



## GENERAL ARTICLES.

### NERVES OF THE STOMACH.

BY A. J. SANDERSON, M. D.

THE consideration of the different forms of nervous affections of the stomach is one which has occupied much attention of late in the study of diseases of that organ. This class of affections is doubtless one of the most complex that we have to meet in clinical medicine, and we must confess that our knowledge of it is, as yet, in some respects limited. As we become more and more acquainted with the processes of disease, we are continually finding lesions, which show that it has a structural foundation, and that it is not, as has heretofore been supposed in many cases, merely a functional disorder. There are, without doubt, however, many affections of the stomach, as well as of other organs of the body, which do not depend upon structural changes of the tissues, but are brought about by perverted nervous activities. Hence, before taking up the study of nervous affections of the stomach, we will briefly consider the nerves of the organ, with their functions, and the dependence of the process of digestion upon their activity.

Probably one of the best explanations of the anatomy and physiology of these nerves is given by Dr. R. Ewald, professor of physiology of Strasburg, from which we deduce much of the following:—

The functions of the stomach consist mainly of secretion, absorption, and motion; and these separate processes must be ultimately referred to cell

activity. The final structure of all organs, as well as the tissues, is the cell, and as our knowledge of physiology increases, we find more and more that life is dependent upon individual cells, as well as upon all the cells of the body combined and united by the nervous system. It is true that the nerves regulate the cellular activities, yet experiments have clearly proven that, for a time, it is possible for cells to act when the nerves are severed from them. This individual action of the cells and tissues is much the same as the action of cells in vegetables. These have active glands and tissues, but not nerves.

The independent cell life in the body is best illustrated by the white blood corpuscles. These are movable cells, which circulate in the blood, and often wander in the tissue, performing their work of repair, and taking from the body waste and foreign particles, perfectly independent of the nerve or other connection with the system in general. Likewise all cells of the body have a specific living action, so that the walls of the stomach will secrete, absorb, and move by the inherent activity of the cells which make up the tissues. If the inner lining of the stomach be exposed by a gastric wound or otherwise, and a foreign substance be placed upon the mucous membrane, it will be seen to secrete to a limited area about the body; also the surface will become reddened by a local increase in the circulation. If the substance be some kind of food that is in a condition to be absorbed, the flow of the gastric secretion will be greater, and absorption will take place. The cells that absorb

seem to have almost an intelligent action, as they will take up certain substances and reject others. Thus fats go through the wall into certain channels, and starches into another. Certain poisons are known to pass the alimentary canal without any being absorbed. The involuntary muscles of the body are also capable of acting to a limited extent when severed from the nervous system.

But while this is true, the digestive functions are placed in direct control of the nervous system, having nerves of two sets—those which come from the brain, and those that are located in the sympathetic centers near the stomach. These nerves have the power to increase and regulate its functions, and also to inhibit the same. They also have the further power of making a telegraphic communication to all parts of the body, so that the organ may do its work to meet the demands of all the system; and, on the other hand, the entire system may be cognizant in its action of the work of the stomach. When no food is placed in the stomach to digest, the different parts of the body will by this means be aware of the fact, and will use up the fat and other stored-up material of the system to do the work of nutrition instead of waiting for nutritive elements to come from the stomach.

The nerves that come from the brain to the stomach are the pneumogastriacs. That from the left side of the brain, the smaller, runs down in front of the œsophagus, and is distributed over the front and lesser curvature of the stomach, forming the anterior gastric plexus, sending out communication to the sympathetic nerves; while the right pneumogastric goes down behind the œsophagus, forming the posterior gastric plexus, upon the posterior surface of the stomach. About two-thirds of the fibers of the latter go to other abdominal organs.

In the sympathetic nervous system we first find a large plexus just at the back of the cardiac end of the stomach, which was by the ancients considered to be the abdominal brain. About this there are several smaller plexuses, all of which together form the great solar plexus. Below the stomach are two intestinal plexuses, which are situated near the pylorus and communicate with the above.

Numerous experiments have been made upon animals by severing the nerve communication from the stomach, but from all these no definite effects upon the secretion have been observed. As far as these experiments go we might doubt the influence of those nerves. Yet we know from various

sources that the impulses that are sent through these nerves stimulate and depress the action of the glands of the stomach.

Some of the more important observations in this line were made by Richet, upon a man who had stricture of the œsophagus, and because of it he had to be fed by gastric fistula. Although it was positively proven that there was not the least connection between the mouth and the stomach, by reason of the disease, yet it was found that when the man chewed substances which had a strong taste, as sugar or slices of lemon, etc., there was always a copious secretion of the stomach, while when he was chewing other substances which did not produce such taste, the effect was not noticed.

The olfactory nerves, as well as those of taste, have the power of reflexly influencing the secretion of the stomach. This is not true of the optic nerves, although the experiment has been tried with a hungry dog by placing a piece of meat before the eyes, and gastric secretion was found to follow. This, however, is thought to be produced by the impression that the meat makes upon the mind, and through that upon the gastric function. It is this latter fact that gives rise to the "watering of the mouth" upon the thought of savory food. The secretions of the stomach may also reflexly be lessened in the same way in which they are stimulated. Unpleasant taste, smell, and sight, and even the thought of disgusting food, will cause an inhibition of secretion.

Among the various influences that are most potent in inhibiting gastric work is that of fear. It has an important influence, not only upon the stomach, but upon the whole digestive tract. It may act to cause the food to stick in the throat on account of the stoppage of the secretion of saliva and the refusal of the muscles of deglutition to act. Or the food may remain in the stomach undigested for hours, as a result of the same influence. To a less extent, worry, excitement, doubt, and an inordinate amount of business care, may have their effect upon digestion, so that its processes will to the same degree be hindered.

From the above it may be seen that the processes of secretion may be excited by a variety of nervous influences, which tend to increase its activity, or they may be depressed by as large a variety of nervous influences, which tend to inhibit its activity. Without question, it is by these means that many alterations in digestion occur, and that the foundation for disease is laid.

The processes of absorption go on in the stomach by filtration and osmosis, or, in other words, by the liquid being filtered through the spaces about the cells, or going through the substance of the membrane direct, by osmosis, as it is in the power of living animal membranes to take the fluids upon one side and diffuse them through to the other side.

Experiments have clearly shown that the nervous system has a great deal to do with these processes, not only with the quantity, but with the quality, of their work. The size of the blood-vessels, and the rapidity of the circulation into which this fluid is received, also have to do with the function of absorption, and these, again, are under the direct control of the nervous system, so in this double way the nerves have control over the function of absorption. The muscular activities of the stomach are also influenced to a great extent by the nervous system, although not entirely dependent upon it.

Doubtless the influence of these nerves upon the digestive activities is not the same in all cases, but varies according to the peculiarities of the individual. Different careful experiments have been tried, which give varied results. The contradictory results often observed in the most careful tests are not easily explained. It may, however, be because of different conditions of the individual. For instance, the person, at the time of the experiment, may be under a certain strain of worry or excitement, or may be suffering from the effects of such a strain, which influence would materially change results. Ewald also suggests that the nerves which come from the brain by the pneumogastrics are inhibitory nerves, and that the accelerating fibers are from the sympathetics. This fact is clearly proven to be true in the heart. When the pneumogastric is stimulated, the heart becomes slower, because it inhibits the action of the local sympathetic nerves, which keep up the motion. He further suggests that where the two sets of nerves are developed with equal power, the one will balance the other; but with the sympathetic nerves strengthened while the pneumogastrics are weakened, it will give rise to a lack of inhibitory power, while the local accelerating power will be increased; or the reverse might be true. These suggestions are quite probable, and it is very evident that these, or similar nervous influences, act in the great variety of conditions which are found to exist during the processes of digestion, and give rise to alteration of function.

## VENTILATION.

BY DAVID PAULSON, M. D.

DURING the summer months the question of properly ventilating our dwelling-houses need scarcely be raised, as during that time, windows and doors are likely to be left open a great part of the time; and at best, the occupants spend a considerable portion of the day in the open air. But, as the colder season is being ushered in, and windows begin to be leased and the stray crack or crevice in the wall or about the door is attended to, then it is that if the importance of providing pure air is not appreciated harm must necessarily result.

We frequently read in the newspapers of many deaths because of cholera and leprosy, but we rarely stop to consider that we have in our midst a disease that is more disastrous to human life than either of these. One out of every seven deaths in this country are caused by consumption. It was formerly supposed that this disease was transmitted directly from parents to children. We know now that this is rarely the case. Children inherit a tendency to this disease from their parents, and if they can be so favorably situated that the surrounding circumstances will not tend to fan into life this latent tendency, they have practically as good a chance as though their parents had been perfectly healthy.

It is in view of this that the question of proper ventilation assumes such tremendous importance. The habitual breathing of impure and poisonous air is one of the most important factors in the development of consumption. Impure air tends to irritate the delicate lining of the lungs, and thus a favorable soil is prepared for the germs of this much dreaded disease. The number of families wherein there are one or more consumptives is rapidly increasing, and yet this matter is given but little serious thought, and innocent children remain indoors more or less all winter in these poorly ventilated rooms, and are continually breathing in germs of disease, which will be the means of sending them to untimely graves. Impure air has a distressing effect upon the circulation, and the vitality that should be used in performing the duties of life is expended by the system in resisting a poison which is continually being forced upon it, and so the body is rendered especially liable to the inroads of fevers and other acute diseases. The whole system becomes relaxed, digestion is made slower,

and the mind gradually becomes depressed and gloomy.

As it is true that lives are continually being sacrificed in this way that should be saved for the good of humanity, it is time that earnest attention be given to the ventilation of our houses, even if it be at the expense of a little more fuel and some pains to secure a proper method of accomplishing the same. Pure air is one of Heaven's richest blessings, and should be welcomed into our homes.

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#### "LAUGH AND GROW FAT."

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"KNOW, then, whatever cheerful and serene  
Supports the mind, supports the body too;  
Hence the most vital movement mortals feel  
Is hope; the balm and life-blood of the soul."

Not long since there appeared in these pages some advice to our corpulent friends. Here is some advice to the other, and perhaps greater, half of humanity.

The kind of laugh that rounds out the figure and puts a desirable cushion all over the bones, is not a senseless te-he, but a good, round, full, happy ha-ha. The advice of our text is not merely a sentiment, it is based upon scientific facts.

In the first place, a hearty laugh presupposes joyousness. Joyousness is the normal state of being. Look at the birds. "Consider the lilies. . . . They toil not, neither do they spin." They simply take in the things that nature provided for them—the sunshine, rain, and food from the Mother Earth, and grow, lifting up their heads in beautiful flowers, and spreading out their leaves as if in thankfulness for existence and the privilege of beautifying the earth.

Nature's first lesson is *trust*—faith in something outside of ourselves. The inevitable consequence of this is freedom from care, or perhaps a better word would be "freedom from worry." As a definition for worry we quote Lilian Whiting: "Worry is a state of spiritual corrosion. A trouble either can be remedied, or it can not be. If it can be, then set about it; if it can not be, dismiss it from consciousness, or bear it so bravely that it may become transfigured into a blessing."

Take this nervous woman who has every nerve and muscle so tense that they ache with her efforts to keep her feet upon this mundane sphere; instill into her mind, so she really knows it, that there is

someone above it all who will see that she does not fall off, and you have another being, and another laugh. Oh, what a wonderful thing is faith! In place of that anxious smile, hear that happy "ha-ha," and every "ha-ha" adds just so much to the healthiness and fleshiness of that angular frame. Why?—Because faith means relaxation, and relaxation opens the way for recuperation. We become new creatures by faith, physically as well as morally. But this is not all there is to a laugh.

Let us see how it is done. In the first place we must take a full, deep breath. Unless we get a full breath the laugh will sound hollow and not very true. Now we expel the air by a series of contractions of the diaphragm. The head is thrown back, the chest forward, the mouth and throat wide open. Oh, how gladly the air rushes in to fill the lungs, and quickly performs its work!

After indulging in this one of nature's breathing exercises for a few moments, how refreshed one feels. The eyes sparkle, the blood fairly dances through the veins, the cheeks flush, the whole body is in a glow. It is not only the feeling of mirthfulness that induces these sensations (though that does its share); the exercise necessary to give expression to this feeling has even a better effect upon the human organism than methodical exercise. It not only affects the circulation but all the vital processes are stimulated, through the medium of the purified blood, also by the mechanical action of the diaphragm. There is nothing that so quickly and safely brings a liver back to its normal good nature as the gentle shaking of the sides in laughter. Let us laugh.

Laughter has a language of its own. In the vowel that prevails it often reveals the character of the individual. "A ha-ha means an honest, open-hearted person; those who laugh in an excessive, jerking way, are usually vulgar, unless the habit is acquired through association. A laugh in a dry A denotes a respectable but undemonstrative person. When the Latin E prevails, a phlegmatic, melancholy temper prevails. Timorous, unsteady people, also malicious people, laugh in a swelling I; proud, bold, imperious, bantering, persons laugh in O, and those who laugh in O O are often unreliable."

Through the body the inner life expresses itself; and through the body we reach the mind. For this reason laughing exercises are conducive, not only to physical, but to mental and moral, health. Its effect is not limited to one's self—it reaches out to

those around us. We all love to hear the merry, rippling laugh.

Not long since we noted a short paragraph in a paper stating that a certain woman, being inclined to melancholy, determined upon three daily laughs as treatment. Three times daily she disappeared and laughed heartily for some time. Her friends and neighbors, when they learned of the performance, laughed; finally they all laughed together. The ill one regained her usual good spirits, and the community became truly joyful and laughing.

Let us not only laugh, but let us cultivate a true, honest, happy laugh that shall do us good and our neighbors too. In these days of anxiety, hurry and worry, there is much need of relaxation. By this we mean more than an occasional holiday—we mean a release from tension—*resting*. Resting means "letting go." Hurry and worry make us old and wrinkled long before our time. Hurry and worry are most often the causes of American leanness. We hurry and worry ourselves into our graves, and spoil, not only what we might have been and might have done, but dwarf others by our example and influence. Let us look up, not down. Remember, right thoughts are not only a moral duty, but a physical duty as well.

"Renew your nature. Lay aside the swaddling bands of your imperfections, conform your lives to the highest ideals of uprightness and truth. Exercise your voice, your articulation and your gestures." Do not fear the fracture or dislocation of your limbs as you seek to render them supple. Beneath the rind of this mechanism, this play of organs, dwells a vivifying spirit. Beneath these tangible forms of art, the divine lies hidden, and will be revealed.

"Most bodies are a mass of scars, the left-over pieces of past cares. And what is more deplorable, it is easiest to express ugly and nervous feelings, so that finally a man finds that the complicated harmonies expressive of higher aims, fall into disuse. 'The cup and saucer is broken, and we go around with the pieces of broken china in our face and voice all day.'"

It should continually be kept in mind that the more vigorous, the more perfect, and the more healthful a man's digestion is, the more vigorous will he be in mind or body, if not both; so whatever he does to weaken and disease the stomach, he does that much towards impairing mind and body; towards depraving the race; towards degrad-

ing it in the direction of the mere animal and the idiot. A farm life, or any active outdoor exercise after a day of sedentary work, tends to perfect digestion; city life, as it is usually lived, with its inactions and intemperances, impairs the digestion. Work, and plenty of it, is really beneficial to a healthy mind in a healthy body. Everybody knows that the faster a machine runs, the faster will it wear out, but this is not necessarily true of the mind. The latter had a different and a higher architect. The consequence is that the more a man works, the more and better he can work; the more he thinks, the more and better he can think, provided always that he gives enough attention to his body to keep it in perfect condition. Statistics show that the busiest men live the longest, whether it be in the line of physical or mental energy.

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#### SOMETHING ABOUT BACTERIA.

BY E. G. WOOD.

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BACTERIA is the name given to a lowly group, which, with much study and investigation, are classified as plants. They are so small as to be quite invisible to the naked eye, and it is comparatively a short time that they have been known to man. For one to form a conception of their size, it is necessary that they should be compared with some known object. Placed in a row, it would take fifteen hundred of these minute organisms to reach across the head of a pin. Under the microscope they appear to be made of a slightly granular material, surrounded by a denser membrane or capsule, and are pale, translucent bodies. In order that one may study them satisfactorily it is necessary that they should be stained with some of the aniline dyes.

These little bodies vary greatly in shape. Some have the form of spheres, while others have the form of straight and spiral rods. Some change in shape as development goes on. Warmth, moisture, oxygen, and a certain amount of organic matter, are necessary for their growth. It has been found that under the most favorable circumstances, a single bacteria will divide and subdivide until it has produced sixteen million, five hundred thousand, of its kind in twenty-four hours. These will continue to multiply in like manner as long as they are favorably environed.

We find that many varieties have the faculty of self-movement. They will carry themselves in all manner of ways across the microscopic field. Some vibrate in themselves, and appear to move, while others have small, hair-like projections at the sides and end which are called flagella. These are kept in constant motion, and in this way locomotion is attained.

These bacteria are really simple forms of cells. They move, they nourish themselves, and grow. They have the power of carrying on their nutrition, and reproduce their kind. They are ever making chemical changes in dead organic matter, rendering it available for the use of other living things.

In the study of bacteria we find them separated into two general divisions, viz., the pathogenic, or those which produce disease, and thrive best in the living organism; and the non-pathogenic, which subsist entirely upon dead organic matter.

The latter, which we will call household bacteria, are mild and harmless in their action. They consist of many varieties, and their function is an important one, being indispensable to the continuation of the higher forms of life. Hence they may well be called man's invisible friend. When that process known as putrefaction or decay begins, by which the old combinations of matter are broken up and the materials set free for the use of other life, just here the bacteria enter. It is they who tear asunder these old organic compounds, give us hydrogen, nitrogen, oxygen, and carbon, to keep our life furnaces going. So common and abundant are these bacteria that we are constantly taking enormous numbers of them into our system, with all our uncooked food. We should not think of them as unclean and unwholesome, for they are only simple cells. Nearly all the food we consume is made up of cells. We can not eat a bunch of grapes or an apple without taking in thousands of these little organisms. There is really little difference in the cells of the fruit and the bacteria; both are alike worked over by the digestive organs into nutritive material for the use of the body. Milk is a most excellent food for many forms of bacteria. The most common forms are those which cause it to become sour, by breaking up the sugar in the milk, forming lactic acid and carbonic acid gas, and precipitating the casein. There are also other kinds which form butyric acid, giving it a rancid odor, while other forms give to cheese its various flavors. Many forms of bacteria

produce various odors; some noxious gases, and others sweet, sour, and aromatic odors, which eventually go to sustain either plant or animal life. There is also the potato bacillus, and those which produce red and various colored spots upon decomposing fruit and vegetables. Also those that produce mold upon cake, bread, and damp walls. Alcohol, lactic acid, and yeast are the result of germ fermentation. Fruit is sterilized and hermetically sealed for the purpose of avoiding the fermentation caused by these germs.

There are also many bacterial curiosities—those which produce the beautiful phosphorescent lights, tinted with green, blue, and yellow. Sometimes they are seen on decaying wood and plants; sometimes bay and inlets are fairly illuminated by them, and storehouses containing fruit, meat, and vegetables have been illuminated by these peculiar bacteria. In times past such a manifestation was looked upon as somewhat supernatural, but at present they are simple enough of explanation. There are various kinds of bacteria which produce beautiful florescent colors of green and red, and it is said that these may be so cultivated that their color may be changed as the florist changes the color of the pansy by cultivation.

There are some varieties of bacteria that can not exist together. One kind kills out the other as soon as they come in contact. It is probably due to some poison which they form that gives them possession of the field. There are also other kinds that can not live separately, as the action of one liberates materials upon which the other feeds and grows.

Their resistive power is wonderful. Some will stand to be frozen in ice indefinitely, while others will stand a considerable degree of heat and cold, but few survive alternate freezing and heat, or exposure to the rays of the sun for any length of time. There are other varieties which thrive best at a freezing temperature, also some that thrive best at a very warm temperature. But the majority are more adapted to a warm temperature. We also have the aerobic bacteria, which grow entirely in the air, and the anaerobic, which grow without air; also others that have the faculty of existing under both conditions. These are termed facultative. We have told something of the peculiarities of household bacteria, and will at some future time say something of the pathogenic variety of germs.

## BATHS AND BATHING.

BY PROF. DELOS FALL.

THE man who complacently boasted that "water had not touched his back for forty years" still lives. He enjoys comparatively good health, and apparently is destined to live on to a good old age. He would not, however, be held up as an example of what may be brought about by simply neglecting the bath, but rather he would at once and by every one be roundly condemned as a product of some dark age and not the result of the teaching of the present. Still it is true that many all around us differ only in degree from this man in the estimate which they place upon the value and the necessity of the bath. Only a comparatively few fully appreciate the need of a frequent and thorough cleansing of the entire outer surface of the body. Regular bathing, so far as the people of this country are concerned, is a habit of quite modern adoption.

Consider for a moment the complex apparatus affected by the bath and the enormous amount of work which is carried on when this apparatus is allowed to do its work perfectly. If the reader will examine the palm of his hand carefully with a common pocket lens, he can see the mouths of many "pores," as they are called. They are the openings or mouths of the perspiratory ducts leading from the perspiratory or sweat glands. These glands, situated as they are on the under side of the true skin, have as their proper function the elimination from the blood of certain impurities and to cast these impurities out of the system. They constitute one of the three important sets of organs of excretion, and aid the lungs and kidneys in carrying on this very important step of the nutritive process.

What organs of the body are more important than these? Does liver or stomach, do the kidneys or lungs, stand more vitally connected with our life or welfare than these? We think not. They are found in all parts of the body and in incredible numbers. They are of different sizes, ranging from one fifteen-hundredth of an inch in diameter on the palm of the hand to one-sixtieth of an inch under the arms. The tubes leading from these glands are about one-seventeenth of an inch in diameter, perfectly straight in the true skin, but, curiously enough, when they enter the rough scarf skin their course is tortuous or spiral.

On every square inch of the hand there are at least twenty-five hundred of these perspiratory ducts. They are each about a quarter of an inch in length, and hence it will be seen that the amount of tubing on each square inch is about fifty-two feet. Through this tubing waste matter is flowing constantly day and night. This is for one square inch on the surface of the hand. If, now, we reckon twenty-five feet as the length of these tubes on the average for each square inch of the entire body, and 2,500 square inches as the surface of the body of a man of ordinary size, a simple arithmetical process gives the very remarkable result of an aggregate length of at least twelve and a half miles of sewerage.

What is the material, and how much of it passes out of these sewer mouths? We answer that between two and three pounds of waste matter, consisting of water, alkaline salts, and urea, is thus thrown off every day. While the liquid portion of this evaporates, the solid material is left upon the skin, and thus, if the skin is moderately active, forms a layer which may be likened to varnish or sizing.

Such considerations will at least make the reader thoughtful as to the necessity of frequent baths. What the character of the bath should be and how to adapt the time and temperature of the bath to the particulars of the system existing at the time of taking the bath are matters equally important, and should be scientifically understood before they are put into practice.—*Annals of Hygiene*.

## THE DANGER OF SMALL WOUNDS.

MANY lives are lost each year in consequence of the lack of a little common sense about simple cuts and wounds of the hands or other parts. Several cases have been recorded in our newspapers of inquests on persons who have died from blood-poisoning from small cuts on the hands. A man, for example, while working at his trade, or even while cutting a piece of bread, receives a cut on the hand; it scarcely calls for notice; anything is good enough with which to stop the bleeding, and the small wound is left to take care of itself. As long as wounds, however small, remain unhealed, the risk of contracting blood-poisoning will always be present. Cuts should have some dressing, vaseline answering in most cases, and be tied

up in linen; or, at least, have court-plaster on till the skin heals. By the way, court-plaster should never be wet by the lips to convey acid saliva or germs from the mouth. To be perfectly safe, plaster should be kept in wax paper, and wet in boiling water.

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#### SOME HELP WE GET FROM MICROBES.

ORDINARY digestion is performed in the stomach and the intestine by means of soluble ferments secreted by the organic cells which attack alimentary substances, dissociate them, and render them assimilable, and this is perceived to be a function very similar to that of microbes. The digestive passages, however, contain immense quantities of microbes continually brought in with the food, multiplying infinitely, and performing exceedingly complex offices. Even if we take up only a few of these offices, we are compelled of necessity to assume that they intervene in digestive operations, either as aids to the organic diastases or as themselves effective agents. M. Duclaux, insisting on this point, has remarked that some celluloses are capable of being attacked only by microbes, no organic juice having sufficient strength to affect them. M. Pasteur did not believe in the possibility of digestion in a medium completely deprived of microbes.

Of the chemical activity of microbes, what we know is as nothing in comparison with what it may be. Every species, every race, every variety of microbe is charged with a special function. The division of labor is carried among them to its extreme limits, so much so that in any chemical reaction each microbe takes its part in producing the process at different stages. Each variety has its duty in the work, determines a partial dissociation of the material, which another species completes, and so on to the extreme simplification of organic matter, reduced to its elementary constituents or to such conditions as to be assimilable by the plant.—*Selected.*

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#### BODY AND BRAIN WEARINESS.

DR. MILLER tells us that the body is wearied more quickly when the mind is tired.

"The child fatigues much more readily—that is, his organism is more quickly depleted and poisoned

—during the periods of most rapid growth. The average boy has his most rapid growth between the ages of fourteen and sixteen. In these two years he increases in weight by as much as he did during the entire six years preceding the age of fourteen. At this period of most rapid growth, the period of pubescence, the brain loses considerable weight, because of the fact that the usual blood supply is lessened by a portion being withdrawn to nourish the viscera and other organs undergoing rapid revolutional changes during this period. While the weight of the brain is but one forty-fifth of that of the whole body, it requires one-eighth of all the blood to nourish it.

At no time in his whole school career is the boy so deserving of sympathy as at the time of most rapid growth. In all learning, two features are involved: Proper presentation of material by the teacher, and proper attitude of mind on the part of the pupil. Seldom, if ever, can the latter condition be supplied by the boy or girl in the midst of the physical and mental revolutions and evolutions of pubescence.

"The great curse of this age is the demand for rapid education. Parents and teachers crowd the children through a long, hard year's work. Health is sacrificed for promotion. What is learned while a child is fatigued is soon lost, the mind's forces being equally dissipated. Vital force is required faster than it is generated. The work of to-day is done on to-morrow's credit, and the system of a child is wholly at a loss to protect itself against disease and accident."—*Journal of Hygiene.*

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#### HEADACHE DUE TO TRAVEL ON RAILROAD TRAINS.

DR. A. N. BLODGETT, in discussing the subject of ocular headaches, referred to a form of headache resulting from travel on railroad trains, which he thought was more frequent than generally supposed. Treatment by any of the methods usually employed is generally without benefit. An explanation was once given him by Mr. Fox, the consulting engineer intrusted with the construction of the railway tunnel beneath the river Mersey at Liverpool. In the journey between Liverpool and London Mr. Fox incidentally made the remark that he always sat with his back toward the engine. The English cars are built with

transverse compartments on a fixed seat, and therefore half the persons in a compartment are forced to sit with the back toward the engine.

Mr. Fox stated that he always took that position, from the fact that his eyes were thereby rendered much more comfortable during the journey. He thought that was due to the avoidance of the repeated and sudden strain in the accommodation which is rendered necessary if one is looking at a series of rapidly approaching objects, as when traveling in the train. The effect was like a blow upon the eye.

If the traveler be looking backward the object would be constantly receding, and the strain of accommodation was continually letting up, and caused no discomfort whatever. That seemed to be a very ingenious and logical explanation why some people suffer from headache and vertigo in railroad traveling. Since that time he has directed car-sick travelers to ride backward, and has adopted this method himself, with the greatest comfort.—*Boston Medical and Surgical Journal.*

#### HOW DIPHTHERIA SPREADS.

A SERIOUS epidemic of diphtheria in Detroit, Mich., among school children, was traced to the changing of lead pencils. At the close of school each day all pencils were deposited in one box, and the next day distributed again among the pupils. The disease was spread by the habit of putting pencils in the mouth, as all children do. Thus an infected pencil would serve to infect several children. Such a rule in a school should be abolished.

In a county in this state was a family of nine children who had passed through a siege of whooping cough; became nearly convalescent; with their parents, visited a relative several miles distant New Year's day, and one, a babe, took cold. During the evening the babe was held several hours by a woman from another county, in whose family two deaths had recently occurred from diphtheria. The babe was immediately attacked with diphtheria and died, and the other children exposed, with the probability that not one will escape. A person who thus knowingly exposes another to a contagious disease is no less guilty of an attempt to kill than he who puts poison in food or drink, and they should be made to suffer a like penalty.—*Iowa Monthly Bulletin.*

#### THE USE AND ABUSE OF THE BRAIN.

IN the course of an address on this subject, Dr. Wm. A. Hammond recently said; "Anxiety causes more brain disorders than any other agency I know of unless it be love. Many jokes are made about the gray matter of the brain, but I will say right here that I have a great respect for the gray matter of the brain. There is no higher organism than that. It is the grandest organ in man, and were I ever to worship anything it would be a portion of the gray matter of the brain. It is well for us to know that the emotions cause more unhappiness and crime than any other function of the brain. Human beings are governed by their emotions, and it is well that they should be, though it is the emotions that wear away the brain, and not honest, intellectual work. Very few people suffer from intellectual work; and if my memory serves me I do not recollect ever having a mathematician for a patient. It is not intellectual work that causes nervous dyspepsia, but the emotions, such as anxiety, fear, sorrow and love. I consider that eight hours are sufficient for a man to use his brain, because if he exceeds that time he becomes nervous and fretful, and an exhausted brain is an irritable brain. You may not feel the evil effects of the stress of brain work at the time, but you will sooner or later, when it is too late. The men that work at night with their brains are the ones that expose themselves to danger and death, which will surely come unless the great strain on the mind is lightened."—*Selected.*

#### BOYS OUGHT TO KNOW

1. THAT a quiet voice, courtesy and kind acts are as essential to the part in the world of a gentleman as of a gentlewoman.
2. That roughness, blustering, and even foolhardiness are not manliness. The most firm and courageous men have usually been the most gentle.
3. That muscular strength is not health.
4. That a brain crammed only with facts is not necessarily a wise one.
5. That the labor impossible to the boy of fourteen will be easy to the man of twenty.
6. The best capital for a boy is not money, but the love of work, simple tastes, and a heart loyal to his friends and his God.—*Selected.*

# Mother's Helper

## AT TWILIGHT.

I HEAR the sound of a soft footfall,  
A laugh that is elfin sweet,  
A lisping word and a cooing call,  
As down the length of the shadowy hall  
Falter her baby feet.  
She pauses a-tiptoe at the door,  
With her bonny eyes ashine.  
Her face holds wisdom beyond my store,  
And I clasp her close to my heart once more,  
With her fair little cheek to mine.

But my arms clasp only the empty air,  
The lullaby dies unsung.  
I lose the gleam of her golden hair,  
And the little face, so childish fair,  
And the lisp of her baby tongue.  
And then I remember; she lies asleep;  
Her story has all been told;  
And whether I wake, or whether I weep,  
There still is a mystery strange and deep,  
Which time can never unfold.

But I sometimes fancy I catch the gleam  
Of her hair in the still of the night,  
And the lilt of her hand in a pale moonbeam,  
Or her eyes meet mine in a waking dream  
As I sit in the dim twilight.  
'Tis then, I fancy, she turns her face,  
That has grown so heavenly fair,  
From where she stands in that shining place,  
And looks toward me through the starry space,  
With the smile that the angels wear.

—*Good Housekeeping.*

## THE SICK BABY.

### ACUTE CORYZA OR, COLD IN THE HEAD.

PERHAPS there is no affection more common in infancy, especially during the winter season, than the one named, known to most nurses of small children as "sniffles." Because it is such a common and apparently trifling affection, very little attention is paid to it, and yet trifling as it

seems, it is often very serious in its consequences, and should not be neglected.

It consists in acute inflammation of the mucous membrane lining the nasal passages. It should be remembered that in young infants the nose, and consequently the nasal passages, are relatively smaller in proportion to other parts of the face, than in the adult. For this reason, a slight swelling produces a serious obstruction.

An attack of coryza is usually ushered in by a slight fever. This stage usually passes off unheeded, and the first symptom noticed is a watery discharge from the mucous membrane of the nose. When this begins, the primary fever usually subsides; and in the case of the infant at the breast, nursing is sometimes very much interfered with, and the pangs of hunger are added to the discomfort of the swelling of the nasal passages and inability to breathe. The watery discharge characterizing the second stage of the affection contains almost all the salts of the blood and is irritating, and on this account is very apt to produce soreness of the upper lip. In a few days the discharge becomes thick and yellowish in color, and the obstruction to the respiration is thereby increased. The symptom of fever usually again appears, and the child will, if old enough, complain of headache and loss of appetite, restlessness at night, listlessness and disinclination to play in the day time. A slight hacking cough, with gagging or even vomiting, is apt to attend this stage of the disease, and the inflammation is very likely to extend to the pharynx and larynx, and even the trachea and lungs, precipitating an attack of bronchitis, which, in young children, is not an innocent thing to deal with. Very often the inflammation extends through the tear ducts, to the eyes, and also through the eustachian tubes to the ears, producing earache.

With proper care, the ordinary non-infectious cases will grow gradually less, until, in the course

of ten days the little sufferer will be apparently relieved. Unless care is taken, however, there is a low grade of inflammation left behind oftentimes, which makes a second attack more easy, and leads to chronic catarrh. In some cases the coryza persists, being due to constitutional debility, or it may be the result of necrosis of the bones. When this occurs we may suspect that the child has inherited some specific disease from the parents. Persistent coryza may be due also to the growth of little mucous tumors in the nose. For these reasons, if the discharge is long continued, very careful examination should be made.

The causes of acute coryza, in the majority of cases, are the chilling of the surface of the body, either by direct exposure of the surface or by wetting of the feet; and in young infants it is often the results of allowing the surface of the body to remain damp after bathing, or exposure to drafts when uncovered. Insufficient clothing is a common cause, also neglect in changing the soiled or wet napkins, especially of children who are just able to walk about in short clothes, or creep. Kicking off the bedclothes at night, and more frequently insufficient ventilation in the bedroom, are causes of coryza in older children. A number of cases have been observed where the cause could be traced to the exposure of the eyes to too bright light, the inflammation being first induced in the eyes and communicated to the nose, either directly through the tear ducts, or by reflex nerve action. Gastric and intestinal irritation, caused by indigestion, or the presence of worms in the bowels, are sometimes factors in the production of this disease; and finally, the introduction into the nasal passages of foreign bodies, as peas, beans, shoe buttons or small pebbles, which many children seem possessed to push up their nostrils, may give rise to these symptoms, which, like those of syphilitic origin, become prolonged, and the discharge bloody and having a bad odor, and unless they are removed, will finally result in necrosis of the bone. A very careful examination should be sought, and can be procured usually by bending the head well back and reflecting into the nostrils a bright light. If not quickly overcome, however, the child should be taken to a specialist and the nasal passages thoroughly examined by means of instruments.

As far as treatment is concerned for the ordinary acute coryza, the measures are very simple. The patient should be kept as quiet as possible in

a warm, but thoroughly ventilated, room. If an infant at the breast, and feeding is interfered with, it should be fed with a spoon, so as to supply the nourishment that can not be obtained in the usual manner.

In these cases, as well as in older children, it is well to cleanse the nostrils three or four times a day with a spray or atomizer or small swab of absorbent cotton gently applied on the point of a small stick. There are many disinfectant solutions recommended for this purpose, but a saturated solution of boracic acid is always obtainable and safe in the hands of anyone, and quite as good in its results as the more complicated prescriptions. The diet should be very simple, limited in most cases to simple bread and milk.

The rim of the nostrils and the upper lip, also the bridge of the nose, should be kept well covered with some kind of ointment. The ordinary vaseline or cocoa butter does very well. Sweet oil, with a little camphor or menthol, is excellent. Cuticura salve also serves the purpose very well.

As soon as the symptoms of the disease are noticed, a warm bath may be given with profit; however, in order that this should be safe, it should be administered with great care, and the little one must be thoroughly protected on being removed from the bath. It is well to put the child into water the temperature of the body at first, gradually increasing the heat until the child perspires. This should be administered, of course, in a warm room. If it is a young baby, it may be wrapped while in the bath, in a piece of thin flannel. It should be removed from the bath and placed in a flannel blanket. The head should be kept cool. It should be kept quiet, wrapped in the blanket for some little time, allowing the sweating to continue. In most cases, in infants especially, this procedure so reduces the congestion of the mucous membrane, temporarily at least, that the child will fall asleep. Gradually the wrapping should be removed, the child cooled off, and then, before a warm fire, should receive an inunction of warm sweet oil or cocoa butter, special pains being taken to apply the oil to the spine, soles of the feet, bridge of the nose and forehead.

In case the disease is infectious, a stronger disinfectant is needed. Application to a skilful physician should be made in such cases, as the child will require constitutional treatment. When the trouble is due to the presence of foreign bodies, these, of course, must be removed before we can

expect any relief. After remaining in the passage so long as to produce trouble of this kind, it will be necessary for them to be removed by the hand of a physician. Mucous tumors also have to be removed in the same way, and their seat well treated.

The preventive treatment of acute coryza in young children should claim our attention most seriously, especially at the time of year when colds are most likely to be induced. This consists of proper care of the digestion by regular, systematic and hygienic feeding; proper bathing, which should be frequent and with tepid water; care in the matter of exposure, especially after a warm bath, or when the head is wet. We believe this is very frequently the cause of chronic catarrh as well as acute coryza. The habit of wetting children's hair for the purpose of combing, just before letting them go out into the cold air of the morning, should be avoided. Protecting the feet and ankles in wet weather is important.

H. S. M.

#### LESSONS IN NATURE FOR LITTLE ONES.

WE have learned much about the beautiful flowers and leaves of the plants and trees with which our earth is ornamented, but have we thought how these plants and trees grow? We have learned that they come from the little seed, which it is the purpose of the plant to produce, but how is it that this tiny seed becomes the large tree or plant so many thousand times as large as itself?

In order to understand this, we shall have to remember a few of the things we have learned about the seed in our lessons long ago. The little seed, or ovule, as it is called before it is separated from the plant, we remember, is held in the bosom of the ovary, which has attached to it a pistil, which receives the pollen from the stamen of the flower. In this little ovule, if we will examine it carefully under a powerful microscope, we will find a tinysack, or bladder-like body, perhaps less than one one-thousandth of an inch in diameter. Can you think how small that is? Very much smaller than the head of a pin. This little spot is called the embryo, or beginning of the new plant, but it alone would never amount to anything more than a grain of soft pulp unless it was acted upon by the pollen, which we have learned comes down the little tube of the pistil. This pollen, when it touches the surface of this little sack, in some unex-

plained way which no one yet has been able to understand, causes a body of soft pulpy matter to form a membranous coat, which itself expands into a vesicle, and is the germ of the embryo. Together these form what a botanist calls a cell. These are tiny round bodies, with a very delicate membrane on the outside, and on the inside a pulpy liquid in which there are minute grains, which are called the nuclei.

Now we are prepared to understand how growth takes place. When the seed containing this tiny cell is placed in favorable conditions—that is, where it will have warmth and moisture, this single cell enlarges and finally divides by means of partitions forming inside. After increasing and dividing a number of times, the little embryo begins to shape itself, the upper end forming the root, while the other shows a notch between the lobes, indicating that from this portion the little leaf shall spring. The continued growth of the little plantlet is simply a continuation of this process, and the plantlet is merely a very large number of these little cells. This can be seen by magnifying any part of a very young plantlet. The roots are more transparent than any other part, and show the cells more plainly. Thus it is that the plant is a kind of structure built up from these little individual cells, something as a house is built of brick, only the cells are not brought to the forming plant, but are made in it and by it. In the plant or in the fruit (which also is made up of these cells), the cells are united. In some soft fruits, however, the cells separate when the fruit ripens. In some parts of the plant the cells are pressed very tightly together, without any spaces between them, while in other parts of the same plant, or in other plants, they are loosely held together, with large spaces between them, as we told you last month is the case in the under side of green leaves.

The size of these cells varies from one three-thousandth to one five-thousandth of an inch in diameter. When we remember that some plants grow very rapidly, as, for instance, the flowering stem of the century plant, we can understand how rapidly nature must work. In the plant referred to the stem sometimes grows a whole foot in twenty-four hours, and becomes about six inches in diameter. This, supposing the cells to be an average of one three-thousandth of an inch in diameter, requires the formation of over twenty thousand million cells in a day.

The walls of the cells are almost always colorless. The green color of the leaves and young bark and all the brilliant hues of the flowers, are due to the coloring of the contents of the cells, which is seen through the transparent walls. At first the cell walls are always very thin, and in the soft part these remain so, but in some parts of the plant they become very much thickened and firm, and sometimes the whole cell is filled up solid. This is true in the stone of the peach and apricot.

Although these cells have no holes in them whatever, yet the sap and all the juices are conveyed from one end of the plant to the other through these closed cells. Sometimes they assume strange shapes, being pressed by each other into forms having twelve or six sides. Sometimes, as in the hairs of plants, they are drawn out into tubes, or these hairs are composed of a row of cells growing one upon the other.

H. S. M.

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#### GIVING ADDED VALUE TO A CHILD'S CHRISTMAS.

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THERE are gifts, and gifts; there is giving and giving; and the parent who feel that his duty to his child is ended when he has heaped upon him gifts from the abundance of his purse, or from the hard savings of days or weeks, has sadly mistaken his duty to his child. Christmas gifts have a greater or less value in the eyes of the child according to the measure of the giver's self that is given with them. H. Clay Trumbull, in a chapter upon this subject, says: "It is not that children intelligently prize their gifts as older persons are likely to, in proportion as they read in them the proofs of the giver's loving labor in their preparation; but it is that the children's Christmas gifts by themselves are of minor value in comparison with the interest excited in the manner of their giving. Through labors that really represent the giver's self, whether the children perceive it or not, the Christmas stocking and the Christmas tree give added value to the gifts that they cover, and neither tree nor stocking can be made ready for Christmas morning without patient and loving labor on the part of the parents the night before. It takes time and work and skill to make the most for the children of the Christmas morning, but it pays to do this for the darlings while they are still children. They will never forget it, and it will be a precious memory for

them in all their after life. It is one of the child-training agencies that the parent ought to be glad to use for good. It matters not whether the home be one of abundance or of close limitations, whether the gifts be many or few, costly or inexpensive,—he who would make children happy must do for them and with them, rather than merely give to them. He must give himself with his gifts, and thus imitate and illustrate in a degree the love of Him who gave Himself for us, who is touched with a sense of our enjoyments as well as our needs, and who, with all that He gives us, holds out the expectation of some better thing in store for us that passeth knowledge and understanding, but which shall fully satisfy our hopes and longings when at last we have it in possession."

H. S. M.

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#### CHILD-TRAINING: WHAT IS IT?

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THE term "training," like the term "teaching," is used in various senses; hence it is liable to be differently understood by different persons, when applied to a single department of a parent's duties in the bringing up of his children. Indeed, the terms "training" and "teaching" are often used interchangeably, as covering the entire process of a child's education. In this sense a child's training is understood to include his teaching; and, again, his teaching is understood to include his training. But in its more restricted sense, the training of a child is the shaping, the developing, and the controlling of his personal faculties and powers; while the teaching of a child is the securing to him of knowledge from beyond himself.

It has been said that the essence of teaching is causing another to *know*. It may similarly be said that the essence of training is causing another to *do*. Teaching gives knowledge. Training gives skill. Teaching fills the mind. Training shapes the habits. Teaching brings to the child that which he did not have before. Training enables a child to make use of that which is already his possession. We teach a child the meaning of words. We train a child in speaking and walking. We teach him the truths which we have learned for ourselves. We train him in habits of study, that he may be able to learn other truths for himself. Training and teaching must go on together in the wise upbringing of any and every child. The one will fail of its own best end if it be not accompanied by the other. He who knows how to teach

a child, is not competent for the oversight of a child's education unless he also knows how to train a child.

Training is a possibility long before teaching is. Before a child is old enough to know what is said to it, it is capable of feeling, and of conforming to, or of resisting, the pressure of efforts for its training. A child can be trained to go to sleep in the arms of its mother or nurse, or in a cradle, or on a bed; with rocking, or without it; in a light room, or in a dark one; in a noisy room, or only in a quiet one; to expect nourishment and to accept it only at fixed hours, or at its own fancy,—while as yet it cannot understand any teaching concerning the importance or the fitness of one of these things. A very young child can be trained to cry for what it wants, or to keep quiet, as a means of securing it. And, as a matter of fact, the training of children is begun much earlier than their teaching. Many a child is well started in its life-training by the time it is six weeks old; even though its elementary teaching is not attempted until months after that.

There is a lesson just at this point in the signification of the Hebrew word translated "train" in our English Bible. It is a noteworthy fact that this word occurs only twice in the Old Testament, and it has no equivalent in the New. Those who were brought up in the household of Abraham, "the father of the faithful," are said to have been "trained." Gen. 14: 14. A proverb of the ages gives emphasis to a parent's duty to "train" up his child with wise considerateness. Prov. 22: 6. And nowhere else in the inspired record does the original of this word "train," in any of its forms, appear.

The Hebrew word thus translated is a peculiar one. Its etymology shows that its primary meaning is "to rub the gullet;" and its origin seems to have been in the habit, still prevalent among primitive peoples, of opening the throat of a new-born babe by the anointing of it with blood, or with saliva, or with some sacred liquid, as a means of giving the child a start in life by the help of another's life. The idea of the Hebrew word thus used seems to be that, as this opening of the gullet of a child at its very birth is essential to the habituating of the child to breathe and to swallow correctly, so the right training of a child in all proper habits of life is to begin at the child's very birth. And the use of the word in the places where we find it, would go to show that Abraham, with all his

faith, and Solomon, with all his wisdom, did not feel that it would be safe to put off the start with a child's training any later than this.

Child-training properly begins at a child's birth, but it does not properly end there. The first effort in the direction of child-training is to train a child to breathe and to swallow; but that ought not to be the last effort in the same direction. Child-training goes on as long as a child is a child; and child-training covers every phase of a child's action and bearing in life. Child-training affects a child's sleeping and waking, his laughing and crying, his eating and drinking, his looks and his movements, his self-control and his conduct toward others. Child-training does not change a child's nature, but it does change his modes of giving expression to his nature. Child-training does not give a child entirely new characteristics, but it brings him to the repression and subdual of certain characteristics, and to the expression and development of certain others, to such an extent that the sum of his characteristics presents an aspect so different from its original exhibit that it seems like another character. And so it is that child-training is, in a sense, like the very making of a child anew.

Child-training includes the directing and controlling and shaping of a child's feelings and thoughts and words and ways in every sphere of his life-course, from his birth to the close of his childhood. And that this is no unimportant part of a child's up-bringing, no intelligent mind will venture to question.—*From H. Clay Trumbull's Hints on Child-Training.*

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#### THE CHILDLIKE HEART IS ALL.

BY J. G. WHITTIER.

We need love's tender lessons taught  
As only weakness can;  
God hath his small interpreters,  
The child must teach the man.

We wander wide through evil years,  
Our eyes of faith grow dim;  
But he is freshest from his hands  
And nearest unto him!

And haply, pleading long with him,  
For sin-sick hearts, and cold,  
The angels of our childhood still  
The Father's face behold.

Of such the kingdom! Teach thou us,  
O Master most divine,  
To feel the deep significance  
Of these wise words of thine!

The haughty eye shall seek in vain  
 What innocence beholds;  
 No cunning finds the key of heaven,  
 No strength its gate unfolds.

Alone to guilelessness and love  
 That gate shall open fall;  
 The mind of pride is nothingness,  
 The childlike heart is all.

—Selected.

### WHAT CAN A MOTHER DO?

THIS question has confronted many a maternal heart when her first-born, having lost all control of himself, if indeed he ever had any, lies kicking and screaming on the floor before her. A writer in *The New Crusade*, quoting the suggestion of a prominent kindergartener, answers the question with such wisdom that we copy for the benefit of our readers:—

“Shall we punish him? As well put out the fire with kerosene. Shall we reason with him? As well reason with Vesuvius in full flow. Shall we try to soothe him with kind words and caresses? As well pat a cyclone on the back and coax it to be still. No, I assert boldly that the only thing to be done at this juncture is to let the child alone, to leave the room entirely.

“After the outburst is over, what shall be done? Obviously, find out the cause of the disease if possible, and, if we be the offender, repent of it in anguish and bitterness, and strive to cast out the devils which we ourselves invited in.

“In the first place—and this, I contend is not weakness, but common sense—try not to enter into controversies with him, avoid provocation, and endeavor to ward off absolute issues. Distract his attention, try to get the desired result in some other way, but give no room for an outburst of temper if it can be avoided.

“Don’t fret him with groundless prohibitions; don’t speak to him quickly and sharply, and never meet passion with passion. If you punish him when you are angry, he clearly sees that he, because he is small and weak, is being chastised for the same fault which you, being large and strong, may commit with impunity.

“After one of these outbursts of temper, don’t reprove and admonish him until he is rested. The demon has come down like a hurricane upon the waters of his spirit, and the noise of the waves must be stilled before the mind can listen to reason. When the sun comes out, after the storm, is

the time to note wreckage and take measures for future safety. Select some quiet, happy hour, one in which you can gently warn him of his besetting sin and teach him to begin to guard against it. Until this time comes, and he is in a condition for counsel and punishment, the atmosphere of grief and disapproval may be made to encompass him, which he will feel more keenly than spoken words; and when the time for punishment does come, let us try to make it, as far as possible, the natural penalty, that which is the inevitable effect of given cause; for, as ‘face answereth to face in water,’ so the feeling of justice within the child answers to the eternal justice of world law.

“Finally, let us be patient but firm, and let slip no opportunity for teaching self-control and giving strength of will.”

### THE CRY OF A BABY.

THE meaning of the cry of a baby is a study which will be taken up by some young physicians, who will make a specialty of children’s diseases.

“Mothers can aid immeasurably, if they will,” said one of the young doctors. “I was called in the other day by a mother to prescribe for ‘something dreadful,’ that she was convinced her child was suffering from, and found it to be too warm clothing, and so only discomfort. In the nurse’s eyes, the only remedy for any indicated discomfort on the part of the child is the bottle; if the baby cries it must be fed; again, more feeding; if it worries, feed it; if it is sick and nauseated, still offer it milk. It may be too tired from lying on one side; it may be too warm or too cold, or have colic from an overloaded stomach, or a half dozen other conditions may exist which forbid or do not call for feeding.

“It is the nurse or the mother, whichever is the constant caretaker of an infant, who can learn, if she will, to distinguish the little shades of meaning in a young child’s cry.”

It is a fact well known to physicians that the cry of a baby suffering from cholera infantum, is very indicative of the progress of the disease. A mother was much surprised to be told by her physician after the death of her first-born that, as he entered the hall door on the occasion of his first visit to his little patient and heard its cry, he knew there was little or no hope “for,” he said, “that

cry is one which rings in a doctor's ears when once he has heard it, and he quickly recognizes it."

This mother found that the little wail of agony rang in her ears too, for when several years after, another child suffered from the same disease, its first cry, quickly identified by the unforgetting mother, sent a hurry call to the physician's office.

If the utterance of dumb beasts can be studied and understood, there is hope for the baby, that most helpless of all living nature.—*New York Times*.

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#### HOME CULTURE.

LIVING in an age fraught with golden opportunities, so far as the means requisite to self-culture are concerned, it is almost to be wondered at that the trifles of every-day existence should absorb our time and attention to the exclusion of the daily education which is a necessity to every woman who would not degenerate into a mere household drudge or senseless social nonentity.

Ignorance is no longer considered attractive in the fair sex; and the mother who, distrusting her own inexperienced efforts at deciding what is best for her little ones, improves the chance minutes in storing her mind with the information that is nowadays furnished in such profusion, is invariably more successful in rearing her offspring than the well-meaning, but mistaken, one who spends two-thirds of her time in the completion of pretty garments of finest cambric and lace in which to show off the charms of her little ones, and the remaining third in worrying because they fail to go altogether against nature and to keep their dresses immaculately clean.

The woman who reads intelligently, is prepared in a measure against sudden contingencies, and will "do something" on general principles which may be the means of saving a tedious illness to one of her family; while the one whose energies are devoted to needlework and fretting, in the intervals of respite from social or household duties, will send at once for a physician, sit helplessly waiting until he arrives, and more than likely learn too late that the stitch in time, which some simple remedy might have effected, can not now be covered by less than the proverbial nine. And later, when the little ones have grown head and shoulders above the mother who has watched over them so faithfully, ere she is really aware of it, how will she find it possible to give the sympa-

thy and advice so necessary to the grown boys and girls, if the greater part of their occupations and amusements are a sealed book to her? Very few women in moderate circumstances can hope to keep pace with the graduates of our colleges and universities; but they may contrive to be intelligent companions and interested parties in the doings of the family circle, if they will make good use of even the most meager opportunities.

Though your time may seem wholly occupied, you will still find a few minutes after the children are in bed, or while waiting the accomplishment of some culinary process, while the bread is getting the last turn, for instance, and you dare not leave the kitchen until it is safely out of the pans.

Have a couple of the best periodicals at hand—not in the library, or tucked away behind the doors of the book-case, but in plain sight and within easy reach, on a convenient shelf in the kitchen, where, if you have but five minutes, you may learn something useful. A magazine whose mission it is to help mothers, will keep you alert and watchful over your little brood, besides teaching you to apply the proper remedies in sudden emergencies and helping you to retain your presence of mind and use of all your faculties; for the habit of thought engendered by careful reading will follow you into the paths of practical, work-a-day experiences.

Then, a periodical devoted to the best in literature will keep you in sympathy with the doings of the outside world, though your own circle may seem but a fearfully narrow and circumscribed one. Never mind if Mrs. A., your neighbor to the right, does "drop in" and find you seated in the kitchen with your cooking apron on, reading. Don't shudder when you think how she will discuss the matter with Mrs. B., your neighbor on the left. Remember you are attending to your own business, of which you should be the best judge, and dismiss all thought of them with the cheering hope that they will do the same.—*Babyhood*.

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#### MISTAKEN DUTY.

It is one of the most unhappy tendencies of the times that so many mothers feel the necessity of putting their children in the hands of others to care for them. It is not, we are happy to say, those mothers who are engaged in public service of good, who do this to the greatest extent, but

rather those who are engaged in society life, and who falsely deem it their duty or privilege to continue this life at the expense of their own companionship to their children.

There are cases, however, where the same results accrue from the fact that mothers feel it their duty to engage in work of a religious or philanthropic nature. These, we believe, are mistaken ideas of duty. A writer in a recent *Ladies' Home Journal* speaks concerning this idea so distinctly that we quote directly for the benefit of our readers:—

“Hundreds of mothers do not seem to make the rightful distinction between duties and claims upon their time, and often the former are neglected for the latter. When to a woman is given the sweetest delight that can come to her, motherhood, God gives with that delight a duty; the duty of a personal training of the child. Before that duty all outside work—I care not by what religious, philanthropic, or charitable word you may call it—should fall. No matter what outside work a woman may be engaged in, the best \*can only be a claim upon her time, and not a duty. And duties never conflict. God gives no more duties to a woman than she has the time and ability to fulfil. The exactions of the world are not duties, they are claims. If there is time it is well to meet them. But claims being man-made, and duties being God-made, the former must often be ignored and should be put aside where the latter calls. Women should think of this, and bear it in mind a little more constantly than they do, especially in these days of organizations.

“It is all very well for a woman to associate herself with some form of organization which has either her own advancement or the betterment of the race for a purpose. But her first duty is in her home, and to her children. It is a duty which she can not wisely delegate to anyone. The interests of the most benevolent organization in the world are not one-thousandth part so important to a mother as the welfare of her own children and home. They are the first, and should be foremost. If they leave her time for other interests, well and good. So much the better. But this idea that some women have, that outer claims are duties, is pernicious. A mother of children, or of a single child, can not, and should not, aspire to manage the kingdom of heaven on earth. God gave her a kingdom of her own to manage, and he can be trusted to look after the interests of the rest of the

earth. All this spirit of organization among women is very good in its way, so long as women properly understand it, and regard the work it may exact as a claim, and not a duty. There is a distinction here, with a difference, and it is a big difference. And more women should realize it. When they do, serenity and efficiency will be more predominating qualities than is at present the case. A nervous haste and an air of distraction are all too characteristic of the women of the day. And a goodly half of the cause is found in the fact that women are attempting altogether too much.”

It is not our belief that a mother who secludes herself from all public work, religious or otherwise, is best prepared for the duties of motherhood. By thus secluding herself, while she may give to her child in its babyhood the great benefit of her constant association, still she will not be prepared to lead its feet onward as they must surely be guided a few years hence. We advocate that every mother should keep well abreast of the times, and keep her heart aglow with a sense of the brotherhood of mankind, not alone in theory, but in her actual service; nevertheless, all these things are claims rather than duties, when compared with that God-imposed duty of caring directly for her own offspring. This she should do, and as far as consistent not leave the other undone.

H. S. M.

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### IT PAYS.

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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.”

—Anna E. Treat, in *Good Cheer*.

# Pacific Health Journal.

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### LIFE LINES.

ALMOST stranger than fiction is the fact that when we come to amplify truth in every direction, we find certain life lines, showing the development and decadence of every organization under natural law. In geometry, the science of figures and equations, there is a *locus*, or a moving point, which constitutes a natural curve, indicative of the life or force of the proposition. Its course may be definitely known from the fact that it rests upon natural data. All kinds of life are simple equations into which enter some unknown quantities or influences. Hence, similar curves are the natural outgrowth of all life. This line, or curve, we will designate a *life line*. In all creation, everything that is evolved from a plan, whether it be God's plan or man's plan, with a certain object in view, has this life line.

The arts and sciences of various epochs in the world's history, commence to amplify the truth in that sphere, and all through their development they are gradually approaching the zenith of their development; and when nearing the limit of the capacity of man in that art or science, a decadence of the same will begin to follow. Hence, exhumed art chronicles the fact that it has had its ups and downs on regular life lines in the world's history. The successful business corporations start when circumstances seem to favor an accumulation of wealth and influence, each corpora-

tion reaches the zenith of its power when tides and wind seem to drift the money and influence toward a neighboring corporation that is on the rise. Thus every successful corporation, whether great or small, has its life line, its natural curve, which is thoroughly in keeping with the length, breadth, and amplitude of the facts upon which its corporate life rests. It is equally true that an unsuccessful business venture has no life line, no natural right to live, and its death is the final evidence of this fact.

From time immemorial the same laws have governed the rise and fall of nations that govern them to-day; and some of the common facts in a history of nations are interesting, inasmuch as the life lines of all nations, whether long or short, are parallel. Every nation that has arisen to the zenith of its power and left a history, has been thoroughly awake to every advantage, every resource within its grasp, absorbing to its full capacity, in conquest and otherwise, until it has approached the zenith of its power, having demonstrated to the world its right to exist by dint of frugality in living and intensity of purpose along the lines upon which all nations rise.

The kingdom, or nation, thus reaches the zenith of her power, and as truly begins to prepare her bed in luxury, because she has no more conquests to make. Relaxation naturally and always follows the intensity of conquest. It is a nation sitting down to rest. Then comes the idleness and luxury of the pleasure-seeking classes, the extremes of oppressor and the oppressed, the drifting apart of the higher and the lower classes, or a segregation of capital and labor, all of which inevitably contribute to lower a nation's vitality, thus by natural laws fixing the lines of her decadence in harmony with the life lines of all other kinds of life.

The same life lines are forcibly written in the physiology of human beings. There is a developing stage; and a deteriorating stage. In the developing stage of life, when the tendency of the circulation is all outward, the diseases, barring accidents, as a rule come from an arrest of nutrition, local or general, as the case may be. On

the contrary, when a person is on the down-hill side of life, the predominating feature of disease lies in disturbed circulation, for the reason that the tendency of the circulation is inward instead of outward. People on the down-hill side of life do not work nearly as much as they do on the developing side of life, consequently there is less call for blood to the muscles, and the blood that is not used on the surface of the body naturally contracts to the visceral organs, bringing about a passive congestion of most of the internal organs.

Physiologists agree that most of the blood is vitalized by changes that take place in muscular action, that the muscular activity of an individual is really a great producer of the vital force. If there is stagnation of the circulation in the superficial or muscular portions of the body, there will be a corresponding congestion in other sections of the body, thus first weakening the blood, and, secondly, the individual. The consumptives, the dyspeptics, the rheumatics, the neurotics, all present a living example and object lesson of the contraction of the circulation.

A study of the life lines in the various spheres of life is most interesting at this epoch, because of the similarity between the life lines of the body physical, with contracted circulation, and the life lines of the body politic, with a contracted monetary circulation.

The study of the life lines of the body politic undeniably points out the fact that there has been a contraction of the circulatory medium; that the bone and muscle-producing portion of the body politic has been depleted by that contraction, until its sinew forces are at a low ebb; while the money is passively congested in the coffers of the rich, the great glandular receptacles of the body politic.

And what does this mean? A passive congestion means that there is a large amount of circulatory medium in the body, either physical or politic, that is inert, from which the body gets no use, consequently the poor circulation on the surface gives cold feet, cold hands and a jaded muscle. The producing, or muscular, element of the body is depleted; and, could we hope for anything for labor but cold hands, cold feet and depleted pocketbooks, until a monetary circulation comes to labor that will renew the life in the producing element of the nation.

The political contest is now past, and to the successful party for the next four years is com-

mitted the welfare of the nation. Let us hope that wise legislation on tariff, and a reconstruction of the money system will serve to increase the monetary circulation in the producing element of the body politic, and thus preserve the integrity of the life lines of the great republic to a ripe old age. To this end every loyal citizen will give his hearty support.

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#### ENTERIC FEVER.

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ENTERIC FEVER is usually caused by the introduction of a ferment into the intestinal canal, which, by its products, called ptomaines, or poisons, bring about fever, the fever being mild or severe according to the amount of poison. Usually the bowels will be tender, and distended with gas, tongue coated brown, and considerable pain and uneasiness.

The indications for treatment are to reduce the fever and remove the ferment causing the trouble in the bowels. Sponge baths, an occasional tepid enema if it does not cause pain, and compresses over the bowels, will all be gratefully received. The fever can usually be controlled by these measures. If the temperature is as high as 105, a sponge bath every twenty minutes on the extremities, a cold compress on the head, and a continued wet compress on the bowels, will be all that is necessary. This treatment must not be given heroically if the patient is inclined to be chilly.

An antiseptic should be taken within, and there is none surpassing in efficacy, salol, three to five grains, four times a day.

In enteric fever the food should be carefully considered, and in the height of the attack should not be pressed. Delicate dishes of a bland variety will usually be borne, especially if the fever is not high. As a rule buttermilk may be taken. Scalded milk, with crackers, provided the bowels are loose, and scalded milk alone, taken often, will be gratefully received. Egg-nog, rice water, beef tea, and broth will also be admissible. Unless the patient is emaciated, it is always well to give the food sparingly in the earlier stages of the disease. A few days of this kind of treatment will often terminate some of the severe attacks.

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HAPPY is he who has learned to do the plain duty of the moment quickly and cheerfully, wherever and whatever it may be.

### EATING MORE THAN WE NEED.

GROWTH, and waste, and repair go on in a uniform way the whole year through, but the amount of food necessary for these operations or purposes is surprisingly small. The generation of bodily heat requires a most variable quantity of food. In winter, with the temperature of the external air at zero, the temperature of the blood in healthy persons is 98.3 degrees, and when the heat of summer drives the mercury of the thermometer near to or above that mark, the blood still registers 98.3 degrees. The marvelous mechanism by which this uniform blood temperature is maintained at all seasons is not necessary to consider, but it must be evident to everyone that the force needed to raise the temperature of the whole body to nearly 100 degrees in winter is no longer needed in summer. The total amount of food needed for repair, for growth, and for heating, physiology teaches us, is much less than is generally imagined, and it impresses us with the truth of the great surgeon Abernethy's saying, that "one-fourth of what we eat keeps us, the other three-fourths we keep at the peril of our lives." In winter we burn up the surplus food with a limited amount of extra exertion. In summer we get rid of it literally at some extra risk to health, and, of course, to life. We cannot burn it. Our vital furnaces are banked, and we worry the most important working organs with the extra exertion of removing what would better never have been taken into the stomach.

### THE GIFT OF GIVING.

CHRISTMAS-TIDE is rich with opportunities of many kinds. Although without doubt the date chosen to commemorate the birth of our Saviour does not accord with the date of the real event, nevertheless, it is fitting that Christians should set apart one day to commemorate that day which brought to mankind more than life or health or all the wealth this world can give,—eternal life in him. And since we cannot know the exact date of his advent to the world, it is more than appropriate—it is the duty, of every Christian to join with every other Christian in the celebration of the day chosen.

About the day there hovers a bright cloud in the minds of almost all children, even though

they have not the opportunity of realizing for themselves any special pleasures; and yet we believe that no family is so poor or so wretched but that in one way or another this day can be made a bright spot in every child's life.

The idea of giving is inseparably connected with this day, and most appropriately so, since it commemorates the greatest gift ever made by God or man, the gift of his Son for us. But the original idea of giving has been sadly perverted in the minds of many, and the holiday season has become a burden to a large proportion of society, because of the obligations it places upon them, which are a severe tax upon time and ingenuity, not to say the scanty pocketbooks of not a few.

We notice in a recent number of the *Congregationalist* an appeal to mothers to change this order of things by mutual consent, and for a year to give the means which would otherwise be lavished upon those who are not suffering from any special need, to some worthier cause. The cause suggested was Foreign Mission Work. This, indeed, is a worthy cause, but missionary fields may be found nearer home, and in which the child can unite with the parent more understandingly, and hence receive more evidently, the realization of the promise that it shall be more blessed to give than to receive. There are families, it is true, where not a single penny can be raised above the needs of every-day life, to make festive this day of days for the little ones; yet it need not be lost upon them, for the parents can at least arrange for extra leisure time, which may be devoted to the pleasures of the little ones in play or story, and this season especially furnishes great opportunities for stories of a high order. These homes furnish a better opportunity for the cultivation of the gift of giving than those which are more favorably situated, and who shall say that these are not placed in our midst for this very purpose? Hath not the Lord said, "The poor ye have always with you"? and they are his representatives, for he has said, "Inasmuch as ye have done it unto one of the least of these, my brethren, ye have done it unto me."

The attribute of benevolence is not universally planted by nature in the heart of every child, and while it is a gift in a sense, to some, it is a gift which must be acquired by the majority. Indeed, that is promised by Him who will perfect in us all virtue when we rightly relate ourselves to Him. To be able to give discreetly and heartily is a virtue that should be cultivated in every child, and which

will not be likely to be implanted in his character unless it is begun in early life, during that precious period when his character is formed. Time and experience shall only ripen and develop it, but rarely produce it. During this time, when the child is not far removed from its source—the great fountain-head of universal love—it is not hard to cultivate this trait. But to give wisely is an ability which is understood by few of those even who have the heart to give largely, and it is a matter which should be carefully studied by every parent, both for herself and for her child. It is said that Rockefeller, whose name is on record as one of the most liberal of those who are intrusted with large means, is in the habit of studying carefully each case which presents itself to him for financial aid; and he has the habit, not only of studying it himself, but of bringing it before his family, and considering carefully with them all the pros and cons of the case. Thus he is not only educating his children to follow him in this noble example of beneficence, but is teaching them to study the needs of the beneficiaries.

“It is not at all unlikely that the majority of American children receive far more gifts than are for their good.” The average child of the present generation receives more presents and indulgences from his parents in one year of his life than the average child of a generation ago received in all the years of his childhood. Because of this new standard the child expects new things, and asks for them, in the belief that he will receive them; and in consequence of their abundance he sets a small value upon them. It is not possible that he should think as highly of any one new gift out of a hundred coming to him in rapid succession as he would of only one in the entire year. Thus in the practice of concentrating all our energies to increase the pleasures of our own loved ones, we thwart our own object. Let every Christian parent study well this opportunity of the whole year, and make it an education as well as a pleasure for her child—an education concerning the events of which the day is a memorial, the purpose of the day, and the gift of giving in her child; at the same time giving such joys as, after study or prayer, he or she shall believe to be most conducive to the lasting good of the child.

H. S. M.

THE three most difficult things are: To keep a secret, to forget an injury, and to make good use of leisure.

#### QUERIES.

35. (a) I AM troubled with sties on the eyes; what can I do to prevent them? (b) My baby is eighteen months old, and has a small umbilical rupture. I have had a bandage on it since birth, but it does not grow in, and comes out when not bandaged. Can anything be done at present? H. O.

(a) A sty is a superficial boil, which begins in the follicle of a hair, and does not differ in any respect from a boil elsewhere, except that it more easily comes to the surface by following the hair. It often begins at the root of the hair, and if the hair can be removed at the beginning it will abort the inflammatory action. If, upon inspection, the hair around which it is formed can be determined, it would be well to pull the hair out; otherwise it will go on to termination, and can be lanced to advantage quite early. Sties come oftener in children than grown persons, and the more anæmic persons are apt to have them. Massaging and rubbing of the lids will help very much in nutrifying them, and will lessen the chance of sties.

(b) We would recommend nothing radical at present for the umbilical rupture. A good pad and bandage should be kept on the child, and massaging of the umbilical region will no doubt be of service.

36. Would you recommend cod-liver oil in cases of consumption? A. B.

One of the sheet anchors in the past for all wasting diseases has been cod-liver oil, and there is no question that if oil is furnished in tubercular and kindred diseases, it will save the combustion of tissue, and consequently lessen the tissue changes and retard the wasting to a marked degree. Most physiologists agree that animal oils are more easy of absorption than vegetable oils, consequently vegetable oils have not been utilized to any extent in wasting diseases. Why cod-liver oil should be used in preference to other animal oils can not be easily demonstrated. There is no question that there is much carelessness in the wholesale method of preparing an article that has such widespread use, and it is certainly open to criticism on account of the many adulterations. We should prefer to recommend the more common and home-made products, butter and cream, and it is our experience that these will serve the cases just as well.

LEISURE is a beautiful garment, but it will not do for constant wear.



## CHRISTMAS TREASURES.

BY EUGENE FIELD.

I COUNT my treasures o'er with care,  
The little toy my darling knew,  
A little sock of faded hue,  
A little lock of golden hair.

Long years ago this holy time,  
My little one—my all to me—  
Sat robed in white upon my knee,  
And heard the merry Christmas chime.

"Tell me, my little goldenhead,  
If Santa Claus should come to-night,  
What shall he bring my baby bright?—  
What treasure for my boy?" I said.

And then he named this little toy,  
While in his round and mournful eyes  
There came a look of sweet surprise,  
That spake his quiet, trustful joy.

And as he lisped his evening prayer,  
He asked the boon with childish grace;  
Then toddling to the chimney-place,  
He hung this little stocking there.

That night, while lengthening shadows crept,  
I saw the white-winged angels come  
With singing to our lowly home,  
And kiss my darling as he slept.

They must have heard his little prayer,  
For in the morn, with rapturous face,  
He toddled to the chimney-place,  
And found his little treasure there.

They came again one Christmas-tide,—  
That angel host, so fair and white;  
And, singing all that glorious night  
They lured my darling from my side.

A little sock, a little toy,  
A little lock of golden hair,  
The Christmas music on the air,  
A-watching for my baby boy!

But if again that angel train  
And goldenhead come back for me  
To bear me to eternity,  
My watching will not be in vain.

—Selected.

## WHAT THE HOME SHOULD BE.

THE growing tendency on the part of American people to sacrifice the home for financial considerations, or for convenience, is one of the great dangers which menace the public good of our nation. A reform in this respect is loudly called for, and it is to be hoped that woman, as by her advancing position she is enabled to overlook the field and see the greatest needs of the greatest number, will lend her grand influence to the correcting of this evil.

A writer in *Lend a Hand* makes the following suggestive remarks, which are well worth our consideration:—

"I have an idea that we can make a great deal more of home than we do, and that we must learn to do so. This can not be done by insisting that women give up their ambitions and scour and scrub more, or rock cradles and fry doughnuts. The point is to get a bigger idea of what a home is, and so be able to live a great deal more of our life at home and in home. I should like to call back the children and devise ways for doing for them much more than we leave for outsiders to do.

Complaint is made by some of our best thinkers that we are sliding into socialism. Why not? Our individual life is nearly dissolved into a great public commonalty. As for the children, if we have any, why should we send the children to priest or pastor? If we are educated, why can not a large amount of our intellectual life be lived in a family way? I can not comprehend the reason that sends a boy away from home to learn to read, while his parents read the dailies and monthlies. The dull dreariness of this business is hard to describe. There is not a farm, and there is hardly a cottage, in the United States that does not cover more material for education than the best schoolhouse ever erected. There is geology, chemistry, entomology, botany, physics—all here. Can it be realized? or must it all lie idle, while the boys and girls are sent off to get what can be picked up at public resorts?

"I do not doubt the value of the schools; I only wonder why we must dull and deaden our homes so completely, and overlook all the rich material every home has so abundantly. Why we may not be mutual investigators is the puzzle. Why may not parents and children study nature together? There is no botany like applied botany. What a fool a schoolgirl is with her botany under her arm, and no application of it to the practical work of making the plants grow in the garden! Applied geology not only explains soils, rocks, streams, land, but it expounds land culture, and how to utilize rocks and soils. Applied biology in general, makes the farm boy master of the bugs and moths and of the mischievous plants that hinder culture.

"There is really no life so eminently delicious as where a home is a school. A school does not mean a place where one teaches, but a place where all study. No one should ever get to the end of study. A wise father goes through life with his children, hunting after the facts and truths that are written on every leaf and bedded in every spadeful of soil. The real home can easily have cabinets or museums, laboratories for studying chemistry and physics, forges for working at problems in mechanics. It is not expensive to have such houses—not nearly so expensive as it is to farm out your children in all directions and pay for it, and then have spoiled children. Work *first* for fine homes, and after that for good schools, churches and public institutions.

"The real position of the American home as a training school for the young, is, after all, the most

important matter. A recent writer, discussing the ethical influence of schools, looking about for some supplementary help, says: 'The home, which has hitherto been the fundamental agency for fostering morality in the young, is just now in sore need of repair. We can no longer depend upon it alone for moral guardianship. It must be supplemented, possibly reconstructed.'

"This is plain speaking, and it means more than a loose charge that our homes are not doing their duty.

"Another able writer says: 'Self-seeking is the main principle of life in a vast number of our homes. If to the children in these latter homes, are added the thousands who exist with scarcely a trace of home life, we shall be forced to admit that there would be a moral crisis if the public school were not doing its beneficent work.' In fact, the friends of the school cry out for homes to make good what the schools fail to accomplish, and the friends of home life beg the schools to supplement the failure of home to create character. The real difficulty is, however, that years ago our homes began to rely upon outside influences to do what can never be done by any power but home influence. This let out of duty to others increased, until the family power was broken, home enfeebled, and at last our homes are mere addenda to society. The girls come home to eat and to dress for society. The boys come home to eat and work and get away as soon as possible.

"Home must be rebuilt with power. It must be once more understood that the burden of education belongs to parents. The school and society are adjuncts of home, or ought to be. The church should not be ahead of home, but behind it. The child's views, sentiments, loves, should be shaped at home. Socialistic drifts never were wise, and never will be. There is always a tendency to exaggerate the value of great organisms. The school just now is desperately struggling with the problem of a possible ethical training in connection with intellectual. It hardly sees the way to accomplish this without making social prigs of the pupils; but it can do a great deal to aid true fathers and mothers. It ought not to undertake paternal methods."

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THE pleasantest things in the world are pleasant thoughts, and the greatest art in life is to have as many of them as possible.

## A LESSON FROM A PATIENT LIFE.

BY HARRIET FRANCENE CROCKER.

HERS was a humble life, lowly, obscure and commonplace in the extreme. Her vocation was that of a washerwoman, and for forty years she toiled above the steaming tubs, rubbing, rinsing, wringing, year in year out, without rest or change.

The duties of motherhood had crowded upon her eight times, and somehow or other the boys and girls all lived to grow up, marry and raise children of their own. Poverty ground her down unceasingly; hard labor left its telling marks upon her; a drinking husband made life a burden hard to bear; noisy, ill-clothed, growing boys and girls filled her little house with clamor from morning till night.

But still, a more cheerful, patient, good-humored soul never lived. From my earliest childhood I remember her smiling through the steamy vapor which rose from her tubs, and patiently making little of her woes and tribulations. To be sure, the little home was rarely clean and neat. Neither were the tempestuous children always free from dirt and rags, but when one looks back upon that busy, crowded, slaving life, it is no wonder that some things were neglected. The only marvel is that one poor woman could perform so much.

The children grew to manhood and womanhood honest and industrious, the two boys fortunately having escaped the inheritance of their drinking father's appetite. The girls married into more or less comfortable homes, and little ones began to cling and climb around grandma as she still toiled cheerfully over her tubs. It was said among the neighbors that it was hers to raise another generation of children, and in a great measure this was true.

But as patiently as she had endured her own noisy brood's uproariousness, she endured the childish clamor of this later flock, although her years of toil had left their mark upon her, and her figure had developed into such exceeding stoutness that walking and standing became a weariness to the flesh.

At last her husband fell ill, the result of long years of alcoholic indulgence, and she left her tubs to nurse and care for him, until one night it ended suddenly, and he whose life had saddened hers passed on to his reward. For a year or two she wore cheap mourning, and I do believe she

mourned him sincerely, for, whether good or bad, she had always clung to him, slaved for him, cared for him in every way.

But increasing years finally put an end to the washing, and she made her home with this married child or that, or with her imbecile son, for this was another of this poor soul's trials. The loving patience she always showed toward this piteous member of her flock, and the childlike affection the grown man felt for her, were touching. Although he never learned to talk, he yet managed to make his mother understand his wants, and there seemed always a silent sympathy between them. To-day, this middle-aged man, who goes about speechless and lacking in all that makes life worth living, does odd jobs here and there, and happily carries his small earnings home to the faithful woman who has stood closest to him since birth.

The other day, after long absence, it was my great blessing to visit this patient, uncomplaining soul, into whose long, laborious life no roses had thrown their beauty and fragrance. I found her in the poor little home of her youngest married daughter, whose own life is a continual battle against poverty. She sat in a wheeled chair, her left side paralyzed. Here she had sat for over three years, and even now she could not enjoy that perfect rest she so well deserves. Grandchildren cling about her, climb up into her lap, and always she has a pleasant look for them and none but cheerful words. The old gray head is drawn over piteously upon the left shoulder, and her left hand and arm lie dead and helpless.

She was able to tell me about the "stroke." She had been away all day on the hills, berrying. At night she reached home weary beyond utterance, footsore, lame, ready to drop in her tracks. It had been a hard day's work, and the poor old frame was utterly worn out. But when she reached home she found that there was nothing in the house for her son-in-law's dinner pail, which he would need to carry with him to his work the next day. Some groceries were needed, and, exhausted as she was, she walked two miles to town over hilly roads, reached the grocery store, and obtained the supplies. The grocer, full of pity, hitched up his horse and took her home, and after she had crawled up the flight of stairs to her room, the stroke came. From that moment to this she has never walked a step nor helped herself, but no one ever dreams of calling her a burden. I asked her if she could pass the time by reading, and she

answered that she early loved to read, but could not because she had no glasses. But this she accepted as uncomplainingly as everything else which had fallen to her lot in her long life of toil and privation. It seemingly never entered her mind to wish that things were different. She simply took things as they came to her, and made the best of them.

I went away thinking deep thoughts. One of them was that if I ever again fretted or complained because life withheld from me some of the things for which I longed, because this and that good fortune passed me by, because disappointments fell to my lot—I would think of that poor, humble washerwoman, and be ashamed of myself. And it is a blessed memory I carry with me of that distorted figure and the patient old face, with its ever-ready smile.—*Selected.*

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#### HORACE GREELEY'S DIETARY.

MR. MOSES P. HANDY, writing for the *Chicago Inter Ocean*, says: "Horace Greeley's stories being in order, in view of the unvailing of his statue some time since, I will tell one that I heard in New Orleans. The genial old philanthropist went there, and the people were anxious to show him every attention in their power. A dinner seemed to be the proper thing, and the markets of New Orleans, than which there are few better in the world, were ransacked to make the occasion as notable for its viands as for the distinction of the guest and the diners. Judge Walker, the veteran editor of the *Picayune*, presided; he was a great gormand, and after the manner of gormands, wished none of the fine points of the dinner to be lost to the guest for lack of commentary.

"'Mr. Greeley,' said he, 'these oysters are the best that come to our market, and we think they vie with those of Norfolk. I observe that you are not eating them.' 'Well, no,' replied Greeley, 'the truth is, I never could abide shell-fish.' Then came some delicious green-turtle soup, which Judge Walker explained was prepared from the finest fat turtle the Florida bays could afford. 'No doubt, no doubt,' was the reply, in Greeley's peculiar whine, 'but cold-blooded animals are an abomination to me.' The pampane, imperial fish that it is, and fresh from the gulf, was open to the same objection, despite Judge Walker's eulogy,

and that too was ignored. Mr. Greeley barely tasted the accompanying Parisian dainty, and shook his head ruefully at the idea that anybody should impair his digestion by eating cucumbers.

"Shrimp salad, another New Orleans delicacy, proved no more tempting; shrimps, he said, looked so much like worms that they always gave him the creeps. 'Ah, here is something you will like. —a homely dish in name,' said Judge Walker, 'but fit for the gods. It is a Gallicia ham.' And then he went on to tell how the hogs from which these hams were obtained were fed only on chestnuts, making the flesh luscious and delicious. 'Perhaps so, very interesting indeed,' observed Greeley; 'but do you know, Judge, that there is so much talk of trichinæ, nowadays, that I wouldn't dare taste a bit of pork.' The Judge gave up in despair. The only things in all the array of dainties which had been provided which Mr. Greeley would eat, were bread, potatoes, and cauliflower, and he feared that he might be overloading his stomach at that. But when it came to the speaking, although he had drunk nothing but cold water, he spoke as one inspired, and with a fervor, eloquence, and tenderness that nobody at the table could ever forget."

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#### THE SECRET OF BEING TIRED.

SOME years ago an Italian physiologist, Mosso by name, made some experiments on dogs, which were to ascertain the secret of weariness. Several dogs were used. One was made very tired by several hours of hard work, so tired he could hardly stand up. Then a quantity of his blood was transferred into another dog, who had been resting all the while and was in good spirits and not weary at all. The result was the other dog also began to act weary, as if he had been at hard work. To make it certain that the cause of weariness was in the blood of the tired dog, still other dogs were used, and the blood of a dog which was not weary was transferred into the body of another dog, also not weary, and it produced no bad effect. The experiment was repeated so many times that it made it conclusive that there must be some poison in the blood of the weary dog, which, acting on the brain centers, made the animal tired. Wedensky analyzed this substance and found it to be of the same chemical nature as *curare*. If you will look in your dictionaries you will find

that *curare* is a very active vegetable poison, in which Indians, especially South American ones, dip arrows in order to make their effect more deadly. Many plants produce a similar poison, and if Wedenskey is right, his discovery is a very important one. There seems to be no antidote known to it.

The conclusions we draw from these observations are these: Labor of body or of brain causes certain changes in the tissues and blood, and through these changes this poison is produced, and it circulates in the blood.

Some studies have been made, to illustrate this subject, on fifty grammar-school children who were about to be inflicted with one of those periodical "grinds" before examination. Before taking the examination their muscular strength was tested. Each one lifted all he could upon the dynamometer, and the average number of pounds for three trials was recorded as his strength record. After the examination was over, which lasted two and a half hours, they made the same endeavor to lift all they could. With two exceptions, none could raise as much as before their intense mental activity.

#### OUR GIRLS.

CONSIDER the health of the girl first, last, and always.

Teach her obedience, self-help, and disregard for trifling hurts and disappointments. Begin these lessons before she has spoken a word.

Few fathers and mothers attach sufficient importance to the training of children to depend upon their own efforts. Does a mother see her toddler try to do something difficult for its inexperience, her first impulse, and the one which she usually carries out, is to help the child. Better far is it to allow the little one to make every effort of which it is capable, that it may learn perseverance and self-help.

As nobility of character must have its foundation in absolute truthfulness, teach her to tell the truth, to despise shams and deceits of every sort, and begin your instruction as soon as she perceives the difference between right and wrong. So vital a lesson is this, that one is almost inclined to take seriously what Oliver Wendell Holmes recommends as the proper treatment for a want of truthfulness in girls: "At the first real lie which works from the heart outward, she should be tenderly chloroformed

into a better world, where she can have an angel for a governess, and feed upon strange fruits which shall make her all over again, even to her bones and marrow."

Do not allow the girl to become self-conscious, or give her an exaggerated idea of her own importance.

Do not attempt to improve her by repression. Set her heart right, and let all improvement work "from the heart outward."

With the present opportunities for physical culture, the girl may become not only strong but beautiful. With all the facilities for book-learning, her education in this direction is not difficult to attain. With all the workers in God's vineyard to supplement your own example and counsels, her moral and religious training need not be deficient.

If her parents and instructors are faithful to their trust, they will insist upon thoroughness in all that she does. They will show her that there are to be no drones in this great beehive of a world. They will inspire her with a wholesome love for work, and it will dawn upon her consciousness that duty may be a delight, and that her highest happiness is attained when she is seeking the happiness of others.

The idle, candy-eating, novel-reading, "flirtatious" abomination will become an impossibility; the pleasure-seeking but ever unsatisfied society girl will become a thing of the past.

As strong as Hygeia, as beautiful as Hebe, as wise as Minerva, and as pure as Vesta, yet in no sense a myth, the girl of the future shall be a magnificent reality. She shall be "little lower than the angels, and crowned with glory and honor."

To her, motherhood shall be a pleasure instead of a peril. The days are happily over when, as Joy entered at one door with the baby, Misery stalked in behind the old nurse at the other. Intelligent care at this most critical time of her life by persons trained for the purpose, shall do away with the causes of a large proportion of the ailments and physical disabilities of the mothers of the last generation.

If we are wise in the care and training of our girls, there shall be born of the mothers of the coming generations, sons and daughters to whose hands may safely be intrusted the fate of the nation, and under whose administration this "government of the people, by the people, and for the people," shall become the greatest of the earth.—  
*Lydia Taber Robinson, in Woman's Journal.*

## A TASTE FOR READING.

BY MRS. MARGARET E. SANGSTER.

IT is by no means to be taken for granted that a taste for reading comes by nature. Nobody can observe children without observing that while some of them take to books, to use a familiar simile, as a duck takes to water, others are indifferent to the printed page, and prefer other amusements or occupations to the quieter pleasure of reading.

When a child really loves to read and needs no urging to sit down with a book, the mother has of course the responsibility of guiding his reading. The truly book-loving child may be led to form a taste for the best and purest by judicious care and sympathetic comradeship on the part of mothers and teachers. But read he must and will, and time will never be a burden on his hands. Unless his mental palate is early enfeebled or vitiated by indulgence in a style of reading which is morally bad, or which is simply entertaining without any ultimate end of instruction or discipline, such a child will find delight in books of travel and in histories of his own and other countries and periods. He will not be limited to stories which are merely imaginative, though imaginative literature should always form a portion of his intellectual fare. Such a child, born with the love of books, is to be congratulated. He is armed for the battle of life as none can be who do not know the stimulus, the rest, the refreshment and the profound help and encouragement which come to a human soul through the vital thought and living heart-throb of good books.

An instance occurs to me by the way of illustration. Lord Macaulay had been defeated in a political contest, and while the shouts of the victors were ringing in his ears, he sat down to write an ode to literature, which remained his exceeding comfort. If there were time, such instances might easily be multiplied, but one on the opposite side is all that I can mention here. Of a lady in deep grief a friend not long ago said to me, "If only she cared for reading it would be easier to divert her, but she has never accustomed herself to find pleasure in books, and they bore her."

The mother whose task it must be to form in her child a taste for reading, may inquire: By what means shall I set about this work? How shall I beguile my active boy from his games, or my

daughter from her playmates, in order to interest them in books? I would advise such an one to begin a course of reading aloud to her little ones in the late afternoon, before supper, for example, or in the hour just after the evening meal, choosing a pleasant story, reading a prescribed time, and breaking off at an interesting point. If this is done regularly, the habit of anticipation will soon be established. With the older young people I would try to have reading aloud by turns in the evening, whenever the family can be assembled. Let the conversation at table turn on the books read. This is almost traditional as a New England custom, if one may judge both from observation and from much study of New England's literature of biography. The love of reading leads by easy steps to intelligent discussions, and I know more than one household in which an adjournment of the family as a committee of the whole to consult an encyclopedia or a lexicon is a not uncommon performance after the leisurely evening meal.

In addition to reading with children, it is well to let them by degrees collect little libraries of their own. Give a book as a reward, and respect its owner's right of possession. Insist on certain quiet intervals from play, when the pursuits followed must be either the reading of a paper or magazine, the writing letters to one another, the drawing of pictures, or the pasting of clippings and illustrations in a scrap-book. While the utmost freedom for romping, and for even violent exercise, must be given at times, yet there is a time for everything, and the formation of reposeful habits is as important as any other thing in the training of children.

Always have an acquaintance with the books your children read. Great, and often irreparable, harm is done to immature minds by bad literature. There are boys in reformatories and prisons to-day who would not be there but for the agency of evil books. We can not be too careful in this regard, for when a child is influenced for evil by the Satanic agency of an impure or wicked book, his moral life is poisoned at the source. Far better might the physical life receive injury than the moral nature suffer distortion this way.—*Congregationalist*.

LOOK at a stone over which you have stumbled only long enough to recognize it quickly when you come that way again.

### THE CARE OF WINDOWS.

OFTEN in passing the dull windows of house fronts I am reminded of a conversation overheard between two women, tourists, standing in front of Buckingham Palace. The eyes of the younger woman were fixed on the gay equipages of the nobility and gentry which were in line on their way to the queen's drawing-room, but the elder of the two was gazing at the windows of the palace.

"Well," she remarked, at last, with homely American force, "I don't think much of Queen Victoria's housekeeping. Just look at them winders! the shades thrashed clear to the top in one, and pulled down clean to the bottom in another, and all askew all over the house! and the winders themselves don't look clean, to my way of thinking."

The old woman in all probability had never heard the story current in England anent these same windows, which, as she remarked, are not kept "overly clean."

The story goes this way: The Lord High Chamberlain who has charge of the outside of the palace, is always at loggerheads with the Lord High Chamberlain who has charge of the inside of the palace; therefore they will not have windows washed on the same day, and, as a consequence, the two sides of the pane are never cleaned at the same time.

The old woman was right in her estimate of housekeeping; the front of a house, especially the windows, is the first concern of a good housekeeper. It is surprising that women do not more often adopt the method used by storekeepers for cleaning and polishing glass. I have tried it myself for several months, and found it especially valuable during cold weather, when it would not be practicable to use water outside. I used it both in and out.

Provide yourself with common alcohol and whiting; make the cloth damp, but not wet, with the liquid, then dip it into the whiting. Rub the glass as you would if using soap and water. Polish with chamois. Windows cleaned in this manner will shine and sparkle, and will keep clean much longer than if done in the old laborious way of washing and rinsing and wiping and polishing.

Next after clean glass come neat shades. To keep shades from streaking, dust them every time the room is swept. Do this by drawing the shade down to its full length and using a feather duster along the front and over the roller. As you roll up the shade keep on dusting the roller. You will

by this means brush both sides, for they roll up from the outside.

Care should also be taken, now that the season of open windows and sudden showers is at hand, that when windows are opened from the top, the shades shall be tightly rolled, otherwise they will be spotted before you are aware.—*Selected.*

### THE JEWEL OF BEHAVIOR.

STUPID as men and women are in the real philosophy of living, they do come at last to see that the highest type of beauty is that of character, and the most attractive adornment, that of the unassuming, gentle manners and love.

The beauty that poses before the mirror, the vanity that relies on dress and jewels to attract admiration, fade and make weary; while the charm of a true, unselfish spirit, and the winsomeness of unaffected kindness, give fresh lines of grace and beauty to their possessor with every rolling year.

Into an overcrowded car one day came an old woman, black, poorly but neatly dressed. It was plain she was likely to stand; two-thirds of the passengers were men busily engaged in reading or absorbed in conversation. Near the front sat a pretty, young girl, whose dress and manner denoted wealth and culture. Seeing the feeble old figure sway from side to side with the movement of the car, she quietly arose, and taking hold of the thin arm, placed her in her seat.

At once men from all sides sprang up and offered their seats to the young woman, but she politely and firmly refused. Then all grew interested in the old woman's talk:—

"Lor', honey, I'se so bery much obleeged to yo'. I'se mos' ded, I is. I'se dun walked mos' fo' miles dis mawnin' to git some med'cin' fur my little Sammy, an' dese yere ol' laigs ob mine is mos' dun all dey's gwine to, but little Sammy is bery sick, an how I do lub dat chile! I hates to take yo' seat, honey, but," murmured the quivering old lips, "yo' sho'ly don' know how tired I is, and," glancing up into the bright face above her, "yo' is de bery puttiest—"

The bell rang; the car stopped, and this girl, who had offered a "cup of cold water" to one of His creatures, disappeared, leaving behind her a sense of something distinctly sweet and ennobling, more beautiful and winsome and uplifting than any beauty of face or dress.—*The Contributor.*

## CLEANLINESS AND BEAUTY.

NO ONE who has a good complexion and a good figure, including a graceful carriage, can be otherwise than good-looking.

For the first, health and cleanliness are requisite. It is a startling assertion, but none the less true, that very few women are really clean. The skin, seen under a microscope, resembles a piece of coarse lace net, and is simply a mass of pores. Through these pores a healthy circulation is constantly discharging effete matter, and, if they are allowed to become clogged for want of cleansing, this refuse matter will inevitably find an outlet in the form of pimples, blackheads, etc. A daily sponge bath is one of the greatest beautifiers in the world. To take it, all you need is a basin of warm water, two wash-rags, a soft towel for drying, and a rough one for rubbing. Use pure unscented soap. Wet one rag and soap it well, and rub every inch of your body, from head to heel, with this. Now take the other rag and wash the soap off, rubbing briskly all the time. Then dry with your soft towel, and finally polish off with the crash towel, until you are all in a glow. This may be done either night or morning, as you prefer.

If the bath is not taken at night, give yourself a ten minutes' vigorous rubbing just before going to bed.—*Selected.*

## WISE AND BEAUTIFUL ANSWERS.

A CERTAIN teacher belonging to that class known as sophists, in ancient times, wishing to puzzle the Greek philosopher, Thales, with difficult questions, put to him the following, which the philosopher is said to have answered without hesitation, and with the utmost precision:—

What is the oldest of things?—God, for he existed always.

What is the most beautiful?—The world, for it is the work of God.

What is the greatest of all things?—Space, for it contains all things.

What is the most constant?—Hope, for it remains when all else is fled.

What is the best of all things?—Virtue, for without it there is nothing.

What is the quickest?—Thought, in a moment it can reach the end of the universe.

What is the strongest?—Necessity, it makes men face all danger.—*Selected.*

## WHIPPED CREAM.

SOME farmers think this is a dish only for aristocrats. Mistaken, my friend; it is not any more expensive than the natural cream that so many use on the table every day. It is a delicious sauce for many kinds of pudding, and for cake that is becoming dry. It makes a dainty dish for convalescents in some diseases, if used with crackers, one that relishes, tastes good, and more than anything else, it looks so tempting and dainty, and looks is everything to an invalid's appetite; please always bear that idea in your mind when waiting on the sick.

In making whipped cream, be sure to cool the cream below churning temperature (which ranges from sixty-four to seventy degrees Fahrenheit), or you may get a dish of butter on hand; and the cooler, the quicker it becomes thick; only don't freeze it, of course. To a coffee cup of cream add the whites of two eggs, two tablespoonfuls of sugar, and a little flavoring extract. Beat all together; a regular egg beater will do the work the most rapidly. This quantity will make a quart bowlful, after it is beaten so as to stand; alone when dropped from off a spoon.

The cream should be rather thick, and perfectly sweet. So you see you have a quart out of a cupful by using the whites of only two eggs with the cream, and eggs should be plenty in every farmer's family.—*Selected.*

To dress in harmony with complexion comes naturally to some women; by others it has been, or can be, acquired. A brunette looks exquisite in cream color, for she has reproduced the tinting of her skin in her dress. Women who have rather florid complexion look well in various shades of plum and heliotrope, also in certain shades of dove-gray, for to a trained eye this color has a tinge of pink which harmonizes with the flesh of the face. Blondes look fairer and younger in dead black, like that of wool goods or velvet, while the brunettes require the sheen of satin or gloss of silk in order to wear black to advantage. A woman who has a natural tinted complexion, with eyes of blue-gray, is never more becomingly dressed than to the blue shades in which gray is mixed, for in these complexions there is a certain delicate blueness.—*Selected.*

**THE WOMAN WHO IS TOO THRIFTY.**

THE woman who spends her time of rest from household labor in darning stockings, putting a new binding on her skirt, or even in "catching up" a dainty bit of lace-work or embroidery, makes a great mistake.

Rest means relaxation of the entire system—muscles, nerves, and brain, time, however brief, of fallowness.

It can not be compassed in a rocking-chair. A certain wise old physician classes rocking-chairs among the snares and pitfalls of woman's path through life, because they uselessly consume so much muscular energy, otherwise needed. If the ingenious mathematician who reckoned up the amount of force expended in sneezing, would turn his attention to the rocking-chair problem, his tabulated results might astonish the world. Even so-called "easy" chairs are not entirely restful.

Absolute supineness is necessary for real rest and recuperation, and the floor is better than the most luxuriant chair; but a couch or divan is better than either.

If the woman who really wishes to rest for fifteen minutes or half an hour will cast herself prone upon her couch, relaxing all her muscles, and making her mind as nearly a vacuum as it can be made, she will get up far more refreshed than from two hours of swaying back and forth in a rocking-chair, her hands employed in some work.—*Reflector.*

**THE DIETETIC VALUE OF HONEY.**

STARCH and sugar, when eaten, undergo a digestive change before they are assimilated. In honey this change has been made to a considerable extent by the bees. It is partly digested, easy of assimilation, and concentrated, and furnishes the same element of nutrition as sugar and starch—imparts warmth and energy. As a medicine, honey has great value and many uses. It is excellent in most lung and throat affections, and is often used with great benefit in place of cod-liver oil. Occasionally there is a person with whom it does not agree, but most people can learn to use it with beneficial results. Children who have more natural appetites, generally prefer it to butter. Honey is a laxative and sedative, and in diseases of the bladder and kidneys it is an excellent

remedy. It has much the same effect as wine or stimulants, without their injurious effects, and is unequalled in mead and harvest drinks. As an external application, it is irritating when clear, and soothing when diluted. In many places it is much appreciated as a remedy for croup and colds. In preserving fruit, the formic acid it contains makes a better preservative than sugar syrup, and it is also used in cooking and confectionery.—*Selected.*

WRINKLES are the daily dread of many women. The philosophy of warding them off or destroying them is based on stimulation. The small moisture tubes and blood-vessels need friction; not once a week, but every day in the year. Rub in an opposite direction, and vigorously, with a rough towel, then pat and knead with the hand. This has the effect of counteracting the influence that works to loosen the flesh from under the cuticle. Sleep, and plenty of it, is always beneficial. The face has to rest. Tired lines are allowed relaxation. The free use of warm water and soap, followed by friction with warm oil or a cold cream, nutritious food, vigorous outdoor exercise, agreeable occupation, and a contented mind, are all enemies to wrinkles.—*Selected.*

**BE GOOD TO YOURSELF.**

THINK deliberately of the house you live in—your body. Make up your mind firmly not to abuse it. Eat nothing that will hurt it. Wear nothing that distorts or pains it. Do not overload it with victuals or drink or work. Give yourself regular and abundant sleep. Keep your body warmly clad. Do not take cold. Guard yourself against it. If you feel the first symptoms, give yourself heroic treatment. Get into a fine glow of heat by exercise. This is the only body you will have in this world. Study deeply and diligently the structure of it, the laws that govern it, the pains and penalty that will surely follow a violation of every law of life and health.—*Selected.*

INQUISITIVE people are the funnels of conversation. They do not take in anything for their own use, but merely to pass it to another.—*Sir R. Steele.*

## HOW TO EXTINGUISH FIRE.

TAKE twenty pounds of common salt, and ten pounds of sal ammoniac (muriate of ammonia, to be had of any druggist), and dissolve in seven gallons of water. When dissolved, it can be bottled, and kept in each room in the house, to be used in an emergency. In case of a fire occurring, one or two bottles should be immediately thrown with force into the burning place so as to break them; the fire will certainly be extinguished. This is an exceedingly simple process, and certainly worth a trial.—*Reflector*.

Do not forget that a cold in the head may be relieved by the inhalation of vapors arising from a solution of pulverized camphor or compound tincture of benzoin, about a teaspoonful in a pint of boiling water, which should be put into a pitcher having closely fitted over it a cone of thick paper, with an opening at the top, through which the patient may breathe. He should inhale by the mouth and exhale through the nose.

Do not forget, if you have a sick person in charge, that sore lips frequently result from want of drying the lips and corners of the mouth after feeding.—*The Trained Nurse*.

## INGROWING NAIL.

In the treatment of ingrown nail, good results have followed the use of salicylic acid. The flesh which has grown over and upon the nail can be removed by the application of a mixture of two drachms of salicylic acid to one ounce of vaseline. This must be applied daily. Before re-applying the ointment each day, it will be necessary to remove a portion of the overgrown flesh, which comes off easily and without pain. In a few days it will thus be entirely destroyed; also, at the same time and daily, put a small pledget of absorbent cotton under the ingrown nail. The nail must not be cut or trimmed. It may require a considerable time to bring about a cure in this way, but relief is permanent. This method of treatment has succeeded in the writer's practice where many other plans, including ablation, have failed.—*Selected*.

Is there any shock, any pang, that life can give, equal to that of suddenly perceiving a touch of baseness, a failure of honor, a lower level of moral feeling in those who are most dear to us? This is what shatters heaven and earth, and shakes the pillars of existence.—*Mrs. Oliphant*.



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