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THE PLACE OF FRUIT IN THE DIET OF CHILDREN.

THERE is no doubt that the proper use of fruit for young children is very beneficial, yet so fraught with danger is it unless intelligently directed, that the careful physician prescribes it with fear and trembling. We copy the following valuable suggestions concerning the use of fruit in the diet of children from the recent valuable work of Louise E. Hogan, entitled "How to Feed Children:"—

"The use of fruits in nursery dietetics is of the greatest importance. They contain a very large percentage of water, but their chief food value lies in the sugar, acids and salts which they contain, which cool the blood, aid the digestion, tend to promote intestinal action, and correct tendencies to constipation. They are especially adapted to the nourishment of the brain and nervous system.

"The selection and use of fruit demand careful consideration, and it must be used moderately at all times, as any excess tends to intestinal irritation. The seeds, pulp, and cellular parts are usually the disturbing elements. The juices are, as a rule, perfectly wholesome, and may be used some time before solid fruits are given. The *Lancet* says: 'Nothing is more essential to learning than frequent reiteration. . . . It might be supposed that by this time everyone understood the importance of observing particular care in the selection of a summer dietary, especially as regards fruit. Hardly any question of domestic management is either more vital or more elemen-

tary, yet error continually arises in this connection in the simplest way. A few days ago a child died soon after eating strawberries. Why?—Because the fruit had been purchased *two days previously*, and, as was only to be expected, when eaten was in a state of decay. It is impossible to resist the impression that neglect has something to do with the sad result in this instance. Luscious fruits are particularly liable to putrefactive changes; and such thrifty processes as exposure to cold dry air, spreading out, and the like, suffice only to postpone decay for a brief period. We can not do better than to point to the incident above mentioned in order to remind the vender and purchaser alike that freshness is the only certain guarantee of safety when any succulent fruit forms an article of diet. We have not forgotten that another hardly less serious danger of the season awaits those who indulge in fruit which is under-ripe. In this case, taste as well as judgment commonly interposes a caution, the importance of which can hardly be exaggerated. Yet here, also, the consequences of neglect have too often been sadly apparent.'

"As may be inferred from the above remarks, it is of the first importance that fruits be ripe, fresh, and in good condition. They must also be delicately handled, as their greatest value lies in the juice they contain, which may readily be lost, in whole or in part, by careless handling. A child two and a half years old may usually be allowed the juice and pulp of a sweet, ripe orange; no amount of sugar will correct the acidity of a sour orange, in a wholesome way, for nursery use.

The juice of a sweet orange is indicated in feverish conditions, and it may be freely used under almost all circumstances after a mixed dietary has been begun. It is well to remember in giving all fresh fruits that the best time is to give them for breakfast or for early dinner, as all fruit allowable for supper should be cooked. It should also be remembered that when fat or meat forms a considerable portion of the menu, fresh fruit should be carefully given; therefore, in winter menus, when fat and meat are necessary for dinner, it is advisable to use fresh fruit for breakfast and puddings, etc., for dinner desserts. In summer, when meat and fat should be sparingly used, fresh fruit may be given for both breakfast and dinner; never for supper at any season of the year. Baked apples may be used frequently after a child is two years old. Dr. Rotch says a baked apple may be given at the evening meal when a child is from fourteen to fifteen months old, or, for variety, the apple may be made into a simple sauce, never, however, having the sauce made with much sugar. The pulp of a ripe apple, scraped with a silver spoon or knife, may sometimes be given for breakfast. Apples, cooked or raw, are particularly useful with a concentrated diet (beef broth, eggs, etc.), and if properly selected, they are easily digested. As a rule, a child who is delicate and has little appetite for breakfast, will rarely turn away from a juicy, baked apple daintily served. For eating raw, a highly colored apple, with rosy, sugary flesh, is most digestible, if care is taken to see that it is properly masticated. Any really ripe apple may be used with safety if peeled and scraped. The juices of almost any fruit may be used at two and a half years, either as a drink, or with the varieties of desserts or farinaceous foods allowed. Cherries, grapes, raspberries, strawberries, blackberries, pineapples and similar juicy fruits, are suitable for this purpose. These juices may be prepared in the following manner, and possess the advantage of being ready for use at all seasons of the year: Express the clear juice of the fruit in the usual way, and boil it with a small quantity of sugar, about a quarter of a pound to a pint of juice. Boil fifteen minutes, stirring continuously, and skim as long as any scum arises. Then strain, put in bottles or jars, and seal.

"After a child is two and a half years old, stewed fruit should be freely used, especially apples, prunes, figs and peaches. For many children all-ripe fruits are laxative, and for this reason alone, if

for no other, they are valuable aids in regulating a diet that is frequently too much concentrated or too starchy, keeping a child dull, sluggish and unhappy.

"The following fruits may be used after three years and a half according to the child's power of digestion: Cranberries, which rank as an anti-scorbutic and an astringent, may be given in the form of a sauce or a drink. They should be strained when used in the nursery. To make a cooling, refreshing drink, boil the berries in water double the measure of the berries. Boil until the juice has been thoroughly extracted, sweeten with one-half pound of sugar to a quart of juice, boil ten minutes, bottle, and seal while hot. This must be largely diluted.

"Strawberries are wholesome for nearly everyone when fresh and ripe if taken in moderation, but results must be carefully watched for individual idiosyncrasies. Some physicians recommend their use as early as two years and a half, but it is better to err on the safe side and 'make haste slowly.'

"Dates and figs are highly nutritious, much more so than many other fruits, and in large quantities they are usually aperient. Children generally like dates when seeded, pressed flat and served with a slice of buttered brown bread or saltine crackers.

"Bananas are nutritious, but indigestible unless very ripe, when they are nearly all sugar, and it may be as well to postpone their use until children reach the age of six years. They should be well chewed.

"In this connection it may be well to mention some of the uses to which bananas are put. While awaiting my turn in the office of a prominent New York physician for children one day, I saw a mother with a child apparently two and a half years old leave the house for a few moments to get something, as she said, to quiet the child, who was crying. As she went out she remarked to the servant at the door that she had brought the child to the physician because he wasn't well—wouldn't eat. She returned in a few moments, and the child was eating a so-called 'ripe banana.' The skin was green. I felt impelled to send word to the physician to this effect, as her turn preceded mine, but I did not do it, nor can I tell why. I think the hopelessness of convincing such a mother prevented me, and both the child and the physician had my sympathy, for obvious reasons.

"I have seen children only two years old

munching away contentedly at ripe bananas. One was the child of an Italian fruit vender, and she was the picture of health and content. Her mother assured me that the child ate them daily, and had never been ill. I questioned her closely, but could find no evidence of bad effects. The child was a sturdy little thing, and looked perfectly well. Reflection led me to believe that the secret of it all was that thrift would prevent her parents from giving her the sound bananas of market value, and the child was allowed to eat those only that were really ripe, and consequently she did not suffer as she would have done had they been otherwise. Really ripe bananas, being chiefly sugar, are easily digested, and under certain conditions are an excellent food. When not really ripe they are extremely indigestible. A ripe banana in the tropics is an entirely different fruit from the banana sold elsewhere as being ripe. To those mothers who insist upon feeding their children upon green bananas, the above remarks may be of interest.

"Pears, when ripe, may be used carefully, but they are not to be preferred to other fruit for the first five years, as, in the opinion of many, they require a long time for digestion, and being decidedly laxative, if not properly digested, they are likely to give trouble. Peaches may be used from eighteen months up, when fresh and ripe and prepared carefully—that is, immediately before eating. Dr. Rotch says a ripe peach, when in season, may often be given with benefit during the second year, especially if the infant is inclined to be constipated. Peaches should always be pared for nursery use, as should every skin fruit, like the pear, apple, plum, etc. They must also be thoroughly washed before using. Diphtheria has been known to be carried by unwashed apples, and even if no contagion exists, there is something decidedly unpleasant in the thought of eating fruit that has been handled constantly by unwashed hands from the time of picking, through transit, until it reaches the table. Even dates and figs suffer no appreciable loss by being quickly but carefully washed and dried in the sun or over a range, and they are infinitely more appetizing when treated in this way. Sterilized or boiled water should always be used for this purpose.

"Grapes occupy an intermediary position, and may be used medicinally in many cases, under the guidance, however, of a physician. They are very rich in sugar, both in the fresh and in the dried form (raisins), and are easily digested when

fully ripe. They are particularly useful in convalescence and in anæmic and catarrhal affections. The skins and seeds of all grapes must be rejected; the pulp, also, of many of them, chiefly on account of the seeds it contains. The pulp of Tokay, Malaga, and similar grapes may be eaten freely. Grape juice is especially refreshing, and is liked by all children. It may be given among the first fruit juices allowed. A pleasant way to prepare grape juice for young children is to use a fruit press (a press that is used for mashing potatoes will do very well), putting pulp, skin and all, into it and expressing the juice, which may be given clear or diluted for dessert, or as a cooling drink in hot weather, whenever and in whatever quantity desired. In this way some of the valuable ingredients of fruit may be added to a child's dietary long before the use of solid fruit is allowed.

"Blackberries are an astringent fruit, and they must be perfectly ripe to be eaten in their natural state. The usual blackberry in the market is unripe, although black, and is unfit for food unless cooked. The berries are not sweet when in this condition, and if eaten they will easily cause a period of indigestion. A very good jelly may be made by using gelatine soaked in blackberry juice instead of cold water, in the proportion of a box of gelatine to a pint of juice, adding one cup of sugar and three cups of boiling water. Boil, strain, cool, and keep in covered jars or tumblers. This method, with the variations called for by the different fruits in the way of sugar, flavoring, etc., will be found an excellent one for the use of all fruits. Cherries, pineapples, prunes, oranges, apples, grapes, raspberries, currants, and rhubarb are all to be recommended in this form. A further variation may be made at any time by adding the whites of eggs in proportion to the quantity made (as, for instance, two to four whites to one box of gelatine), beating the whites stiff and whipping them into the fruit jelly a little at a time before it is quite firm. This may be eaten plain or with sweet cream.

"Corn starch and blanc mange may be varied by cooking them with fruit juices instead of milk, to be served with milk or cream.

"The white of egg beaten very stiff and slightly sweetened, or whipped cream, either of them to be used with the addition of fruit or fruit jelly, is a dessert that is simple, easily made, and one that not only pleases the eye and palate, but possesses desirable nutriment as well.

"Whilst the selection of a fruit or fruit dessert may seem the least important portion of the nursery menu, it does not occupy this position, as, if used at all, it must be considered in connection with the idea carried out in selecting the menu for the entire meal. We must always remember the rules to be followed in health in regard to proportionate quantities of food containing albuminoids, starches, fats, sugars,—one supplementing the other. Under other conditions than those of health an entirely different plan must be followed, as special conditions call for specially directed nutrients, and at such times fruits and vegetables are not desirable, unless recommended by some one of unquestionable authority,—*i. e.*, the family physician."

THE PACK.

BY E. G. WOOD.

THE pack, when properly administered, will prove one of the most valuable of remedial agents. As in other treatment, one should know its action upon the functions of the body, and the ill effects resulting from its injudicious use.

The pack may be employed in many forms, and its action depends largely upon the temperature and the duration. It may be employed as a general pack, where the whole body is enveloped, and as a local pack, where only a part of the body is covered. It is used for the purpose of regulating the temperature of the body in cases of fever, to excite activity of the eliminative organs when indolent and clogged, to equalize the circulation in congestion, and for the removal of pain. *

To accomplish these various results, we use the full wet-sheet pack, the full blanket pack, the dry pack, the half pack, the hip pack, chest pack and leg pack.

The cold pack is seldom used except to reduce fever. For this purpose a cold or hot wet-sheet pack is given. The necessary paraphernalia for this would consist of two or three blankets and a cotton or linen sheet, which should be large enough to extend twice around the body. The blankets are first spread upon a bed or cot, the edges of the blanket hanging down an equal distance on each side. The sheet is then folded so as to open in the center. It is then wrung out of hot water, as a rule, so that it will not drip, and

placed on the cot and opened to allow the patient to enter. Each side of the sheet is brought over the patient, close under the chin, and tucked in, taking care that the feet are well covered. Sufficient quantity of the blankets should then be brought over in the same way, to keep the patient from chilling. A cool cloth may be placed upon the forehead, if necessary. If the feet become cold, dry heat should be applied to them. One may remain in this pack from a half to an hour, as the case may suggest. When the patient is removed, cool spray may be given, followed by thorough drying and rubbing. Care should be taken that the patient does not chill after being removed from the pack.

The full blanket pack, or sweating pack, as it is sometimes called, is given in very much the same way as the wet-sheet pack, except that blankets are used next to the skin, and made as hot as can be borne, and hot water bottles are applied to the sides and feet. Care should be taken that the patient does not become faint or weak while in the pack. In such case he should be immediately removed. This treatment will be found useful where a powerful action of the skin is necessary in the elimination of poison. It will also be found of much value in the breaking up of cold and in rheumatism.

In the dry pack, the patient is wrapped in dry blankets, hot water bottles or bricks applied to the sides and feet, and warm drink given to induce copious perspiration. This treatment is of much value in aborting chills in malarial patients. The patient should be put in this pack before the usual time for the chill to appear, and remain in it until sometime after. This treatment should be repeated in connection with other eliminative treatment. The time, however, should vary according to the condition of the patient.

The half pack is given in the same way, except that it does not extend above the armpits. It is much milder in its action than the full pack. It is used in inflammation of the thoracic and abdominal viscera. When hot applications are needed, the patient is usually enveloped in a blanket; if cold applications are needed, a sheet is preferable.

The chest pack is applied in the same way, extending from the shoulders to the waist, and is valuable in cases of pleurisy, asthma and other pulmonary troubles.

The leg pack is applied from the hips down, and

is an excellent remedy for habitual cold legs and feet.

In the use of medicated packs, those generally used are the soda, sulphur, and, occasionally, where intense action is necessary, a mild counter-irritant is used in combination with the pack, as mustard or pepper in small quantities. This is made into a solution, soft cloths are saturated with it and wrapped about the patient, then the usual pack is administered.

In the administration of the soda pack, dissolve a small handful of bicarbonate of soda in sufficient warm water to make it the consistency of paste. Then rub the parts to be enveloped, leaving a thin coat, and apply the blanket pack. A sheet may be used to envelop the body, in order to avoid soiling the blankets. The patient is usually left in this pack until he ceases to perspire freely, which is followed by a spray, thorough drying, and manipulation of the parts. This is valuable treatment in chronic rheumatism.

In the application of the various forms of the pack, great care should be taken with the feeble, the aged, and with young children. Other than this, one need apprehend no danger if the patient is properly treated and cared for after the treatment has been given.

"THE USE AND ABUSE OF A BACK."

BY IDA M. POCH.

IN the first place, a back is constructed of bone, muscular tissue, skin, nerves, etc. The two first-named elements we will consider. As to the bones, there are twenty-four of them, yes, twenty-six small bones strung together so that there is but little individual movement, and perhaps because there is so little we have presumed to disregard it and consider it of but little consequence. On the contrary, because the motion is so slight, it is of the greatest consequence that we should carefully preserve it, for it is exceedingly precious in producing grace and ease.

Let us remember that grace does not mean a simpering of self-consciousness. Grace means strength—perfect self-control—not weakness of any sort. The graceful person is self-possessed—the one who has the body so under control that it requires no thought. Herbert Spencer defines it as "ease in force." "This is the refinement of power

which no more signifies loss of power than does the refinement of crude iron into steel. In the interview between Richard Cœur de Lion and Saladin, as narrated by Scott, where each performed his greatest feat for the edification of the other, when Saladin with his scimitar dexterously cut in two the gossamer scarf floating in the air, he displayed a power—physical ease and control, or grace—as superior to the brute force shown by Richard when he severed the iron bar with the stroke of his battle-ax, as was the temper of Saladin's Damascus blade to that of the Briton's unwieldy weapon. Richard manifested effort in force which leads to depletion; Saladin ease in force which makes work seem as play."

Let us keep these thoughts with regard to grace in our minds. Let grace be a synonym for health and strength as well as beauty of movement, and let us strive unceasingly for this true ideal.

As before stated, the slight movement of the individual vertebræ which form the spinal column, is a large factor in this consideration. A certain writer on Delsarte says, "By taking the vertebral column alone we shall have twenty-four special and distinct keys whose action and tonality will be entirely specific. From these twenty-four vertebræ proceed the various flexi, all aiding a peculiar expression, so that the vertebral column forms the key to the sympathetic human instinct."

Perhaps none are unacquainted with the natural curve of the spine—the graceful, strong, double curve. Unfortunately, we do not often see this. How is it lost? We find between the little bones a cushion of cartilage. This substance is yielding and compressible. If the body is habitually carried out of poise—forward, to right or to left—these cushions are compressed in some particular portion, corresponding to the position assumed. Thus the disks, by constant pressure at one point, become unequal in thickness and the spine tips in the direction of the depression. Thus the defective poise becomes so fixed that the normal poise of the body frequently can be regained only by careful and persistent effort.

So much for the bones.

There probably is no single complaint so often before a physician as "my back aches." Of course there are various causes for this which do not come within the scope of this article; but there is an ache with which we have to do—the muscular backache. Is it necessary to define it? Do something a little out of the ordinary, and there you have it. Keep

in mind, *there is not a single superfluous muscle in the body*, and sometime a weak, degenerate one will be called upon to fulfil the purpose of its existence. Then it will either fail to respond to the call or it will be overworked and ache for it. One of these two results is inevitable.

Now here is this poor weak back. The muscles have never been called upon for regular work; once in a while they have been summoned to duty, from which they did not recover for days. After each one of these spurts, the unfortunate owner of this neglected back decided never to do anything like that again, because surely his or her back "is so weak, it can't be good to exercise." But stop a minute and think what you have required of yourself. You marvel at the ease with which an athlete performs movements which for you seem impossible. Do you think he could do that in the beginning? Oh, no! He began with a little, day by day adding to the task until every muscle and nerve learned its duty and acquired the power to perform it.

If we would pursue such a course in training a back, after a time we would find ourselves doing with ease things which before were painfully done, if done at all.

But some one with more sympathy than knowledge says: "Rest your back if it makes it ache to use it." No doubt that will put an end to the ache for that time, but what about the next time? Again, some one says: "Put on a corset and brace it up." My dear friend, that would be very much on the same principle as getting rid of a hole by cutting it out—the more you cut the bigger it gets. The more you brace your back the weaker it gets. Ask any woman who has depended upon artificial support for a long time how she feels when it is left off, and she will answer: "I simply go all to pieces; I can't stand up straight." Does not this prove that the support increases the need for support, and thus adds to the difficulty? Exactly as the necessity for a crutch testifies to a weakness in some other part, so the need of a support for the back testifies to a weakness there.

Now comes the question: "What shall we do, and how long shall we do it?"

First, cultivate a correct poise in sitting, standing and walking. Second, dress properly. Third, exercise, not only the back but the whole muscular system. That is the only way to overcome weakness. These exercises, for the back espe-

cially, combine with others for general development and muscular tone.

1. Lie face down on the floor; arms stretched by the sides; raise head and trunk as far as you can.

2. Now turn over; put your feet under something if they refuse to stay on the floor; arms as before, rise to sitting posture.

3. (a) Now stand up in correct poise; arms upward stretch; stretch so far that only toes are on the floor; heels sink. Now bend forward, reaching to the circumference of as large a circle as you can, until your fingers touch the floor. (b) Now bring your arms to the upward stretch position again (that is in relation to the head); bring the head up. Now raise the trunk to the upright position. Begin gently; work slowly; persevere, and the results will be a pleasant surprise to yourself and your friends.

Do not expect to gain anything without effort, and perhaps painful effort. If the pain becomes too severe, rub well with a little alcohol.

HYGIENE VERSUS DRUGS.

BY C. F. ULRICH, A. M., M. D.

THE American people have been called a medicine-taking nation. If the quantity of drugs prescribed by physicians, the masses of patent medicines, the barrels of so-called home remedies, such as teas, decoctions, infusions, and other monstrosities, swallowed by the American people, were ascertained, collated, arranged, and published in a book, it would strike the reader dumb with astonishment. The fact that any human body can survive the injection of such an endless variety of vegetable, animal and mineral poisons as are poured into the patient and unresisting stomach, and thence distributed throughout the various channels, acting upon the digestive organs, the circulation and the nervous system, proves that man is indeed "fearfully and wonderfully made," and has much greater powers of resistance than we would believe possible.

Let us suppose that an individual has what is commonly called a cold, which may be catarrh of the pharynx, the tonsils, the larynx, the trachea, the bronchi; it may even be an incipient pneumonia. This person tells his or her suffering to a neighbor; the neighbor replies, "Oh, I had that,

and I took such and such medicine." Immediately the article is procured and taken. Another one comes in, hears the tale of woe, and recommends something else; this also is duly swallowed. By the time the gauntlet of the whole neighborhood has been run, and the entire catalogue of the domestic and the proprietary pharmacopœia has been exhausted, the patient has either recovered by virtue of his good constitution in spite of the horrible dosing, or the disease has progressed to a dangerous stage. In the former case, the wisdom of the neighborhood gossips or the excellence of this or that patent medicine is lauded to the skies; in the latter case, the doctor is called in and is told they have given the patient everything that everybody recommended, and, having failed, they now call him in to try his skill. Thrice happy is the poor doctor if these busybodies have left enough constitution and vitality in their unfortunate victim to give him even a faint prospect of working a cure. If, however, owing to the exhaustion of the vital powers, or the general subversion of all the functions of the body by the heavy, indiscriminate and absurd dosing to which the poor sufferer has been subjected, the doctor fails to cure him, all the vials of wrath will be poured upon his devoted head by the would-be doctresses in the neighborhood. If he thinks the patient requires rest from drugs and gives nothing, he is promptly discharged and another one called in, who will come up to their standard of excellence by ordering some kind of medicine to be taken every hour or oftener.

I have frequently been told when presenting a bill that certain visits should not be charged for, because I did not make the patient take medicine on those days. My answer would be that it required as much medical knowledge to determine when medicine is unnecessary as to know what remedies are required. It has often been suggested to me by my patients or their families, that it is not necessary to come every day, but to return about the time the medicine is exhausted, in order to prescribe more. It does not occur to these individuals that the physician's duty is to watch the course of the disease, note its changes, assist nature in her efforts to bring about recovery, prescribe suitable remedies against unfavorable tendencies,—in short, to act as a kind providence to watch over the patient and promote recovery. They imagine the physician's business is to pour all sorts of drugs down the poor patient's throat,

and keep him constantly saturated with medicine. While engaged on the preparation of this paper, I visited one of my patients in the afternoon, whose medicine was exhausted in the morning. I found the family in terrible trepidation because he had not been dosed for six hours. The fever having abated, the temperature normal, the pulse regular, the patient free from pain, he was all the better for getting a little rest from drugs; but the family had suffered agony on account of my coming so late, and were on the point of sending a messenger to my house to inquire what was to be done. It is often necessary to prescribe a placebo in order to retain the patient. The physician who studies nature carefully, who makes himself thoroughly acquainted with the physiologic and pathologic processes of the human organism, acquainting himself with all the changes that take place in the interior of the body, both in health and disease, giving the proper remedy at the right time and refraining from the administration of drugs when nature is doing the work for him, will be successful where success is possible; although he may sometimes confront the prejudices or the dense ignorance of his clients, and thus lose caste with some of them; but in time it will be better, not only for the patient, but for the physician himself.—*Journal of the American Medical Association.*

SOME FACTS ABOUT NICOTINE.

(Concluded.)

"I heard a president of a normal college say to his students that he could pick out the users of tobacco by simply looking at the record of recitations, and added: 'If there is one boy who can use tobacco and keep up with his classes, that boy has an intellect bright enough to yield him a world-wide reputation, if he were to give up the use of tobacco.' The *Yale Courant* tells us that in the four grades of scholarship into which Yale students are divided, in the first grade, only 25 per cent use tobacco; in the second grade, 48 per cent; in the third, 70 per cent; and in the lowest, 85 per cent. A report by the medical department of the U. S. Naval Academy at Annapolis, Maryland, enumerates as the results of the use of tobacco in the school: 'Functional derangements of the digestive, circulatory and nervous systems, manifesting themselves in the form of headache, con-

fusion of intellect, loss of memory, impaired power of attention, lassitude, indisposition to muscular effort, nausea, want of appetite, dyspepsia, palpitation, tremulousness, disturbed sleep, impaired vision, etc., any one of which materially lessens the capacity for study and application. The board are of opinion, therefore, that the regulations against the use of tobacco in any form can not be too stringent.'

'Worse, perhaps, than all this terrible effect on the body and mind, is the evil result to the moral nature. According to a New York doctor, 'the universal experience of all mankind will attest, and the intellectual observation of any individual will confirm the statement that, precisely in the ratio that persons indulge in narcotic stimulants, the mental powers are unbalanced, the lower propensities acquire undue and inordinate activity at the expense, not only of vital stamina, but also of the moral and intellectual nature. The whole being is not only perverted, but introverted, and retroverted. Tobacco using, even more than liquor drinking, disqualifies the mind for exercising its intuitions concerning the right and wrong; it degrades the moral sense below the intellectual recognitions.

'The testimony of Professor Stuart, of Andover, is that tobacco undermines the health of thousands, creates a nervous irritability, and thus operates on the temper and moral character of men. It is the opinion of Professor Mead, of Oberlin, that the tobacco habit tends to deaden the sense of honor, as well as of decency, and none are likely to practice deception more unscrupulously than those who use the weed.

'Dr. Harris says: 'There is no article of luxury that so secretly, and yet so surely, saps all the foundations of manliness and virtue as the use of tobacco. It paves the way to every vice and tends directly to habits of the grossest immorality.'

'In a discourse to the graduating class at Williams College, President Hopkins, after some preliminary remarks on the use of tobacco, thus sums up: 'I may express to you my conviction that habitual narcotic stimulation of the brain is not compatible with the fullest consecration of the body as the temple of God. Good men may do this in ignorance, as other things prevalent at times have been done, and not offend their consciences; but I believe that greater earnestness, more self-scrutiny, fuller light, would reveal its incompatibility with full consecration, and sweep

it entirely away. The present position on this point, of the Christian church as a whole, and largely of the Christian ministry, I regard as obstructive of the highest manhood and of the spread of spiritual religion. I know that strong men have in this connection been bound as in fetters of brass and cast down from high places, and have found premature prostration and a premature grave, and that this process is now going on. Let me say, therefore, to those of you who expect to be ministers, that I believe sermons, even those so-called great sermons, which are the product of alcoholic or narcotic stimulation, are a service of God by strange fire; and that for men to be scrupulous about their attire as clerical, and yet to enter upon religious services with narcotized bodies and a breath that smells to heaven with anything but incense, is an incongruity and an offense, a cropping out of the old pharisaism that made clean the outside of the cup and platter. Not that abstinence has a merit or secures consecration; it is only its best condition.'

'It is claimed by many that the use of tobacco leads to strong drink. To be sure, many smokers do not drink, but I imagine there are few drinkers who do not smoke, and the testimony of men endeavoring to reform, is, that to succeed they must not only give up their drink, but their tobacco.

'Dr. Kirkebride says: 'I have never seen the slightest injury result from the immediate and total breaking off of the tobacco-using habit, and the experience of this hospital is a large one in this particular.' We quote from the testimony of another physician: 'The struggle of the sufferer may be terrible, he may even feel like death; but there is no danger of dying. Such a result has never yet happened. Altho pain and misery are intense, their duration is short.'

'To one endeavoring to break free from the fetters of tobacco using, it might be well to suggest that a great assistance will be found in avoiding all stimulating, highly-seasoned articles of diet, and in the using of fruits, especially lemons, also in warm bathing, or wet-sheet packing, to induce the speedy elimination of the poison from the skin.

'We have been counting the cost of the use of tobacco in its effects upon nerves and blood, on heart and brain, on memory, intellect and morals, now suppose we count the cost in dollars and cents. You can figure up yourself what would be the yearly expense of a man who smoked a hundred cigars a day, as Delmonico is said to have done.

If they cost only five cents a piece, it would amount to five dollars a day, or eighteen hundred dollars a year.

"A man is considered a very moderate smoker who uses only three cigars a day; computing these at five cents each, would make over fifty dollars a year. But suppose he only spends five cents a day; will you figure up what he could save if he put it out at compound interest? Or suppose he put the fifty dollars into books, at the end of the year he would not have paralyzed his nerves and poisoned his blood, and have only an empty pocketbook; he would have gathered about him a company of choice friends, to be a pleasure to him all through life.

"The destructive effects of tobacco raising upon the soil must be included in this count of cost; also its effects upon the condition and character of those raising it. Jefferson says: 'It is a culture productive of infinite wretchedness. No other crop so entirely exhausts the soil; and this must be recognized by those who travel through the old tobacco-growing districts.' Close observers declare that the cultivation of tobacco tends to blunt the moral and religious sensibilities, impairs the spiritual perception, and results in many cases in spiritual death. If tobacco lessens courage, decreases will power, diminishes mental force and deteriorates bodily vigor, its constant use, as in our country, can not fail to be manifest in the characteristics of the nation."

SUBSTITUTES FOR ALCOHOL IN MEDICINE.

BY MRS. MARTHA M. ALLEN.

THE question is frequently asked, "What shall I take instead of wine, beer, brandy or other alcoholic liquors, when I am advised to use some one of these as a remedy in illness?" The question implies that liquor is a valuable aid in combating disease, but principle forbids its use if any other agency will as well meet the case. This query and its implication show lack of knowledge of the teachings of non-alcoholic physicians, who have repeatedly stated that in most ailments alcohol is not only useless, but positively harmful, its reputation as a curative agency resting solely upon its narcotic nature. It is the power of alcohol to deaden sensation which has led to all the popular delusions regarding it, both as food and medicine.

The patient does not *feel* the same uneasy sensations after taking it as before, hence he thinks he is better. He does not know that the cessation of uneasiness results from the benumbing of his capacity for feeling. Physicians, as well as laity, have been deluded by this deceptive drug, because until recently its nerve-deadening nature was not recognized, and instead of being classed as a narcotic, it was spoken of almost universally as a "stimulant." But modern investigators in medical science have by careful experiments learned that the operation of this drug in the human body is really the exact opposite of the common suppositions regarding it. It is said to warm, yet it has been thoroughly demonstrated that it reduces temperature. It is said to strengthen, yet its action on muscle is known to be enfeebling, its seeming strength-giving being only the dulling of the sense of fatigue. It is said to stimulate the heart to action, yet it really only creates a flutter while decreasing power. Being a nerve-deadener it is, by its very nature, a deceiver. By quieting a patient's restlessness both physician and friends may be led to think the condition of the sick one improved when great danger is really present, because the symptoms of disease are hidden that should be revealed.

Those medical men and women who have abandoned the use of alcohol in their practice have not been led to such action because of any "temperance fanaticism," but because they are satisfied that disease is more readily subdued when there is no alcohol in the blood. It is true, however, that the doctor who is a total abstainer is more likely to abjure liquor in treating his patients than is the drinking doctor, for his faculties, being free from the benumbing influence of the drug, are clearer to note its effects. As independence of thought and action are necessary to stepping out from a beaten path, even total abstaining doctors are not all ready as yet to lay aside a drug commonly craved and popularly believed in. A sufficient number have asserted their independence in this matter to fully demonstrate that the disuse of alcohol in sickness results in a much smaller mortality, and that a person is in more danger of dying who takes this drug than if he lets it entirely alone. Members of the W. C. T. U., or other temperance workers, need have no fear that their own lives or the lives of their dear ones will be jeopardized by a refusal to take liquor. With alcohol in the system, the sick person has both the disease and

the liquor to fight; many succumb to the double strain who might resist the disease alone. Some recover from the disease only to die of heart failure caused by the liquor.

So to answer the question, "What shall I take instead of liquor?" should be: First, "It is better to take nothing than to take what aggravates your trouble; alcoholics do not cure, they only deaden sensation while enfeebling the heart." The next question will probably be, "What shall I say to the doctor if he prescribes liquor?" There is much less prescribing of this kind now than a few years ago, but there is still too much. "Make yourself intelligent upon this subject by studying the literature of the department of 'Non-Alcoholics in Medicine,' that you may be firm in the refusal to use alcohol, and be able to give good reasons for so doing." It was the stubborn refusal of some cholera patients to take brandy, and their speedy recovery, which led to the experiments in the disuse of alcohol in England, with the establishment of the London Temperance Hospital, and the thorough investigation of the effects of alcohol by Sir Benjamin Ward Richardson and other eminent physicians. If all the temperance women of the United States would utterly refuse alcoholic prescriptions, the indifference of a large part of the medical profession to this question would speedily cease. If all our workers would take and read the *Monthly Bulletin* of the American Medical Temperance Association, there would soon be a large company fully equipped with "reasons why" alcohol should not be used as medicine. This magazine is edited by three of the best-known physicians of America: Dr. N. S. Davis, of Chicago; Dr. J. H. Kellogg, of Battle Creek, Mich.; and Dr. T. D. Crothers, of Hartford, Conn. It is published at Battle Creek, by Dr. Kellogg, at a dollar a year. I am not paid for advertising it, but mention it as the best help in print for those who desire information on this subject.

To return to the first question, "What shall I take instead?" If any W. C. T. U. sister were asked this by a person using liquor as a beverage, she would no doubt say: "Liquor is doing you harm, and harm only; quit it if you want pure blood, good muscle and clear brains. Your system does not need it in any way." So I say quit it as a medicine, precisely as you would advise a drunkard to reject it as a beverage. It is doing you harm, and harm only. Alcohol has

just the same injurious effect upon the blood and every organ of the human body when swallowed as medicine as it has when swallowed as a beverage. Calling it medicine does not change its nature. When God's word calls it a "mocker," there is no exception in the case of medicine.

No doubt many who read this will not agree with the writer, but they will some day, if they live long enough. Those who are sufficiently unbiased to thoroughly investigate the matter will very soon find these statements to be correct.—*Union Signal*.

HORRORS OF ABSINTHE.

RAVAGES OF THE DREAD DRUG IN THE GAY CAPITAL OF FRANCE.

MANY stories are told of absinthe drinking in Paris, the most important of which deal with that famous old café, Tortoni's, which used to be every afternoon, just before the dinner hour, crowded with literary men and artists, imbibing; as an appetizer absinthe drawn from a barrel which for half a century at least had been periodically replenished with the best essences of wormwood grown in Pontarlier, or the Swiss canton of Neuchâtel. With the vanishing of Tortoni's from Parisian life, this picture vanished, too, but absinthe drinking by no means died with the disappearance of the famous café. Not a few of the chief lights of the French capital in the worlds of music, art, literature and the drama drink deeply of this liquor at regular intervals. Many of the best energies of French literary life have, in fact, been sapped.

A decade ago the craze for absinthe attacked men even more prominent in Parisian circles than are its present devotees. Andre Gill, the caricaturist, lost first his talent and then his reason through too many hours spent in the café sipping the seductive fluid, and absinthe filled the imagination of Theodore Barriere with the most terrible thoughts. A yet more pointed example, is that of the French Byron, Alfred de Musset, who was picked up drunk and half dead in the streets nearly every night for several years.

Another interesting commentary on the use of absinthe in Paris is that in the poorer districts of the city not only men but women and children as well—children, male and female—are made half paralytic through frequent doses of this terrible drug. These wretched people get it, of course, in

its very worst form. They drink it because it brings a temporary release from care. They do not think that absinthe has also in its train disease and death.—*Selected.*

in more exercise, and, if the symptoms are severe, they should consult a physician, who may carefully revise their diet and mode of life.—*Selected.*

URIC ACID.

PROMINENT among the many causes of nervousness is the state known as the "uric acid condition."

Sufferers from this condition are especially subject to biliousness and sick headaches, while the excess of acid in the system is frequently relieved by the vomiting of quantities of extremely acid fluid, with which are often mingled portions of undigested food.

Inactivity of the liver certainly takes a prominent part in producing this unnatural state. The spleen and kidneys are also affected unfavorably.

Much of the *modus operandi* of the chemical changes carried on in the human body is scarcely to be followed by the observer in his laboratory.

The chemistry of the human system, which by early physiologists was considered comparatively crude, is now recognized as most complex and puzzling; and many of its mysteries are yet far from having been completely unraveled, active as are the investigations now being carried on, and competent and ardent as are the investigators.

Food is the fuel introduced into the furnace of the human system, while the excreta are the ash from its waste-pan. Let one or more of the organs perform their functions improperly, and unconsumed fuel clogs their workings, and products improperly fitted for meeting the demands of the system are formed. This crudely represents the state of the system in which uric acid is found in the blood, and excreted by the kidneys in abnormal quantities.

Nervousness, bilious attacks, headaches, sleeplessness or the reverse, attacks of calculi, whose passage from the kidneys is attended with most agonizing pains, or severe pains localized elsewhere, are symptoms of the improper performance of the functions of the organs mentioned. Such symptoms are not often found among persons actively employed in out-of-door work, but rather among the sedentary and inactive.

Those who suffer in this way should drink a much greater quantity of water and consume less starchy and sugary foods. They should indulge

THE INFLUENCE OF THE BRAIN ON THE STOMACH.

IT is a common opinion that good, or rather high, living is the principal cause of dyspepsia; but while the quantity and quality of our food, and the manner of eating it, doubtless has much to do with the behaviour of our stomachs, the state of our brains has fully as much or more influence. Some of the most healthy people eat as much of any and all things as they desire without consulting any dietetic rules, and others who pay great attention to their diet are the victims of dyspepsia; but in most of these cases it will be found that these people take but little exercise, and overwork their brains in reading, writing, and the anxious pursuits of business. They sit down to a meal with minds absorbed and preoccupied to such an extent that they can not tell five minutes after eating what they ate, or whether they had eaten at all; and then they rush off to their business or literary work, thus diverting from the stomach to the brain the energy which should be concentrated on the stomach for the performance of its digestive functions. The brain being the source and fountain of all nervous influence, the organ which controls all the functions of the body, it is not strange that people should be dyspeptic when the blood and nerve forces which should be concentrated on the stomach are diverted to the brain.

One of the most important rules for the avoidance and cure of dyspepsia is to eat with a quiet mind, and then to rest quietly for an hour or two after eating.

This simple rule, with a reasonable regard to the quantity and quality of food, will cure many cases of dyspepsia. It has been truly said that head workers need more rest than hand workers, and that three hours of hard brain work are more exhaustive to the nervous energies than a whole day of ordinary manual labor. Therefore, above everything else, brain workers need sleep through the whole night and a nap in the day, especially after dinner. It is in accordance with nature, as is manifested by the habits of the lower animals, which lie down and sleep after every meal.

Mother's Helper

FOR LOVE'S SAKE.

SOMETIMES I am tempted to murmur
That life is flitting away,
With only a round of trifles
Filling each busy day;
Dusting nooks and corners,
Making the house look fair,
And patiently taking on me
The burden of woman's care.

Comforting childish sorrows,
And charming the childish heart
With the simple song and story,
Told with a mother's art;
Setting the dear home table,
And clearing the meal away,
And going on little errands
In the twilight of the day.

One day is just like another!
Sewing and piecing well
Little jackets and trousers,
So neatly that none can tell
Where are the seams and joinings—
Ah! the seamy side of life
Is kept out of sight by the magic
Of many a mother and wife!

And oft when I am ready to murmur
That life is flitting away,
With the self-same round of duties
Filling each busy day,
It comes to my spirit sweetly,
With the grace of a thought divine:
"You are living, toiling for love's sake,
And the loving should never repine.

"You are guiding the little footsteps
In the way they ought to walk;
You are dropping a word for Jesus
In the midst of your household talk;
Living your life for love's sake
Till the homely cares grow sweet—
And sacred the self-denial
That is laid at the Master's feet."

—Selected.

THE SICK BABY.

INTESTINAL INDIGESTION.

(Continued.)

ACUTE bowel troubles are prone to assume a different form as the season advances. While cholera infantum and simple diarrhea characterize the early months of the summer, in the latter part of the summer and autumn this disease assumes a different character, and is more apt to take the form of dysentery. This may come on as a sequel of acute diarrhea experienced in the early part of the season, or it may be the direct result of indiscretion of diet, or other exciting causes.

It is supposed by many that when the cooler weather comes on, the danger of diarrheal diseases ceases. On this account vigilance in reference to the diet and hygienic conditions is relaxed. This, however, is a mistake. Cold figures quite largely as a cause of this form of diarrhea, particularly if the abdomen is not very well clothed in the cold mornings and evenings which characterize the weather of autumn, and in the sudden changes so common during those months. Cases of dysenteric diarrhea are supposed to be due, however, directly to the presence of a germ, and other causes are exciting causes only. It often happens that several of one family are affected by this trouble at the same time. There is no doubt that individuals may receive it from each other. On this account all soiled clothing and napkins should be at once removed from the room, and at least placed under water. It is better that they be submerged at once in a disinfectant solution. This is an important rule in all cases of diarrhea.

It is of great importance that children who have suffered from digestional disturbances in the early portion of the summer should be fed with particular care during the fall months. The digestive powers after diarrhea are often impaired

for many weeks, or even months. On this account it is impossible to return to the same food that the child digested perfectly well before the illness.

This form of diarrhea is also seen as a complication of measles or scarlet fever, and even more commonly of diphtheria. The disease is characterized by the appearance in the stool of mucus, or mucus streaked with blood. If the attack is very sudden, it may be ushered in with convulsions, or a very high temperature without convulsions. This is rarely the case. Usually there are two or three diarrheal stools, after which follows the characteristic mucous stool spoken of. There is usually scarcely any odor to the discharges. If the case is severe, the tenesmus of the rectum and the griping of the bowels is almost constant, or is continuous for an hour or more at a time, with intervals of rest. During the time of the attack, there may be a number of stools, from a half dozen to a dozen or more, small in quantity, with a rest of five or six hours between. Very often vomiting is present, but if so it is due to some complication of stomach indigestion as well.

It often happens that, the discharges being controlled by treatment or otherwise, there is a sudden rise of temperature and a threatening of convulsions. When this occurs, it is due, generally, to the retention of poisonous matter which should be gotten rid of, and indicates that a laxative should be given. The appetite is always more or less impaired, there being sometimes a decided unwillingness to take any kind of food. The child usually loses in weight very rapidly and becomes very much prostrated.

The treatment may be divided into two classes—the hygienic treatment and the medical treatment. Under the first, which is of far greater importance, we should consider the necessity of plenty of fresh, pure air, and if the child is situated where it cannot get this, it should be removed, if possible, to more favorable apartments. The child should be bathed frequently, and sponge baths and compresses given to control the high temperature. Fomentations or poultices may be applied to the bowels with profit and comfort to the little sufferer.

Great care should be taken to regulate the temperature of the atmosphere with which the child is surrounded. In the season of the year when this disease is most prevalent, the days are apt to be very warm and the evenings cold. One of the

greatest dangers of the disease is the complication of some trouble with the lungs, and for this reason, as well as on account of the nature of the disease itself, special care should be taken to keep the room cool in the middle of the day, and to apply extra covering at night. This point is very apt to be neglected, and great harm result therefrom.

The most important thing to be considered under this head is the matter of diet. This should consist of food that is most easily digested. In the nursing infant, if the breast milk is above suspicion, there is no reason for any change; but if a child is young, and is bottle fed, or is just weaned, its life may depend upon obtaining a wet-nurse. If this is out of the question, it may be necessary to take away milk altogether for a short time, and substitute water containing the whites of eggs, barley, rice, or arrowroot water; later, mutton or chicken broth, coming back gradually to the use of cow's milk or cream. The milk should first be completely peptonized, and then later diluted four or five times its bulk with gruel made from a flour ball or rice. If on resuming milk, masses of fat or curds appear in the stools, it is better to return to the egg water.

When milk is used, the greatest care should be taken to obtain the very best that can be had, and it should be thoroughly sterilized and kept on ice; never in the room with the patient, or in the window.

These cases are apt to continue for a long time before they are able to take ordinary food, and children soon tire of every food given. The milk is better received, as a rule, than any other food, and should be relied upon as the mainstay when it can be used at all. The dangers of overfeeding and too-frequent feeding are great, but the opposite, that of too little nourishment, must be avoided. The children are often dull and stupid, and scarcely make a sign for food if it is withheld from them. As a rule, it is better to feed regularly, and not oftener than every two hours, using food having as little residue as possible.

Special care should be taken with the diet throughout convalescence. Relapses are readily induced. Specially to be avoided in young children are oatmeal, potatoes, tomatoes, in fact, all vegetables and raw fruits. A single peach has been known to cause a dangerous relapse, while a few raisins have produced a fatal one.

Concerning the medical treatment, comparatively little is to be said. It is of the greatest im-

portance that the stomach be kept in the very best possible condition, in order to assimilate nourishment sufficient to sustain the child during the illness. Very little can be given by the way of medicine. Bismuth in large quantities is kindly received by the stomach, and has an influence in controlling the irritability of the intestines. The stomach digestion may be aided by the use of pepsins or other digestants added to the food.

Careful washing out of the bowels, a large quantity of fluid being used, and introduced high into the bowel by means of a catheter or rectal tube, often gives the most pleasing results. This should be used once a day, or, in some cases, twice daily. For this purpose salt water, in the proportion of one dram of common salt to the pint of water, is less irritating than plain water, and when there is much mucus borax may be added to the water. As much as two gallons should be used at one time, the water being allowed to run in and out. The temperature for general use should be 80 degrees Fahr. If the child is extremely prostrated, or in danger of collapse, it may be used as high as 100 degrees or 115 degrees Fahr., and will act as a stimulant. In cases where the temperature is very high, the water may be used quite cold, as cold as 65 degrees or 70 degrees Fahr. For the medicated injection which is to follow, not more than six ounces is advisable.

For this purpose, injections of well-cooked, thin starch water or gum arabic are beneficial in soothing the irritation, and injections of astringents, as kino or tannin incorporated in the starch water, also have a healing effect. It is sometimes absolutely necessary to control the great pain and tenesmus by the use of opium in some form. Great discretion should be used, and it should be done only under the direct supervision of a skilful physician.

During convalescence it is generally better to stop all treatment of the bowels, and direct all efforts in the line of general hygienic measures and tonic treatment. The child should be fed with very nutritious but most easily digested food, should be carefully bathed with salt water, and special attention paid to the matter of sleep, regularity in diet and fresh air.

AN Irishman complained to his physician that he stuffed him so much with drugs that he was sick a long time after he got well. "Many a truth is told in jest."

LESSONS IN NATURE FOR LITTLE ONES.

LAST month we learned about the different shapes of the leaves which make up the many varieties of foliage with which our beautiful earth is adorned. We will now study about the use of the leaves.

If we were to examine the leaves of different plants under a powerful microscope, we would find that they are made up of irregular shaped cells, containing minute particles which give the color to the leaves. These are arranged in layers. The cells on the upper portions of the leaves are placed more closely together, which accounts for the brighter green of the color on the upper part of the leaf, while those on the lower sides are arranged very loosely, making the shade of green lighter. Let us examine the leaves we have gathered, to see if this is not true of all kinds of leaves.

If we could further examine the leaves under the microscope, we would find that in the lower portion of the leaf there are many little openings which act as breathing pores, and lead into the spaces between the cells, in the pulp of the leaf, which act as air-chambers and receive the air, containing much of the material upon which the plant lives. Through these pores also is evaporated large quantities of water. It has been shown by experiment that a single sunflower, a little more than three feet high, will exhale nearly a quart of water in a day. It does this in very much the same way that human beings do when they breathe out air from the lungs. Our breath is moist, as you know when you watch it on a cold morning, when you breathe upon a cold glass, which soon becomes covered with moisture. Of course this water, when given off by the leaves in this way, has to be taken up by other parts of the plant, and this we shall learn about when we study the work of the roots and rootlets of the plant.

When it is necessary, moisture is also taken in by the leaves as well as given out. This we know from the fact that when leaves are separated from the plant and begin to wither, they will often become very fresh again when sprinkled with water or exposed to a moist atmosphere.

These tiny holes on the under side of the leaf are guarded by little cells, which promptly close when the atmosphere is very dry, so that too much moisture can not be given off, and the leaves become too dry. Many of the plants that grow in dry countries have very few of these breathing

pores, in which case the leaves are much fresher, this is true of the leaf of the oleander, with which we are all familiar.

Besides moisture, these little breathing cells receive other elements which enter into the combination of the plant. Did you ever think that plants have to take food the same as we do? For this reason these little pores on the under side of the leaves are sometimes called the stomachs of the plant. That which is taken in by them in largest quantities is the carbonic acid gas. I wonder how many of my little readers understand what that is? A gas, you know, is something that can not be seen; but people who understand how to examine the pure air about us, and how to find out what different substances are made of—people we call *chemists*—can collect this carbonic acid gas and examine it in different ways. It is found to be very poisonous to human beings, and is breathed out by every one of us in large quantities at every breath. As we breathe it out it is scattered through the atmosphere about us, and unless we have plenty of fresh air, unless the windows and doors are open, or the rooms in which we stay are well ventilated, we find ourselves, sooner or later, badly affected by this gas which we are thus forced to breathe over and over again. We will have the headache, and will feel cross and irritable. But the dear Father, who knew all our wants from the beginning, arranged that the plants should live very largely upon this very gas that is so injurious to us. So if our rooms are well ventilated, if the windows are open, or if we live much out-of-doors, the carbonic acid gas that is breathed out will be carried by the winds to the leaves of the trees and plants, and they will breathe it in, and grow all the more beautiful for it—indeed, it is as necessary to them as the pure oxygen is to us.

Plants also take in oxygen and hydrogen in some degree, but they do not use nearly so much of these gases, which are so necessary to animal life, as they do of the carbonic acid gas which is destructive to animal life. Plants also give off through these breathing pores, much oxygen, which helps to make the air purer for animals. It is for this reason that we grow so strong and feel so well when we go to the mountains for a vacation.

In the green leaves also, is performed, chiefly, the great work of the plant, which is to change dead matter into living matter, so that it can be utilized by the animal world to sustain life in animals and human beings. This work is carried on

only in the presence of sunlight, which in some way supplies the power which enables the plant to make these wonderful chemical combinations. It is by this process of combination of carbonic acid gas with other gases that are taken up by the plant, that the oxygen is set free, so that the oxygen gas is given off all the time by the leaves in the daytime.

So we see that in more ways than one the plants are our great friends. They make the world beautiful, and without them we should indeed be lonely. They supply us with the fragrant blossoms, they give us fruit to eat, they provide us with shade so grateful in the warm days of summer. They supply us also with fuel, which we may burn in our stoves for heat in the cold days of winter. But more than this, they purify the atmosphere with which we are surrounded, giving us the life-giving oxygen in great abundance, and taking from it the poisonous carbonic acid gas, which, if it were not for the plants, would accumulate in the air in such quantities as to make us all very ill. Should we not love these plants and care for them tenderly? and shall we ever forget to thank our heavenly Father that in his loving plan for us he has provided the plants and trees for our pleasure, our comfort and our general good?

MOTHER'S LOW VOICE.

BY MARGARET SIDNEY.

* ALL of us who have had much to do with children have been impressed by their extreme sensitiveness. Even if to all appearances they have exhibited only an indifferent exterior, if we followed them into some impressionable hour we might come to a revealing process that would show us our hasty judgment. Many a child has gone to bed and, alone, with the clothes pulled over the sad little face, has "had it out" with his or her sorrowful soul, all the piled-up misery which the occupied daytime had no time to dispose of. Oh, yes, our children are sensitive, and they have long memories, and one of the sweetest memories for later years will be mother's low voice.

One of the finest accomplishments for a woman to master is the acquisition of a low, well-modulated voice. It must be clear and distinct; it should have individuality. It should not distract the attention and worry the nerves. Children would

often obey quicker if they were not rasped and irritated by the harsh, excited command that gives hint of great lack of self-control in the one issuing the order.

The finer quality we would have in our children, we must acquire ourselves. Nothing so irritates us as the loud tone and querulous demand upon our time and attention of their incessant needs. If they would only come to us and say quietly and distinctly what they want, and wait for us to consider and reply properly, what a comfort a house full of boys and girls might be, we think. Is theirs such a lesson set before them every day that they listen gladly for mother's low voice? It induces quiet at once into a babel of sounds to realize that some one is waiting to speak who will not shriek with the rest, striving to be heard, but who will calmly utter every word, which she confidently expects will be listened to. Try it, O weary mother.

The best thing about a low voice is that it enables the one using it to be firmer in issuing a command. Not only does she reserve her strength in employing her natural tones, but she gets a grasp on her self-control by thus doing, so that when it becomes a habit it is marvelous in its effects on her little family. She does, it is true, work off nervous force many times by screaming at a high key, and ordering, to right and to left, the children who are wilful and unmanageable. And sometimes she can see, she fancies, the good of this course, and she says: "Oh, I can do nothing with them by gentleness. They've got to be made to stand around!"

And so she makes them "stand around." But I notice she has to scream louder each time, and I have known of her stamping her foot; and the moment they are away from her they think nothing so terrible as to hear mother's harsh, shrill voice. Then they scream back, and the nervous force that the mother worked off on them comes back to her with fourfold power. The influence over the whole household, of the even-tempered low voice, is not only refining, it is inspiring. It presupposes a formulating of one's ideas before speaking; it gathers more force to itself from this fact. No one likes to utter mere platitudes when it is realized that everybody is paying attention. If women did but know it, the cultivation of the low, well-modulated voice is one of the most important equipments for social success. It is as important for educational work among the young

people; it is absolutely imperative for the mother at home with her children.

It is said that American women, living, as they do, at high pressure, can not avoid the nervousness of the tone that expresses the nervousness of the life. A great deal of this is true, but I have yet to learn that anything which an American woman really determines to learn is impossible. Women, as a rule, are anxious to do the best they can for their homes and for their children. They only desire to have attention called to certain defects and their remedies, to instantly respond with all the soul, to the work. And this present suggestion, which involves the happiness and well-being of the mother and the household, is, use the voice God has given you in low, well-modulated accents, in your intercourse with your family.—*Congregationalist*.

THE PHYSICAL NURTURE OF CHILDREN.

BY MARY TAYLOR BISSELL, M. D.

THE home nurture of children must concern itself with the problem of exercise, and problem indeed it appears in towns, where boys have difficulty in finding opportunities sufficient for play and vigorous sport, and the girls find almost none.

I am convinced that a large factor in the difference which exists between boys and girls after the age of puberty will be found in this difference in the habit of exercise between them both before and after this age.

"I believe," said an intelligent father to me lately, as he was dilating upon the necessity of wearing thick-soled boots, "that the reason girls are not strong is because they wear thin shoes. All the girls I know are delicate, and most of them wear light boots on the street."

"Wait a moment," I replied; "there is something more than this; yesterday, being a holiday, when your young son was out-of-doors playing in the sunshine and air from nine until three o'clock, your young daughters were sitting in easy chairs in a warm house, luxuriously reading and chatting their morning away."

We need to remind ourselves that there is not one set of physiological laws governing the growth of bone and muscle for boys, and another for girls. A girl's organs must be vitalized and strengthened by the same influences that his requires; and when she evades them or is ignorant

of them, nature takes her revenge in an anæmia and hysteria and weak hearts, and too often in a list of pelvic complaints which sap the enjoyment of a young life.

When we remember that the number of the muscles of the body is over five hundred, that they weigh about one-half of the body's weight and contain about one-quarter of all the blood of the body, we shall concede them a probably high importance in our economy; and physiology confirms this impression, showing us that the elimination of the poisonous products of the body waste is mainly effected by muscular exercise, failing which, these products are not eliminated, and that the development of bony structures as well as of organs is largely dependent upon muscular activity.

The actual amount of air inspired by a child who is quietly reading in a chair is only about one-third of the amount that the same child will inspire when walking at the rate of three miles per hour, which is an ordinary gait for a young healthy boy or girl. At the rate of four miles an hour he will inspire five times as much air as when at rest. And so the significant comparison runs between the whole list of out-of-doors activities—swimming, riding, boating, etc.—and the quiescent state of sedentary employment, showing to what an extent the body must be the gainer in the matter of oxygen simply, with its stimulating influence upon nutrition and growth.

For girls, the effect of exercise in strengthening muscular tissue is especially important as regards its influence upon the development of the pelvic organs, many painful affections of which arise from a failure in symmetrical growth, and logically we may believe that exercise would result as beneficially upon these as upon other muscular structures.

In a perfect system of nurture we can not afford to neglect an influence which has operated also toward perfecting the functions of the nervous system. Systematic exercise, or training of the muscles in whatever line, has long been observed to result in a more perfect co-ordination of their activity; and this co-ordination, which results in the smooth and accomplished gesture, or in the skilful use of the fingers in piano playing, or in the home exercise of learning to write, has been affected by a training of the nervous system, upon which, in the last analysis, this muscular control and manual skill depend. Motor nerve centers, which control the different muscular groups, are, it

is well known, an important part of the brain structure, and their highest development, like that of other regions of the body, depends upon use. With every call upon them, their functioning, and, therefore, their controlling power of the body, is improved; so that exercise of all kinds may be believed to have an important influence, not only upon the growth and development of muscle and bone and heart and lungs, but also upon that of the brain itself.

Not a small matter in the physical home nurture of children is the provision of such chairs and tables as shall be suited to their figures and to the age of the child. Trifling as the matter may appear, we probably do not properly estimate the discomfort that young children feel while using the chairs and tables designed for their elders, nor do we realize the effect that such constant physical discomfort has upon their symmetrical development. The thigh bone, *i. e.*, that part of the body supported by the seat of the chair, of a child is about two-thirds the length of that of a man of twenty-one; his leg about five inches shorter than a man's. It is obvious, therefore, that this child can not sit in a chair intended for adults, the seat of which is too deep for his thigh, and height of which is too great to allow his leg to reach the ground, without submitting either to great discomfort, not to say torture, in the effort to maintain an erect position, or else subsiding into positions which are very unfavorable to full chests and straight backs.

The twisted, and often ungainly, positions assumed by children at home, both in sitting and in studying at high tables, are directly analogous to those assumed in the schoolroom, and are not the result of ingrained perversity, but are much more allied to the struggle for existence. Let a woman of average proportions mount into a high office chair designed for a man of six feet two, with its broad seat, and "dizzy height" from the floor, and she will be able to appreciate the sensations of children who must use the chairs and tables designed for their elders.

The evils of too long confinement at the piano, on a stool without a back—and in the case of children under twelve, commonly with the feet hanging unsupported, or dexterously twisted backward in the Chinese fashion about the legs of the stool—should also be recognized. The immediate effect upon both the bone and the muscle, and also upon the nervous system of young and growing

creatures, who feel the stress of confined positions even more than their elders, is very injurious.

And, finally, at the risk of intruding upon the province of the moralist, let us not forget the influence of the home atmosphere upon the health of the child. If a sufficiency of oxygen and sunshine is indispensable to the healthy growth of muscle, nerve and bone, hardly less necessary for the perfect development of the physico-mental powers is the spirit of kindness which should radiate from the well-governed tempers of the rulers of the household.

A variable climate is believed to be most undesirable for health because of the constant readjustment necessary in the activities of the skin and the lungs and the kidneys, and the liability that in these rapid variations some of the machinery may be thrown off its balance. For the nervous system of young children, the highly variable climate that often prevails in the home atmosphere, even with otherwise conscientious guardians, is exactly as deleterious, and we believe reacts upon the physical activities with a certain force. A little growing animal, with its nervous centers undeveloped, who finds himself in a world the customs of which he can only learn by experience, must be continually taken by surprise and kept in a state of nervous tension by the element of uncertainty introduced into a household by a bad temper, as well as by the lack of a sense of repose so necessary to healthful growth, which an absence of gentle but firm discipline introduces.—*Harper's Bazaar*.

HINTS IN CHILD NURSING.

THE following suggestions, culled from an article published in the *London Queen*, are well calculated to help out in the care of children slowly convalescing from acute illnesses, but are especially helpful in the care of those unfortunate little ones who are the victims of lingering wasting diseases:—

"Food or medicine should never be prepared or discussed before a little patient, nor should the doctor's opinion or the child's symptoms be talked over. Children often catch half phrases and misunderstand whispered conversations, and so form terrifying anticipations of their illness and its treatment.

"As drinks are sure to be in constant demand, weak lemonade may generally be given, but children often prefer pure water. It is best to use a small

glass, and only give the exact quantity allowed; no thoughtful nurse will disappoint a thirsty child with the trying admonition 'not to drink it all.'

"Now is the time to remember expressed preferences and dislikes, judiciously ignored in days of health. Children, as a rule, are more guided by their eyes than by their palates, and fancies prevail strongly in the young; even in health very imaginary dislikes are taken, which an alteration in appearance, or even name, will remove.

"For instance, a small invalid had been cheerfully eating a little pink shape, which, served in a glass saucer, almost masqueraded as a strawberry ice, before she demanded the name of her 'pretty pudding.'

"'Ground rice, dear,' the incautiously candid nurse replied. 'Oh,' mournfully, 'then I can't eat any more, for I remember I don't like ground rice.'

"A pretty appearance will make simple, nourishing forms of diet inviting. Half a dozen glacé cherries, or a few 'hundreds and thousands,' scattered over a plain blanc-mange, turns it into a 'party' dish. The portion of custard or milk pudding, which would have no attraction if sent from the nursery table, becomes quite desirable if baked in a tiny dish, and the joy of helping one's self will possibly lead to a second supply being consumed.

"The bread and butter or bread and jam at tea time, made into thin sandwiches, then cut into narrow fingers, and built up crosswise on the child's plate, lends the interest of demolishing the pyramid to help out the languid appetite.

"A child's dislike to beef tea, soup, or beaten-up egg and milk, may sometimes be overcome if the novelty of taking it through a tube or straw be adopted. What matter if returning energy suggest the blowing of a few bubbles, when the nourishing compound has gone to build up tissue and muscle anew?

"A little story will sometimes help down unwelcome, but necessary, food, a fresh mouthful accompanying each item mentioned; this recalls the realistic adventures of an imaginary boy starting on a journey by train, and the weak smile (the first seen for many days on a pale little face) which greeted the exciting climax, 'And this is the guard who closed the door with a bang; and this is the bang!' as the last spoonful was valiantly swallowed.

"Another little victim of influenza almost enjoyed her obnoxious cough mixture from the

happy thought of putting the medicine into her doll's teapot, and allowing her to pour it out for a pretended doll's tea party, at which she was the sole guest!

"The indefinite 'presently, dear,' so trying in health, seems unbearable in illness; when the thing petitioned for is not practicable, some substitute should be found, or diversion of thought suggested.

"The invalid bed table makes the best vantage ground for toys, but if not at hand, a large Japanese or light tin tray is not a bad substitute.

"The most comfortable bed wrap is a light flannel jacket, made with a wide whole back, which permits the arms to be slipped in easily, and loose sleeves, bending above the nightdress cuff, which does not then ruck up the arm. In cold weather it should be lined throughout with white wadding, lightly quilted, an extra lining not being required, and when any part is worn off or soiled it can be easily renewed.

"This cosy garment can be run up in an hour or two, if wanted in a hurry, and in cases of bronchitis, congestion, etc., is the best possible protection against fresh chills."

HEREDITY PRACTICALLY CONSIDERED.

PROF. ED. AMHERST OTT.

IN studying life, in measuring character, punishing vice and rewarding virtue, we have paid too little attention to heredity and all that it means and involves. A man's personality is a composite, complex thing. It rests upon the threefold basis of heredity, environment and self-education. To circumstances and education much attention has been given; to primary character but little.

Some of the facts of heredity are commonly known. The vital scientific truth is known by all whose eyes are anointed to see. The law is inevitable and sure. Like begets like. Nature is not false or fickle. She is a wonderful, magnificent and a cruelly-accurate friend. Heredity is nature's conservator of virtue and her warning against vice.

With all the struggle and study we have produced but four hundred geniuses in all the history of the world. And these are interrelated, many belonging to the same distinct family lines. Bach, the great musician, was the climax of a long line of people in whose souls the melodies divine were

constantly sounding. But we succeed now in producing one insane person, imbecile or hereditary criminal for every one hundred persons. And not until we learn to study life and combine education and good circumstances and religion too with good, sensible marriage, can we hope to do better.

Most people set good examples, but the time to be good to our children is when we are young, when we are forming our own characters and getting ready for the duties of life. The time to be good to children is before they are born, long before they are born—generations. A man may be weak, dangerous—a young man may "sow wild oats," dissipate, carouse, destroy his own life; but I announce the chivalry of the new age, the life of high honor—that he who would become a moral leper, he who would stain his own life, he who would not live clean, upright, and manly, should not marry. He should break the line.

We see, then, the importance and responsibility of the family. The child is the joint product of the lives, experiences and ancestry of the father and mother. Every child has the right to be born into this world sound. Young people should be taught to place a premium upon sturdy, rugged manhood and womanhood.

Much might be done by pointing out how tainted constitutions may be acquired *de novo*; how the man or woman whose family has a clean bill of health, can by wicked and vicious habits build up insanity, or epilepsy, phthisis or gout, etc., to be handed down to posterity, and how other diseases may be acquired which shall have a terrible effect upon children afterwards begotten. The man (or woman) who undermines his physical health, or degrades his mental or moral nature, is dishonest. He is robbing his children yet unborn. The spendthrift who encumbers the broad acre of the family estate and leaves his children penniless, no more surely robs his children of their rightful heritage than does the man (or woman) who by a wicked and vicious life degrades his nature, thereby making his children physical, mental and moral beggars.—*Sour Grapes*.

THE superintendent of the insane hospital at Vienna, one of the largest in the world, says: "From fifty to sixty per cent of the cases of insanity are due to rum." So great a percentage in a country where it is claimed that alcoholic drinks do no harm is well worth noticing.

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SOME THOUGHTS ABOUT THANKSGIVING.

INSPIRATION designates ingratitude as one of the sins of the latter days, and truly it seems as though we have already entered upon that time. This characteristic, so painfully manifest on every hand, is one of society's greatest enemies, and is well calculated to rob the home of all its brightness. We may well inquire, Whence comes this curse so menacing to the nation, to society and to the home? We must look to their individual components. "As the twig is bent, the bough will bend." Must we not look for the source of this evil in the training of the child?

Jacob Abbott describes two phases of love: First, that which is most happy in receiving; second, that which finds its greatest pleasure in giving, and in returning favors received. The former characterizes the first development of the emotions of love in the child, and finds expression in clinging to its mother at all times, looking to her for protection, comfort and help, but may not prompt it to give anything in return, not even an expression of love. This, of course, is not always true, but is usually the rule with young children.

Later on, if the training is what we could wish it to be, comes that other and higher expression of love, which finds its greatest pleasure in giving rather than receiving. It is natural that the latter should follow the former, and if it does not it is because there is some interference with the natural

unfolding of this emotion, or a failure to develop it. Parents should begin very early to foster this trait in their children. In this, as in the cultivation of all other moral sentiments in children, ways and means need to be carefully studied. Again the old adage confronts us with double force, "Be what you would have your child to be, and be it in sincerity."

Children are keen discerners, and detect hypocrisy very quickly. A direct injunction to gratitude, though given in the kindest tones, is likely to have no effect upon the heart of the child; but let the parent seek to recognize the beatitudes with which she is surrounded, and let them call from her heart a warm response of appreciation, and the sensitive nature of her child will quickly feel the same pulse.

The custom of gathering together in families to partake of the national Thanksgiving feast is by no means to be despised; but may we not look to this holiday as an occasion to other ends? and may it not serve an even nobler purpose? While we do not forget the one, we may add the other. May it not furnish to us as parents a grand opportunity to impress the lessons of gratitude upon the hearts of our little ones? The story of the origin of the day can not fail to interest the youngest child, and if the day is observed in accordance with its origin, its lesson will not be lost.

There are few of us who, as we review the year that is past, can not find more or less for which to be thankful to the Father whose hand controls the destiny of each one of us. How can we better express our gratitude than by returning to him, in the person of his representatives on earth, some of the benefits he has bestowed upon us? "The poor ye have always with you," he has said; and, "Inasmuch as ye did it unto one of the least of these my brethren, ye have done it unto me."

Instead of spending an extra amount of means in spreading our tables with, it may be even harmful, viands, the amount may be used in sending necessities to those in need. Perhaps it will not be necessary to sacrifice the one for the other, but it it should prove so, the lesson may be even more strongly impressed; and if done in the right way,

both parents and children entering into it heartily, it will be found that the hearts of the children will so respond that they will indeed find it more blessed to give than to receive. How much more beautiful, how much more lasting, would be the influence of a day thus spent!

H. S. M.

LONGEVITY.

As we have noticed in current literature from time to time, illustrations of marked longevity, we have been specially interested to note quite a long list of centenarians, many of whom were born and reared under adverse circumstances which necessitated simple and frugal living; and, indeed, looking into the history of all, we find this a marked feature. Vast sums of money are spent by municipal governments and various boards of health, with a view of giving more hygienic surroundings to its inhabitants, and yet the average span of life remains remarkably low, running from twenty-seven to thirty-five years, varying according to locality and surroundings. Up to the present date there is no very marked improvement in the general health, except in the matter of quarantine regulations and stringent laws which relate especially to devastating epidemics. The mortality of the teeming masses remains the same, due largely to the blighting curse of luxury, idleness and vice.

The history of centenarians is in marked contrast to that of those whose average life is less than two score. The writer had the good fortune to attend a noted centenarian, viz., Sojourner Truth, in her last illness. She died at the age of 114. Brought up in, and inured as she was, to the school of adversity, being a slave for years, the struggle for life gave her the power, not only to live to be over one hundred years of age, but with faculties apparently clear and step strong and erect very nearly up to her last illness. At 110 she was able to give public lectures, read without her glasses, and do everything she did with unusual vigor.

Following is a list of many others, most of whom were centenarians, who were likewise reared under difficulty and adversity. We quote from *Life and Health*:—

"Mrs. Lucretia Perrin, of Mount Zion, Exeter Township, Pa., is 103 years old. She was born in Andover, N. H. Her father, Joshua Danforth, was a Revolutionary soldier. At the age of twenty she married Abiather Shippey, by whom she had

thirteen children. He died in 1840, and three years later she married Calvin Perrin, of Northumberland, who died thirteen years ago at the age of ninety. Mrs. Perrin is in excellent health.

"The distinguished physician, Dr. de Bossy, of Havre, France, celebrated, the other day, the 105th anniversary of his birth. His father lived to be 108 years old, and the son says he expects to attain the same age. He is wonderfully well preserved, and is an entertaining companion.

"John Farrell died in Yonkers, N. Y., on April 26, 1896, at 107 years of age. He was born in County Limerick, Ireland, in 1789. His claim to his great age was well substantiated, as he was a soldier in the English army under the Duke of Wellington at the battle of Waterloo. He settled in Yonkers in 1840.

"Ezra Beamon Newton, the oldest Shaker in the country, died of old age at the Harvard, Mass., community yesterday, aged 101 years. He was born in Paxton. When he was a year old his parents moved to Boylston. He became a prosperous farmer there and was happily married, but in 1848, becoming converted to the Shaker faith, he left his wife and children and joined the Harvard settlement.

"Mrs. Lucy Thomas, colored, died recently of heart disease, aged 103 years and 10 months. She was born a slave on the Alpheus Roulette plantation, Chesterfield County, Va., May 18, 1791. She was a field hand. At the age of thirteen she was given a husband named Thomas, and by him she had twenty children, seven of whom are now living. Mrs. Thomas was the grandmother of over sixty, a large number of whom are living in Petersburg, Va., Baltimore, Philadelphia and Boston. She had about forty great-grandchildren, some of whom are of age. Her husband was sold just before the breaking out of the rebellion, and she never saw him afterward.

"Professor Stickel, of Jena, the Arabic scholar, died recently at the age of 93 years. He had taught continuously at Jena from 1827 till last year. He was the last of the pupils of Silvestre de Sacy and of the band of young scholars in whom Goethe was interested during his last years.

"Robert Groat Eunson, who died recently at the age of 90 years, was well known as an expert engineer. The original Monitor was constructed on lines suggested by him, an associate with and consulting engineer to Captain Ericsson. Mr. Eunson had been identified with the Naval Insti-

tute at Annapolis. He was born in the Orkney Islands, and studied engineering in Edinburgh, Scotland. There he acquired the training that fitted him for his later work as an expert on the construction of marine engines. He also invented a number of improvements in steam engines. Mr. Eunson is survived by his widow, who is 85 years old, and two sons, Robert G. and Eugene S. Eunson.

"Grandma Post, who was born in Prussia and saw Napoleon's retreat from Moscow, lives in Dearborn County, Ind., aged 102.

"Mrs. Maggie Kelley, of Carroll, Ia., and Mrs. Garcia, of San Francisco, are each 106.

"Mrs. Neve, of Rouge Huis, England, is now pretty well acknowledged to be one of the oldest centenarians in the United Kingdom, for she entered on her 105th year on May 18. Few, indeed, attain this great age, but fewer still are those, who, with the weight of so many years upon them, maintain the physical and mental vigor this dear old lady possesses, for of her it may be said, with but little exaggeration, that her eyes are not dim, nor her natural force abated. She walks to market every Saturday, pays her weekly bills, and gives the necessary orders to her tradesmen. Every Sunday she walks to and from Trinity Church—more than a mile away from her residence—and she is ever ready to receive and give a warm and pleasant welcome to the innumerable visitors who flock to call on her."—*N. Y. Recorder*.

"Dr. Homer Virgil Milton Miller, one time senator from Georgia, died at his home in Atlanta, Ga., 82 years of age. He was one of Georgia's foremost physicians and was a surgeon in the Confederacy. He was elected to the United States Senate in 1868, serving one term.

"Admiral Walke, of the U. S. navy, died recently at 87 years of age, after a most active and heroic life.

"Mrs. Judith Cummings, colored, who was perhaps the oldest person in New Jersey, died recently at the home of Mrs. Albert Holmes, her granddaughter, with whom she had lived many years. She was born in Somerset County in 1775, and was therefore 121 years old. Her parents were slaves, owned by William Vector. She was sold twice, her last owner being Henry Hendrickson, of Middleton, who gave her her freedom. She was married twice, her first husband being Samuel Bush and her second, Charles Cummings. She had several children, only one surviving her,

Samuel, of New Brunswick, who is eighty-seven years old. She retained her faculties wonderfully well, her eyesight being almost perfect, while her hearing was only slightly impaired."—*N. Y. Evening World*.

APPENDICITIS.

APPENDICITIS is an acute or chronic inflammation of the vermiform appendix. This is a little supernumerary organ that lies at the beginning of the large intestine, in the right groin.

An inflammation in the appendix is usually started by something in the food passing from the large intestine into the appendix, usually a grape seed, or a small shot that is taken into the intestine, as is sometimes the case, while eating wild game. Apple seeds frequently cause the trouble.

Appendicitis is usually indicated by some very acute symptoms, as fever, a good deal of pain in the bowels, which will not give way to the ordinary treatment of fomentations, etc. The fever sometimes runs very high, and in a short time there is apt to be a strong revulsive action of the bowels, and more or less retching and vomiting. In brief, it is probable that those who are taken with a severe acute attack in which the pain is localized more or less in the right groin, with fever and the other intestinal disturbances, are suffering from appendicitis. We would recommend the following course of action: First, the patient should be put to bed and kept quiet, a hot bag put at the feet, or hot cloths wrapped around the feet, and a course of fomentations to the bowels pursued diligently for some time. This may, however, be changed for poultices made from flaxseed meal. It will be specially beneficial to make this change if there is more or less swelling and tenseness of the tissues. The patient may be allowed, in addition to a bland diet, plenty of water, and if there is considerable fever he may take some ice, and if high fever, tepid sponge baths and compresses should be given, with a view to subduing the fever.

If, after a day's treatment of this kind, the patient grows worse, or the general symptoms increase rather than subside, a surgeon should be called, and if a diagnosis of appendicitis is clear, surgical interference may be indicated. No case of appendicitis should hesitate to take an operation after the palliative measures have been exhausted and the symptoms are still increasing. Surgical interference has saved the lives of many of these cases.

GLUTTONY THE CURSE OF THE AGE.

OVERFEEDING is such a palpable insult to the body, and so demoralizing, that its consequences ought to be guarantee enough against its being repeated; and yet people live so much in the sense that the lesson has little weight. On every hand we see the rack and ruin that come from overfeeding boilers, how the work of threshing machines is diminished by overfeeding; and by the same law of demand and supply the body suffers. A few words from the *Americal Medico-Surgical Bulletin* are to the point:—

"In spite of the warnings and commands of family physicians, in spite of the many examples of shortened lives and lives of suffering, men will yield to the seductiveness of 'the pleasures of the table.' The spectacle of the man who overeats, or who deliberately eats improper food, is common enough; but rarely do we see as plain evidence of the admiration for the glutton which certain people possess as that which the daily papers lately afforded.

"A well-known boniface died at an age when he ought to have been enjoying robust and vigorous health. Some slight mention was made of his business ventures, of his daily life, of his reason for living. But all this part of his existence was immaterial and uninteresting. The great and praiseworthy features of his life seem to have been gastronomic feats and a general ability to eat and drink enormously. He was lauded as the prince of *bon vivants*; the man who could eat a huge dinner and shortly thereafter swallow a brace of broiled lobsters and a couple of Welsh rarebits, washed down with copious libations of vintages or distillages or fermentages. During his last illness, when his physicians enjoined rest in bed and a scrupulously careful diet, we read that he was 'game' enough to dress and go out on the hotel porch to sit, winding up his imprudence (and incidentally his life) with a hearty meal, in defiance of the medical directions. This last piece of bravado was apparently considered by certain newspaper reporters as an achievement fit to rank with a victory on a battle-field, and the glutton was admiringly mentioned as though he were a brilliant and fearless hero, risking his life in a worthy cause. He was allowed more space than the Cuban patriots. He was eclipsed only by the Chinese viceroy in importance as a timely topic."

The newspapers were not creating a sentiment,

but merely catering to one already formed, in thus lauding gluttony. The only conclusion we can draw is that the epicurean philosophy still has its cult, and that many a man's motto is, "Let us eat and drink, for to-morrow we die." The case is left to the moralist.

PROTECTION.

A RECENT action of the State Board of Health of New York, appropriated \$30,000 to apply toward the developing of antitoxin as a treatment for diphtheria. The use of antitoxin is only to supply a temporary need, inasmuch as it is not yet established as a permanent treatment for diphtheria. This, however, indicates a growth in public sentiment that will encourage and sustain important measures for the public welfare in general. It is the duty of the body politic in all civilized countries to protect the people from the invasion of infectious diseases; and it would indeed be a short-sighted measure that would stop at mere infection. The people need something more to purify the homes and teach them to take better care of their bodies. The Romans understood this, and perfected public sanitary works on a stupendous scale, as is shown, among other things, by their aqueducts for bringing pure water into the city of Rome.

India has been regarded as the home of the cholera. Calcutta, in its domain, has been protected from epidemics of cholera simply by the supply of a large amount of pure water that has recently been furnished to the city. Thus we may say that if any community can be supplied with pure water and pure food, and proper bathing facilities, it will add much to the enjoyment of the people, and materially aid in lengthening life.

The hygiene of drinking water has been sufficiently discussed to enlighten most of the common people so that intelligent housekeepers are filtering and boiling their drinking water, when it can possibly be questioned from a health standpoint, and the absence of typhoid fever and malaria has shown that such a reform has borne good fruits.

It is to be hoped also, that working men will be allowed enough time to properly masticate their food. Derangement of the digestive organs in many cases has resulted from bolting of food, taking, on the average, from five to eight minutes, in some lumber camps, to eat the regular meal.

With pure water and better dietary regulations, which can be brought about by hygienic cooking schools, with a view of educating the people, the unreasonable consumption of drugs will be reduced to a minimum, and the health, prosperity and happiness of the people more than doubled in a few years.

QUERIES.

32. I AM subject to nosebleed; will you please tell me what I can do for it? O. A.

A simple nosebleed will very often be controlled by snuffing cold water up the nose, which stimulates the capillaries in the mucous membrane to contract. Sometimes raising both hands above the head will stop it. This, in such a case, is done by nervous impulses. If these simple measures are not sufficient, inject some peroxide of hydrogen, which is almost always beneficial. There are a few cases of arterial hemorrhage from the nose that require plugging. This is done with cotton made into little pledgets, with strings attached to them, so that they can be pulled out. In this way plugging can be made very effectual.

33. Will you please tell me the best way to cure hemorrhoids? E. N.

Hemorrhoidal vessels belong to the liver circulation and usually result from torpid liver. When quite pronounced, there is little hope of eradicating hemorrhoids without operative procedures. Several operations have been in vogue, but we prefer the method of ligating the hemorrhoid and allowing it to slough off, in which operation there is practically no danger, and if done properly, always gives permanent results.

34. I have been sleeping in a basement room in San Francisco, and for some time have been having chills every other day. Do you think the chills come from sleeping in the basement room? T. K.

It is a well-known fact that obnoxious gases often settle in basement rooms, and when the room is not situated so that it gets sunshine, and especially if it is damp, there is great danger of infectious diseases being brought on in this way. Basement rooms in old buildings are very apt to have imperfect sewer connections, and people often run great risks in buildings with poor sewerage and improper ventilation. We should certainly advise a warm, dry, sunshiny room and plenty of outdoor exercise to improve the circula-

tion, and if you exercise enough each day to cause profuse perspiration, and otherwise take care of yourself, you will no doubt eliminate the poison you have received in your system.

SUNSHINE AS A DISINFECTANT.

ONE of the medical journals has, through much learned investigation, reached the ground taken by *Good Housekeeping* many years ago, and announces its "discovery" in glowing terms, as though it were some new thing in the world of knowledge. In telling the people what it has learned, it says "Scientist Esmarch has been making a series of experiments which, we are happy to say, confirm the ideas of housekeepers of many generations, namely, that sunshine is the best of all disinfectants. He exposed clothing and bedding strongly infected with all sorts of disease germs and virulent pus, and in each instance but a few hours were required to completely disinfect them by the direct rays of the sun. He also exposed similar matter in boxes covered with glass, to the sun's rays, but though the heat was greater the results were not good. It might be well for all to act on this hint, and turn the contents of their closets out-of-doors for a day, and let them get purified. Esmarch found that simply spreading things on the grass was the best way of exposing them to the sunlight."

WHERE IS HOME?

HOME is where affection binds
Gentle hearts in union;
Where the voices all are kind,
Holding sweet communion.

Home is where the hearts can rest
Safe from darkening sorrow;
Where the friends we love the best
Brighten every sorrow.

Home is where friends that love
To our hearts are given;
Where the blessings from above
Make the home a heaven.

Yes, 'tis home where smiles of cheer
Wreath the brow that greets us;
And the one of all most dear
Ever comes to meet us.

—Selected.



A THANKSGIVING LETTER TO GRANDMA.

"DEAR Grandma: I finked I would rite you a letter
 To tell how I love you—a bushel or more;
 Mamma hopes that now your sore foot is all better;
 And we'll come to Fanksgiving as we did before.

"Please make us some pies and some pudding and jelly,
 A turkey wit stuffing and onions, and then
 Please don't you forget that I like stuffing smelly
 Of sage. From your 'fectionate Charlie. Amen."

And grandma, dear soul, as she pores o'er the letter,
 With a smile on her lips and such mist in her eyes
 That she wipes off her glasses to see through them better,
 Plans out a whole shelfful of puddings and pies—
 Of tarts and of cookies; of custards and jelly;
 A goodly battalion of gingerbread men;
 And last, but not least, a fat turkey cooked "smelly"
 Of sage, for the youngster who wrote her "Amen."
 —*Good Housekeeping.*

THANKSGIVING AND CHRISTMAS.

IT was just two months before Christmas when Pastor Greene sat in his study thinking, *thinking*. Soon his thoughts became audible. He seemed to be alone, yet he was not alone, for he was now plainly talking to Him who heareth in secret and awardeth openly. Oh, how his soul burned within him! More than one year he had served his charge faithfully, and now he had been returned for another year.

His reception was hearty and cordial. The people had flocked out to receive him and enjoy the ice-cream and cake so bountifully provided for all who came.

With all this token of good-will and devotion,

his heart was cast down and his soul burst forth: "O Lord, do show me how to bring the real, living Christ into the hearts of this people this year; not only the crucified Christ of over 1800 years ago, but the real, living Christ of 1894. Oh, that Christ and his love may indeed be in the hearts of this people, and none of self. Lord, show me this day what *I may do.*"

Over in another part of the city an elderly man, the superintendent of the Sunday school, knelt in his own room and poured out his heart to God. He had so much to praise the Lord for this morning. Two weeks ago an only son had been taken suddenly sick and there was little hope for his recovery. A dangerous operation was the only hope. He had taken him to the M. E. Hospital at Omaha. He had stood by while the surgeon did the work. He had seen the nurse stand by with a calm and determined face filled with divine love, assisting in this terrible ordeal.

He had seen the grim monster, death, driven away; and to-day, in God's mercy, he had hope of his recovery. "What shall I render unto the Lord for all his benefits to me? Lord, show me this day what I may do for thee!" And there came over him again the scenes through which he had so recently passed, and what they had been to him, and he cried, "O, Lord, do, for thy own name's sake, show me what to do to-day."

He arose. A great calm was upon him, so peaceful was the soul's repose—"He leadeth me, oh, blessed thought," and he started forth. "I will just go by and tell Pastor Greene how my son is, and we'll have a little talk together." And so it

was the two had an opportunity that morning to have a lengthy talk together. In a moment of confidence Pastor Greene said: "About 9 o'clock this morning my soul went out before God that we might have a real, living Christ within us, one that enables us to *live for others*." "Why, that is just what I asked for, at the same time, and that the Lord would show me this day what I might do!" "And so did I," said Pastor Greene, "how strange! Now let us kneel here together and ask the Lord to lead us in our conversation before him and for him."

Several minutes were spent together in silent prayer. Silently each heart went out to the Master for his own blessed fulness. It came. "That if two of you shall agree on earth as touching anything that they shall ask, it shall be done for them of My Father which is in heaven."

Pastor Greene was deeply moved for his people. He was the first to speak. "My brother, I do realize this morning that it is not by 'might, nor power, but by my Spirit, saith the Lord.' And he has come to each of us this morning. Let us do whatever he shows or asks us to do, fearlessly. There has been so much of self in us, much that has been educated and even fostered into us; and now let us go to the root of the matter, even if it does hurt; for I believe he will sustain."

So they brought up all these things as the Lord revealed them. There came the church fair, with all its evils; the eating sociables—as if they could eat their way into the kingdom. Then came Thanksgiving day—"a day set aside by our forefathers for praise and thanksgiving for the mercies vouchsafed to us. But it ceases to be a thanksgiving day to us unless a fatted fowl adorn the board, and several courses follow thereon; in other words, could or would we be thankful to him if only a plain repast be spread before us? Why must we first care for self, then give God the remainder? Then comes our joyous Christmas time. Are our children taught that it is joyous because of Him who came, or do we love the day because of the gifts it brings to us? We please self first, then Christ. And now, dear brother, let us do away with this kind of living and live wholly unto God, laying aside all abominations.

"Let us ask our people and all who assemble with us that we make Thanksgiving day a real *thanks day*, and what we have to give, give unto the Lord: Inasmuch as ye have done it unto one of the

least of these My brethren, ye have done it unto Me'—Christmas day, a real Christ-coming day."

When it was noised about that there would not be the usual Christmas tree, boxes, etc., in the church, but all would bring their gifts unto Him as they brought the myrrh and frankincense of old, the bravest hesitated; but somehow the spirit of the living Christ came, dispelling the doubt, and boxes were packed to our brave suffering ones in the west. I wish we could follow it all; but we will peep in on one family where some found its way. It was a minister's family. How they had braved the hardships of the new country! but this year was worst of all. Scarcely anything to live on; but in came this box, so full, so lovingly packed, so Christlike in its coming. Together they bowed about it, thanking the Lord, and asking his blessing on the senders.

Another box came to the Deaconess Home. It just seemed there was a little of most everything, and just what they needed. In it was a little note, saying, "I hope you are as happy in receiving as we are in sending." So many tokens of love went to others, everyone felt his heart kindle with a new love, a living Christ within. *He had come.*—*Hospital Visitant.*

THE HABIT OF DIRT-EATING IN CHILDREN.

A VERY interesting paper on this curious habit is contributed by Dr. John Thomson to the recent number of the Edinburgh hospital reports. He gives some account of the habit as observed by travelers in different parts of the world, and by agriculturists among unhealthy young animals, especially lambs. Dr. Thomson finds it occurs in two classes: (1) In cases of ill health from tuberculosis, etc., anæmia being almost always a prominent symptom; and (2) in healthy children, the habit being formed in infancy and disappearing spontaneously when the children are about three years old. Dr. Thomson regards the habit in this latter class as analogous to thumb-sucking, perpetual rocking to and fro, or constant rolling in bed, in which some children find delight, and which they lose when they pass out of infancy. In the cachectic cases, it has been thought that the habit might be started by an instinctive craving for earthly salts, such as lime and iron, but the evidence is not conclusive.

The materials selected in Dr. Thomson's cases seem, says the *Lancet*, to have been chiefly wall-plaster and cinders. One child varied this last pastime by pushing the hearth brush into the ashes and then licking the dust off it as a great delicacy. The habit, as is well known, is very common among idiots and imbeciles, but Dr. Thomson's cases were free from mental disorder. Even in the cases where spontaneous recovery did not occur, a very short period of treatment in hospital, during which the patient was denied access to his wonted luxuries, was sufficient to break the habit. Dirt-eating, may, however, lead to serious consequences when the material eaten—such as the soil—contains deleterious matter. This is seen among the native Egyptians, who, observing the marvelous fertilizing power of Nile mud on their fields, imagine it must be equally nutritious for men, and habitually eat it, with the result of infecting themselves with the ova of anchylostoma, bilharzia, and other parasites.—*Selected.*

THE HYGIENIC VALUE OF COLOR.

THAT color exerts an influence upon the mind and body is not unknown to scientists, although it is not generally known to the public. There are many instances recorded where patients suffering from brain disorders have been greatly helped by what may properly be called the color treatment. A more recent example is found in the case of a melancholic patient who persisted in abstaining from all food, and who was in consequence fast wasting away. He was placed in a room that had been painted and furnished in vivid crimson. At night the room was brilliantly illuminated, and by daylight it was also bright and glaring. During the three hours that this treatment was followed, "the spirits of the patient rose until he grew almost hilarious, and, in addition, he partook of food with relish."

Many ailments are largely under the control of the mind, and the mind is, of course, superior to the most highly organized matter. This being so, and color undoubtedly influencing the mind, color can thus, either directly or by reflex action, be made to act upon and eliminate diseases. Most of us have experienced the depressing effects of a dull day, full of somber shadows and gloom, or of a badly-lighted and worse-colored room. A recent writer has called attention to the impropriety of

employing large masses of "depressing and cold French gray on the walls of schoolrooms and other public buildings," declaring that this color exerts a baleful influence upon the mind. A knowledge of the hygienic value of color upon the part of those who have such work in hand would result in an avoidance of this needless mistake.

French gray is made from white and Prussian blue, a cold combination, and far from being a cheerful one. Blue possesses in the greatest degree the quality technically known as coldness, and it communicates this quality variously to all colors with which it is compounded. It is cool, quiet, sedative. The complementary of cold blue is hot orange. It represents the maximum of heat attained by the gradually ascending series of warm colors. It is ardent, cheerful, enlivening. A room done in a yellow key will impart these lively sensations to the mind. No person ever committed suicide amid such coloring. A room done in a blue key will impart "the blues" to its inmate. My old pastor was a pessimist, and his sermons were bordered in black. I only discovered why when I saw his study, a room whose walls were done in cold-blooded Prussian blue, and whose woodwork, including the floor, was stained to imitate black walnut.—*Popular Science News.*

SWEEPING AND DUSTING.

THE wear of a carpet may be greatly prolonged by judicious treatment. The wise woman realizes this, and by a little headwork and carefulness, lightens the demands on both her hands and her pocket-book. Her carpets are swept but once a week, and then it is done in this wise: First, she covers the furniture as much as possible, especially the upholstered portions, and then strews the floor thickly with tea-leaves and salt. The salt brightens the colors in the carpet and destroys the moths, while the tea leaves gather the dust. Then she sweeps with the grain of the carpet, using a short stroke that covers only a little space. Her broom draws, not pushes, the salt and tea-leaves up to a level with her feet, and so she continues until the whole room has been gone over.

The result of this careful sweeping is that not much dust has been set in motion to settle, later on, upon the furniture, and also that the sweeper's carpets greatly outlast those of her neighbors, and yet always look bright and clean.

This same woman never uses a feather duster, as it does not really dispose of the dust, but merely removes it from one part of the room to another. Instead, she uses a large, soft dry cloth, and shakes this cloth occasionally out of the window, being careful the while that there is no draught to carry the dust back into the room. After dusting, she occasionally goes over all the woodwork of the furniture again with a soft flannel cloth dampened with kerosene. This polishes the furniture up wonderfully, and if the windows and doors are left open for a little while after, all traces of the scent will soon disappear.—*Good Housekeeping*.

HOW MUCH WATER SHOULD WE DRINK.

THIS question has been answered by Professor Allen as follows:—

"We should drink from one-third to two-fifths as many ounces as we weigh in pounds. Therefore, for a man weighing 168 pounds would be required from 56 to 64 ounces daily, or from 1½ to 4 pints." This we regard as a very indefinite answer. The amount of water required depends on the season of the year, the amount of work done and the kind of food eaten. In hot weather we require more than in cold because of the greater loss through the skin, though this is in part made up by the lesser amount passed away through the kidneys. If a man labors very hard he requires more than if his labor is light, a man working in a foundry where the temperature is high and the perspiration profuse not unfrequently drinks three or four gallons daily.

If the food is stimulating and salty, more water is required than if it is bland. Vegetarians and those who use much fruit require less water than those who eat salted fish and pork, and often get along with none except what is in their food.

In most cases our instincts tell us how much water to drink far better than any hard or fixed rule. For ages they have been acquiring a knowledge of how much to drink and transmitting that knowledge to descendants, and if we follow them, we shall not go far out of the way. It is of more use to us to know that pure water is essential and that *impure water is one of the most dangerous of drinks* than to know how much of it is required daily.

If one lives in a region where the water is bad, it should be boiled and put away in bottles, well

corked, in an ice chest, and in addition one should eat all the fruit he can, if fruit agrees. Fruits contain not only pure water but salts which are needed to carry on healthfully the functions of life.

AN ODD TALE OF MUMPS.

A FRIEND of ours went, not long ago, to call upon an acquaintance in this city who is a firm believer in the doctrines and practices of Christian Science, so-called. While the two were in the midst of a pleasant conversation, the door opened and a little child poked her head into the room. The visitor could not help noticing that the child's face was swollen to the degree of hideous distortion.

"Mercy me!" cried the visitor; "what's the matter with that child?"

"There's nothing the matter with her," said the mother stiffly; "positively nothing at all."

Then, turning to the child, the mother said, "Run right back to the nursery and stay there." But the child did not want to go; she continued to hang around the door, peeping into the room in a furtive way.

"Do you pretend to tell me there's nothing the matter with that child?" cried the visitor. "Why, just look at her face swelled to the size of a pumpkin!"

"No," insisted the mother sternly, "there is positively nothing the matter with her. She simply has a belief of the mumps."—*Chicago Record*.

CHILDREN'S CORNER CLIPPINGS.

THE SWEETEST WORD.

DON'T think that your children are too young. They often look up to you with their baby eyes full of wonder and drink in some act or word that may never be effaced. It is true that it must be "line upon line," "precept upon precept," and "here a little and there a little," and often it is wearisome work, but don't be discouraged, mothers; you are sowing seed that you may never see spring up, but if you prepare the soil of their little hearts by careful training, water the seed by constant prayer, just as sure as there is a God, those seeds will, in time, come up and bring forth fruit—the fruit of a mother's love and influence. The crown of motherhood is beyond valuation, and truly a woman is blessed who can claim little immortal souls who call her by the sweetest word in our language—mother.—*Good Housekeeping*.

HOW TO GIVE A FOMENTATION.

DOUBTLESS every nurse knows how to apply a fomentation, yet the following suggestions may be of value to some one: A flannel cloth may be folded, wrung out of hot water and applied directly to the skin; nevertheless it is much better, after wringing out the flannel as dry as desired, to fold it in a dry flannel cloth of one or two thicknesses before applying it to the patient. A little time is required for the heat of the fomentation to penetrate the dry flannel, and thus the skin is allowed an opportunity to acquire tolerance of the heat, and a greater degree of temperature can be borne than if the moist cloth is brought directly in contact with the surface. The outer layers of dry flannel will also serve to keep the cloth warm by preventing evaporation.

A fomentation may sometimes be needed when no hot water is at hand. It is not necessary to wait for water to be heated in the usual way. Saturate the flannel with cold water, wring as dry as desired, fold in a newspaper, and lay it on the stove or wrap about the stovepipe. In a few minutes it will be as warm as the patient can bear. The paper keeps the pipe from becoming wet by the flannel and at the same time prevents the flannel from being soiled by contact with the pipe.

Fomentations thoroughly applied will relieve most of the local pains for which liniments, lotions and poultices are generally used. They are also more cleanly, and aid nature more effectually in healing.—*Nursing World*.

WHAT WHISKY SELLERS DO.

SOME years ago Rev. E. Klumph, of the Detroit Conference, accosted a saloon-keeper with the remark:—

“Come over to the church to-night and hear me lecture on temperance.”

The reply was:—

“I won't; you said whisky sellers were robbers.”

“I didn't,” replied Mr. Klumph.

“What did you say?”

“I said you were worse than robbers. I said you took my innocent boy, and sent me home a maudlin fool. I said you took an intelligent man, and sent a lunatic to the asylum. I said you took a respected citizen, and sent a criminal to prison. I said you took a kind father, and sent a fiend to

throw his family into the street. I said you took a loving husband, and sent a demon to kick his wife. I said you took the immortal soul, and sent it to hell. I said you were worse than robbers.”

And what the veteran preacher said was true!—*Selected*.

EAT VEGETABLES.

FROM an interesting work on the above subject, which comes to our table, we take the following:—

“The most efficient burden-bearers of the world to-day are vegetarians. The Turkish longshoremen, perhaps the most powerful bipeds of the planet, (except the gorilla) are life-long vegetarians. So also are largely the peasantry of Russia, Italy, Germany, and even of Norway and Sweden, away from the sea coast. The intrepid Bedouin, the dauntless Japanese and the Chinese coolies are all vegetarians.”

BABY ASLEEP.

BABY has gone to the land of dreams,
Hush, or you'll wake him! How still it seems!
Carefully shut the bedroom door,
Noiselessly tiptoe across the floor.
See how sweet he looks as he lies,
With fringed lids shutting the dark brown eyes;
One pink palm pressing the dimpled cheek,
And his red lips parted as if to speak.

Yonder, in the low rocking-chair,
Is a broken plaything,—he left it there;
And there, in the corner beside the door,
Lies a motley heap of many more,—
Jackknife, picture-book, marbles, ball,
Tailless monkey and headless doll,
And new, bright pennies, his special joy,
By the father hoarded to please his boy.

There lie his shoes on the kitchen floor,
That all day long have pattered o'er,—
Battered and chubby, short and wide,
Worn at the toes, and cracked at the side;
And there hangs the little dress he wore,—
Scarlet flannel, and nothing more,—
But there clings about it a nameless charm,
For the sleeves are creased by his dimpled arm.

Dear little feet that are now so still,
Will ye ever walk in the paths of ill?
Rosebud lips, will ye ever part,
Bringing pain to a mother's heart?
Keep, O Father, that baby brow
Ever as pure from stain as now;
Lead him through life by thy guiding hand
Safely into the better land!

RETREAT NOTES

—Miss Lena Hunt, of Sacramento, is at the present time a member of our family.

—Dr. E. L. Paulding, of Arroyo Grande, is spending some weeks at the sanitarium.

—Mrs. Chick and daughter, of San Francisco, are numbered among our guests at the present time.

—Henry Powell, of Sisson, formerly a member of the family, recently returned for a few days' visit.

—Philip Alexander, of Alameda, has recently visited his mother, who has been a member of our family for some weeks.

—Dr. H. S. Maxson and family have recently returned from a camping expedition, from which she has received much benefit.

—Among those who have recently visited the sanitarium, may be mentioned Mr. F. Cutting, Mrs. C. G. Ault, B. R. Banning, Mrs. Woodward, Miss Daisy Williams, of Oakland.

—Elder M. C. Wilcox recently made a short visit to the sanitarium. His visits are always most welcome. We are glad to anticipate a more extended visit from his family in the near future.

—Mrs. Knapp, of Napa, has been stopping with us for some weeks. We are happy to report that she has made decided improvement, and we hope to return her to her friends entirely restored to health.

—Mrs. F. H. Pratt, of Boston, has been a member of our family for some weeks. A few days since, she was joined by her mother, Mrs. J. C. Lyman, and her sister, Miss Lyman, of Philadelphia, who are making a tour through California.

—The Bible school, conducted by Elder St. John in connection with the training class, has been most appreciated by all in attendance. The course is very thorough, and well calculated to prepare the student for work in the Master's vineyard.

—The brilliancy of the moonlight at this season of the year, the brightness of which is surpassed nowhere in the world, has tempted many to evening excursions. The newly-arranged trails leading to the top of Howell Mountain have proved very attractive for this purpose.

—We have recently enjoyed a visit from Dr. H. M. Dunlap, of Battle Creek, Mich., who, with his wife and family, is making an extended trip on the Pacific Coast. Dr. Dunlap has for several years acted as a specialist in diseases of the throat, lungs, and eyes, in the Battle Creek Sanitarium.

—The population on Howell Mountain is still on the increase. During the past week the home of Dr. and Mrs.

Sanderson has been gladdened by the advent of a vigorous lass of superior merit. We are sure many of our family, present and past, will join in extending congratulations to the young couple.

—Mrs. Hartwell, wife of Prof. C. S. Hartwell, of Brooklyn, is at the present time making her home at the sanitarium. Mrs. Hartwell does not consider herself an invalid, but has not been as well for some months in the past as formerly. We are happy to report that she is making improvement under the favorable conditions which she has found at our home.

—Mrs. M. S. Carle, who spent several months at the Retreat, recently returned to her home in Sacramento. We are glad to hear that she continues to improve since returning. Mrs. Carle has been with us for so long, that we have learned to regard her as one of us; and while much of the time confined to her room, she was of such good cheer, even under severe suffering, that her influence is sadly missed.

—The sanitarium family are enjoying the usual delightful sunshine which characterizes the delightful climate of Napa Valley during October and November. While storms and destructive winds have devastated the homes of hundreds in the eastern states, we can but lift our hearts in gratitude for the uninterrupted blessing of the unparalleled equanimity of the elements.

—Mrs. Kendall, who has from time to time been a member of our family, has again returned to us for some weeks. We are happy to state that she is making satisfactory progress, and hope to be able to dismiss her entirely well, although it is always a great pleasure to receive Mrs. Kendall into our midst, as she always brings cheer wherever she goes. Mr. F. C. Kendall, her son, from Astoria, Oregon, has recently paid his mother a visit.

—The institution has recently enjoyed a number of visits from Dr. J. C. Spencer, one of the rising physicians of San Francisco, whose wife is spending some time here. Mrs. Spencer is the sister of Mrs. Wellingdorf, who has visited the sanitarium a number of times. The many friends who formed Mrs. Wellingdorf's acquaintance here will be glad to know that she still maintains the degree of improvement she made while here.

—The swimming tank still enjoys a good degree of patronage. A large number; among which are not a few children and young ladies, have during the season accomplished the art of swimming. Inasmuch do the managers of the sanitarium feel that they have contributed to the real advantage of society, because we consider that swimming is not only a most healthful exercise, but an accomplishment which should be attained by every member of society.

—Taking advantage of the unusual transparency of the atmosphere, several parties of ten or more from the sanitarium family have recently made a trip to the summit of Mount St. Helena. From this grand old mountain, so

familiar to those who have read the early history of California, can be obtained a view unsurpassed in this region. The beautiful Sonoma Valley on the north, the more beautiful Napa Valley on the south, the broad Sacramento Valley to the east, with its sheet of winding waters, while to the west the eye overreaches the Coast Range and meets at the horizon the grand old ocean's broad expanse.

—The great wave of political agitation which is stirring our land from beginning to end, and from top to bottom, has not left undisturbed even our usually serene atmosphere. Convinced that the questions of the present hour are of mighty moment to the welfare of the nation, and to its individual members, many who have not heretofore turned aside from their purpose of relieving the sick and suffering feel it their duty to lend their influence on the side of right and justice.

—Mr. S. S. Ackerman and wife have recently returned to the sanitarium, and will probably spend a few months with us. Mr. Ackerman has long been a member of the sanitarium family on account of a great infirmity from which he has suffered for two or three years. While with us last winter he made some improvement, which became more apparent after he had left in May, and during the summer he has been very well indeed; being able to take long walks, and suffering very little from the many distressing symptoms which attended his condition during the early part of his illness. He has not been quite as well of late, and feeling that the sanitarium is really the best place for him, especially in the winter season, he has come back to us. Mrs. Ackerman, also an invalid during the greater part of her stay here, has enjoyed excellent health the past

summer, we are glad to report, and will remain with her husband during the winter. The sanitarium family is always glad to welcome back old and tried friends.

—Miss Rosa Young, from the much-renowned Pitcairn Island, has recently arrived at the sanitarium. Miss Young is suffering from some infirmity which will doubtless cause her to remain with us for some time; but we hope to be able to return her to her people, and to the large field of usefulness that she fills among them, quite restored. Miss Young is a woman of exceptional ability, and has done much for her people in their isolation. Among other work she has accomplished, she has written a very instructive and interesting book giving a full history of the island since it was first inhabited. Although she has never before left her secluded home, not even for the shortest trip, we find her well informed—even more so than many who have been brought up in the midst of the vast advantages with which native Americans are surrounded. It is very interesting to learn how necessity has mothered invention among these people, and what contrivances they resort to to make pleasant homes and thriving communities.

—Miss Hattie Andre, who has been acting as a missionary in the South Sea Islands during the past three or four years, has recently paid a visit to the sanitarium, on her way to her home in Ohio. Miss Andre states that she has not found her task altogether an unpleasant one among these people; indeed, quite the contrary. Concerning the climate, she has never visited any section where it is quite so nearly perfect. She brought with her many articles made by the natives, which show that they have keen perceptions and are very susceptible to manual training.

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Fig. V—Semi-Reclining.

- 1st. Raised by foot and lowered by automatic device.—Fig. I.
- 2nd. Raising and lowering without revolving the upper part of the chair.—Fig. VII.
- 3rd. Obtaining height of 39½ inches.—Fig. VII.
- 4th. As strong in the highest, as when in the lowest position.—Fig. VII.
- 5th. Raised, lowered, tilted or rotated without disturbing patient.
- 6th. Heavy steel springs to balance the chair.
- 7th. Arm Rests not dependent on the back for support.—Fig. VII—always ready for use; pushed back when using stirrups—Fig. XVII—may be placed at and away from side of chair, forming a side table for Sim's position.—Fig. XIII.
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Fig. XVII—Dorsal Position.

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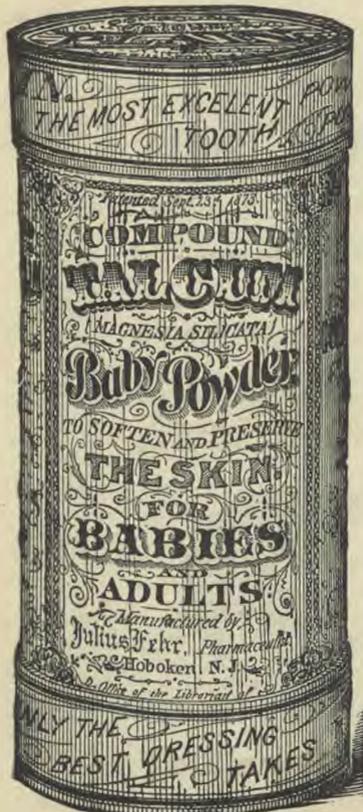
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