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No man is free who cannot command himself.

No truly great man was ever unkind to his parents.

It is other people's eyes that ruin us.—*Poor Richard.*

PEOPLE are not refined who cannot tolerate an opinion at variance with their own.

A HERO is a man who refrains from eating things that do not agree with him.—*Fraternal Record.*

HATRED does not cease by hatred at any time. Hatred ceases by love. This is the eternal law.—*Dommerpherder.*

MOST of us lay up a good stock of patience, but we make the mistake of putting it where we can't find it just when we need it most.

APPLES.—More apples were shipped from America to Europe last year than ever before in a single year, the total being 1,401,382 barrels.

ANYONE who desires to become great must first learn to be obedient. This is the first round in the ladder of fame.—*Juvenile Instructor.*

A SILVER dime can be melted in a walnut shell by embedding it in a mixture of niter three parts, sulphur one part, and sawdust one part, and setting fire to the mixture. The walnut shell is only charred.—*Pharmaceutical Era.*

DIABETES.

(Continued.)

In a former article we gave testimony concerning the supposed causes of diabetes, and the tests which could be applied to the urine to determine whether a person was really afflicted with this malady. We also quoted some excellent suggestions as to what should constitute the diet of one thus afflicted.

As true as that the tissues of the body are formed from and of what we eat, so true is it that a proper diet must enter largely into the correct treatment of disease. This principle, in this enlightened age, is so fully recognized by the various schools of physicians—regular, homeopathic, or eclectic—that they readily consign to the wastebasket the pretensions of one who has a “wonderful remedy for all the chronic ills of life,” where “no change of diet is required.” Intelligent physicians recognize the fact that if the organs of digestion, assimilation, or depuration, have been overtaxed in their labors, because the possessor of said organs has, wittingly or unwittingly, furnished the body with an excessive amount of food material, and that material has been of a character to overwork those organs, there must enter into the curative process the lightening of the burden on the said diseased organs. This result is not to be accomplished by putting the patient on a “starvation diet,” but by nourishing the body with a diet which will impose a lighter amount of labor than formerly upon the organ requiring rest. The reader will at once comprehend our meaning when we state that in sanitariums and hospitals for invalids, in desperate cases of dyspepsia, or peculiar forms of stomach diseases, patients have been nourished for many days by injecting into the bowels such liquid foods as have been peptonized, partly digested, and fitted for ready absorption by the glands of the mesentery and alimentary canal.

Thus both the stomach proper and the duodenum (second stomach) are allowed a little period of rest. If certain forms of food serve to increase the diabetic secretions of sweet urine, how reasonable to suppose that disuse, in greater or less extent, of such foods must have an important bearing on the question of relief in diabetes.

Before me is a copy of the *Dietetic Gazette*, in which are some very interesting historical facts respecting diabetes mellitus, by Dr. Adolph Kally, of Vienna. He mentions as among the first who had anything near a correct idea of the disease, Susruta, who flourished some three hundred years before Christ. In his "Book of Life" he said: "As soon as the physician has in a disease discovered sweetness in the urine, thereby its incurability is established. All diseases of the kidneys become, after a time, incurable, lead to diabetes, and thereby to sure death. The urine, perspiration, and mucus come to contain sugar."

Dr. Kally says: "Among the Greeks and Romans the disease was also known at an early date. Celsus was the first amongst them to mention a knowledge of the disease; after him Aretæus, one of the most noteworthy followers of Hippocrates. This one uses the name diabetes, as in common use. He supposes the stomach to be the seat of the disease—a view that was again entertained fifteen hundred years later."

Passing rapidly over the Middle Ages, when there was a going back to superstition, he says: "It was left to Thomas Willis to rediscover the presence of sugar in the urine by its remarkably sweet taste in diabetes. It was therefore reserved for the seventeenth century, after more than two thousand years, to again get into the right track, and bring before the eyes of an astonished world a diabetes mellitus (Thomas Willis, 1674). Dobson, Poot, Cowley, and Home, as also Rollo, were worthy successors of Willis. Rollo inaugurated the use of opium and animal diet, and made some noteworthy chemical experiments that are of value even to this day.

"A new era in the investigation of diabetes began with the nineteenth century. The distinguished London specialist in diabetes, Prout, also Bouchardat, Mialhe, and Piorry, already gave intimation of the same. Chemistry here already made some triumphant discoveries. Mialhe was the first to recommend alkalies. Piorry endeavored,

by the ingestion of sugar, to replace the loss of the same through the kidneys.

"New fields of experimentation, not known to ancient times, have been opened by modern chemistry. This is, compared to the utter want of such knowledge in olden times, an immense advantage. It is to chemistry that we owe knowledge of the most important changes in tissue metabolism caused by glycohæmia. The foundation of the future researches in diabetes lies in the studies of bio-chemistry."

TREATMENT.

Diabetes is a disease so liable to fatal results that it is advisable for those who have any good reason to believe themselves so afflicted to get the best available medical counsel in their case, and not resort to patent medicines advertised for their difficulties, or trust to their own unskillfully guided care. If they can go to a sanitarium or a health resort where they can have a proper medical examination, and hygienic treatment, with the daily watch-care of the physician, if only for a few weeks, it may be of inestimable benefit in the end.

We have already intimated that the diet treatment is one of the most potent agents for the relief of diabetes. While the patient is determining the course of diet he should adopt at his own home, it will be of vast advantage to have good medical counsel, especially if he is effecting radical changes in diet. Then, again, the facilities for water treatment, electricity, massage, etc., are not always available at home. A little time spent at a good institution, in learning how to care for himself, may add much to the efficiency of the home treatment afterwards.

On the treatment of diabetes we will give some remarks from the writings of J. H. Kellogg, M. D.:

"Sugar, starch, and all foods containing them should be, as far as possible, excluded from the dietary. This requires that the patient should abstain from the use of sugar in any form, from bread, potatoes, peas, beans, rice, oatmeal, cornmeal, and other grains, chestnuts, and all other farinaceous articles of food. Sweet fruits also must be avoided with equal care. The diet should consist chiefly of meat of different kinds, including fowl. Greens, green beans, lettuce, yellow beets, asparagus, cucumbers, and radishes may also be eaten. Most acid fruits may be taken in moderate quanti-

*"Home Hand-Book," pages 867-869.

ties, such as lemons, oranges, strawberries, peaches, and currants. In many cases skim-milk, sour milk, or buttermilk may be taken without increasing the proportion of sugar, and hence without injury. Several eminent physicians claim to have cured a number of cases of this disease by means of an exclusive milk diet, the patient being confined to this one article of food for several weeks. The milk should be carefully skimmed. The quantity required per day is from two to three quarts."

"A diabetic patient should not be deprived of fluids, but should be cautioned to control the desire for drink within as reasonable limits as possible, and especially to take small quantities of fluid at a time. The intolerable thirst will often be removed by holding bits of ice in the mouth. The great discharge of fluid from the body is not the result of excessive drinking, but is the cause of the great thirst, which is simply an expression on the part of the system of the lack of water in the blood. Consequently the intolerable thirst by which this disease is characterized is as much a real demand for fluid as is the thirst experienced in health.

"In addition to the dietetic measures recommended, the most that can be done in many cases is to employ all suitable measures for securing and maintaining a general healthy condition. This should be done with the full understanding, however, that in quite a large proportion of cases of persons suffering from this disease the most that can be done is to mitigate the symptoms and prolong the patient's life, as a radical and permanent cure rarely occurs. The plan of treatment which we have adopted in the management of cases of this class has been substantially the following, with such modifications as are indicated by peculiarities of temperament, general condition, etc.:

"A short warm bath should be taken two or three times a week, with inunctions of olive-oil or coconut oil every other day. Sun-baths should be taken daily when possible. The use of faradic electricity as a tonic, and the application of galvanism to the spine, is attended with much benefit. The patient should also be required to take a large amount of exercise in the open air, horseback riding, walking, etc., in addition to the daily practice of calisthenics. The results obtained by this mode of treatment have been very encouraging, and in some cases very remarkable. Persons in whom several years ago the disease was well

marked are still alive and enjoying comfortable health, though they still find it necessary to observe great care in diet in order to prevent a recurrence of the disease. In some cases, special benefit has seemed to be derived from a strong current of galvanism applied to the base of the brain and the sympathetic nerve, when no apparent effect could be obtained in any other way. Although numerous drugs have been at times highly recommended for the relief of this disease, it is generally considered that few, if any, have any effect upon it except by impairing the patient's nutrition, and thus producing a diminution of sugar by depressing his vitality. It need not be said that the injury done by remedies of this class must be much greater than any possible good which can result from their use. Morphia exercises more influence over the production of sugar than any other known drug, but at the same time interferes with the nutrition of the patient, so that its employment cannot be considered in any way as a curative measure. The want of success in the treatment of this disease may be in part attributed to the lack of knowledge respecting its real nature, which still continues, notwithstanding the numerous investigations of the subject. It is to be hoped that when the causes and character of the disease are better known, more successful remedial measures may be discovered."

J. N. L.

FROM INFANCY TO OLD AGE. NO. 3.

STRENGTH increases with age and exercise by the use of nourishment before the zenith of life is reached, but after this time it decreases, as also the heat of the body grows less and less, after we have entered, and as we pass along, the western slope. Loss of heat means less energy and activity, and since there is less energy and activity, less nutriment is needed and less expenditure and less elimination of waste material occurs. If we disregard these systematic conditions, we may well look out for consequent sickness. If at sixty your weight is greater than it was at fifty years of age, every added ounce is extra and needless fat to be carried through all your work. Your *income has exceeded your expenditure*. Should you grow heavier and heavier, neither your heart nor your lungs can act easily nor healthily because of the fat which is gradually gathering around them. All this because you continue to eat and drink as you did when

your activity was greater. Not many live to a good old age in this condition. Such is the import of eating and drinking *more than the body requires*.

We generally find that those who live to be over eighty are lean and spare, live on slender allowances, and preserve a suitable amount of energy of body and mind, a harmonious equality of food, income, and physical expenditure—an equality necessary through our whole life to maintain good health.

Many persons find themselves getting uncomfortably fat, and they resort to hot baths at some mineral springs; others go to a sanitarium to be reduced by a light diet, Turkish baths, vapors, etc.—a depleting course generally. The physician of intelligence well knows that when the superfluous waste is taken away, the rheumatism, gout, and many other troublesome effects will also leave the patient.

In every work, and throughout life, the one great aim of the individual should be to supply, by eating and drinking (and by other hygienic measures), the waste of body and not the pleasures of palate. Your friend, who eats certain kinds and combinations of food and is healthy, advises you, of course, to eat the same. This is unwise, without first ascertaining whether or not the adaptation be proper. The capacity and power of the stomach in different individuals are as varied as are those of other organs of the body. The stomach of small capacity and power often is more healthy than that which can admit and digest every pretender—every comer in the way of food. The smaller, healthy stomach keeps out this motley crowd and will have only the best, giving to its king in return a clearer mind than that obtained by the person whose eating is so damaging to the assimilating organs. Large feeders suffer from unexpended waste and are more subject to deposit of disease than are they who are more careful of their diet.

The gluttonous feeder seldom possesses an impressive mental structure, while in the small eater we often find a fine nervous organization, strong emotions, and a nature easily impressed with truth.

Both young and old should choose such foods as are not heating to the blood, during the summer season, viz., watery vegetables and fruits, with a fair amount of grains; must avoid sugar, fat, and flesh. If you will observe these points, and not eat too much, the high temperatures of climate can be enjoyed, with freedom from the needless thirst

which so often results from the use of sugar, fat, and flesh meats. The climate inhabited, the season of the year, the age and peculiar constitution, the occupation, and the personal surroundings of the individual, influence the demand for food and the kind and quantity taken.

Many think indigestion a disease; but it is not. It is a cry on the part of the stomach or bowels for appropriate food, and it is a message of importance from nature. If we pass this cry unheeded, or continue to blame the stomach or punish it with medicines rather than heal it by diet, you may be sure its cry will continue, and in all probability will appear in some other form of trouble; and overfeeding, and eating bad mixtures of food, are the common causes of such indigestion.

Don't whip up the stomach and digestive organs with alcohol, peppers, etc., because you borrow tomorrow's strength for to-day, and thereby shorten the natural term of the stomach's efficiency. The adaptability of food to the individual, considering his age, temperament, climate, occupation, and surroundings, comprehends the whole matter of *wholesome* food; while the lack of this adaptability in kind and quantity surveys the whole domain of *unwholesome* foods.

With her usual harmony, nature has so arranged that the small eater of foods, adapted to his individual wants, has but little trouble in the assimilation of nourishment and elimination of waste; while he who overeats find misery enough in these two important functions, and he thinks an unkind providence has placed to his lot more suffering than is due, while it is simply his own unhygienic course, and providence is not involved, only so far as relates to the laws of life here violated.

W. P. BURKE, M. D.

(To be continued.)

Bobby (looking out of the window)—“What's the matter with the horse, mamma?” *Mother*—“The horse is balky, Bobby; he won't obey his driver.” *Bobby*—“Well, what's the man patting him for?” *Mother*—“He is coaxing him.” *Bobby* (with an injured air)—“That ain't the way you treat me when I'm balky.”—*London Tidbits*.

Two Berlin professors are reported to have discovered that the cause of diphtheria is the excretion of a bacillus called toxalbumen.

SUNSTROKE AND ITS REMEDY.

THE cause of the disease which in its most common form is known as "sunstroke," is always *heat*, but not necessarily the heat of the sun. In the hot atmosphere of the engine-room, in the steam-laden air of the sugar refinery, death has often come upon its victim, and some of the worst epidemics on record have occurred between decks on shipboard and in the stifling nights of tropical climates. It is by the evaporation from the skin that man is enabled to resist external heat. The change of water into vapor is always accompanied by the conversion of a large amount of heat into the repulsive force which causes the particles of water to fly apart in the form of vapor. The heat disappears and is said to become latent, but in reality there is simply the change of one force into another. When the air is already charged with vapor, evaporation takes place slowly. Hence the deadly nature of heat and moisture when combined. The evaporation from the skin being checked, the body has lost its power of cooling itself. In these facts is to be found the explanation of the circumstance that in the dry air of southern central Africa, sunstroke is least frequent, whilst it is most fatal in the moist climate of the plains of India. Moisture in the air is therefore a favoring circumstance for the production of sunstroke. Similar in their effect are the conditions in the system in persons not acclimated or accustomed to high temperatures, intemperance, exhaustion from fatigue, and previous injury from exposure to heat. All of these are predisposing causes, producing either a lack of power in the nervous system to resist heat, or a lack of power in the glandular system to furnish through the skin and lungs the secretions which by less evaporation cool the body. . . .

The number of sunstrokes in our cities is, in hot summers, very considerable; thus in two weeks, between July 11 and July 25, 1888, there were reported in Philadelphia over one hundred deaths from this cause. . . .

The symptoms of sunstroke are uniform in their general outline, and diverse in their especial details. In the ordinary form—that which may be spoken of as the cerebro-spinal variety—after more or less distinct warning, in the shape of such premonitory symptoms as headache, disordered vision, intense weariness, etc., the subject becomes unconscious, sometimes suddenly, sometimes more

gradually. The laborer will fall senseless in the street; in the hospital the comrades of a sick man will have their attention attracted by his heavy breathing, only to find that natural sleep has passed by insensible degrees into fatal coma or stupor. With this insensibility there is always associated intense heat of the skin. To the hand, the surface feels intensely hot; nor is the sensation a deceptive one—the heat of the body exceeds that attained in almost any other affection. A thermometer placed in the armpit, instead of indicating 98 degrees Fahrenheit, the temperature of health, rises generally to 109 degrees, in some cases even to 113 degrees. . . .

Whatever be the form of the attack, generally as the minutes pass the symptoms are intensified; the quick pulse of the first onset becomes more and more feeble, the labored breathing noisy and stentorious, the surface darker and darker as respiration fails, and death at last is brought about by asphyxia, or sometimes by the almost instantaneous fading away of respiration and circulation.

The one great symptom, the center of the group in all forms of the disease, is the high temperature. If the skin be cool, it is *not* sunstroke. After death the high temperature continues, and is said sometimes to even rise higher. Decomposition follows with exceeding rapidity. On post-mortem examination, the only appearances of striking importance are: A condition of blood similar to that seen in low fevers; a rigid, contracted state of the heart—in which it feels almost like wood; and a great tendency toward the rapid but transient development of that peculiar stiffening which at some time after death takes possession of the muscular tissues. . . .

By researches which it is not necessary here to describe in detail, it has been rendered exceedingly probable that somewhere in the brain, or in the spinal cord, is a nervous mass which controls or checks the development of animal heat, and that when this controlling center is paralyzed, fever results.

The mechanism of an attack of sunstroke appears to be as follows: Under the influence of external heat, the temperature of the body rises until at last a point is reached at which the heat paralyzes, by overstimulation, this controlling center; then a sudden additional rise of the temperature, with a corresponding increase in the severity of the symptoms, occurs. The brakes are off, the

fire is being urged to fury, and fever, with sudden unconsciousness, is the result.

Now that the true nature of the disease is known, the method of treatment becomes more obvious, and we learn not merely what to do, but also what not to do. As heat is the cause of the symptoms, common sense points to the abstraction of the heat in some way as the mode of cure.

Whatever is to be done in this disease must be done quickly. Clinical, as well as experimental observations, enforce this doctrine. There should in such cases be no waiting for the doctor. The remedy is simple, the death so imminent, that the good Samaritan passing by should save his brother. The good Samaritan must, however, have a cool head to be useful. Not every man who falls unconscious on a hot day has sunstroke. There is, fortunately, one criterion so easy of application that anyone can use it. Go at once to the fallen man, open his shirt bosom, and lay the hand upon his chest; if the skin be cool, you may rest assured that, whatever is the trouble, it is not sunstroke. If, on the contrary, the skin be burning hot, the case is certainly sunstroke, and no time should be lost. The patient should be carried to the nearest pump or hydrant, stripped to his waist, and bucketful after bucketful of cold water dashed over him, until consciousness begins to return, or the intense heat of the surface decidedly abates.

There is an old and homely saying that an ounce of prevention is worth a pound of cure,—a saying which, although threadbare with its centuries of daily use, still holds together as firmly as when it was first knit. If the abstraction of heat is the true cure for sunstroke, it is also the true preventative. Do not let the heat accumulate in the body. When duty forces one into exposure to heat, there are various measures that ought to be adopted. The clothing should be light, whitish in color, and fit loosely. Flannel is preferably, on the whole, the best material. A roomy, wide-brimmed, porous hat should be used, and in the crown of it may be placed a wet towel or large handkerchief. Water should be freely used externally and internally. Very close to the surface of the wrist rises a large artery, the radial, and the old custom of allowing cold water to run over the wrist no doubt owes its value to the fact that so much blood is thus brought almost into contact with the cooling water. Sweating is nature's great refrigerative method, and to keep this up, large quantities of water should be

drunk, not too cold, but without stint—quarts, if the thirst craves them. Keep sweating, and you are probably not in immediate danger; but when, on a July or August day, a man's head begins to throb, and the surface grows dry and hot, whilst unwonted restlessness and lassitude come on, as he values his life let him leave his work, however imperative, and take at once a cold bath.

Very many years ago, Dr. Currie, of London, asserted that it was often the heat of fever that kills, and that the proper treatment was to put the patient in a cold bath; but his words, unsupported by experimental investigations, fell unheeded to the ground. Recently, however, many of the foremost medical thinkers suspect that he was right, and the seed of over half a century, watered by hecatombs of lives, will probably ere long blossom into general usefulness. It needs no comment to show the light such investigations as the present throw upon fever and the proper method of its treatment.—*A. O. Lippincott, M. D., in St. Louis Journal.*

HIDDEN DANGERS.

THE indifference with which house owners or occupants look upon the question of house-drainage is such as to excite wonder and surprise in the minds of those who have interested themselves even but a little. Marble-top wash-stands, silver-plated fittings, decorated china basins, bath-tubs set in elegant cabinet work, the plumbing work which is in sight of the brightest plate, satisfy the minds and tastes of most house-dwellers. On the parts behind these casements, where are so often found the defective trap, an imperfect joint, the work of gases on the inner sides of soil pipes, and lack of ventilation, the housekeeper rarely spends a thought. The portions of the pipes which are built into the walls out of reach and out of sight are the parts (in the main) which should be exposed and ornamented.

THE largest bank known is the Bank of England.

A FAMILY died after eating the meat of a hog which had been sick with angina.

ACCORDING to a recent work on longevity, published in Norway, the average duration of life in that country is 48.33 years for men and 51.3 for women.

Disease and its Causes.

HAPPINESS AND DUTY.

WHILE I sought Happiness, she fled
 Before me constantly.
 Weary, I turned to Duty's path,
 And Happiness sought me,
 Saying, "I walk this road to-day;
 I'll bear thee company."

—*Sanitary Vol.*

IMPORTANCE OF PRESERVING PHYSICAL HEALTH.

BY MRS. E. G. WHITE.

IT may seem strange to some that, while all is stir and activity in the temperance cause, I should, in discussing that question, enter so fully into the home life, and the development of character in the child, as it progresses from infancy to maturity. My apology is that the work of temperance reform must begin at home, and with the early training of the child, in order to be thoroughly successful. The moral sensibilities of parents must be roused to appreciate the responsibility incumbent upon them in rearing their children with the strength of character and integrity of purpose to resist temptation, and to present a firm front against the attacks of popular vice, in all its seductive and dangerous phases.

I am thoroughly convinced that to realize a permanent change for the better in the morals of society, the education of the masses must begin with their early lives. The mother must be the first teacher through that stage of life in which the foundation of character is laid. The guidance of the child, in its first years, is almost wholly committed to her. And, as a rule, she has the essential elements to be the best teacher it can possibly have; she has the deep love and sympathy for the child, the earnest desire for his welfare, the skill in his management, which no other can possess to so great a degree. If, in her efforts to mould the character of her child, she keeps a firm hold upon God, and seeks by prayer and consecration to follow the divine will, in training the charge he has given to her, she can almost insure for him an honorable and upright future.

The habits formed in early youth, the tastes acquired, the powers of mind expanded, the self-

control gained, the principles inculcated from the cradle, are almost certain to determine the future of the man or woman. Therefore I have felt an intense earnestness in bringing before the mother subjects which it is not fashionable to discuss in connection with the great cause of temperance, now agitating the public more than ever before, because of the crime and corruption occasioned by intemperance and lax morals, which might have been prevented by the proper training in youth of the present generation.

One of the greatest aids in the perfecting of pure and noble characters in the young, and strengthening their capacity to resist temptations to do evil, to indulge appetite, or to fall into any debasing excesses, is the possession of sound physical health. The mind and body are intimately connected. If the former is to be firm and well-balanced, the latter should be in the best possible condition. Conscience and right principles of life should be sustained by firm, quiet nerves, a healthful circulation, and the activity and strength of general health.

It is of the highest importance that men and women be instructed in the science of human life, and in the best means of preserving and acquiring physical health. Especially is youth the time to lay up a stock of knowledge to be put in daily practice through life. Youth is the time to establish good habits, to correct wrong ones already contracted, to gain and to hold the power of self-control, and to lay the plan, and accustom one's self to the practice, of ordering all the acts of life with reference to the will of God and the welfare of our fellow-creatures. Youth is the sowing-time, that determines the harvest both of this life and the life beyond the grave.

The youth of our time should be patiently instructed by both parents and teachers in the laws of physical health, and the means provided by the providence of God for the restoration of that health when once impaired by voluntary or involuntary violation of nature's laws. Jesus did not ignore the claims of the body. He had respect for the physical condition of man, and went about healing the sick, and restoring their faculties to those suffering from their loss. How incumbent then is it upon us to preserve the natural health with which God has endowed us, and to avoid dwarfing or weakening our powers.

Parents should impress upon their children the

fact that all their powers are from God; that he has claims upon every faculty; that in sinning against their bodies, by abusing their physical health in any manner, they sin against God, and slight one of his choicest blessings. God gives us health to use in his service; and the greater physical strength we possess, the stronger our powers of endurance, the more we should do for the Master; and instead of abusing and overtaxing our strength, we should sacredly preserve it for his use.

The young should be shown that they are not at liberty to do as they please with their lives; that now is their day of trust, and by and by will come their day of reckoning; that God will not hold them guiltless for treating lightly his precious gifts; that the world's Redeemer has paid an infinite price for them, and their lives and talents belong to him; that they will be finally judged according to the faithful or unfaithful stewardship of the capital which God has intrusted to their care. They should be taught that the greater their endowment of means and opportunities, the more heavily does the responsibility of God's work rest upon them, and the more are they required to do.

The moral sensibilities of the youth must be aroused to the fact that their physical, mental, and moral powers are not their own, to use for their own selfish gratification, but lent them of God, to use in his service; and that his displeasure is visited upon those who develop and indulge injurious appetites and passions, and debase their God-given powers to their own sinful pleasures. If the youth are thus brought up to feel their responsibility to their Creator, and the important trust given them in their own lives, they will hesitate to plunge into the vortex of dissipation and crime that swallows up so many of the brilliant, promising young men of our age.

Let the work of reform begin at home; train up the child to habits of industry, and serious reflection; present life to him as a grave reality; show him his duty to his God, his neighbor, and himself; inculcate moral and religious principles in his mind; give him a suitable education, the means of earning an honest living; let him know you are ever ready to give him tender sympathy and sound advice, to help him if he stumbles, and to encourage him onward; and he will not be likely to go astray, or miss being a blessing and ornament to the world.

CHARACTER STUDIES AND A CAUSE. NO. 4.

BY FANNIE BOLTON.

"How industrious you are!" said the old-time beauty, as Elsie again applied herself to her knitting. "It reminds me that I have some crochet in my basket, and I think I will keep you company."

"Thank you," said Elsie, "and will you not also share my seat?"

The lady came, and Elsie saw that although her hair was white, she was not more than thirty, though her face was traced with lines of anxiety and grief.

Elsie drew her out from one subject to another until she told her of her unhappy relations to the world and to her family.

"Yes," she said, "I have money, but really that is all I have in the world, and it seems to me that that is all that anyone in the world loves me for. If I didn't have it I might go to a pauper's grave tomorrow. I was once engaged to a young man, but, thanks to fate, before I married him I found out that my bank account fathomed his heart, and I cast him out of my life. Then I have relatives, but I know that all they care for me, and my presence, is simply for what they can get out of me. So I rove round the world like that spirit that sought for rest and found none. I don't trust anyone."

Elsie looked up with tears in her eyes, and uttered some word of pity.

"Oh, don't pity me!" laughed the woman. "I'm not unhappy, I'm hardened. I simply don't care for anybody, and nobody cares for me. It's 'John Rogers don't care where his father is, and his father don't care where John Rogers is.' You may think it strange that I took a 'tourist' instead of a palace sleeper; well, my money is all I have, and I intend to keep it as long as I live. It shall not get away from me till I lie in my grave—no, and not even then. Won't it be a rich thing to have them all buying extra mourning to attend my funeral, in hopes of getting a legacy, and there won't be a penny for one of them. And there won't!" she exclaimed excitedly, "for I'll hide it!"

Elsie was astonished, and really felt at her wit's end. How could she help this poor soul, poor, poor with all her money! After a while it occurred to her how blessed she was with all her earthly store in a little purse in her pocket, and she laughed, saying:—

"Blessed be nothing. My dear, I am so glad I haven't your cross to bear. And you've no idea how very rich I have felt sometimes in sharing my poor little supply with others who needed it worse than I did. I do believe that to give is the only way to be truly rich. It's the way our Lord did; he gave himself for us, gave his all.

"Do you remember in that sweet poem of Longfellow's 'Elizabeth,' she says:—

"All I have is the Lord's, not mine to give or withhold it. I but distribute his gifts to the poor, and to those of his people Who, in journeying, often surrender their lives to his service. All I have is the Lord's, not mine, and only so far can I make it Mine as in giving I add my heart to whatever is given."

"It seems to me that is the only right way to look at our possessions. And then, have you ever considered the hygiene of giving? There is real health in it. If your heart outflows to another in affection or sympathy, you are just that much richer. Longfellow writes again:—

"Affection never is wasted, if it enrich not the heart of another,
Its waters, returning back to the fount whence they sprang,
Shall fill it full of refreshment."

"And it's so. I've marked it over and over, when I've been with the sick or the sorrowing, when I've divided my scanty store with another, I have gone away with so light a heart that the lightness communicated itself to my whole being. The blood seemed to catch the joy of my heart, and my cheeks were redder, my eyes brighter, for the joy of doing good. Of course it was the Lord's own dear Spirit that worked out the will of God through me, and I've nothing to be proud of in it. But that's the hygiene of giving, and if you want joy and health, it's the way to get it, for the Lord says if we will deal our bread to the hungry, and bring in the poor that are cast out, and hide not ourselves from our own flesh, that our light shall break forth as the morning, and our health spring forth speedily."

"What a queer little mortal you are!" exclaimed the lady. "Really, I never heard anything so—why, so—utterly poetical."

"No, indeed, it's truth," said Elsie, "but I need not say no indeed to your remark, for if poetry isn't truth it isn't poetry; truth is the heart of real poetry, and poetry is all over everything true and good and blessed."

"Well, speaking of health," said the lady, "I've had miserable health; that's why I look so old.

I've been to institutions for health, to water cures, and mineral springs, and to many physicians—"

"And you've been like the poor woman the Saviour healed, rather made worse than better. What you need, my dear, is—shall I tell you?"

"Certainly," said the lady with interest.

"To do just as that woman did, touch the hem of his garment, for after all when you sum up everything, it's all in him, whom to know is life eternal, for he is perfect love, and perfect love is health, and wealth, and peace, and heaven, no matter how poor you may be, how sick, or how much trouble rages around you."

"I thought the gentleman with you, your brother I presume, was a clergyman."

"No, he's only a health and temperance lecturer."

"What books are those?" asked the lady, as the porter went through to light up the cars.

"Those are works that treat on the very subjects we have been discussing. Would you like to examine them?"

"I believe I would," said the lady, rising to go, and thanking Elsie for her talk and her kindness.

Laurence now took a seat with his sister. "My dear, are you not afraid to lavish your pearls in that extravagant fashion?"

"No," said Elsie. "That poor thing! and that other poor thing! O Laurence, how I wish we could help them! I feel so weak and unworthy, so incapable of anything. Surely one needs divine help even on a journey."

The men on the opposite side were swearing and drinking. The young man and his valet were discussing scenes on the ocean voyage from Bombay, and laughing over the misfortunes of the victims of seasickness. "My! what a change was wrought in that blooming belle after seasickness got a hold on her. The powder was soon washed off, and the false hair dispensed with. First, she was afraid she should die; next she wanted to die, and the last time I saw her she was afraid she wouldn't die. Ha! ha! but there isn't much that's really true in anybody," said the young man.

"Can't we sing something?" said Laurence to Elsie.

"One of the Sweet Old Chapters," suggested Elsie. And so they sang it softly, and yet their sweet, penetrating notes reached the ears of some of the passengers, and in a little time the noise was quiet. When they stopped singing, the lady

in front requested another song, and then several came nearer the seat, and song followed song, each song creating an atmosphere for something more practical, until Laurence started a rousing temperance piece, and Elsie suggested that they close with "The Sweet By and By," and ask all who would to join.

After the singing, a quieter spirit fell on the turbulent loggers. The cards were put away; the sarcastic man pretended to sleep; and the young man who had sat all day indifferent to everything, lingered at Elsie's seat, and said, "It makes me think of mother to hear that 'Sweet By and By.' She used to sing it; and I wish I had sung that kind of songs more. Think perhaps it might have kept me out of lots of hard things I've been into."

When the young man went back to his seat, Elsie said, "There's another poor soul in trouble."

"What a child you are to dive down for people's troubles. It seems about the only thing that recommends them to you. But, Elsie, that fellow has lived a hard life; you can read it in his face. He never was as fine as this man across the way. I feel the keenest interest in him, for I do believe he is fighting a remorse such as that other one is incapable of knowing, trying to keep up heart on sarcasms. And really I've no doubt but that he has been thrown into the society of hypocrites, into an atmosphere of false and inconsistent doctrines, been involved in business schemes and worldly knaveries, until he is what he is. But his outraged nature cries for the better things of which he is capable. As to that beast beside him—he is an animal, and I fear will always be one."

"O Laurence, you forget what God could make of him!"

"That's so," said Laurence. "He might be made precious as the golden wedge of Ophir. But the other man that was here I think myself is in some passing trouble. He's not the kind to feel it long. Perhaps, through some wounding of his sensibilities, he is being led to seek help outside of himself, selfishly though, I fear."

Next day the young man came back to have a long talk with Elsie.

"I tell you, a fellow that hasn't a mother or a sister is in a bad fix, and is apt to get into no end of scrapes. The fact of the matter is, I am leaving San Fran because I've made up my mind to turn over a new leaf and live a different life. This drinking business doesn't make a man of a fellow.

It eats up his money, and unfits him for life. But I tell you, it's a struggle. If I only had a sister. I feel something as I did when I was a boy. I used to run to mother with all my grievances and get her to comfort me, but now I haven't a relative in the world, and nobody cares what becomes of me."

"Don't say that," said Elsie. "You know who died on Calvary to save you. He's your Friend, and you must learn to know Him. He can help you about giving up the drink, for I've heard many say that He had helped them, and I know He helps me about things that are just as hard for me as that is for you."

"I am going to work in the mines," said the young man, "and I'll be with a set of toughs. There'll be no one to help me but Him, and I don't know how to know Him."

"Have you a Bible?" asked Elsie.

"No," said the young man with a blush. "I lost the one mother gave me, and I never had interest to get another."

"Well," said Elsie, taking out of her basket a dainty little Bible, "I want to give you this, and promise me that you will read it every day. It will teach you about Him if you will read it carefully, and ask God to help you to understand."

The young man's eyes filled with tears as he thanked Elsie, and put the Bible in his pocket. "You seem like a real little sister," he said, "and I want to tell you I am in trouble. I've just been disappointed. I hoped to have a little home by this time and somebody to call mine, but it's all knocked up now. And you can't tell how much your words have helped me. I feel like going out and trying to be a man again."

"Well," said Elsie, "I believe that God has something to do with the ordering of our lives. Mother used to tell me when I didn't get everything that I wanted, that God had some better thing in store for me, and I've found it so, too."

"Perhaps I shall be able to say that sometime," said the young man, as he rose and bade Elsie good-day.

Harry (aged eight)—"Do people hunt lions and tigers, mamma?" *Mother*—"Yes, dear." *Harry*—"Why?" *Mother*—"Because they kill dear little lambs and sheep." *Harry*—"Then why don't they hunt butchers?"

BE generous, be honorable, be enterprising.

Temperance.

WHAT IS THE PRICE ?

WHAT is the price of the boy who stands
Noble and fair as a god of old,
Reaching to life his innocent hands,
Dreaming the dream that lips never told?
What is his price, kind father, say?
What is his price, fond mother, I pray?
But the rumseller says, "To make him my prey,
I bid one thousand dollars!"

What is the price of the daughter who leans
On the arm which supports her, noble and fair,
A being of beauty, one of earth's queens,
Pure as a lily, glorious and rare?
What is her price? Oh, ask of thy heart,
Parent who loves her, whoever thou art!
But the rumseller says, "For her, in my mart,
I bid one thousand dollars!"

—Issue.

THE EFFECT OF SMOKING ON THE VOICE.

UNDER the above heading, Sir Morell Mackenzie, the famous English physician who attended Emperor Frederick, of Germany, in his last illness, contributes a lengthy article to a London magazine, the *New Revised*, of April, 1890. Mr. Mackenzie does not write as an opponent of tobacco-using; on the contrary, he avows himself a friend of its moderate use. Consequently, the following extract from his article is entitled to the more weight. The words are not those of a "fanatical temperance reformer," but the deliberate observations of a man of science:—

That the voice is affected by tobacco is proved by the testimony of singers on the one hand and by the experience of physicians on the other. A very large acquaintance with vocalists of all grades, extending now over a longer period of years than I care to think of, enables me to say that while a few consider their voice as improved, the vast majority think it is more or less injured by smoking. I attach far more importance to the testimony of the latter than to that of the former, as singers have frequently the most eccentric notions of what is "good for the voice." As stout, mustard, and melted tallow candles have each been vaunted by distinguished artistes as vocal elixirs of sovereign

efficacy, it is not surprising that tobacco should also have its adherents. The example of Mario, who smoked incessantly, is often cited as a proof of the utility, or at any rate the harmlessness, of the practice. It is obvious, however, that an exceptional singer is so by virtue of possessing an exceptional throat, and no rule for general use can be safely founded on such an instance. Balzac used to say of great men who were victims of the tender passion, that there was no knowing how much greater they might have been if they had been free from that weakness. In the same way we may say of Mario, how much finer might even *his* voice have been without his eternal cigar! It might at least have lasted longer than it did. Nearly all singers who have not been accustomed to the use of tobacco feel, when first they take to smoking, that it makes the throat dry and uncomfortable, and the voice thick, husky, and tremulous, or in some undefined way mars the perfection of their execution.

Medical men who have eyes for such things can often see the baleful effects of immoderate smoking writ large on nearly every part of the mucous membrane of the throat. Such, however, is the power possessed by the human organization of adapting itself to injurious influences that in many persons, just as the stomach becomes tolerant of tobacco, the tissues of the throat become accustomed to the irritating effect of the hot and acrid fumes. Nevertheless, when such impressions cease to be perceptible, the effect on the mucous membrane may continue to be hurtful, and I have no doubt that a sensitiveness to the effects of cold, or, as it is called, "a catarrhal tendency," is frequently kept up even by the moderate use of tobacco. It is often the abuse of tobacco that is at the bottom of chronic congestion or other slight deviations from the normal condition of the throat, which are put down to other causes. But besides that, I have not the least doubt that smoking may be injurious to the voice, even when it leaves no visible marks of its action, by impairing the precision of muscular movement necessary for perfect production.

The effect of tobacco on the body is both general and local; that is to say, it acts on the nervous centers and on the heart as well as on the parts with which the smoke or the juice comes immediately in contact. The general effect does not concern us here, except in so far as the larynx may be

affected thereby. It usually finds expression in what is vaguely called "nervousness;" the pulse becomes flurried and the muscles more or less relaxed and unsteady. This is why smoking is so strictly forbidden to men training for athletic feats. So marked is the effect of tobacco in relaxing the whole muscular system that before the days of chloroform it was employed in surgical operations in which it was necessary that the muscle should be perfectly limp.

It will be readily understood that, under the influence of a drug possessing these properties, the exquisitely delicate adjustments of the various parts of the complicated vocal machinery are to some extent disordered, and the voice, if not quite "like sweet bells jangled, out of tune and harsh," loses something of its richness and brilliancy. Something analogous to what takes place in the eye as the result of the abuse of tobacco occurs in the larynx, or rather in the part of the brain which governs the movements of that organ. Oculists are familiar with "tobacco amblyopia"—that is, *dimness* of sight due to what may be called, figuratively, *blurring* of the retina by tobacco smoke. "Tobacco amblyphonia" would be an equally appropriate name for the corresponding *dullness* of voice caused by excessive smoking. It must be understood that I speak here solely of singers; the effects which have been mentioned would be scarcely if at all, noticeable in the speaking voice.

When the nicotine does not injure the nervous system, the smoke may still irritate the lining membrane of the throat and windpipe. Anyone who has been in a Highland cottage must be painfully familiar with the effect of the "peat reek" on the eyes. As the mucous membrane lining the larynx is even more sensitive than that covering the organ of vision, the effect of blasts of hot smoke passing over it may be imagined. Unfortunately, it is possible to harden this delicate membrane to these rough experiences; but in losing its sensitiveness it also loses a good deal of its smoothness and elasticity.

In the Transvaal the total expenditure on drink per annum is fully one million sterling (\$5,000,000), or two-thirds of the actual gross output of gold in the country.

THE output of petroleum in the United States last year was 27,346,018 barrels.

INEBRIETY FROM DRINKING GINGER EXTRACTS.

THE increasing demand for ginger extracts and drinks is a very significant hint of a new phase of the morbid drink impulses of the age. Several large proprietary establishments are devoted exclusively to the preparation of ginger extracts, essences, and drinks which are extensively advertised as medicines, and preventive drinks for the diseases of the different seasons. It is a well-known fact that all these preparations are made with the poorest, cheapest spirits, and contain from thirty up to eighty per cent of alcohol. In some instances wood spirits are used on account of the cheapness, and the intoxicating qualities of this mixture are far worse than any alcoholic drinks of commerce. The demand for these ginger drinks is due to the alcohol they contain, the ginger in itself having but little influence on the body, although some enthusiastic writers assert that ginger taken in large quantities produces a distinct form of inebriety, marked by stupor and melancholy.

In two cases which have been reported, where extract of ginger was taken in large quantities, profound nutrient disturbances and inanition were present. The intoxication was less maniacal, and attended with profound depression. This would undoubtedly depend on the alcohol more than the ginger. From inquiries it appears that there are a large number of persons who buy extract of ginger regularly, apparently using it as a common drink. The probability is that after a few months or years they abandon this drink for some stronger alcoholic drinks or narcotics.

A New York druggist writes that the sale of ginger extracts to women is rapidly increasing; that he has over a dozen regular customers who buy from two quarts to one gallon of ginger a week.

The sale of ginger in Maine was so great that it was declared by the courts to be an intoxicant, and placed among the alcoholic drinks prohibited.

From a variety of evidence there can be no doubt that ginger drinking in this country has reached a dangerous magnitude, and those who use it any length of time are almost certain to become alcoholic or opium inebriates.

The extracts of ginger on the market are without exception dangerous because of the dangerous

alcohols they contain. Neuræsthenics and neurotics should avoid them as poison, and inebriates of every form will always find them treacherous remedies for every condition. For all the various functional disturbances they are supposed to relieve, pure alcohol is far safer and less injurious.—*Quarterly Journal of Inebriety.*

SUMMER DRINKS.

THE cooling influence of acids should be remembered in times of high temperature. The acid employed will necessarily be largely a matter of taste. Most persons would shrink from the use of dilute solutions of citric or tartaric acid, and yet many find relief from a beverage composed of diluted and unsweetened lemon juice. Cold tea has many adherents, but it is worth noting that it should be poured out while still hot, and not allowed to stand to cool in contact with the leaves, since under these conditions the astringent properties become more completely dissolved, and the tea becomes less palatable and more likely to disorder digestion. Tea has, however, its disadvantages, the chief undoubtedly being the amount of wakefulness produced by it when taken late at night.

With regard to iced drinks, it should be borne in mind that the refreshing sense of coolness resulting from their employment in bulk is speedily followed by reaction. This is less felt when a cardiac tonic is employed in this form—as, for example, the iced coffee so commonly provided. Of the so-called “temperance drinks,” and of the more common lemonade and ginger beer, there is little to be said, provided that the purity of their source can be insured; it is, indeed, on this account that we would urge the employment of the more troublesome but infinitely safer home-made lemonade, prepared with boiling water, and rendered more agreeable by the subsequent addition of any pure effervescing water. Sugar should not be added in any quantity, as it evolves so much heat during oxidation. It is curious to note that the French, who in hot weather so carefully and wisely avoid alcohol, overlook this influence of sugar, and indulge freely in summer drinks of syrups and *eau sucrée*.

Drinks prepared according to the following formula are healthful and refreshing:—

STILL LEMONADE.—The juice of three lemons,

the peel of one, quarter of a pound of lump sugar, and a quart of cold water. Mix, digest for five hours, and strain.

MILK LEMONADE.—Loaf sugar, one and a half pounds; dissolve in a quart of boiling water, with half a pint of lemon juice, and one and a half pints of milk. This makes a capital summer beverage.

LEMON WHEY.—Take a pint of milk and water, the juice of two lemons, and let the mixture boil for five minutes; strain and add sugar to taste.

LEMON WHEY.—One pint of boiling milk, half a pint of lemon juice, sugar to taste. Mix and strain.

WATER COOLED WITHOUT ICE.—Where ice cannot be procured, water may be cooled by wrapping the pitcher containing it in a towel of loose texture which has been previously impregnated with ammonium nitrate (*and dried*), and moistening this with water. The same towel may be used repeatedly, being dried thoroughly beforehand each time.—*Medical Classics.*

FROM FATHER TO SON.

ONE day a young man entered a merchant's office in Boston, and, with a pale and care-worn face, said:—

“Sir, I am in need of help. I have been unable to meet certain payments, because certain persons have not done as they agreed by me, and would like to have \$10,000. I came to you because you were a friend to my father, and might be a friend to me.”

“Come in,” said the old merchant, “come in and have a glass of wine.”

“No,” said the young man, “I do not drink.”

“Have a cigar, then?”

“No, I never smoke.”

“Well,” said the old gentleman, “I would like to accommodate you, but I don't think I can.”

“Very well,” said the young man, as he was about to leave the room, “I thought perhaps you might. Good-day, sir.”

“Hold on,” said the merchant, “you don't drink?”

“No.”

“Nor smoke?”

“No.”

“Nor gamble, nor anything of that kind?”

"No, sir; I am superintendent of the Sabbath-school."

"Well," said the merchant, "you shall have it, and three times the amount, if you wish. Your father let me have \$5,000 once, and asked me the same questions. He trusted me and I will trust you. No thanks—I owe it to you for your father's trust."—*Presbyterian*.

VICE-PRESIDENT WILSON'S VOW.

AFTER Mr. Wilson's first election to the United States Senate, he gave his friends a dinner at a noted Boston hotel. The table was set with not one wine-glass upon it.

"Where are the glasses?" asked several of the guests, loud enough to remind their host that they did not like sitting down to a wineless dinner.

"Gentlemen," said Mr. Wilson, rising and speaking with a great deal of feeling, "you know my friendship for you and my obligations to you. Great as they are, they are not great enough to make me forget 'the rock whence I was hewn, and the pit whence I was dug.' Some of you know how the curse of intemperance overshadowed my youth. That I might escape, I fled from my early surroundings. For what I am, I am indebted, under God, to my temperance vow and my adherence to it. Call for what you want to eat, and if this hotel can provide it, it shall be forthcoming; but wines and liquors cannot come to this table with my consent, because I will not spread in the path of another the snare from which I escaped."

Three rousing cheers showed the brave senator that men admire the man who has the courage of his convictions.—*Buds and Blossoms*.

KEEP YOUR TOP COOL.

ARTEMUS WARD once, during a journey across the plains, offered a stage driver a drink from his flask, which he rejected in the most decided terms. Said the driver: "I don't drink! I won't drink! and I don't like to see anybody else drink! I'm of the opinion of these mountains—keep your top cool; they've got snow and I've got brains—that's all the difference." There is a wealth of wisdom in the sententious remark, "Keep your top cool."

THE CRAVING FOR ALCOHOL.—Fruit on the table regularly will do much to counteract the craving for alcoholic stimulant.

THE DINNER SHE BROUGHT HIM.

A WIFE stepped into a bar-room where her husband was drinking with a friend. Setting a covered dish which she had brought with her upon the table, she said, "Presuming, husband, that you are too busy to come home to dinner, I have brought you yours." She then departed. With a forced laugh, he invited his friend to dine with him, but, on removing the cover from the dish, found only a slip of paper, on which was written, "I hope you will enjoy your meal; it is the same as your family have at home."

A PECULIARITY about the blind is that there is seldom one of them who smokes. Soldiers and sailors accustomed to smoking, and who have lost their sight in action, continue to smoke for a short while, but soon give up the habit. They say that it gives them no pleasure when they cannot see the smoke, and some have said that they cannot taste the smoke unless they can see it.—*Western Watchman*.

TOBACCO smoke quickly contaminates delicate fruit of all kinds. A few whiffs blown upon a box of raspberries will entirely destroy the delicate flavor of the fruit and render it unpalatable. The same, in a degree, may be said of strawberries.—*Pacific Rural Press*.

IT is stated, in the *Alliance*, that in one of the London institutions which still maintains its quantity of alcohol, twenty-four per cent of the typhoid-fever patients die, whereas in Glasgow Fever Hospital, where milk is used, the mortality is only twelve per cent.

ANOTHER victim of excessive cigarette smoking—a lad of twelve—is reported. His heart is affected, and little hopes of his recovery are entertained. He lives in Connecticut, where the cigarette law was passed last winter.

A UNITED STATES consul declares that the unrestrained absinthe drinking in France forms one of the greatest dangers that now threaten the physical and moral welfare of the people.

THE keeper of the morgue in New York City states that four-fifths of the five thousand bodies that reach that place of the dead every year are sent there by drunkenness.

Miscellaneous.

MEMORIES.

O MEMORIES, how ye throng my brain
 Of the olden time now gone—
 Gone like the billows that beat the shore
 With gentle murmur, or swelling roar,
 And then swept back to another shore,
 Leaving only a dying moan.

Gone, gone is the time, but memory weaves
 About me those scenes again.
 I see fair faces with shining hair,
 And gentle eyes that have known no care,
 And happy the days, so happy and fair,
 As they glide to hope's refrain.

I was happy then in those days long gone,
 But they never can come again,
 And my friends were lost mid the rolling tide
 Of time's great whirlpool, vast and wide,
 Lost unto me, drifted from my side—
 O memories, ye bring me pain!

But 'tis ever thus in this life of ours;
 Time's rushing waves oft beat
 In unmeasured leagues 'tween hearts that loved,
 While they struggle on, by duty moved,
 Or, perchance, by whirling *débris* shoved,
 Till cometh the rest complete.

It will come, O blessed, glorious rest!
 And then that which hath seemed
 But whirling *débris*, we shall find
 Was providence's love combined,
 Our barques to guide, our anchors bind
 To the Rock which hath redeemed.

Then all those tangled threads of life
 He'll strengthen, and we'll see
 How all was well in this dreary world,
 E'en though rough surges round us whirled,
 And dark, dread clouds their torrents hurled
 Sometimes about our way.

Then patiently toil, O heart, though sad;
 Not long will the toiling be.
 Hold firm to the "anchor within the vail."
 Soon dear ones here parted will furl the sail,
 Time-beaten, gale-torn, where no storms prevail,
 And rest through eternity.

MRS. M. J. BAHLER.

Oakland, Cal.

A PINT of warm water taken on an empty stomach in the morning is the safest and surest of all remedies for habitual constipation. It dissolves the fecal matter and stimulates peristaltic action, thereby giving a normal action without pain. If the tongue is coated, squeeze a lemon into the water and drink without sweetening.

CANCER.

BY G. H. STOCKHAM, M. D.

(Continued.)

MAN born an infant into this world is endowed by his parents with a certain amount of vital force which is intended by nature to sustain him during the whole journey of life, but, like a specific sum of money in bank, can be wasted by extravagance, or husbanded by legitimate uses and economy; and, like it, unnecessary expenditures can never be replaced.

The infant is but a germ which has to be protected and nourished while in its infancy, by its mother's care and its mother's milk, or its substitute, until it emerges into childhood, when, nature having increased its powers of digestion and assimilation, it demands other food than the lacteal fluid, in order to free itself from the physical dependence of the mother, and become, physiologically speaking, a self-sustaining entity.

It is unnecessary here to dilate on the diseases incident to infancy and childhood, which every mother knows, and which are seldom fatal except from lack of vitality, if they are properly cared for. Then they reach the age of puberty, which occurs generally between the twelfth and sixteenth years,—that most important and critical period of human life, with its passions and morbid sensibilities, of the nature of which they are too often left in ignorance, which frequently leads to habits that impair and deplete vitality, leaving them more liable to disease in after life, which otherwise they might have escaped.

During youth, if the health is preserved, and during the coming period of manhood, the physical powers of life are in their zenith,—the age, too, of the greatest activity and ability to endure, strong to resist and overcome the inroads of disease. It is the time also when the physiological laws which govern our being are more generally violated, and bad habits established, which sooner or later result in suffering; but nature, which is ever a watchful guardian over the life of the individual, sustains the welfare of the body until its power of resistance is overcome, when, in order to free itself from the morbid accumulations which oppress it, and prevent its normal action, the physiological action of the system is wholly or partly left in abeyance, and a pathological is substituted for the time being—and some one of the acute forms of dis-

ease is established, generally of a bilious character, some functional ailment of one or more of the organs engaged in the process of digestion, assimilation, or excretion, which are seldom necessarily fatal, except from unwise medication and repression of the remedial efforts of nature; for any organism which possesses the vitality to induce an acute attack of disease, has generally recuperative powers sufficient to overcome it.

Every acute attack, however, is depletive of vital force, which renders the person more liable to other attacks of the same disease or others of a similar character, and leaves him in a less favorable condition for the next stage which they are about to enter.

All ages, however, are subject to zymotic diseases, arising from blood poisoning, and also to epidemics; but cancer is seldom met with previous to the age of forty years, and then only in those of inherited weak vitality, and whose previous habits and practices were exhaustive of vital force.

We will now discuss that most important era in human life, so far as health and longevity are concerned, because it is on the correct understanding of the physical condition of the person, and its proper treatment, if suffering from disease, that both depend.

This epoch we have designated "maturity," because the acme of physical power and endurance is reached, and we commence the downward course to that goal which we are all destined to reach.

It is termed the climacteric period, commonly called "the turn of life." It is generally considered that women only are subject to this, but it is an error; it is *generic*; men are also subject to it.

This change takes place in women usually between the fortieth and fiftieth years, in men between the fiftieth and sixtieth years. It, however, frequently occurs earlier in some and later in others. Few persons pass through it without an attack of some chronic ailment, which causes much suffering, as it sometimes lasts for years. This suffering, however, is not necessary in either man or woman. It is a natural process, and solely depends upon the state of health or ill-health the person is in.

It is not ushered in by a sudden bound, but by slow and imperceptible approaches, which can seldom be determined except by an intelligent physician, it assumes so many different forms and diseases, if the system is not in good health. In women it is termed the menopause, because it

is the age when they cease to menstruate. If health is preserved, it will be painless, and free from disease, but if from previous violations of physiological laws the system is in an effete condition, more or less suffering is sure to follow during the whole period, until nature perfects her work, or the patient is removed from the scenes of earth.

It is during this period, if the body is full of foul humors which make it possible, that morbid growths to be developed, if a predisposition to their formation exists.

Woman is more subject to cancer than man, by reason of her organization, the disease having a greater affinity to the glandular system than any other organ or tissue of the body. It, for this reason, generally attacks the breasts and the uterus. Other tissues and organs of the body, however, are also obnoxious to it. In men it often attacks the stomach.

Both sexes, however, during this epoch, are subject to other diseases of a persistent and lingering character, so that they are constantly vibrating between apparent health and severe suffering, until the powers of life are exhausted, seldom obtaining relief except in the friendly arms of death. Much depends upon the recognition of the age of the patient, a correct diagnosis of the disease, and its treatment.

Cancer patients seldom if ever live beyond the age of sixty years, unless the tumor is previously eradicated and health restored. It also rarely attacks persons after that age.

SAVED.

It was nine o'clock, and Emma Hurd and I had retired to our room, when—ding-a-ling, ding-a-ling, went the door-bell. The quickly-repeated ring indicated a messenger of urgent need, and Emma paused in her work of loosening the long braids of shining hair, and I mine of unbuttoning my shoes, as we listened eagerly to learn the meaning of it all.

We heard the quick footsteps through the hall, the hurried words, and then the messenger's swiftly-departing steps. The stairway door was then opened, and Aunt Libbie's gentle but anxious voice called, "Girls!" With a spring we were both at the head of the stairway in a trice, answering together, "What is it, auntie?" "Aunt Rachel is

very sick," she answered. "Come over as quick as you can," and she was gone. We followed immediately, Emma with the loosened braid hanging down her back and the other still pinned across the back of her head, and I with half-unbuttoned shoe. Passing through the hall on our way out, Emma snatched a scarf and I a shawl from the hat-rack, and, throwing them over our heads, we were off.

It was a few hundred yards only down the street to Aunt Rachel's house, and on entering anxious faces greeted us.

Uncle Joe, knowing full well that in summoning Aunt Libbie a hydropath had been called, and anticipating the necessary preparations for treatment, had already a roaring fire and a wash-boiler half full of water on the stove. Cousin Henry stood near by it faithfully watching the fire so as to replenish fuel when required. The hoarse whistle coming from the bedroom, which accompanied every labored breath, indicated plainly that all these preparations were timely, and said more emphatically than words, A genuine case of croup. How strange, a woman forty-five years of age to have croup, queried I! Nevertheless, croup it was, and therefore no time to stop and query. There are people who lose so much time, in times of emergency, speculating and wondering, thinking it necessary to spend just so many precious moments in conjecture and useless talk before they are prepared to do anything. Well, Aunt Libbie was not of that kind. Her first movement, while the water was heating, was to place a towel wet in cold water on the patient's head, then to bind a towel wrung from cold water on her throat, and then cover thoroughly with dry flannel, I being stationed by the bed with a large bowl of cold water, from which I fed her with a teaspoon.

By the time the water was hot, the patient could not speak, and was too weak to help herself. Uncle Joe's face was fairly pale with anxiety as he assisted Aunt Libbie in lifting Aunt Rachel from the bed to the sitz bath-tub we had improvised. Fortunately, auntie had retired early, thus saving time and trouble in removing her clothing.

Not having the luxuries of the modern bath-tubs, our sitz bath-tub was that of a common wash-tub, tipped forward a little by placing a stick of stove-wood under the side her back was to rest against, thus making it comfortable and sufficiently deep. Into this was put six or eight

gallons of water as hot as she could bear. A pail for the feet was placed in front of the tub, in which was water as hot as her feet could bear. Aunt Libbie, in the meanwhile, stood behind her patient, and, spreading a heavy blanket around both pail and tub, pinned it closely at the neck, folded it across the back, and tucked it snugly around the pail and tub to prevent the air from creeping in. Following this was a comfortable and quilt placed around her in the same manner. As Aunt Libbie worked she directed. It was, first: "Emma, bring blankets and quilts. If none but those in use, take them from Henry's bed. Never mind if he does have to sit up. That's better than having mother sick, isn't it, Henry? Now, Jennie, wring a towel from cold water for auntie's head. Give her a drink of cold water, Joe, and then turn some hot water into the tub. Take a dipper of hot water, lift the blanket at one side, and slip your hand down against her body so that if anyone is scalded it won't be Rachel; then turn the water carefully down the edge of the tub. There, she flinches, that's enough in that side. Now treat the other side in the same way. Henry, give mother another cold drink. Joe, lift her feet out of the pail, but keep the covers down. Slip your hand under her feet to hold them out of the water, while with your other hand pour hot water into the pail. There, that will do. Wet and wring a towel for her head again, Jennie. Give her another drink of cold water, Emma. See, she breathes easier! Now, Joe, spread some comfortables on the lounge, two will do. Take these we have had around her, one at a time. She has now been in the bath twenty minutes, as long as necessary. Close the window, Henry, and then go into the bedroom and lie down and rest for awhile. Close the door also. We'll all take a sweat together. Take a sheet from the basket there in the corner, Emma; wring it loosely from tepid water, then throw it around her back as Joe and I raise her from the tub. Jennie, take her feet, wrap the sheet snugly around them, then you and Emma help lift her to the lounge. Yes, here she is safely on the lounge wrapped in the wet sheet. Now bring up the blankets quickly, first from one side and then from the other side, tucking them snugly all along her body. There, she's packed now."

As Emma wet the towel again for her forehead, Aunt Rachel whispered, "I'm better."

Uncle Joe sat beside Aunt Rachel with his face

buried in his hands for a few moments, when, lifting it, he said: "You've saved her, Lib. She would have died before I could have driven to Shadyville for the doctor and back again."

"Open the windows now, Emma, and the bedroom door. We want the fresh air, and auntie as well. See, she is going to sleep. All quiet now." Yes, she slept, her breathing growing more and more natural as she rested. It was more than an hour before she awakened. The window and door were then again closed, the blankets taken off, and, with a small towel wrung lightly from tepid water, Aunt Libbie sponged quickly first one shoulder, and then with a dry towel wiped lightly but briskly, and then an arm and breast, exposing in this way only a small part of the body at a time to the change of the temperature of the room. In this way the entire body was treated, until the whole surface had been sponged and wiped dry. After this she was wrapped in a dry blanket and carried by Uncle Joe to her bed, where a warm flat-iron was placed to her feet, when she said: "O Libbie, you've saved my life! Go home now and go to bed. I am so sleepy."

It was active work for three hours, but hours well spent. Ever from that anxious night Uncle Joe has been an earnest advocate for Aunt Lib, and a believer in water treatment.

MRS. M. J. BAHLER.

SLEEP.

AFTER childhood has passed, how few know by experience what perfect sleep is. Perfect sleep is the foundation of all activity and energy, and, therefore, valuable. Close the blinds, raise the window from the bottom and lower it from the top, and draw down the heavy shades, thus making the room perfectly dark, and go to sleep. A few nights of perfect sleep in a dark, well-ventilated room, generally works a magic transformation in looks and feelings, and brings back the contour and roses of childhood or early youth. On the other hand, when sleep is imperfect, when you are working as much during sleep as when awake, you will arise tired and weary, and probably resort to a cup of strong tea or coffee to summon lost energies, and these in turn again interfere with perfect rest at night. This process of life wears one out more than any mental or physical labor, and causes premature age. Go to bed early, not to read or write,

not to think or plan, but to sleep till one awakens naturally, and so find that one hour of good sleep is worth three of pernicious sleep artificially produced.

There are many things which cause sleepless nights. Prominent among these are *large and late suppers*, whether at church festivals or at home, and *immoral acts*. The latter are often consequent on the former, especially if animal food be taken late at night in large quantities.

THE HORSE HAD BRAINS.

DOWN on West Street the other day, there was a big truck loaded with boxes, stalled across the street-car track. The driver of the truck was shouting and lashing his horses, and, after two or three attempts to move the load, they gave up in despair. The driver of the car was an old man, and after watching things for a few minutes, he stepped down and approached the truckman and queried:—

"Did you ever see a horse's head dissected?"

"Naw! What are ye givin' me?" was the angry reply.

"Well, you'd better find opportunity some day. You'll be perfectly astonished. You imagine that his head is hollow, or stuffed with bran or sawdust, but you are way off. Nature gave him brains. Let me prove it."

He stepped to their heads, rubbed their noses, spoke a few kind words, and then called upon them to put forth their strength. They buckled down to it, pulled together, and the truck went over the rails and far beyond. The crowd cheered, the car driver looked pleased, and the truckman got away as soon as possible to hide his chagrin.—*New York Sun*.

PALPITATION OF THE HEART.—A France physician announces that distressing or excessive palpitation of the heart can always be arrested by bending double, the head down and the hands hanging, so as to produce a temporary congestion of the upper portion of the body. In nearly every instance of nervous palpitation, the heart immediately resumes its natural function. If the movements of respiration are arrested during this action, the effect is still more rapid.

IN Germany the public schools are all taught by men.

Household.

GUARD WELL THY LIPS.

GUARD well thy lips; none, none can know
What evils from the tongue may flow;
What guilt, what grief may be incurred,
By one incautious, hasty word.

Be "slow to speak;" look well within,
To check what there may lead to sin;
And pray unceasingly for aid,
Lest unawares thou be betrayed.

"Condemn not, judge not"—not to man
Is given his brother's faults to scan;
One task is thine, and one alone,
To search out and subdue thine own.

Indulge no murmurings; oh, restrain
Those lips so ready to complain!
And if they can be numbered, count
Of one day's mercies the amount.

Shun vain discussions, trifling themes;
Dwell not on earthly hopes or schemes;
Let words of wisdom, meekness, love,
Thy heart's true renovation prove.

Set God before thee; every word
Thy lips pronounce by him is heard;
Oh, couldst thou realize this thought,
What care, what caution, would be taught!

Think on thy parting hour; erelong
The approach of death may chain thy tongue,
And powerless all attempts be found
To articulate one meaning sound.

"The time is short"—this day may be
The very last assigned to thee;
So speak that, shouldst thou ne'er speak more,
Thou mayst not this day's words deplore.

—Selected.

THE TWO SIDES.

"THERE are two sides to everything, isn't there mamma?" said little Amy as she sat musing one dull, gray morning. "Isn't there a wrong side and a right side, a light side and a dark side, a bright, cheerful side and a gloomy side?" continued the child.

The mother, being a little surprised at the questions, and not quite discerning their import, answered, Yankee-like, by asking,—

"Which side do you like best, my child?"

"I like," the little one said, hesitatingly, "the side God is on."

"And which side is that?" questioned the mother.

"Oh, well," said the little girl, looking down thoughtfully, "God is always on the right side, isn't he? and I think he's on the light side, because my text says, 'God is light,' and if he is light he must be on the bright, cheerful side. Don't you think so, mamma?"

"You are right, my child," said the mother, with a far-away look in the eye, which indicated plainly that a new train of thought was passing through her mind.

The mother had been thinking all the dreary morning of the gloom outside, and of the "might have beens," until the very atmosphere of the room seemed thick with the depression of her own spirits, in which evidently the child had partaken.

"How strange," soliloquized the mother, "that Amy's questions should so quickly bring to my mind the words of Rev. C. spoken to us some time since from the thirty-seventh psalm, that psalm of promises, and of which I have thought so little until now; and even now I can only think of a small part of that excellent sermon. It was something, in brief, like this:—

One of the greatest controversies God has with his children is concerning their fears, despairs, and anxieties. He is always saying, "Fear not," "Fret not," "Be careful for nothing," "Be hopeful," "Be of good cheer," which must mean, Be cheerful.

"There are always two ways of looking at things," said he (and it must have been from that sermon that little Amy received her pretty thoughts, said the mother to herself). Our way and God's way, and his way is far different from our way! There is the side nearest ourselves, and the side nearest God, and the power of choice is ours as to the side on which we will look, only we must never forget that the cheerful side is God's side. If we from choice look at our side, which is the dark side, we must not be surprised at the surrounding darkness, for there can be no sunshine in the shade. "I believe," continued Mr. C., "that cheerful people are the easiest to live with. There is a kind of inspiration about them that seems to lift one above himself, and their influence is a bright, cheery one wherever they are. The well feel it and appreciate and seek it; the sick thrive on it, and are almost made well by being surrounded by this happy, cheerful spirit. It is true these cheerful people, like others, meet the storms

of life, but they ride over the rough, tossing billows buoyantly; although they have now and then to brush away a tear, they smile through their tears, making a very rainbow of brightness. They scatter flowers wherever they plant their feet, and every breath carries fertility with it.

"If cheerfulness then be such a potent thing for brightening up the lives of others as well as our own, we ought to be cheerful," and if we are not naturally so, we ought to cultivate it by looking well to our conscience that it is kept clean, and to our digestive organs that they are in good working condition; for who ever heard of a wicked person or a dyspeptic person being happy and cheerful? Yes, cheerful people make the world, and when they are called to leave it, they leave good works, comforting words, and a strong influence for good to live on and on.

"Cheerfulness sweetens toil, lightens labor, and is conducive to health. Cultivate an eye for lights rather than for shadows," and remember that God's side is the light, cheerful side.

A. M. L.

THE SPANK CURE.

THE Chicago *Inter-Ocean* remarks quaintly but sensibly:—

"Among the good old customs which are falling into disuse that of spanking the coming generation into behaving itself, is leading the procession. There are no such spankings now as there used to be in my time, and I am sorry for it. Things in the spank line are certainly degenerating, along with the drama, the flavor of strawberries, and phenomenal weather, as the years go by. Children just entering the heated, base-burning epoch of spankhooood now have 'nerves' and must be humored. They get to balking and skulking, and the family physician is called in when the good old housewife remedy of a warm application of slipper is all that is needed.

"The spank cure is not appreciated in this generation as it was in the last. Looking back on a stormy and tempestuous career in the wood-shed with Jones *pere* at the helm, I now feel like writing him a kind and encouraging testimonial on the efficacy of his unapproachable spank treatment, although at that time I felt more like kicking him in the shins, and, I regret to say, sometimes gave vent to my emotions."

In the same tenor is the question asked by the

Savannah *News*: "Should a physician ever whip his patient?" The same paper answers its own question by saying that the matter was brought up for decision at a Berlin Police Court some time ago. A doctor was asked to prescribe for a boy four years of age, who was suffering from slight ailment, but the child screamed so violently that it was impossible to examine him. After trying for a long time to soothe the child, the physician resorted to the old-fashioned method of giving him something to cry for, and boxed his ears. The child's mother not only resented this, but showed her resentment in a practical manner, by summoning the doctor for assault; but the court decided that the medical man had acted for the patient's good, and so acquitted him.—*Sel.*

DOES IRRIGATION PRODUCE MALARIA?

IN our State, where irrigation is in many parts a necessity, the question naturally arises, Does irrigation produce malaria? I will answer the question in this manner: That it does produce it under certain conditions, and that it does not if these conditions are overcome.

All have no doubt noticed that, after great freshets along our rivers, where there are large bodies of flat, level lands, malaria will invariably follow. Why is this? Is it because the growth of vegetation is so much greater?—No. It will be found, in nearly every instance, that new channels have been cut. Fields have been covered with new soil. Then follows malaria. During the summer's heat, this material, exposed to the sun's heat, undergoes a chemical change or fermentation, not from the amount of vegetable matter it contains, for, as a rule, it contains none, but from the chemicals it contains that have never been exposed to sunlight and air, etc. In mining districts where there is but little, if any, vegetation, we will find malaria "shaking the trees." We will also find they are using water from these mines to irrigate gardens and orchards near by, when, if the water and *débris* had run together into the streams below, the people residing in the district would have been exempt from it. La Grange (this State) previous to 1877-78 was exempt from any malarial troubles, but during the years mentioned many gardens and small orchards were started. The water to irrigate them was taken from the mining ditches that carried large quantities of this *débris*.

Malaria soon made its appearance. No one in the town escaped, and a large majority of the people were compelled to leave to obtain relief. This condition existed until about 1883 or 1884, when the mine nearest the town "shut down." Then the people got better water, containing less of *débris*. Since then they have been troubled but little.

In Campo Seco, a small mining town near me, two years ago malaria fired on them with a vengeance. In a month or two there were not enough people left to care for each other in sickness. It was all the result of renewed mining operations and extensive irrigation. Last year they were without water, mines closed, no irrigation—no malaria. This year plenty of water, mining commenced with vigor; and I am now, this early in the season, treating a case of old-style "chills."

Along the Merced River (this State) I had many years to observe the "ups and downs" of malaria. It will be found here that after a heavy freshet they suffer most; and as there are but few years that they are without a freshet, there are but few years they do not suffer. As to the growth of vegetation, it differs but little, if any, one year with another.

No doubt the reader has observed and examined into the cause of malaria in newly-settled farming districts. Here the first year after plowing the people will be troubled some; and as more and more land comes under cultivation, their trouble increases. In a few years the number of cases decrease, and in a few years more it disappears altogether. I cannot think this is on account of the vegetation, because vegetation becomes more rank on cultivation, and there is a great deal more turned under the soil each year, and if it produced malaria, malaria would certainly increase instead of diminish in these districts.

The reader will find that malaria will disappear altogether along the river bottoms if for several years there have been no freshets nor any deposit of new soil.

In Stockton they are discussing as to whether it would be economy for them to use the *débris* they are taking from the channels for the purpose of grading streets. In years past they had some experience in this matter they are now discussing. At that time but one street was graded with it. That one street gave them enough malaria for

three or four years to make them remember it for all time.

To conclude, I believe that irrigation will produce little or no trouble, provided water be taken from streams above the mining districts, or from streams carrying no *débris*. It may be possible that there will be some trouble the first year or two, where the soil has never been subjected to great heat and moisture at the same time. Should this be the case, I believe it will disappear in a year or so, if water is used that carries no *débris*, or, as it is often termed, mud or slum.—*W. B. March, M. D., in California Medical Journal.*

ART IN THE KITCHEN. NO. 5.

WE have now come to a place in the selection of articles for a *change* in our bill of fare, from the staples, the grains, to the use of the legumes, or seeds which grow in pods. We read that in ancient times this formed an important part of the diet of certain *men of understanding and learning*. "Prove thy servants, I beseech thee, ten days; and let them give us pulse [legumes] to eat, and water to drink." "And at the end of ten days their countenances appeared fairer and fatter in flesh than all the children which did eat the portion of the king's meat."

There is no doubt the principal part of this diet was peas, beans, and articles of this family. The bean is a very important food, and is fast growing in favor as a common article of diet. Well do we remember when the pot of pork and beans formed the principal part of the Sunday breakfast. Baked beans with good Boston brown-bread and milk is good enough food for not only a Sunday breakfast, but can be brought in to vary the bill for dinner as well, more than once in the week; specially is this so where hard manual labor is being performed, that requires hearty food to satisfy a good appetite. There are many varieties of the bean, as there are of wheat and corn, and it does not follow that they must be always baked, when there are so many other ways of serving them in soups, as a vegetable boiled, or in croquettes. The special characteristic of the bean as compared with the grains is a less amount of starch and a larger amount of the albuminous element, or vegetable caseine. These elements "as a class, when digested and formed into blood, serve to nourish the muscles, brain, nerves, glands, and other active organs." This

renders the bean an excellent substitute for flesh meat. All experience goes to show that it is more satisfying for the hard-working man than most any other vegetable food. They are most used by the vegetarians of India and China, and in some of the provinces, and are fast coming into general use in our own country.

There is no one article of food that can be used by the laboring classes, combining with economy strength-giving qualities, in proportion to the bulk, in a larger degree than that contained in the bean family. They are, however, more difficult of digestion than other vegetable products. This is, perhaps, one reason why persons with weak digestive powers cannot use them so well. Peas, both green and dried, members of the same family, are highly nourishing, as well as a delicious dish if properly prepared. It is a mistaken idea that beans and peas must be invariably cooked or seasoned with pork or grease to be palatable; on the contrary, they are sweeter and more digestible when cooked without the above. The varieties of pulse called kidney beans were formerly employed by the English peasantry in bread-making.

Some authors say that the best way to utilize the leguminous foods is to grind them into a fine meal, and then thoroughly cook; but we cannot speak from experience. When beans or peas are served at one meal, boiled or baked, the remainder need not appear on the table at the second meal in the same form. Study your cooking recipes, use your ingenuity, and give a change of preparations even though you should have a scant variety to select from. M.

NOTES IN COOKING.

RICE SOUP.—One pint of rice thoroughly cooked, one and one-half quarts of hot milk; add two rolled crackers and one-half pint of cream, just before serving. Lastly salt to taste.

CANNING STRING BEANS.—Next to tomatoes the vegetable easiest to can, perhaps, is string beans. Remove the tough strings at the sides, and break the bean into two or three pieces. When all ready, throw them into a little boiling water, scald, and then can them the same as Winslow corn.

SALMON RICE.—Two cups of rice washed in three waters. Eight cups of liquid tomato (strain the seeds out) and beef stock or water mixed. Put the tomato on in a double boiler, add the rice

while it is cold. Season with one and a half teaspoonfuls of salt and one large spoonful of creamed butter. Let it cook till the rice is tender. Serve as a vegetable with the dinner.

BOILED CARROTS WITH WHITE SAUCE.—Boil about two quarts of carrots (sliced round) in salted water (always scrape them). Drain in a colander, and mash fine in a stew-pan, with a potato-masher. Add one-half cup of cream or one tablespoonful of creamed butter, one pint of milk, one tablespoonful of corn-starch rubbed in a little milk; add when it boils.

SNOW PUDDING.—The ingredients are: One pint of boiling water, one lemon, half a cupful of sugar, four tablespoonfuls corn-starch, half a cupful of cold water, and the whites of four eggs.

Put the boiling water into the double boiler, with lemon juice and sugar. Add the corn-starch, which has been mixed with the cold water, and cook for ten minutes. Beat the whites of the eggs to a stiff froth, and, after removing the boiling mixture from the fire, add them to it. Put into moulds to cool. Serve with a soft custard, made of one pint of milk, the yolks of the four eggs, one whole egg, and one-fourth of a cupful of sugar. Beat the eggs and sugar together; add the milk to them, and stir into the double boiler until the mixture begins to thicken. When it looks as thick at the edge of the spoon as in the center, it is done. Flavor with lemon or vanilla, and serve cold.

LEMON SAUCE.—Mix a tablespoonful of corn-starch with a quarter of a cupful of cold water. Stir this mixture into a cupful of boiling water, and boil for two minutes; then add the juice and rind of a lemon and a cupful of sugar, and cook three minutes longer. Beat an egg very light, and pour the boiling mixture over it. Return to the fire, and cook a minute longer, stirring all the time.

MRS. F. L. McCLURE.

HIGH-SOUNDING TERMS.

A LADY patient entered the office of a well-educated and intelligent physician. The doctor made his usual examination, by feeling the pulse, looking at the tongue, etc. In giving his directions, he said, "Madam, you should eat less and take more outdoor exercise." The advice seemed to be too common for the lady, and she concluded to consult a notorious quack in the community. While the empiric knew nothing of the nature of

the disease, he had learned how to take advantage of the patient's weakness, and confounded her with a cloud of high-sounding terms, saying that "the only true and legitimate manner of accounting for your rare disease is in the physiological defects of the membranous system. The obtuseness of the abdominal abductor causes the cartilaginous compressor to coagulate into the diaphragm, and thus depresses the duodenum under the flandango. Now, if the disease caused by the vagation of the electricity from the appendages, the tympanum would dissolve the spiritual sinctum, and the ossificator would ferment in the olfactory, thus becoming identical with the pigmentum. Now, as this is not the case, in order to produce your disease, the spinal rotundum must diverge to a point on the elliptical spero. But, as I said before, in order to produce this disease, the ligamentum teres must subtend over the digitorum to a degree sufficient to dislodge the stericoletum." The lady replied: "Yes, doctor, you describe my case exactly. I'll have you treat me."—*American Medical Journal*.

LEMONS are used for soap in many countries where they grow. When, for instance, the men and women of the West Indies want to wash their hands, they squeeze the juice of a lemon over them briskly in water until they are clean. There is an acid in the lemon similar to that used in soap. And in countries where oranges grow in great plenty, country gentlemen use the cheapest kind for blacking their boots. The orange is cut in two and the juicy side of one-half is rubbed on the soot of an iron pot and then on the boot. Then the boot is rubbed with a soft brush and a bright polish at once appears.—*Sacramento Union*.

TO MAKE COTTON CLOTH WATER-PROOF.—Soak the cloth for one day in a solution made of twelve ounces of lime, five ounces of alum, and three gallons of water, then rinse it in warm water and stretch it in the sun to dry. It will then be water-proof.

Lawyer—Do you understand the nature of an oath, madam? *Witness*—Well, I should say I did. My husband took off the screens yesterday, and is putting up the stove pipes to-day.—*New York Sun*.

A MAN five feet and six inches high can see, on a level, a distance of three miles.

HELPFUL HINTS.

DEATH to roaches—is quicklime and Indian meal mixed.

BURNS.—Pound up alum, place it in a cloth, and wrap around the burn, and wet with water.

FERMENTATIVE DYSPEPSIA.—A teaspoonful of glycerine administered three or four times a day will often entirely cure the disagreeable trouble.—*California Medical Journal*.

WHOLE cloves are now used to exterminate the merciless and industrious moth. It is said they are more effectual as a destroying agent than either tobacco, camphor, or cedar shavings.

STEEL knives which are not in general use may be kept from rusting if they are dipped in a strong solution of soda, one part water to four of soda, then wipe dry, roll in flannel, and keep in a dry place.

A MOISTURE-PROOF glue is said to be produced by dissolving a pound of good glue in three pints of skim-milk. This becomes a strong cement, by the addition, just before using, of some freshly-slacked lime.—*Pharmaceutical Era*.

IF soot falls upon the carpet or rug, do not attempt to sweep until it has been covered thickly with dry salt; it can then be swept up properly, and not a stain or smear will be left. If anything happens to catch fire, either whilst cooking or otherwise, throw salt upon it at once to prevent any disagreeable smell.

IF your flat-irons are rough and smoky, lay a little fine salt on a flat surface and rub them well upon it. This will prevent them from sticking to anything starched, and make them smooth; or, what is still better, have a small piece of bees-wax tied in a white cloth and lightly rub the hot flat-iron, after which rub the iron well on an old cloth, which may be kept for that purpose.

HOW TO TREAT A SNAKE BITE.—A young man was bitten on his thumb by a rattlesnake, a few days since, near Stockton. The lad instantly cut through the wound with his knife and vigorously sucked out the poisoned blood. His prompt treatment saved his life, although he suffered severe pain from the wound for several days. It is quite generally known that such treatment will usually save life; but there are few who have the courage to try it.—*Pacific Rural Press*.

Healthful Dress.

WHEN YOU'RE IN ROME.

If you're weak and vacillating, have no will to call your own;

If you're lacking in ambition, and deficient in "backbone,"
If you'd rather take things easy (make of life a pleasure-trip),

And don't care to mount the ladder, all the other proverbs skip;

Stick to this one, gentle reader, 'tis a maxim made for you,
"When you are among the Romans, do just as the Romans do."

To be odd and independent doth require courage great;
To defend the right will often call forth bitterness and hate.
Sneers and jeers await the hero who doth dare his voice to raise

'Gainst the easy-going Romans and their cheerful Roman ways.

Lest you'd have unpleasant language spitefully addressed to you,

"When you are among the Romans, do just as the Romans do."

When you've grown somewhat accustomed to the Roman's easy life,

You will scarcely care to figure as a hero in the strife;
You will fold your hands and murmur, with a smile upon your lip,

"I should like to be a hero, but I think I won't this trip."
You will chloroform your conscience with a soothing word
or two;

"When you are among the Romans, do just as the Romans do."

—Sel.

THE VALUE OF DRESS.

THE New York *Sun* says: "A woman may write poems and expound philosophies, found colleges, and endow professorships, establish charities, and build hospitals, but if she goes to market with her diamonds and a wrapper on, forgets to brush her hair as she hastens to the bedside of the suffering, leaves the rent in her gown to patch up the grief in other's lives, an ever-watchful police in citizen's dress who knows naught of all this accuses her of uncomeliness.

"Since for decency's sake we must be dressed, for conscience' sake let us be dressed well. What is good dressing, which Ruskin gives as one of woman's primary virtues? It is the poet's intuition, the artist's cunning, the embodiment of carefulness, willingness, inventiveness, and good judgment, the expression of all graceful consideration, tact, generosity, and thoughtfulness for others, and the evidences of integrity of character and self-respect.

"The well-dressed woman desires not to attract attention, but to avoid it, and so harmonious is the result that while society scarcely knows what she has on, yet she is never mistaken for a servant or an opera bouffe queen. And the

secret of her success is in knowing three things—her own station, her own age, and her own good points, and in possessing the happy faculty of adapting prevailing fashions to her own personality in such a way as to individualize them. An air may be played in different arrangements on a hundred musical instruments and be the same melody still, and the same fashion may be individualized and adjusted to many dissimilar figures and lose nothing of its originality. Fashions come like the Indian *chupatties*, which herald a revolution, nobody knows how, nobody knows whence, and spread with electric rapidity. There is no use in resisting them, and those who have made most energetic attempts to overthrow them know best how certain is their ultimate defeat. We cannot ignore the invaders, but we need not allow them to tyrannize over us, for they may prove good servants to our necessity, and many a famous belle owes her reputation for beauty to the becomingness of some prevailing mode. And fashion, too, in spite of its frivolity and instability, has its philosophy, for fixity is false to nature and neither feasible or desirable, and finality is found nowhere in creation.

"A perfect dress is one in which every part is harmoniously combined to produce a whole exactly adapted to the wearer's personal appearance, character, age, and circumstances, due regard being paid to the occasion for which it is designed; and the thing which really gives an impression of refinement and good-breeding is not the particular pitch of dress chosen, but the degree in which that pitch may be sustained by perfect finish and keeping in every detail. We depress the key and make a discord when we wear a silken gown with a shabby mantle or buttonless gloves, when we go to dinner in diamonds and tatters. The higher the style aimed at, the more difficult and expensive to carry out in a sustained manner; and, therefore, the most refined and cultured women are those in each class who pitch their dress lowest, but make the standard of its completeness highest."

WOMAN'S DRESS.

AT the last meeting of the British Association for the Advancement of Science, Mrs. Carmichael Stopes read a paper regarding errors in women's dress, in which she divided the present faults of women's clothing into two classes:—

"1. The temporarily ridiculous or disadvantageous. 2. The permanently injurious. Among the first might be included all the modern forms of crinoline and dress-improver, tied-back skirts, tied-down arms and sleeves, over-long dresses, and over-heavy trimmings, and any absurd fashion that impeded the action, freedom, or development of women, or which outraged art. Of the second class, she mentioned first the inequalities and disproportions of clothing, and strongly denounced the use of high heels and tight stays. Fashion blinded the eyes of its votaries. Comparisons she had made of the notes taken by different corset makers enabled her to say that during the last twenty-five years the female waist had decreased in size by two inches. It was worthy of consideration whether women were justified in following fashion to an extent that not only injured their own health, but tended to lower the physique of a whole nation."

Dr. Kate Lindsay, in a recent lecture said: "When a

woman turns her dress into a street sweeper or a carpet sweeper, there should be some sanitary regulation to meet the case. She raises a cloud of dust, which settles upon her underclothing and her person. This species of uncleanness affects both herself and others. Another thing, there is not a little strength wasted in dragging about a heavy, trained skirt. Grace of motion and freedom of action are incompatible with this unnecessary burden. It is well adapted to the affectation of listlessness and languor. But it is to be hoped that our civilization is advancing so rapidly that the time is not far distant when society women will dispense with this 'caudal appendage' as entirely as have the noble army of women who have entered the ranks of workers. Improper dress has not a little influence in retarding the golden dawn of universal suffrage."—*Hall's Journal of Health.*

IMPROVE THE CORSET.

ONE of the most common complaints of womankind is that of pains in the lower part of the chest. This region of the body is liable to suffer pain from a variety of causes, but by far the most frequent is myalgia of the intercostal muscles. This may usually be attributed to the wearing of corsets. By these the ribs are fixed, and through the waking hours the muscles are rendered motionless. The result is granular degeneration of their tissues; and when the weakened fibers are called upon for exertion, pain of the myalgic type ensues. This problem appears to be too deep for the feminine mind, which cannot comprehend why the lack of motion should give rise to a pain which the prevention of motion relieves. Just so the drunkard will never believe that it is the whisky which destroys his appetite, when whisky is the only thing which gives him any appetite; and the opium eater fails to see how his drug causes insomnia when he cannot sleep without it. None are so blind as those who do not wish to see.

However, as is often the case, we must try to relieve what we cannot cure; and as woman has clung to her corset, in spite of the unanimous condemnation of the physicians for centuries, we may try to obviate the difficulty by improving the corset. Some years ago, we noted the singularly elegant shape of a patient, who, as we thought at first, wore no corset. In this we were mistaken, as she had one of a peculiar make. The stays were laced with an elastic cord, while up each side was a band of elastic webbing some three inches wide. This allowed an expansion of the whole chest on inspiration, similar to that seen when no corsets are worn. In fact, the flexibility of the whole thorax was notable. At the same time, every object of the corset, as regards the preservation of the figure dictated by the prevalent taste, was obtained by the use of this corset. So little did it interfere with the lady's health that a retroversion of the uterus was successfully treated while this corset was worn. The name of this particular make is not material, as we know no reason to prevent any corset being fitted with elastic cords and having a band of elastic webbing run in at the sides. This should extend across the whole width of the corset, from the axilla to the waist, and can be made wider at the top if desired. Any manufacturer of elastic stockings, etc., would be able to make this

alteration in the corset preferred by each individual. We are not aware that this corset is protected by patents, and make this suggestion only if it does not conflict with the patent law.—*Times and Register.*

THE following is a good rule to find the contrast of any color: Cut out a circular piece of the petal of any flower, and put it on a white paper, look at it fixedly for a few seconds with one eye, then look off the color onto a piece of white paper, and you will see a bright ring of another color; that ring or circle is the right complementary color or contrast to the color in the petal.

SOME years ago European dress began to come into vogue in Japan for women as well as for men, but a reaction has set in. The Japanese women are not satisfied with the ordinary dress styles of civilization, but they are unwilling to return to their old dress, and hence they have been making a study of "rational dress" advocated by the various feminine dress reformers.

THE nicest thing in which to keep a good dress is a bag made of muslin, with a shirr in the top through which a string is run to close it; the string is also passed through the tapes in the belt, and then the garment can be hung in the closet, proof against dust and moths.

NIGGARDLY waists and niggardly brains go together.—*Frances Willard.*

EARTH has nothing more tender than a woman's heart when it is the abode of pity.—*Luther.*

TO a gentleman every woman is a lady in right of her sex.—*Bulwer.*

WOMAN is the most perfect when the most womanly.—*Gladstone.*

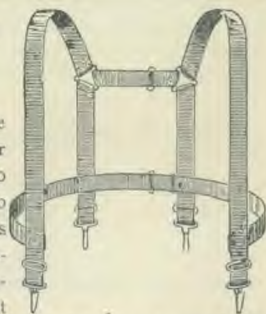
ALL that I am my mother made me.—*John Quincy Adams.*

A SHOULDER BRACE AND SKIRT SUPPORTER

To which the skirts can be hooked, may be obtained for 60 cents; misses' size, 50 cents, post-paid. Those who have been using these articles could not be induced to dispense with them. Their practical utility must be apparent to all who give them even a careful look and a moment's thought.

Either of the above articles may be obtained, post-paid, for their respective prices, by addressing

RURAL HEALTH RETREAT,
ST. HELENA, CAL.



Publishers' Department.

RURAL HEALTH RETREAT.

WE mentioned in a previous number that it was the intention of Dr. Burke to close the Napa institution soon, so that his attention could be directed wholly to the interests of the Rural Health Retreat, St. Helena. The Napa Sanitarium was closed July 3. The Retreat is now kept well filled. The old gymnasium has been fitted up with five rooms for patients, etc., and the directors have purchased two more cottages. This, with the erection of a number of tents for helpers, has given room thus far. Let none who wish the benefits of the resort fail to write for circulars and information. Patients are constantly getting well and going home; this leaves room for new ones to come, so do not fail to make your wants known.

STATE SCHOOL SUPERINTENDENT.

OUR readers must have noticed the increased earnestness and enthusiasm of county superintendents, teachers, and trustees of our public schools, which has been reciprocated by a greater interest in the schools on the part of parents and guardians. Much of this can be credited to the indefatigable labors of the State superintendent of public instruction, Ira G. Hoitt. In the prosecution of his work, during the year, or from July 1, 1889, to June 16, 1890, he attended thirty county teachers' institutes, visited twenty-four classes, and delivered two hundred and fifty-three educational lectures and addresses, besides visiting, as required by law, twelve orphan asylums. To do this required over 16,000 miles of travel.

One excellent result of this work is shown in the increase in actual school attendance. While the increase in number of school-census children the past year was only 4,802, the actual increase in attendance was 11,506 more than during the previous year. Why not, with respect to this office, follow the English plan, that is, when you have an officer who by actual service rendered has proved himself well fitted for the position, just retain him in office? Mr. Hoitt has been rendering efficient service; why not retain him in the office, and give him an opportunity to perfect and carry out those measures set on foot by him? For our part we shall be glad to see this man returned to the office he has so well filled during the last three and a half years. L.

NATIONAL CONSTITUTIONAL PROHIBITION.

THE congressional hearing, June 14, before the Senate Committee on Education and Labor, and the House Committee on the Alcoholic Liquor Traffic, on the joint resolution proposing an amendment to the Constitution of the United States to prohibit "the manufacture, importation, transportation, and sale of all alcoholic liquors as a beverage," was a momentous affair in the history of the temperance movement. Representatives of the several national temperance organizations of the country appeared together

for the first time before committees of Congress in advocacy of a measure.

This movement for national constitutional prohibition has been fourteen years in existence. Petitions from more than eleven millions of citizens of the United States, praying for proposal of the amendment, have been presented in Congress, and none against it.

The notes of the hearing will be published by Congress. Any person desiring a copy should address his or her Senator or Representative in Congress for it. They will send it to you free for the asking. The larger the demand, the greater the number which will be printed. It will make a most valuable document, and should be widely circulated.

GENERAL AGENTS.—Professor Thorp, lately from the great Sanitarium in Battle Creek, Michigan, is our general field agent for introducing our JOURNAL and health and temperance works to the people of the State of California. He is authorized to secure canvassers for these works. He has some specially interesting lectures to give in connection with his work, as opportunity may offer. At present he is working in this northern portion of the State. His address is: Prof. F. Thorp, 1059 Castro Street, Oakland, Cal.

Prof. G. K. Owen, of 143 Carr Street, Los Angeles, Cal., is doing a similar work in the southern portion of the State. He reports some very interesting meetings he has held in the interest of health and temperance, at various points in Los Angeles and San Diego Counties.

THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS.—We would again refer our readers to the announcement respecting this institution, made on page 252. Its conductors, in their instruction and practice, claim that true hygienic medication is founded on the principle that those things which are constitutionally adapted to the preservation of health, are the ones to be employed in curing the sick. Further, that disease is an abnormal, vital action, which is caused either by an improper use of things that are normal, or by the presence of those that are abnormal. Whence it follows that the art of healing should seek to regulate the use or application of the former, and to rid the system of the latter; or, in other words, to restore normal vital action.

THE PHILADELPHIA POLYCLINIC HOSPITAL.—Kate W. Baldwin, M. D., a graduate in the class of 1890 from the Woman's Medical College of Pennsylvania, has been elected resident physician of the hospital, and has the honor of being the first woman to occupy that position. She took charge on June 2.

COOKING SCHOOLS.—There is a craze for cooking schools in England and Scotland. In England the prices range from \$50 to \$100 for twenty lessons, according to the grade of cooking, while in Scotland they are given by the dozen as low as fifty cents to one dollar each.—*Boston Journal*.

EX-MAYOR DANIEL F. BEATTY, of Beatty's Celebrated Organs and Pianos, Washington, New Jersey, has returned home from an extended tour of the world. Read his advertisement in this paper and send for catalogue.

BOOK REVIEWS.

"FRUIT AND BREAD."—Through the courtesy of Mr. C. Amory Stevens, of New York, we are in receipt of this most valuable volume, of 230 pp. It is translated from the German of Schlickeysen, by M. L. Holbrook. The book is profusely illustrated with cuts showing the anatomical structure of the masticating organs of men and various animals. It is a complete scientific argument, showing conclusively that man, in his primitive state, was not carnivorous, but frugivorous. The author says: "The original home of man is also the home of fruits and grains. All of our most nutritious fruits have been acclimated from the South, and with the diffusion of the human race has kept pace also the diffusion of the fruit-tree. The highest civilization is everywhere found in conjunction with it. Where this nourishment is wanting, and the food is limited to flesh, with, perhaps, mosses and other low orders of plants, the human mind is correspondingly weak and ill-developed. In the temperate zone, where fruits are most varied and abundant, the life of man is most developed and prolific."

The price of this volume, neatly bound in muslin, with gilt title on back and side, is \$1.00, postage paid. It may be obtained by addressing, inclosing the price, Rural Health Retreat, St. Helena, Cal.

"RECOLLECTIONS," BY GEO. W. CHILDS.—We have received from the author a modest volume with the title "Recollections of General Grant, with an Account of the Presentation of the Portrait of Generals Grant, Sherman, and Sheridan at the U. S. Military Academy, West Point." This narrative, of over 100 pages, by one of General Grant's best friends, brings forth some interesting facts not elsewhere recorded. This is only a portion of a larger volume, comprising, in addition to the above, the account of four important gifts made by Mr. Childs, also a report of the printer's banquet, and the relation of Mr. Childs to the workingmen. The book is neatly bound in cloth, with gilt top and rough edges. Price through the book-sellers, or by mail, post-paid, \$1.00. Address J. B. Lippincott Co., 715 and 717 Market Street, Philadelphia, Pa.

"KNOWLEDGE"—a new weekly magazine—occupies a new field, and, if it accomplishes what it undertakes, it ought to be indispensable to every owner of a cyclopedia. It proposes to answer the almost infinite number of questions upon which one ordinarily consults a cyclopedia, and fails to find the answer, generally because the cyclopedia is not "up to date"—it was published, probably, five years ago, or, mayhap, ten or more years ago. "The world moves," and the most important questions that want answers are of *to-day*, not of yesterday. For instance, Caprivi succeeds Bismarck as Chancellor of Germany.—Who is Caprivi? How do you pronounce his name? A terrible storm at Apia.—Where is that? How do you pronounce it? A revolution in Brazil a few weeks ago.—What is the new status? And so on. If you consult any cyclopedia, and fail to find the answer to your question, or you find authorities differing, send a postal-card to *Knowledge*, and find your answer in the next week's issue. The magazine is published in

handsome and handy form, and a complete index is promised twice a year, with bound volumes at nominal price to its subscribers. A specimen copy of the magazine will be sent free to any applicant. The price, like all the issues of this publisher, is hardly more than nominal—\$1.00 a year. John B. Alden, Publisher, 393 Pearl Street, New York, also Chicago and Atlanta.

THE "NATIONAL MAGAZINE."—The July number opens with an article entitled "Harvard University and Reform," by Chancellor Harkins, of the National University of Chicago, in which the wisdom of President Elliott's radical recommendations is forcibly maintained. Other timely topics are: "Plan Proposed for a Polytechnic Institute," "Biblical Literature," by Rev. J. C. Quinn, LL.D., "College Courses for Non-residents," "Union College Examinations," and "Honorary Degrees." Young men will be interested in the article on the "Chicago Trade Schools."

Particulars of the recent gift of twenty-five acres of land near Chicago, worth \$25,000, to the National University, and of its proposed new building thereon, are also given in this number. Published at 147 Throop Street, Chicago, Ill. Sample copy, 10 cents.

"FOOD, HOME, AND GARDEN."—Such is the name of one of our highly appreciated exchanges. It is the organ of the Vegetarian Society of America, and is issued monthly from the headquarters of the society, Philadelphia, Pa. It is a 24-page, 6x9 inches in size. Within the last few months it has about doubled its size, but is still issued at the low price of 50 cents single subscription, and clubs of not less than four, twenty-five cents a year each. At this price the journal ought soon to receive a large list of subscribers. May the journal and the society be abundantly prospered in the battle against prevailing errors in diet, is our earnest wish. Sample copies of *Food* may be obtained by addressing *Food, Home, and Garden*, 310 Chestnut Street, Philadelphia, Pa.

CORRECTION.—I think the word "feet" was omitted in the measure given by me (in June number, page 183) to measure grain in the bin. It should have read as follows: "Multiply the length, width, and height of the bin in feet and inches together, and then divide their product by 56 and multiply the quotient by 45. The result will be bushels. Where there are inches, call them fractions of a foot, as the foot by this rule is the unit of measure."

A still shorter rule, but not quite so accurate, may be given as follows: Multiply the three dimensions of the bin in feet together, and then multiply their product by eight-tenths, expressed decimally. If there are inches, call them fractions of a foot. By this short rule there is a loss of 3.57 bushels on 1,000 cubic feet of bin capacity.

GEO. W. COPLEY.

IF woman lost us Eden, such as she alone restore it.—*Whittier*.

WHO CHANGED THE SABBATH?

A TRACT of 24 pages, which fully answers this question, and shows how Sunday displaced the Bible Sabbath. Extracts given from Catholic writers. Price, 3 cents.

Address,

PACIFIC PRESS, Oakland, Cal.

How to Dress Healthfully.

THE Fashionable Corset and every other device for compressing the waist or any other part of the body, should at once be discarded, as they are the most fruitful sources of consumption, dyspepsia, and the majority of the ills from which women suffer. Suppose the waist does expand a little, the step will be more elastic and graceful, and a general improvement in health will soon result.

What Drags the Life Out of a Woman.

There are other modes of dress that cause serious injury to the delicate organs of the pelvis. The many heavy skirts and undergarments which are hung about the waist, drag down the internal organs of the abdomen, causing them to press heavily upon the contents of the pelvis. Soon the slender ligaments which hold these organs in place give way, and various kinds of displacements and other derangements occur.

Dress reform corrects these abuses, and educates the people in the proper modes of dress. It requires that no part of the clothing should be so confining as to prevent unrestrained movement of every organ and limb. It requires, also, that the feet and limbs shall be as warmly clothed as any other portion of the body.

The Ladies' Hygienic Skirt Supporter.

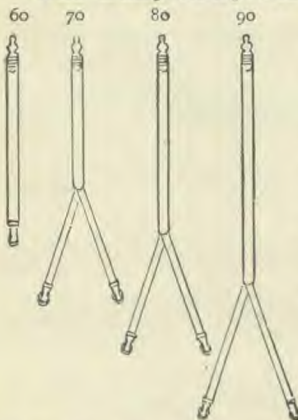


Can be attached to all the skirts in one minute, securing and holding them together, so they may all be put on or off in less time than one skirt is usually put on and secured. This Supporter transfers the weight of the skirts to the shoulders, from which is experienced relief and immediate improvement in health. Price, plain, 35 c. with silk stripe, 50 c.

Garters are another serious source of functural obstruction. Whether elastic or non-elastic, the effect is essentially the same. They interfere with the circulation of the blood in

the lower limbs, and often produce varicose veins. Cold feet and headache are the ordinary results of their use. The stockings should always be suspended by being attached to some other garment by means of buttons or a proper suspender.

The Daisy Clasp Stocking Supporters



Obviate the necessity of ligatures around the limbs. The left hand cut, No. 60, represents the Supporter for a small child; price, 15c. per pair. No. 70, Children, 20c. No. 80, Misses, 25 c. No. 90, Ladies, 30 c.

The cut below represents the DAISY CLASP, open. When closed, it firmly grips the stocking and holds it in position.



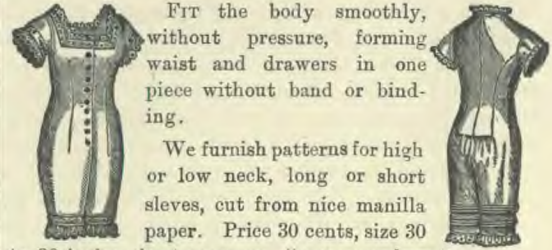
Daisy Clasp Stocking Supporter. To be attached at the waist.

Either the Suspender or the Daisy Clasp Supporters may be obtained, post paid, at their respective prices. Address,

Rural Health Retreat,
St. Helena, Napa Co., Cal.

COMBINATION UNDER GARMENTS.

These Convenient Garments, Two in One, Combine Health, Comfort, and Economy.



Fit the body smoothly, without pressure, forming waist and drawers in one piece without band or binding.

We furnish patterns for high or low neck, long or short sleeves, cut from nice manilla paper. Price 30 cents, size 30

to 38 inches, bust measure, "even numbers."

Mailed, on receipt of the price. Address,
RURAL HEALTH RETREAT,
St. Helena, Cal.

THE ODELL TYPE WRITER.

\$20 will buy the **ODELL TYPE WRITER** and **CHECK PERFORATOR**, with 78 Characters, and \$15 for the **Single Case Odell**, warranted to do better work than any machine made.

It combines SIMPLICITY with DURABILITY, SPEED, EASE OF OPERATION, wears longer without cost of repairs than any other machine. Has no ink ribbon to bother the operator. It is NEAT, SUBSTANTIAL, nickel plated, perfect and adapted to all kinds of type writing. Like a printing press, it produces sharp, clean, legible manuscripts. Two to ten copies can be made at one writing. Any intelligent person can become a good operator in two days. We offer \$1,000 to any operator who can equal the work of the **Double Case Odell**.

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THE ST. LOUIS HYGIENIC COLLEGE Of Physicians and Surgeons

Will begin its Fourth Annual course of instruction, Wednesday, October 1, 1890. It educates men and women for practice in Hygeio-Therapy, or curing the sick by strictly hygienic agents. This school is legally chartered and officered. It has, annually, a full course of lectures of six months each, there being three courses in all. Thorough instruction is given in Anatomy, Surgery, Chemistry, Physiology, Pathology, Hygeio-Therapy, Sanitary Engineering, Physical Culture, and all other branches pertaining to a good medical education.

For further particulars address for Announcement,

S. W. DODDS, M. D.,
2826 Washington Ave.,
St. Louis, Mo.

HEALTH PUBLICATIONS.

- The Home Hand-Book of Domestic Hygiene and Rational Medicine*, by J. H. Kellogg, M. D. It is the most important work for domestic use that has yet appeared. It contains 1,624 pages, with 500 engravings, including 26 full-page plates, and a paper manakin, in two volumes. The price of this work, bound in muslin, richly embossed in jet and gold is, \$6 50
 In halfmorocco, gilt edges - - - - - 9 00
- Eating for Strength*, by M. L. Holbrook, M. D., 320 pages, muslin, with gilt title on back and side, price, 1 00
- How to Strengthen the Memory*, "never forgetting," by M. L. Holbrook, M. D., 160 pages, muslin, with gilt title on back and side, price - - - - - 1 00
- Digestion and Dyspepsia*, by J. H. Kellogg, M. D., 12mo., 176 pages, with colored plate, price - - - - - 75
- Nasal Catarrh*, ten lectures on the nature, cause and cure of this "great American malady," by J. H. Kellogg, M. D. Illustrated by cuts and colored plates, 120 pages, price - - - - - 75
- Practical Manual of Health and Temperance*. How to proceed in many emergencies, and containing many useful hints and recipes, by J. H. Kellogg, M. D., 320 pages, price - - - - - 75
- Deep Breathing*, considered as a means of promoting the art of song, and as a remedy for throat and lung difficulties. Translated from the German by Werner, illustrated, with an added chapter on air and ventilation, by M. L. Holbrook, M. D., bound in muslin, with gilt title on the side, price, 50
- Uses of Water* in health and disease. A practical treatise on the bath, its history and uses, by J. H. Kellogg, M. D., muslin bound, 12mo., 136 pages, price - - - - - 40
- Diphtheria*, its nature, cause, prevention, and treatment, by J. H. Kellogg, M. D., 64 pages, with colored plates, price - - - - - 25
- Social Purity*, by J. H. Kellogg, M. D., 64 pages, price 15
- Any of the above works can be obtained, post-paid, at their respective prices, by addressing Rural Health Retreat, St. Helena, Cal.

HEALTH GOODS.

- At the Rural Health Retreat there are kept constantly on hand the following valuable articles, which may be obtained, post-paid, at the prices affixed:—
- Hygienic Corset - - - - - \$2 00
 " " Peerless Corded - - - - - 2 50
 Emancipation Waist - - - - - 1 50
 Form (Bosom) - - - - - 50
 Dr. Gray's Abdominal Supporter - - - - - 2 50
 Dr. Gray's " " with Hose Supporter (extra large) - - - - - 3 00
 No. 1. Hygienic Supporter - - - - - 2 50
 No. 2. " " " " " " 3 00
 School-girl Shoulder Braces - - - - - 50
 Skirt Supporters - - - - - 35
 " " Silk Stripe - - - - - 50
 Shoulder Brace Skirt Supporter (Ladies') - - - - - 60
 " " " " (Misses') - - - - - 50
 " " " " and Hose Supporter - - - - - 1 00
 Skirt and Hose Supporter - - - - - 75
 No. 90 Hose Supporter, Daisy Clasp (Ladies') - - - - - 30
 No. 80 " " " " (Misses') - - - - - 25
 No. 70 " " " " (Children's) - - - - - 20
 No. 60 " " " " " " 15
 No. 17 " " Shoulder Brace, Button (Ladies') - - - - - 50
 No. 18 Hose Supporter, Daisy Clasp (Misses') - - - - - 40
 No. 19 " " " " (Children's) - - - - - 35
 No. 7 " " Shoulder, Button (Ladies') - - - - - 60
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 No. 9 " " " " (Children's) - - - - - 40
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 Corset Hose Supporters (especially for Hygienic Corset) 35
 Hygienic Safety Supporter (monthly bandage) - - - - - 50
 Skirt Supporting Hooks, double set of four - - - - - 25
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 Corset Laces (Elastic) - - - - - 10
 Clasps for Supporters - - - - - 05
 Combination Suit Patterns - - - - - 40
 Fountain Syringe, Glass Tubes - - - - - { No. 1, 2 00
 " " " " " " { No. 2, 2 25
 " " " " " " { No. 3, 2 75
 Rubber Water Bottles, 1 quart - - - - - 1 50
 " " " " 2 quarts - - - - - 1 75
 " " " " 3 quarts - - - - - 2 00
 " " " " 4 quarts - - - - - 2 25
 Address, RURAL HEALTH RETREAT, ST. HELENA, CAL.

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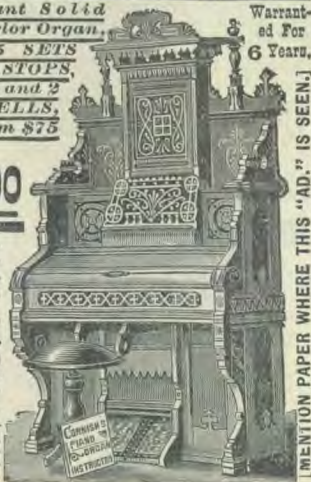
This elegant Solid Walnut Parlor Organ, having 5 SETS REEDS, 10 STOPS, SUB-BASS and 2 KNEE SWELLS, reduced from \$75 to ONLY

\$45.00

Stool and Instruction Book included. Order at once. Only a few in stock.

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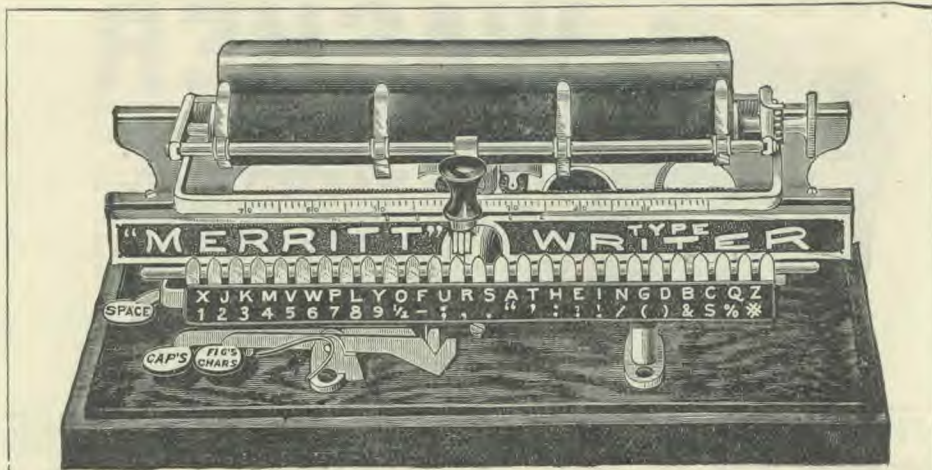
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