entails we add this great final deduction, it results that ordinarily one half of life is thrown away.— *People's Journal.*

HOPE.

For, as in the days of winter,
When the snow drifts whiten the hill,
Some birds in the air will flutter
And warble to cheer us still,
So, if we would hark to the music,
Some hope with a starry wing,
In the days of our darkest sorrow,
Will sit in the heart and sing.
— *Phœbe Carey.*

Facts about Life.

There are 3,064 languages in the world; and its inhabitants profess more than 1,000 religions. The number of men is about equal to the number of women. The average of life is about thirty-three years. To 1,000 persons, only one reaches 100 years of life; to every 100, six reach the age of sixty-five; and not more than one in 600 lives to 80 years. There are on the earth 1,000,000,000 inhabitants. Of these 33,000,000 die every year, 91,824 every day, 3,730 every hour, 60 every minute, or one every second. The married are longer lived than the single, and, above

all, those who observe a sober and industrious conduct. Tall men live longer than short men. Women have more chances of life in their favor previous to fifty years of age than men have, but fewer afterward. The number of marriages is in the proportion of 75 to 1,000 individuals. Those born in the spring are generally of a more robust constitution than others. Births are more frequent by night than by day, also deaths.— *People's Health Journal.*

The Useful Banana.

Fortunes have been made out of the banana business, and not only from the sale of the fruit itself, which is one of the most profitable exports of Jamaica. The leaves are used for packing; the juice, being strong in tannin, makes an indelible ink and shoeblacking; the wax found on the underside of the leaves is a valuable article of commerce; manila hemp is made from the stems, and of this hemp are made maps, plaited work, and lace handkerchiefs of the finest texture; and large quantities of the fruit are ground into banana flour.— *Selected.*

Vegetarian Athletics.

In a fifty mile unpaced, time-trial race ridden on Yorkshire roads over an out-and-home course on August 4, Mr. Harold Taylor, of Halifax, a member of the Vegetarian Cycling Club, completed the double journey in two hours forty-two minutes.

The roads were reported to be in a bad condition owing to the heavy rains that had been falling; and a minute or two was lost waiting at a railway crossing for a goods train to pass. Though his time was scarcely as good as he wanted it to be, Taylor expresses himself quite satisfied, as under very similar weather conditions the fastest time accomplished in the Yorkshire Road Club's fifty-mile handicap a few weeks earlier, was but two hours, forty-five minutes, fifty-five seconds — nearly four minutes longer than his own.— *Selected.*

Dirt Eating.

The habit of dirt eating among children is the subject of an interesting paper by Dr. John Thomson. He finds that it occurs in two classes of children: (1) In cases of ill health from tuberculosis, etc., anemia being almost a prominent symptom; (2) in healthy children, the habit in this latter class as analogous to thumb sucking, perpetual rocking to and fro, or constant rolling in bed, in which some children delight, and which they lose when they pass out of infancy. The materials selected are chiefly wall plaster and cinders. Dirt eating may lead to serious consequences when the material eaten contains harmful matter.— *Mother's Journal.*

A RECIPE FOR A DAY.

TAKE a little dash of water cold,
And a little leaven of prayer,
And a little bit of morning gold,
Dissolved in the morning air.

Add to your meal some merriment,
And a thought for kith and kin,
And then, as your prime ingredient,
A plenty of work thrown in.

And spice it all with the essence of love,
And a little whiff of play;
Let a wise old book, and a glance above,
Complete the well-made day.

— *Amos R. Wells.*

Slaves to Habit.

Most of us eat too much. A great many of us eat so rapidly that we do not digest our food properly. Dyspepsia is a national and an increasing disease. We are slaves to habit in eating as well as in other matters. A famous English

surgeon has given it as his opinion that more persons acquire diseases and shorten their lives by overeating than by indulgence in intoxicating liquors. The two-meal-a-day plan is growing in popularity, and has its enthusiasts among the plain people as well as those who have studied the question scentifically. More vegetables and less meat would save much money and many bodily ills. Comparatively few of us apply the rules of common sense to our habits of eating, and pay a heavy penalty for this rashness. The reformers who are appealing to this overeating generation, sometimes go to extremes, but on the whole, they are on the right line and will accomplish much good.— *People's Health Journal.*

Children's Pocket Money.

It is a capital plan to provide children, as soon as they are able to write neatly and do addition easily, with a little weekly or monthly allowance and an account book. With this money the child should be expected to provide itself with some small necessaries — a girl should be expected to buy gloves and small ribbons; a boy, ties and school necessaries, such as pencils, copy books, etc. There is nothing more required in the present day than that children should be taught early what true economy is, and to exercise their judgment —not only their fancy — in making purchases. A little early instruction, and experience if need be, of the great discomforts of extravagance may save them from much suffering in after years.— *Selected.*

Woman's True Sphere.

If women would use as much intelligence and energy, as participation in legislation would require, in teaching their children, boys and girls alike, in a broad, liberal way, the great principles of temperance and charity they would do more in a generation toward eradicating the evils of intemperance and impurity than they would do by a century of voting. If in the same way they would inculcate, and everywhere stand for, the principles of justice, unselfishness, and a true regard for the rights of others, in social and political relations, they would do more toward reforming those conditions of society which breed anarchy and a despair of the practical politician than they could ever do through legislative action.— *Lakeside Magazine.*

Teach Your Daughters to Cook.

Teach your daughters to cook; that should be the first care of every mother as soon as her girls reach the age of twelve years. It does not matter if they may count on an income of $2,500 or $250 each per annum, whether they are fine ladies or poor working girls, they should know that the woman who cannot cook and serve up an appetizing meal without wasting good food is a disgrace to her sex.

It is true that the rich woman need not go into her kitchen and soil her fingers in doing what she can pay servants to do for her. None the less, she should be able to criticise their efforts and supervise the household expenditure, so that a perfect knowledge of the art of cookery is as necessary to her as it is to the laborer's wife who has to make one shilling do the work of two, and yet feed the family well. The young bride who, suddenly finding herself without a servant, discovered that she could not even boil a potato, is a very good example of the useless sort of woman who should not marry until she has qualified herself at the cooking school.—*Health Journal.*

EDITORIAL.

BACKACHES.

THE differentiation between backaches due to pelvic disorders and those due to other causes is important, because many women suffer from backaches which are frequently treated locally, although not at all dependent upon any pelvic disorder.

Dorsal backache is very commonly due to bad positions in standing and sitting; and, in women, to bad positions at the sewing machine, in knitting, in sewing, and in fancy work. This involves a strained condition of the nerves and muscles of the back, accompanied by a shortening of the anterior trunk muscles and a flattening of the chest. Every one, especially those suffering from disease, should be taught to stand erect, holding the chest up and chin in. Women having deformities of position are enabled by fashion to build up their figures to appear shapely and well formed. Those who know how to make a presentable appearance ought not to require artificial aids to maintain the proper form.

Many people are lacking in self-respect, or do not have sufficient energy to sit or stand erect. To sit tall, to stand tall, to hold up your chest, and draw in your chin, in my estimation, are of more importance in pelvic disease than much of the local treatment that is given. The development of the back and chest is of the greatest importance.

There are other dorsal backaches not due to gynecological causes. The breasts of a nursing mother, which are naturally heavy, may become very large, and the tension upon the nerves which pass into the breasts become a source of pain and irritation, a constant dorsal backache resulting. This may be relieved by properly supporting the breasts by the use of any one of the numerous excellent breast supports in the market, or in the absence of such support, by the use of a cheese-cloth pad and a roller chest bandage.

The overuse of the arms in knitting or sewing, or in carrying a child, is a very common cause of backache which is readily overlooked.

Gastric irritation, shown by the extreme soreness and tenderness in the epigastrium, is accompanied by tenderness and pain between the shoulders. This form of backache was formerly treated as spinal irritation. The tenderness in the epigastrium is at the cardiac orifice of the stomach, and may be elicited by pressure upward underneath the lower end of the sternum.

Neuralgia of the spine is accompanied by irritation of certain nerve trunks. Pressure along the course of the nerve elicits pain at the point where the nerve emerges from the spinal canal, in the mid-axillary line, and near the sternum.

Curvatures of the spine, either lateral or dorsal, may be the cause of backache. Some time ago I made an examination of the students of a certain college, examining seventy-four young women and one hundred and twenty-four young men, and found only three young ladies who did not have some kind of curvature of the spine. Double curvature, or scoliosis, is more common in young women than in young men.

Of all the causes of backache, perhaps the most common is enteroptosis, or prolapse of the abdominal viscera, which exists to some degree in nearly all women who have reached the age of thirty years.

Splanchnoptosis may be manifested in the prolapse of all the abdominal viscera, or it may be confined to the prolapse of a single viscus. A palpable kidney which does not move more than two inches, is more likely to be the cause of backache than is a floating kidney. In the case of the floating kidney the nerves have become stretched to such an extent that they are paralyzed, and there is no serious pain.

It is only when the floating kidney has become enlarged, and is the seat of suppuration, that it is likely to be painful. In enteroptosis and in floating kidney the patient suffers from the backache while on the feet, and may be made comfortable by the use of an abdominal supporter.

We may take the weight off of these muscles by means of the supporter so that the abdominal muscles, overstretched by the weight of the viscera, may have opportunity to recover their tone. Gymnastics to develop the abdominal muscles are also necessary. It is possible by daily exercises, in the course of three or four months, gradually to develop the abdominal muscles and restore the muscle tone sufficiently to hold the organs well in place. Such exercises may be taken by lying on the back and endeavoring to raise the limbs and head, bending the legs, and in a variety of other similar ways.

The abdominal supporter when properly fitted produces no inconvenience, and does not interfere with the use of the muscles, because when contracting they are drawn inward. The abdominal supporter is not curative, but by relieving the pain and discomfort permits the patient to take exercises, by means of which he recovers.

Visceral irritation is another cause of backache. Chronic gastritis is attended by backache behind the stomach. Chronic dyspeptics very often come under treatment who have been in the habit of wearing porous plasters for the accompanying backache. Backache may follow an acute enlargement of the spleen or liver, or an attack of typhoid fever. Backache, usually lumbar, accompanies intestinal irritation and movable, or floating, kidney. With the lumbar backache in these cases of visceral irritation and enteroptosis, there is frequently associated sciatica or neuralgic pains in the legs, due to reflex irritation affecting the sciatic nerve.

Lumbago and caries of the lumbar region of the spine are very often a cause of backache.

Sacral backaches are supposed to be directly indicative of pelvic disease. Many women suffer from backache during menstruation, caused by an overexcitation of the sympathetic nerves. This should always be considered as an indication of lowered health, to correct which, measures should be taken at once.

Sacral backache is also caused by inflammation of the bladder, the colon, the rectum, the Fallopian tubes, the ovaries, and other pelvic organs. In addition to the pain in pelvic inflammations there is a rise of temperature.

In backaches from overstrain in lifting, the ligaments which support the uterus have been stretched by the pressure of the intestines from above. Some time ago I made some experiments for the purpose of ascertaining to what degree these pains were due to pelvic disorder, and in one case I found that the uterus had been forced down a whole inch by straining and lifting.

Backache may be due to simple irritation of the rectum. There may be a catarrh of the rectum, sometimes called "leucorrhea of the rectum," or it may be that the patient is suffering from an over-distended rectum.

Extreme anteversion of the uterus, and other displacements are frequent causes of backache.

In a large majority of cases in which women are treated for gynecological disease, proper exercise and careful hygiene, so regulated as to build the patient up and increase her vitality, are of much more importance than local treatments.— *Modern Medicine.*

ANSWERS TO CORRESPONDENTS.

Weakness in Legs — Bleeding Piles — Bad Taste in Mouth. — M. S., New Jersey: "Legs weak, especially at the knees. Knee caps grate when legs are drawn up. 1 What can be done to strengthen them? 2. Give a remedy for bleeding piles. 3. What will remove a bad taste in the mouth?

Ans. — 1. Apply a fomentation to the knees night and morning. After the fomentation at night, wrap the knees first with a towel wrung very dry out of cold water, then cover with oiled muslin or mackintosh, and cover the whole with flannel. Bandages must be applied very snugly so as to exclude the air. After the fomentation in the morning, rub the parts with a towel dipped in cold water, for five minutes; then apply a dry flannel bandage to be worn during the day.

2. In most cases a surgical operation is necessary. A physician should be consulted. Temporary relief can be obtained in most cases by sitting in cold water. An ordinary washtub may be used for the purpose in the absence of a sitz bath. Too large a quantity of water should not be employed. Water to the depth of three or four inches is sufficient.

3. The dry taste in the mouth may result from several causes. Mouth breathing, the result of partial obstruction of the nose, is a common cause. Disorder of digestion, constipation, and general loss of vital tone, are sufficient causes for the growth of the germs in the mouth, to which the bad taste is due. The growth of mouth germs is encouraged by neglect to cleanse the teeth after meals. Immediately after eating, the mouth should be thoroughly rinsed, and the teeth should be well brushed.

Sour Stomach — Belching after Drinking — Tubercular Abscess. — F. H. A., Illinois: "1. How can one tell whether a sour stomach is due to hypopepsia or hyperpepsia without examination of the stomach fluid. 2. What causes belching after drinking? 3. How can a large tubercular abscess on the hip be cured? It causes no pain, and does not interfere with walking."

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COMPOSED of ozoniferous essences, vegetable antiseptics and benzo-boracic acid, Listerine is readily miscible with water in any proportion, and is the ideal individual prophylactic. A teaspoonful of Listerine in a tumbler of water makes a refreshing and delightfully fragrant mouth wash. Used at the morning toilet it effectively removes all agglutinated mucus which may have accumulated during the hours of rest.

As a spray or gargle in tonsilitis, diphtheria, or scarlet fever, both for the patient and as a prophylactic for those who are in attendance, Listerine, diluted with four parts of water, or water and glycerine, is a pleasant and sufficiently powerful agent.

Listerine has won an enviable position in medical practice in the treatment of catarrhal conditions of the mucous surfaces of every locality and is extensively used in the lying-in room. As a prophylactic and restorative douche or injection after parturition, an ounce or two of Listerine in a quart of warm water is generally all-sufficient.

The vapor evolved by the use of Listerine in the sick room, by means of a spray or saturated cloths hung about, is actively ozonifying, imparting an agreeable odor to the atmosphere and proving very refreshing to the patient.

An ounce of Listerine in a pint of warm water forms a refreshing, purifying, and protective application for sponging the body during illness or health. A few ounces added to the bath enhances its tonicity and refreshing effect.

Two interesting pamphlets on Dental and General Hygiene, upon request.

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Ans.—1. Examination of the gastric fluid is usually necessary.

2. The swallowing of air while drinking.

3. Cure is by no means easy in such a case. A skillful surgeon must be consulted. A surgical operation may be necessary, and in addition the building up of the general vital resistance by judicious cold bathing.

Fat — Olive Oil — Menus. — W. I., Ohio: "1. Have a craving for fats. Is an extensive use of nuttol injurious? 2. Is California olive oil injurious? 3. Do the following foods form suitable breakfast menus,— apples, bread and nut butter (bread made from Lockport flour), grapes, peaches? 4. Are cocoa and chocolate healthful? 5. Are rice and barley cereals? 6. Is barley coffee healthful?"

Ans.— 1. It might be.

2. Oils and fats of all sorts are questionable articles of diet, as they are not easily digested. Fats are not digested at all in the stomach, and interfere with the digestion of other foods. Fats should be taken only in a state of emulsion. Experiments have shown that when fats are taken in a state of emulsion they are readily absorbed; whereas, when taken in the form of oil or separated fat, such as butter, suet, etc., more than half the amount taken may remain unabsorbed.

3. Yes.

4. No.

5. Yes.

6. We cannot recommend as thoroughly healthful any of the cereal coffees, because it is not wise to drink large quantities at a meal. Barley coffee is better than the ordinary cereal coffees sold in the markets, for the reason that it does not contain burnt molasses. The same may be said of caramel cereal.

Water Drinking. — Subscriber, Wisconsin: "Is it injurious to drink a pint or more of cool distilled water between an hour before and two hours after meals?"

Ans.— Water at ordinary temperature may be taken without injury an hour before the meal, for the reason that liquid foods are usually expelled from the stomach within an hour.

Watermelon — Muskmelon.— R. H. M., Wisconsin: "1. Is it injurious to eat watermelon between meals? 2. What does the juice of watermelon contain besides water? 3. What is the food value of muskmelon compared with bananas?"

Ans.—1. No; provided care is taken not to swallow the pulp. The melon consists chiefly of wood and water with a little sugar. The sweet water may be swallowed at any time, but the pulp should always be rejected.

2. Ten per cent of sugar, one half of one per cent of albumin.

3. About one third.

Watermelon — Cottage Cheese and Fruit — Cocoa and Chocolate — Rice and Barley — Barley Coffee.— O. P. R., Kansas: "1. Is watermelon a fruit or vegetable? 2. Is it a healthful food? 3. Is cottage or clabber cheese healthful if eaten with fruit?"

Ans.— 1. Fruit.

2. No, but an excellent drink. Melon should never be eaten. Only the juice should be taken; the pulp should be rejected.

3. Yes, for most persons. It is important, however, that the milk should be boiled in making cheese. It must be added that milk is not an ideal food for adults. Cottage cheese, however, is preferable to raw milk.

Dandruff — Itching of the Scalp — Nasal Catarrh.— J. A. K., North Dakota, asks for a remedy for dandruff and itching of the scalp, and for the symptoms of nasal catarrh.

Ans.— For dandruff, shampoo the scalp every morning with very cold water, rubbing the scalp with the tips of the fingers until it is well reddened. It is well to apply also a remedy consisting of napthol, twenty grains; alcohol, one ounce. This should be applied and well rubbed in at night. Nasal catarrh is usually indicated by a discharge from the nose, either through the nostrils or the throat.

Diet for Emphysema — Nuts. — K. L. C., Ohio: "1. What treatment and diet would you prescribe for a seven-year-old boy who has suffered from emphysema since an attack of whooping cough four years ago? His stomach and kidneys are affected, and he is much emaciated. 2. Can nuts be so prepared at home that they can be eaten without their causing pain in the head? 3. Can one suffering from catarrh of the liver, bowels, and stomach eat nuts?"

Ans.— 1. The boy needs very judicious treatment. He should be put under the care of a skilled physician. It would be better still to place him in a good sanitarium where a careful examination can be made, including investigation of the blood and the excretions, and where suitable dietetic and other treatment can be secured.

2. Yes. It is only necessary to eat them in the state in which Nature prepares them, after removing the shells and the skins, and taking pains to reduce every particle to a fine, soft pulp by chewing.

3. Yes, if well chewed or otherwise properly prepared.

Eggs — Food Combinations — Cream and Butter — Drinking before Meals. — B. B., Illinois: "1. Which are best for one with weak stomach, soft-boiled eggs or well-beaten raw eggs and sugar? 2. Should he eat cream and butter? 3. Which is most easily digested? 4. Are prunes and buttermilk a good combination? 5. Do prunes, figs, honey, toast, butter, and milk soup form a good combination? 6. What is the effect of drinking a little cold water about five or ten minutes before meals?"

Ans. — 1. Well-beaten raw eggs, with a little fruit juice without cane sugar.

2. In many cases cream as well as milk in all forms; butter and oil are objectionable. Fats in the form of butter or oils lessen the secretion of the hydrochloric acid, and otherwise interfere with the digestive process.

3. Generally cream.

4. Not the best, but might cause no disturbance in a healthy stomach.

5. In a slow stomach, such a combination would be likely to ferment.

6. A small quantity of cold water may be taken with advantage half an hour before eating, in cases of hypopepsia. Cold water before meals should be avoided in cases of hyperpepsia.

Analysis and Nutritive Values of Foods in Common Use. — E. H. A., Illinois, would like to know the analysis and nutritive value of all foods in common use.

Ans. — You can find such a list in "The Stomach," published by the Good Health Publishing Company, Battle Creek, Mich. Quite an extended list of foods will also be found in a little pamphlet entitled "Balanced Bills of Fare."

Phlegm Dropping from Head into the Throat — Bad Taste in the Mouth — Weak Heart. — J. J. S., Ontario: "Am troubled with a thick phlegm's dropping from head into my throat, causing a dull pain and heat on one side of the head only. Physician said it was due to an enlargement of the bone forming the bridge of the nose. Had part of it removed and throat burned, but pain still continues. There is a bad taste in the mouth, and heart seems weak."

Ans. — Your condition is one of general vital depression. You require vigorous tonic treatment. Out-of-door life, abundance of exercise, simple dietary, judicious cold bathing, will doubtless benefit you; also proper medical treatment. There may be morbid growths at the back of the nasal cavity. The nose should be carefully examined

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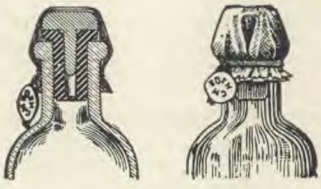

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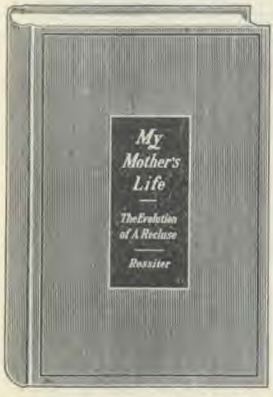

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by a good specialist. Tonic baths and exercise will strengthen the heart. Take care to thoroughly cleanse the mouth after eating, and to avoid mouth breathing during sleep.

Buzzing in Ears.— M. J. S., Hawaii, asks the cause of buzzing in the ears.

Ans.— Noise in the ears is generally the result of catarrh of the eardrum, or middle ear.

Chronic Diarrhea.— M. E. J., Iowa, asks what foods should be eaten by one who is troubled with chronic diarrhea.

Ans.— Avoid meats, butter, and especially fried foods, also coarse vegetables and condiments. Well-dextrinized cereal foods, granose, beaten eggs, rice, fruit juice, and such ripe fruits as peaches, apricots, very ripe apples, and purées of such fruits from which the skins and seeds are removed, are wholesome.

Diet — Meal Hours — Caramel Cereal — Nut Foods.— C. S., Illinois: "1. Would dates and other fruits and granose be sufficient food for one who is doing light work? 2. Can all persons become accustomed to eating two meals a day, at 8 A. M., and 3 P. M.? 3. Is there any nourishment in caramel cereal? 4. Does not one tire of the nut foods?"

Ans.— 1. Fats should be added.

2. Yes, if able to digest an ordinary amount of food.

3. No.

4. It is now possible to obtain nut foods and nuts in quite a large variety. When one is tired of nut products, the raw nuts may be used, or the nut products may be prepared in various ways. By combination with tomato or other fruits, with peas or various other vegetables or cereals, many very palatable dishes may be prepared.

Position in Sleep.— L. D. Q., Montana: "1. Why does a person sleep with the mouth open and the hands above the head? 2. What will prevent it?"

Ans.— 1. There is probably obstruction of the nose.

2. The nasal obstruction must be removed. In some cases it is necessary to close the mouth by means of a bandage or some other device.

Eczema.— C. V., California: "In addition to the general treatment for eczema suggested on page 546, September number of GOOD HEALTH, is any local treatment advisable?"

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Lime Juice — Lemon Juice — Hot-Water Bag.—W. S. S., New Jersey: "1. Is it beneficial for a person suffering with malaria to take a teaspoonful or more of lime juice on rising in the morning and on retiring? 2. Is lemon juice better than lime juice? 3. Does a hot-water bag applied to the seat of pain have the same effect as a fomentation?

Ans.—1. Yes. Such a practice would be wholesome for almost any one.

2. Not better, but equally good.

3. Moist heat generally is more effective than dry heat.

Bi-oxide of Sodium.—T. A., Connecticut: "1. Has bi-oxide of sodium the power of absorbing or neutralizing carbonic-acid gas, and of giving off sufficient oxygen to sustain life in a hermetically sealed vessel for a considerable length of time? 2. Would you recommend its use constantly or occasionally in a sick room to purify the air? 3. Would any other incidental advantages be likely to result from its use.

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Ans. — 1. This will depend upon the quantity.

2. No, the effect would be too slight to be of any advantage.

3. No.

Peanuts — Smoking — Dentifrice — Stomach Tube — Exhalation Tube — Enemata.— C. J., India: "1. How can peanut butter be prepared so as to be easily digested? 2. How can it be used to give the best results? 3. What means should be employed to avert the uneasiness which one feels upon discarding smoking? 4. Is powdered charcoal and salt in equal quantities a good dentifrice? 5. Can the marks left by smallpox be removed? 6. Were a stomach tube ordered direct from Battle Creek, what would it cost, postage included? 7. What would an exhalation tube for developing the lungs cost? 8. Should the colon be "flushed" once or twice a week with three or four quarts of warm water to insure perfect health?"

Ans.— 1. The nuts may be baked in an oven, with a large pan containing water. The nuts should be roasted only sufficiently to produce a very light-brown color.

2. To be eaten at meals in place of butter and other fats. May also be used for the seasoning of food.

3. Prolonged warm bath at 92°, taken at night, twenty to forty minutes. Cold towel bath on rising in the morning. Moist abdominal bandage to be worn at night, and also during the day if necessary. A short sweating bath two or three times a week is also helpful. Meats should be discarded, as a flesh diet encourages the appetite for tobacco.

4. No. Apply precipitated chalk with a soft brush.

5. No.

6. $1.50.

7. The Vaporizer sold by the Good Health Pub. Co., Battle Creek, Mich., is an excellent lung developer. Cost, $1.00; postage, 35 cts.

8. No. Colon flushing, unless recommended by a physician, should never be practiced.

Flashes of Light before the Eyes.— F. A. W. S., Florida: "1. What causes flashes of light to pass before the eyes? 2. Is the symptom alarming?"

Ans.— 1. An irritation of the nerves of the eye.

2. The symptom is one which should receive attention. Consult a good oculist.

Electric Belt or Battery.— E. L. M., Iowa: "Will an electric belt or battery be beneficial in the treatment of female weakness and lame and weak back?"

Ans.— No.

NOTES

from the

Literary Editor's Desk

In a new book called "Marriage," Dr. Mary Wood-Allen presents in her usual delicate and forceful style those facts concerning married life which the young wife should know.

She does not stop here, however, but tells the reader many important facts the young mother should know. One gets a very good idea of the book by the titles of the five parts into which the book is divided. Part I., General Discussion of Marriage; Part II., Physiological Knowledge Necessary to a Wise Acceptance of Marriage; Part III., Normal Pregnancy and Its Care; Part IV., Disorders of Pregnancy and Their Treatment; Part V., Care of the Child.

Not only should the young wife read the book, but the young husband will find many facts to interest and educate him. Those contemplating marriage should read the book.

In a couple of characteristic timely articles the September **McClure's** contributes to the discussion of the two great public questions which have survived the adjournment of Congress — Cuban Rec-

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Delightful After Shaving.

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Agents Wanted.

iprocity and the Trusts. William Allen White's "Cuban Reciprocity, a Moral Issue," is his first magazine article since last winter, when his health broke down, subsequent to the appearance of his famous character sketches of Platt and Cleveland.

"Attorney General Knox, Lawyer," by L. A. Coolidge, is also very much to the point as a characterization of the man in whose hands, at present, the trust question lies. Both articles are illustrated with splendid portraits.

The human side of the Martinique disaster forms the subject of A. F. Jaccaci's paper on "Pelee, the Destroyer," which, with its wonderful drawings by George Varian, gives the best picture yet published of the desolation wrought by the volcano, and of the horrible relics of its dead, and the pitiable plight of its living victims.

"Venus or Minerva?" is the last of Mrs. Martin's Emmy Lou stories, the most remarkable series of sketches of child life of the last two years. No one who knows Emmy Lou but will leave her with regret.

The important announcement is made in **The Arena** for September that the following distinguished writers and thinkers have consented to serve on that magazine as a board of associate, or contributing, editors: The Rev. R. Heber Newton, D. D.; Edwin Markham; Prof. Frank Parsons; Eltweed Pomeroy, A. M.; Prof. John Ward Stimson; George McA. Miller, Ph.D.; Ernest Crosby; Bolton Hall; Ralph Waldo Trine; George F. Washburn; the Rev. Robert E. Bisbee; F. Edwin Elwell; and Prof. Thomas E. Will, A. M. This is a new departure in periodical literature, and should result in adding to *The Arena's* standing in the intellectual world.

The expert home gardener, Eben E. Rexford, tells in **Lippincott's Magazine** for September just what the amateur wants to know about "Fall Work in the Garden." He seems to think that "a stitch in time saves nine" applies to gardening as well as to needlework.

"The function of the negro college, then, is clear: it must maintain the standards of popular education, it must seek the social regeneration of the negro, and it must help in the solution of problems of race contact and co-operation. And finally, beyond all this, it must develop men," says W. E. Burghardt Du Bois in the September **Atlantic.**

The centennial of the birth of Marcus Whitman is appropriately commemorated by an excellent illustrated article in **The Missionary Review o**

the World for September, which is aptly styled "An Historical Romance in Five Chapters."

The September **New England Magazine** marks the beginning of its twenty-seventh volume, and the nineteenth under its present ownership. An important biography in brief of Lydia Huntley Sigourney is introduced by a frontispiece portrait, in the style of her time, with Whittier's appreciative lines to her as title.

The leading article of the number seems to be Mrs. M. E. D. White's tremendously interesting account of St. Mark's and Southborough. The pictures of the beautiful church, cloisters, and school buildings that crown Holy Hill are accompanied by others of the picturesque roads running along the edges of the Burnett's Deerfoot Farm and the wide acres of Montgomery Sears's Wolf Pen. The quiet beauty and comfort of the old town, and the splendid accomplishment in character building and classical education of the school are happily shown. No wonder boys are entered at birth, in hope that they may be among the few successful applicants for vacancies in the strictly limited classes.

The number is full of good things.

The relative and particular advantages of public and private schools is a theme for discussion in the September number of **Good Housekeeping.**

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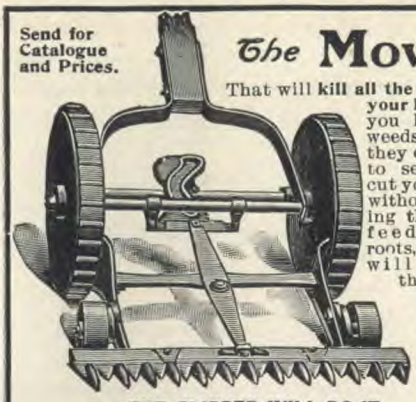

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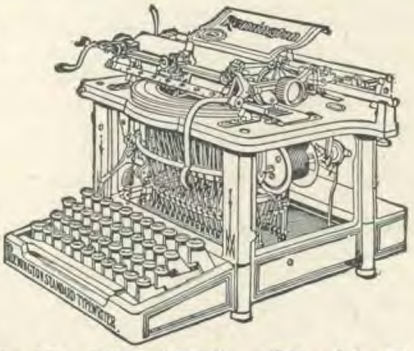

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Lansing	5.20	9.28	3.28	8.30	5.25	
Durand	6.00	10.15	4.25	9.30	6.30	
Saginaw	8.10			11.05	8.10	
Bay City	8.45			11.40	8.45	
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Flint		10.40	4.54	10.21	7.28	
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Toronto		AM 7.40	PM 1.30	PM 7.40		
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Bay City				7.25	4.00	
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Detroit	AM11.30	10.00		7.00	4.10	
Durand	PM 2.02	AM12.05	5.22	9.30	6.30	
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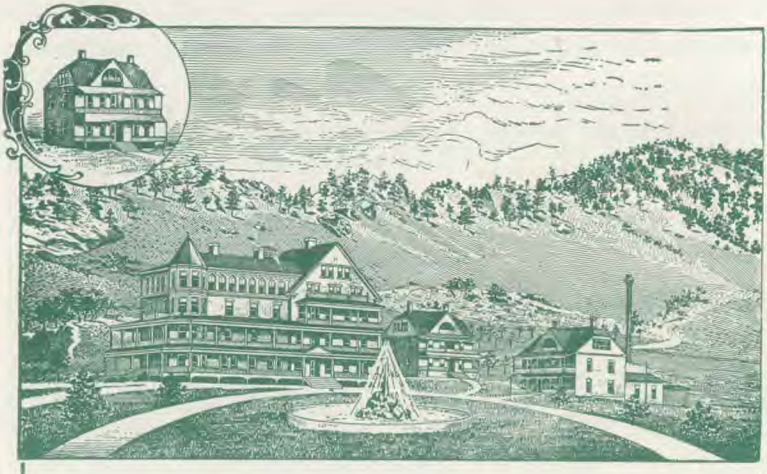

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