

PACIFIC HEALTH JOURNAL

AND TEMPERANCE ADVOCATE.

VOLUME IV.

OAKLAND, CAL., MARCH, 1889.

NUMBER 3.

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A 32-PAGE MONTHLY.

Subscription Price, \$1.00 per Year.

Address.—All business for the JOURNAL should be addressed to Pacific Press, Oakland, Cal.

All Drafts or Money Orders sent in payment of subscriptions should be made payable to Pacific Press.

All Communications for the JOURNAL should be addressed to PACIFIC HEALTH JOURNAL, care of Pacific Press, Oakland, Cal.

IN Germany black rats are tamed and a bell put around their necks, which drives off other rats.

THE first book containing musical characters was issued in 1745 from the press of the celebrated "Wynken de Worde."

SPRINGS of fresh water underlie most seas. About thirty have been discovered under the sea on the south of the Persian Gulf.

THE area of the earth is about 197,000,000 square miles. The area of water of the earth is about 145,000,000 square miles. The area of the land of the earth is about 52,000,000 square miles.

"TAKE no heed unto all words that are spoken; lest thou hear thy servant curse thee; for oftentimes also thine own heart knoweth that thou thyself likewise hast cursed others." Eccl. 7:21, 22.

It is estimated that nearly two years' sickness is the lot of every person before he is seventy years of age, or ten days per annum as the average. Until forty years it is but half of this, but after fifty, it rapidly increases.

HINDOO VEGETARIANS.—It may be noted as a fact worth remembering by those who are opposed to a vegetarian diet, that three-fourths of the stalwart, powerful native Indian officers who were seen in London on the occasion of the Jubilee festivities were vegetarians of the strictest kind.—*London Echo.*

CARE FOR THE NERVES.

IN our last we showed that the nerves of touch were distributed over the entire surface of the body. These nerves are so closely connected with the hair follicles and sweat glands that an obstruction of the proper action of these organs must seriously affect the nerves. The sweat ducts act as an eliminating organ, removing from the blood a large amount of impure matter. Copious sweating, as a general rule, is debilitating to the body, as it exhausts the serum from the blood; this creates a thirst for water. This water is taken up by the absorbents, only to be immediately expelled again from the blood. So excessive drinking of even pure water, and sweating, causes both the absorbents and the eliminating organs to do a great amount of unnecessary duty. The skin is also a breathing organ. In a vigorous state of the body, not too much confined by clothing, the action of the skin on the atmosphere is very much like that of the lungs. It absorbs oxygen, and throws off carbonic-acid gas. The amount of solid matter eliminated from the body through the skin daily is about 100 grains. Frequently exposing the entire surface of the naked body to the air of a well-lighted room, at the same time applying a slight friction to its surface by rubbing, is highly beneficial. This is what has been denominated by some, "The Franklin Air Bath." The skin is also a universal regulator of the heat of the body. When the skin is in a vigorous and healthy condition it throws off the surplus heat, or retains the deficiency, according to the necessities of the body.

As we have before stated, there is that nervous connection with the inner and outer surfaces of the body that one greatly sympathizes with the other, so also there is that intimate connection with the internal and external nerves of sense that all are affected more or less by the affection of the surface of the body. So, then, to have the nerves properly

preserved there must be an especial care of the skin. Bathing is a great assistance to nature, in that it removes from the surface of the body effete matters that have been conveyed there through the pores of the skin. If these pores become closed, and the skin fails to throw off the matters of insensible perspiration, the lungs are oppressed, the head is giddy and painful, the mouth becomes parched and feverish, the heart troubled with palpitations, the kidneys irritated by excess of duty, the bowels become liable to gripings, spasms, exhausting diarrheas, or inflammatory attacks. It is then of the highest importance to keep the skin in a healthy condition.

On the matter of nerve pains and their production by improper habits, and their relief by proper care of the body, I will quote the following excellent words from the medical department of the *Housekeeper*. It is from an article on the subject of neuralgia:—

“Attacks of pain, the well-known ‘neuralgia,’ are the bane of American women. Indeed, so common are its manifestations that you will find in certain works on materia medica the ‘American sick-headache,’ which is only a neuralgia, accompanied by stomach symptoms of which the nerve pains are the cause. Neuralgia means nerve pain, and its causes are legion. Let us consider a few, and thereby, perhaps, warn someone from the path of danger. Very few persons have neuralgia unless they are worn out bodily and mentally, and then the pain is literally the crying out of the nerves for rest. Or it may be after disease, or a long-continued nervous strain, the nerves thus cry out because the foods that are necessary to their nourishment have been lacking. In the latter case, do not hunt about for some out-of-the-way article of diet, thinking to supply some rare salt or element to the system, but eat in moderation and regularly, of whatever food best agrees with you. Such food will after a time drive off your neuralgias. If, on the other hand, you find it produces heart-burn, belching, sour stomach, constipation, etc., try something else. Even if you have never had neuralgias, avoid everything solid or liquid prepared for the stomach, that produces such conditions as the above.

“If your nerve pains, be they where they may, are due to weariness, besides regular diet, seek regular hours for rest, and get plenty of it. If possible go to bed earlier, or get up a little later; or if neither

is possible, snatch a fraction of an hour and lie down quietly and shut your eyes. Sleep if you can, but do not read or be read to, if such reading be at all a burden, or unless you can pick up a bright book or something in which you are interested in order to change the current of your thoughts. Five, ten or twenty minutes a day thus persistently and conscientiously used for weeks (sometimes months will be necessary) will cure the most obstinate neuralgias caused by fatigue. Remember, too, that certain articles of food or drink cause neuralgias in some persons. Coffee and tea are notable examples. Both excite the nervous system. And, too, any imperfectly digested food of whatever kind, either in the stomach or bowels, or in process of absorption in the blood stream, may be a source of irritation to some nerves and cause pain. Colic, after some indiscretion in eating, is a familiar and very obvious example.

“Much more obscure are those cases where the pain is reflected from some distant diseased organ. Then it often requires the utmost skill of a physician to bring the offending organ to task. In women, who suffer most from this sort, it is often the womb or some of its appendages; while in men it is an overworked stomach, liver, kidneys, or (least often) the brain. Toothache is the most familiar example of this sort of nerve pain. Who has not known the pain to spread into parts of the face very remote from the decayed tooth? If possible, having found the guilty spot, restore it to its natural condition and the pain will cease.

“An unclean and torpid skin may result in neuralgia anywhere. A good bath and thorough rubbing will cure such, only the remedy will bear repetition, else the jangling of misplaced nervous switches will again bring disaster. Dress is not sufficiently considered as a cause of neuralgia; or, as in certain cases we have seen, absence of dress. For instance, in children bare-legged from the knees half up the thighs on a cold day, or their mothers out in the yard with bare arms hanging up clothes, having just come from a steaming hot kitchen. Inequality of dress is the main cause of neuralgias. The body may be properly clad with flannels, while the limbs and arms are virtually bare. The head, too, is often improperly covered, or shorn of its proper covering, the hair, at an unseasonable time.

“In either sex the dress should be so constructed and worn as not to press constantly anywhere except where pressure can be borne; and that is upon

the shoulders, the place intended by nature for the upright animal to bear his burdens. For instance, if the circulation of the liver, the largest gland in the body, be disturbed by pressure, part of the volume of impure blood which should go through the organ for purification, rushes elsewhere and causes pain. Instead of being under the right short ribs, the pain may then be about the heart, or the head, or possibly the kidneys.

"By a little common-sense philosophy, remembering that neuralgia is nerve pain, each one can reason out the cause for her sufferings, and by removing the cause stop the pain. If you are at a loss, consult some physician. If he gives you no suggestions as to its cause, but treats by medicine alone, question him until he offers a solution, or seek advice elsewhere."

It must be apparent to all that it is of infinite importance that the surface of the body be kept in a healthful condition, in order to have a proper action of the nerves of external sense, and that it is essential to this end to quite frequently bathe the entire surface of the body. But it is needful to use care in taking baths, else the difficulty we seek to obviate may be increased. With healthy persons a bath every other day, at a temperature congenial to their feelings, may be good. Soft water should invariably be used in bathing. A good tub to stand in and a good sponge are the only essential articles necessary to give a common bath. A soft towel or a cotton sheet should be used to wipe the body thoroughly dry on leaving the bath, after which the whole surface of the body should be rubbed with the bare hand till the skin feels soft and velvety, and a healthful glow is upon the surface of the body. Be sure that the spaces under the arms and all parts of the body are wiped thoroughly dry; otherwise a cold may ensue from the bath, especially with a feeble person. In case of feeble persons, the labor of the bath should be performed by an attendant, they themselves remaining passive to prevent exhaustion of the body. Feeble persons should take a rest, or a nap, after a bath, before they exercise. After there is thorough reaction from the bath, light gymnastics, walking, riding, or light labor in the open air, according to the strength of the individual, are beneficial. Persons in good health will not experience any difficulty in taking a general bath on first rising in the morning. For all, and especially the feeble, about eleven o'clock in the forenoon is the best time for

taking a home, general bath. Never take a bath within an hour after eating. Never take a bath when the body is in an exhausted condition. Swimming or bathing after performing a hard day's labor, is a very pernicious practice. Those who practice swimming are liable to remain in the water too long.

As a general rule, water cool, but not cold enough to produce a chill, is best for persons in comparative health. Persons of low vitality should use tepid water; extremely feeble individuals should use warm water, cooling the bath before leaving it, as their judgment shall dictate. Cold water we call 60°; cool, 60° to 72°; tepid, 72° to 85°; warm, 85° to 100°. *Always*, before taking a bath of any kind, the head should be wet in cool water, or a linen head-cap, of two thicknesses, wet in cool water, should be placed upon the head.

The reason for this precaution is thus explained by physiologists: "When cold or cool water is applied to the limbs or body it contracts the capillaries, and the blood rushes to the head. By wetting the head first, the vessels in the head are contracted, and the blood is sent downward, and thus the equilibrium is maintained. If a person is going into the water where they are to work, or even to remain any length of time, they should keep the head wet with cool water, or wear a head-cap wet in cool water. It will prevent headache and congestion of the brain."

J. N. L.

EXTRACT FROM TELFORD'S "LIFE OF JOHN WESLEY," p. 28.—"The system of fagging seems to have been in full force in Wesley's school-days. His life there was one of much privation. The elder boys took the animal food from the juniors, so that he says 'from 10 to 14 I had little but bread to eat, and not great plenty of that. I believe this was so far from hurting me that it laid the foundation of lasting health.'"—*Vegetarian Messenger*.

CHOLERA rages on all sides of a Bengalese tribe—the Powahs of Marwar, but not one of them has ever taken the disease. They attribute this immunity to their frugal habits. They never touch animal food nor spirituous liquors; they dine early, and sup only on milk and fruit. Wherever a Powah goes, he never breaks these rules.—*Dun-dee Evening Telegraph*.

"FRET not thyself in anywise to do evil."

WHAT SHALL WE WEAR?

PERHAPS nearly everyone has heard the oft-repeated story of the boy who died while personating an angel in a play, having been covered with gold-leaf for the purpose of making him bright and shining. Several physiologists have repeatedly tried the experiment of covering animals with some impervious varnish, with similar results. They invariably die in a few hours after being thus covered. One might suppose from this alone that the skin must perform some important office in connection with the processes of life. But if we reflect that even when there is no moisture to be seen or felt on the surface of the skin the insensible perspiration amounts to not less than two and a half pounds daily, we cannot wonder at the results that follow the suppression of its functional activity. Of what is the perspiration composed? Let us ask the chemist. It is a watery fluid of acid reaction, and has a specific gravity of 1003 or 1004. Organic salts or mineral matter constitute the greatest part of its solid ingredients, but a part of it is an albuminoid (proteid) closely allied to, or identical with, urea. But there is another organic substance excreted with the perspiration, which, like urea, is a rank poison to the system. It is volatile and furnishes the bad odor which emanates from the body. Carbon dioxide is also excreted in considerable quantities. No doubt one of the causes of the death of the gold-covered boy above referred to was the poisoning of the system by his failure to excrete the poisons of the body. The two and a half pounds of perspiration as above given is the minimum insensible perspiration, when the body is at rest. During exercise the quantity of water is greatly increased, but, at the same time, the proportion of poisonous matter thus carried out of the body is also very much larger than when at rest. Thus we see at a glance the very great importance of the skin as an excretory organ, and we realize that the free escape of perspiration ought to be facilitated as much as possible. Just here a number of interesting questions present themselves, as follows:—

1. Does the clothing of the body affect the facility with which these poisons are given off?

2. If it does, what kinds of material promote its escape most readily? and what kinds retard its escape?

3. What may be expected to be the result if

these poisonous gases are suppressed and retained in the body?—*i. e.*, how does poisoning from these gases show itself?

Any discussion of these questions that does no more than state conclusions will certainly be unsatisfactory, and since it will convince no one, will do no good. I am especially anxious, therefore, that all thoughtful persons should follow me in this discussion. Many of the thoughts and facts here presented I have become acquainted with by a study of Dr. Jaeger's essays on "Health Culture." Dr. Jaeger is a German physician and teacher of hygiene. For several years he has been a quite generally-accepted method of gaining and maintaining health among the better classes of Germans in "The Fatherland." A few years ago Dr. Jaeger went to England to introduce his methods of cure of disease, which he terms "The Sanitary Woolen Cure." His system became so popular there among the medical profession and the better classes that machinery adapted to the manufacture of the particular form of goods which he recommends was set up in England to supply the trade for that country. Some two years ago the goods were introduced into America. There is now in New York the Dr. Jaeger's Sanitary Woolen System Co., with a capital stock of \$300,000, having agencies in many of the important cities of the United States. It is believed by those who have adopted the system that its growing popularity is due to its real merit. With this introduction we are certainly justified in making a careful examination of the principles upon which it is said to be based. In discussing the above questions I shall try to give the principal points of advantage claimed for the system. I shall write from my own standpoint, giving credit to his essays only when I make direct quotations.

During their life-time all plants have the power of absorbing carbon dioxide, vapors of ammonia, and other noxious gases and vapors. The substances thus absorbed are digested by the plant and incorporated into its body, flower, and fruit. Thus the carbon which we find stored up in the trunks and other parts of trees, the leaves of the trees had once obtained as it floated through the air in gaseous form. Though by death vegetable fiber loses the power to digest and assimilate gases, it retains, but little impaired, the power of absorbing poisonous vapors and noxious gases. The well-known greediness with which charcoal absorbs

unpleasant odors is a familiar example of this. Notice, all this is said of the products of vegetable growth, of vegetable substances. Very similar to this property of vegetable fibers is the capacity of water to absorb similar gases. I quote from Atkinson's "Ganot's Physics," as follows: "At the ordinary temperature and pressure water dissolves 4.6% of its volume of oxygen, its own volume of carbonic acid (carbon dioxide) and 430 times its [own] volume of ammoniacal gas." Also, "*The quantity of gas absorbed is greater when the temperature is lower.*" And again, "*The quantity of gas which a liquid can dissolve is independent of the nature and of the quantity of other gases which it may already hold in solution.*"

From all this we learn that clothing, and all substances made of vegetable fiber, if worn next to the body, act simply as a reservoir of the poisonous gases emanating from the skin. But the law concerning the temperature of water, above quoted, applies to clothing also. When the fiber is cold it absorbs an increased quantity, to be given off as soon as its temperature is again elevated. To illustrate, let us consider the case of the ordinary linen shirt front. The starch with which it is stiffened is also of vegetable origin and adds to the power of the linen to absorb gases. But (which is quite as bad) by filling the open spaces between the threads of linen the starch makes the garment absolutely impervious to vapors and gases of the body even after it has been filled to the point of saturation. One might as well wear a shirt front of steel or sheet iron. It is not much warmer or more comfortable. Let us apply the law. The wearer goes out on a cold day, or, by sitting bent over at a table or desk allows the stiffened garment to bulge in the middle and thus become cool or cold. This decrease of temperature enables it to absorb a much larger quantity of poisonous gas. Soon he straightens up again and by the warmth of the body restores the former heat of the garment. The gas absorbed is now quickly given off and rises under the collar, to be inhaled with the breath, or remains in contact with the body, to poison the system by being again taken into the circulation. Every cotton or linen garment must act in a similar manner, especially those that are subject to change of temperature by the movements of the body. Ladies' skirts must be especially liable to do harm in this way, particularly if they contain a large quantity of starch.

In case of linen or cotton bed-clothes this action is exaggerated. The sleeper awakes, dresses himself quickly, and after making his toilet opens both windows in his bedroom to air his bed and goes out. The wind passes through the room, suddenly chilling it, and before the poisonous gases from the sleeper's body have had time to escape, the temperature of the linen is lowered so much that the bedding has become fully saturated with the gaseous poison. Presently the chamber-maid comes in, makes up the bed, and leaves it, poison and all, to be given off to the person of the sleeper as soon as his body has warmed the bed the next night.

We might next notice the effect of contact with these poisons upon the body. It is twofold upon the skin and upon the nervous system at large. The skin is thrown into a spasm. Thus by contraction of the skin the blood is driven from the surface to the internal organs and the individual experiences a chill. This is just what always constitutes a chill. But this is not the end. The contraction of the skin thus produced effectually closes its pores so that perspiration is retarded and products thus retained are thrown upon other excretory organs, the liver and kidneys. Unable to do the extra work thus forced upon them, these organs become clogged and inactive, and the whole system becomes foul with morbid products until the nerve centers themselves are poisoned. Now follows derangement of all the vital processes of the body, including digestion, circulation, nutrition, etc. This is a bad showing, indeed, but it is the natural result of improper clothing, and would be realized every time if it were not for the conservative power of the system by which nature is enabled for a time to fortify herself against abuses practiced upon her. No doubt many forms of disease are from such abuse as the above long continued.

J. E. C.

THE second largest bar of bullion ever melted in the United States assay office at Helena, Montana, was handled September 27, by Melter Mayendorf. It came from the Jay Gould mine, weighing 2,500 ounces, was a little over 600 fine in gold, and was worth about \$27,000.

HIS OWN DIAGNOSIS.—*Mother*—"And do you really feel so very bad, Bobby?" *Bobby*—"Yes, ma. I ain't quite sick enough to need any medicine, but I'm a little bit too sick to go to school."

REFORMS.

REFORMS of all kinds are attended with care and perplexity. But few have the courage to bear up under the opposing influences incident to such undertakings. Popularity and the speech of the people deter many noble minds from yielding to the convictions of their better judgment, and standing for the right. Hence, the few have to lead out in all these revolutions, and perhaps for years toil on alone, and may be fall with little accomplished; but from these small beginnings some new ideas may be dropped, as seeds, to germinate in other fertile minds, and these seeds sown by the former investigators are grappled by the second, to be brought to a higher degree of perfection, and placed upon a firmer basis.

Reform presupposes the existence of errors which make such reforms necessary. Refined civilization has introduced many ideas which cause a wide departure from the plain, natural habits of life. The introduction of these has brought about changes which are very detrimental to health, and have become a prominent cause of much of the mortality of the human race. Thousands die, who ought to, and might, be alive to-day had these causes been corrected.

Sickness among families, in neighborhoods, etc., may always be traced to a cause which, if sought out and corrected, soon puts an end to the physical disturbances. This cause may exist in ill-ventilated houses, improper food, insufficient clothing, foul emanations from piggeries, and in a large majority of cases it arises from out-houses in the form of sulphureted hydrogen, one of the most deadly gases. These houses should have careful attention, or should give place to the more modern invention, called earth-closets.

How many there are who have sore eyes, sore throats, etc., because they occupy close bedrooms whose only window is frequently darkened by green window curtains, upon which may be seen streaks as from water running over their surfaces. The carbon exhaled during the night causes the arsenic of the green to decompose, hence the streaks. This being re-inhaled, headaches, nose-bleed, diseases of the eyes, throat, etc., are the sure results. The light and air being excluded, a fungus growth of mold, and other parasites, conspire to make it one of the most unhealthy places about the premises.

Then, again, the alvine discharges left in open

vessels emit deadly odors which no constitution can long withstand. In these small sleeping apartments may be frequently found in addition to the parents, from one to six children. The poisoned air thus breathed over and over, causes epidemics which carry off these children one after another, until all are either dead or made invalids for life. Water which has stood for some time in the house should not be used for drink or culinary purposes, as it is one of the greatest agents to absorb impurities of the house and atmosphere.

Add to these causes, late suppers, pastries, candies, heated rooms, and little exercise, and death has but little else to do than use the weapons thus furnished him in almost every household.

Fashion in dress, fashion in eating and drinking, both in season and out of season, with evil habits of every kind, have all told wonderfully upon the human race. Through these influences, disease and premature decay and decrepitude are seen everywhere. Cripples may be counted by millions, of every form and grade, many of whom have been so from birth, because of the errors of their parents, while others were made so by using drugs of various kinds.

At this time there is surely need of reform in these matters, and here steps forward another grand movement designed to benefit the human family at large. This movement is known to the public under the title of health reform. This reform proposes to reach the people where they are. It appeals at once to their reason, to their candor and sound judgment. It neither abuses any, nor deprives them of their rights or privileges, but instead seeks to elevate them, and unloose the shackles of habits by which popular society has enslaved them.

Health reform, with its benign influences, is presented to the people as a protection against the physical errors of fashionable life. It takes by the hand many who have admired the goddess of fashion and bowed at her shrine all their lives, and leads them to respect the laws which nature's God has established for their well-being. Health and vigor then begin to chase away the gloom; and sunshine, animation, and life, soon take their places.

J. H. GINLEY, M. D.

WITHOUT exercise, repose would have no meaning and no use; and without repose, exercise would soon wear out and destroy the body. The one is the complement of the other.

CLIMATE AND DISTRIBUTION OF CANCER.

IN concluding a series of papers on the geographical distribution of cancerous diseases in the British Isles, A. H. Haviland says (*Lancet*, March 10, 1888): "I maintain that those who would give themselves the best chance of avoiding those local conditions which are coincident with a high death rate from cancer should study well the distribution of this disease in England. There is abundant evidence there to show that cancer does not thrive in high, dry localities, where the soil is kept sweet by the absence of floods, and the nature of the rocks which either underlie it or form its principal constituents; and that it does thrive and become very fatal where floods prevail, where their emanations are sheltered and intensified, where vegetation is killed and decomposed, and where, after the floods have passed away, a rank herbage springs up, composed of sour grass and bitter plants, which scour and otherwise disease the horses, cattle, and sheep that feed upon them. Much has to be done, much has been pointed out, and if the twenty-two high-mortality and the sixteen low-mortality districts were well studied in connection with the various factors which we have seen to be coincident with high or low death rates, I believe that much would be added, much would be corrected, and much revealed that we little think of now."

THE PHILOSOPHY OF EATING.

GROWTH and waste and repair go on in a nearly uniform way the whole year through, but the amount of food necessary for these operations is surprisingly small. The generation of bodily heat requires a more variable quantity of food. In winter, with the temperature of the external air at zero, the temperature of the blood in healthy persons is 98.3°, and when the heats of summer drive the mercury of the thermometer near to or above that mark, the blood still registers 98.3°. The marvelous mechanism by which this uniform blood temperature is maintained at all seasons, it is not necessary to consider, but it must be evident to everyone that the force needed to raise the temperature of the whole body to nearly 100° in winter is no longer needed in summer. The total amount of food needed for repair, for growth, and for heating, physiology teaches us is much less than is generally imagined, and it impresses us with the

truth of the great surgeon Abernethy's saying, that "one-fourth of what we eat keeps us; the other three-fourths we keep at the peril of our lives." In winter we burn up the surplus food with a limited amount of extra exertion. In summer we get rid of it literally at some extra risk to health, and, of course, to life. We cannot burn it. Our vital furnaces are banked, and we worry the most important working organs with the exertion of removing what had better never have been taken into the stomach.—*Sel.*

THE CARE OF THE NAILS.

VERY few people know how to properly care for the nails. In cleaning them, a sharp knife ought never to be employed, but between the ends of the nails and fingers the space should be filled with soap, and then removed by brushing them with the so-called nail brush. Many improperly cut away that part of the flesh which grows over the nail from the bottom; but it should be simply pressed backward, and sufficiently to show the white part, considered by some to be a mark of beauty. If the flesh is adherent to the nail the operation may be facilitated by passing the sharp point of a knife underneath the fold of flesh and separating it from its attachments. With this done, it can be pushed back more readily. Scissors should never be used to cut the nails; that should be done only with a sharp pen-knife.—*Boston Journal of Health*, April, 1888.

MACKERAL POISONING.

THERE has been a correspondence in the *British Medical Journal* on the subject of poisoning from the eating of mackerel. Details are given of several cases, and in commenting upon them Dr. A. W. Flood, surgeon R. N., retired, writes from Bundoran:—

"I believe the cases that I have seen were caused, not by eating the mackerel when out of season, but rather to the fish being too long kept, and in addition being exposed on a cart to the heat of the sun for sale. I believe mackerel to be a most dangerous fish for food, unless great care be taken to get them fresh, as ptomaines are developed very rapidly in them. I may say the residents here do not consider them safe when they are more than twenty-four hours out of the water."—*Vegetarian Messenger*.

Disease and its Causes.

DOING HIS WILL.

IF the voice of the Master bid me,
 "Go, buckle the armor on,
 Go, stand where the fight is thickest,
 And strike till the victory's won,"—
 I count that the joy of serving
 Will prompt me to go unswerving,
 Yet, when the din and clamor
 I can hear, yet comes no call,
 And I fold my hands while the valiant
 Smite their foes, till they shrink and fall,—
 I fret that such fate should bind me,
 And the Master in idleness find me.
 But the voice that nerved for the battle
 I hear as the din grows still,
 And it whispers me this sweet plaudit,
 "Fret not, you too did my will."
 Sweet message, my soul elating,
 "You served me by only waiting."
 —*Sylvia Silverthorne.*

FASHIONABLE LIFE.

BY MRS. E. G. WHITE.

A LIFE of fashion takes from the simplicity and attractive beauties of nature. Our artificial habits deprive us from enjoying the natural, and unfit us for practical life. How can Christian mothers, in the education of their children, follow the steps of the multitude, and bow at the shrine of fashion?

To live fashionably is an expensive, as well as a thankless, life. Much time and means are squandered merely to create a sensation in fashionable society, which the Master has intrusted to his professed people, with which to bless the needy, and to advance his cause. Garments are prepared with much labor and great expenditure of means, to beautify the person, and make the outward appearance beautiful; yet, notwithstanding all this artificial adornment, they poorly compare with the simplest flower of nature.

The Redeemer of the world, in giving his lessons of trust to his disciples, points them to the lilies of the field, and says, "Consider the lilies of the field, how they grow; they toil not, neither do they spin; and yet I say unto you, that even Solomon in all his glory was not arrayed like one of these." The great amount of needless toil to make the outward appearance attractive by artifi-

cial decorations is frequently at the sacrifice of health. After all the preparations that variety and pride can suggest, those who thus adorn themselves cannot bear comparison, in all their costly array, to the simple, natural lily of the field.

I would impress upon Christian mothers the necessity of being awake to the fact that every act of their lives is telling upon the future of their children, and is forming their characters to be swayed by the customs of society, or is giving them correct views of truth and right principles, as the basis of their actions. Many Christian mothers feel compelled, through false views, to fall into the customs of society, and the tide of fashion. With their mature experience they may be better able to withstand the current of fashionable life, and avoid its downward and vicious tendencies; but in adorning their houses, and in arraying their children according to the custom of fashionable society, they are giving examples to their children, and surrounding them with an influence that is calculated to foster pride, vanity, and selfishness, and they are swept in with the current of fashion, drifting, drifting away from true goodness and away from God.

How many precious hours are occupied by parents in the education of their children for fashionable miseries, for lives that are worse than lost. How much more profitable would be the lessons given to their children of the wonderful works of God in nature, seen in the simple, yet delicate, beautifully tinted flowers. Parents can teach their children that all the display and costly adorning cannot compare in beauty and glory to one of God's modest flowers. The minds of children should be led to see the hollowness of fashionable life.

Parents should overcome desires of living for appearance. They should rather devote time to make their children happy at their homes, that they may love the society of their parents, making them their confidants and advisers, and enjoying useful employment, acquiring a taste for the natural, rather than the artificial. We should imprint upon our children's minds that they are not their own, to go, and come, and dress, and act as they please. They are God's property, purchased by the sacrifice of the life of Christ; and their life is not to be idled away in indolence, or in seeking their own pleasures. If they possess personal attractions, and rare natural abilities, greater care should be taken in their education, lest these endowments be turned to a curse, and are so used as to disqualify

them for the sober realities of this life, and, through flattery, and vanity, and love of display, unfit them for the better life.

Our children should be carefully instructed in regard to their own being, and the obligations, relations, and duties, of life. They should be taught that their life is not to be wasted in vanity, folly, and pride; for God has given them life to be improved. They should teach them that they have a place to fill, a part to act, and an object to gain. They should educate them not to be carried, but to bear burdens, to deny self, and to practice self-control.

Mothers, the time devoted by many of you, with busy fingers and wearied eyes, diligently working in trimming, or in embroidering a skirt or dress, to attract admiration and envy by those who cannot have these extras, is poorly spent. In the end it will prove to you like the apples of Sodom, beautiful without but ashes within. You are, in thus devoting time and means for display, teaching your children to love these things. "As the twig is bent the tree inclines." As your sons and daughters become older, approaching manhood and womanhood, you mourn that their minds are frivolous, and absorbed in their pleasures, in fashionable dress, and outward display, while they have but little sense of their obligations to their parents, or to their God. They frequently have a positive disrelish for useful labor, or to lighten the burdens borne by their parents.

The seed that the parents have sown in the hearts of their children has sprung up, and is yielding an abundant harvest. The lessons they have taught their children are put into practical use. They are what their parents made them. They do not possess moral worth, or noble-minded independence. They follow in the wake of fashion, and live to be petted, and flattered, and admired. Outward show is the ambition of their worse than useless lives.

Our children should be instructed that they may be intelligent in regard to their own physical organism. They can at an early age, by patient instruction, be made to understand that they should obey the laws of their being, if they would be free from pain and disease. They should understand that their lives cannot be useful if they are crippled by disease, neither can they please God if they bring sickness upon themselves by the disregard of nature's laws. Many professedly Christian par-

ents follow the example of the multitude in their conformity to the world. Parents, you have taken the responsibility of bringing children into the world, without any voice of theirs, and you are responsible for the lives and souls of your children. They have the attractions of the world to fascinate and allure. You can educate them so as to fortify them against its corrupting influence. You can train them to bear life's responsibilities, and to realize their obligation to God, truth, and duty, and the bearing that their actions will have upon their future immortal life. Many needless things are made of the first importance, even by Christian parents, in the education of their children. A close investigation, enlightened by the Spirit of God, would reveal to these parents that a great share of the burdens and fatigue of life they suffer, God has not bound upon them; but they gather them upon themselves in doing the very things God has expressly forbidden them to do. "And be not conformed to this world; but be ye transformed by the renewing of your mind, that ye may prove what is that good, and acceptable, and perfect will of God." Many professed Christian parents, in order to gratify their children, labor and expend means, wear away their strength, and even sacrifice their lives, in order to have their children keep pace with fashion. As I have seen these parents worrying, and complaining of trials, and temptations, and darkness, and gloom, fretting their way through life, carrying their unnecessary load of care, I have been reminded of the words of Christ to the Pharisees, "Ye tithe mint and rue and all manner of herbs, and pass over judgment and the love of God."

There is a natural tendency with all to be sentimental rather than practical. In view of this fact, it is important that parents, in the education of their children, should direct and train their minds to love truth, duty, and self-denial, and to possess noble independence, to choose to be right, if the majority choose to be wrong. Our children who are receiving an education at school should become intelligent in regard to their own bodies, the habitation God has given them, and bring their knowledge to bear upon their every-day life, that they may become intelligent in regard to the relation their eating, dressing, and walking sustain to life, health, and happiness.

If they preserve to themselves sound constitutions and amiable tempers, they will possess true

beauty that they can wear with a divine grace. And they will have no need to be adorned with artificials, for these are always expressive of an absence of the inward adorning of true moral worth. A beautiful character is of value in the sight of God. Such beauty will attract, but not mislead. Such charms are fast colors; they never fade.

Parents, here is a work before you. You may preserve your health by being less anxious for the outward, beautifying the person with artificial adornings, and devote your precious time to the adorning and beautifying of the mind. You may, in the fear of God, take up your neglected duty, and train your children to form characters for Heaven. The inspired apostle contrasts the inward adorning with the outward, artificial display, and pronounces it not corruptible. The ornament of a meek and quiet spirit he declares is of great price in the sight of God. If we are clearly told what God values, we shall be inexcusable if we continue to love display, to idolize our bodies, and to neglect to cultivate the inward adorning and perfect beautiful characters that God can approve.

WOMAN'S DRESS.

THE fashion of outdoor sports for young ladies is showing them that they cannot become experts if fettered by fashionable dress. Not long ago I was talking to an assemblage of ladies upon healthful dress, and at the close of the hour a tall, graceful woman came up to me and said: "I want to say that I do not wear corsets. I gave them up two years ago, when I began to ride the tricycle. I found that they impeded the use of my limbs, and fettered me unnecessarily. Since I discarded them, I can ride without fatigue. My health has improved, and I am so much more comfortable." A writer in a late number of the *Graphic* advises young ladies, in playing lawn tennis, to dispense with the corset, but suggests, if they will not heed this, that they wear the breakfast corset, which gives the least possible restriction to free movement of the body. Not long since I saw a young girl hastily doffing her ordinary attire, and donning, for the first time, a tennis costume—a plain short skirt, and, as a waist, her brother's shirt, her own blouse waist being still unfinished. Swinging her arms over her head, she exclaimed: "How nice it seems to be able to move my arms freely!"

Who, in this reign of tight sleeves, cannot sym-

pathize with her, and with the young lady who confidently asks, in a letter to a friend, "Can you button your boots with your corsets on, or put your bonnet on after your dress is fastened?" We laugh at the woman who sits in front of us in the cars who cannot tie her veil because of her tight sleeves, while at the same time we know we are bound by the same fetters, and are unwilling to be free. How we would sneer at a man whose coat sleeves would pinion his arms so that he could not snatch at the top of his hat when he bowed to a lady, or reach to button his collar in the back!

Thirty years ago we were hampered by the extreme length of the shoulder seam, but now, when fashion demands a short shoulder seam that would give us freedom, we seek out other devices that may interfere with our rights of liberty, and the pursuit of any happiness that demands an upward reach. Late one evening I was sent for to visit a patient, whom I found partly undressed and looking with scared face at her hands and arms.

"I don't know what is the matter," she exclaimed. "My arms feel so numb. Do you think I am going to have paralysis?"

I saw that the veins of her arms were engorged with blood, as if from pressure, and I asked, "Are the sleeves you wore to-day very tight?"

She thought a minute, and replied, "Yes, they are, particularly at the arm hole."

"That is probably the cause of your trouble," I explained. "As soon as circulation is re-established, your paralysis will doubtless disappear," which proved to be the case.

This is the boasted land of liberty, but where is the woman who has liberty of bodily movements? From the crown of her head to the sole of her feet she is bound by the fetters prescribed by fashion. Small, heavy, uncomfortable bonnets, tight coils of hair, tight collars, tight sleeves, tight dresses, pull-backs, tight shoes, tight gloves—there really seem to be no organs left entirely untrammelled but eyes and tongue. Would that for humanity's sake she would use her eyes in studying the divine idea of beauty, and her tongue in proclaiming God's physical laws!—*Mary M. Allen, M. D., in Congregationalist.*

PEOPLE are more fond of criticising work they don't do themselves, and which they have not energy to do, than they are of putting their shoulder to the same work.

THE DIGESTIBILITY OF STARCH.

In a graduation dissertation for the degree of M. D. in the Military Medical Academy of St. Petersburg, Dr. N. Butiagin gives an account of some experiments he has been carrying out with a view of determining the effect of cooking on the digestibility of starchy foods. He found that the activity of the saliva does not differ much amongst healthy persons, but that when people are badly nourished and weak, and especially when, in addition to this, they are suffering from disease of any kind, their saliva has a very perceptibly diminished power of dissolving starch. When starchy substances are subjected to prolonged cooking they become more easily digestible, and in this way compensation can be provided for the inactivity of the saliva of weakly persons. Thus, rice and peas were found to require three hours' cooking in order to render them as easily digested in the saliva of a badly-nourished, nervous, hysterical woman, which had previously been found to possess only 88 per cent of the normal activity, as they were with a single hour's cooking by the saliva of healthy persons; and generally it was found that in the case of weakly or diseased persons starchy food must be cooked twice or thrice as long as in the case of healthy persons in order that it might be equally acted upon. Again, when starch has been cooked for a long time there is less difference between the effect of healthy and unhealthy saliva upon it; this is specially remarkable in the case of millet—which after one hour's cooking showed a difference of 12.89 per cent in favor of the saliva of healthy as against that of diseased persons, but after three hours' cooking a difference of 5.77 per cent only.—*The Lancet.*

GASTRIC EPILEPSY.

DR. A. W. FOOT made a communication upon gastric epilepsy. The patient, male, aged seventeen, had a series of epileptic attacks for two years, induced by eating rich and indigestible things, or ordinary food in a rapid manner. His attacks occurred at meals, and in the dining-room, almost exclusively. He was seen by Dr. Brown Séquard, and, after persevering in his treatment for five years, the seizures ceased to occur. Dr. Finny mentioned the case of a young student in Trinity College, Dublin, who, crossing the channel, had a supper of beefsteak about three o'clock in the

morning on board the steamer. After breakfast he became the victim of a very severe attack of epilepsy. The cause proved to be the undigested beefsteak, and there was no return of the disease. He had experience of another case of a young man who had, when a child, suffered from scarlet fever. That youth, whenever the large bowel became loaded with animal food, became liable to epileptic seizures. Hence caution had to be adopted as to the kind of food he used, and he was placed on a regimen of milk and farinaceous food. Animal food taken for four or five days consecutively would produce epilepsy. Hence, in Dr. Foot's case, "gastric epilepsy" was a very good name, although, of course, it was epilepsy of reflex origin, arising from the stomach, that was meant. Dr. C. J. Nixon said Dr. Foot's case was one of extreme interest in view of the important fact that an epileptic of five years had got completely well. When speaking of a reflex cause—such as a mass of food in the bowels—producing epilepsy, that was scarcely going far enough, having regard to the number of people who partook of undigested food, and stimulants of all kinds with impunity. In alcoholic epilepsy when the patient returned to the stimulants he was liable to a second seizure, and specially so if he continued to drink.

Dr. Cox mentioned the case of a school-girl who, having been treated too generously by her friends, got an epileptic seizure which terminated in vomiting; and also the case of a youth in the period of adolescence in whom the same phenomena, consequent on eating food hard to digest, occurred. Epileptiform seizures from alcohol had almost invariably renal origin. Dr. James Little said Dr. Nixon had drawn attention to the most important practical point in Dr. Foot's paper, showing that though the physician might not be able by any therapeutic means to modify the tendency which existed in some portion of the brain to the epileptic discharge, still the exciting cause of the discharge could be removed and thereby the patient saved from a recurrence of the attack. Dr. Foot in reply said that his patient's first attack was on August 12, 1876, and in 1880 the attacks ceased and the patient was sufficiently well to discharge his duties in a public office. He remembered several cases in which there were but few attacks and complete recovery ensued. For instance, a school-mate who was allowed the privilege of sitting up late preparing for first place at entrance to college was thrown back by a violent attack, and yet he never had an attack since, and he was at present in command of a regiment.—*Medical Press.*

Temperance.

NATURE'S FEAST.

SUCH was this festival, which, from their isles
And continents, and winds and oceans deep,
All shapes might throng to share that fly or walk or creep:
Might share in peace and innocence, for gore
Or poison none this festal did pollute;
But, piled on high, an overflowing store
Of pomegranates, and citrons—fairest fruit,
Melons and dates and figs, and many a root
Sweet and sustaining, and bright grapes ere yet
Accursed fire their mild juice could transmute
Into a mortal bane; and brown corn set
In baskets; with pure streams their thirsting lips they wet.

—Shelley.

RETRIBUTIVE JUSTICE.

I HAD a dream. I thought I stood upon a hill which overlooked a beautiful valley, in which nestled a lovely village; it was so quiet and peaceful that it might have represented the "Happy Valley of Abyssinia." As I gazed, enraptured with its tranquil beauty, a sad sound of mourning was borne to me upon the autumn breeze, a sound that ever appeals to the sympathetic soul; for, alas! I was all too familiar with the cry of despair, and knew it was the wail of a broken heart. I then discovered in the vale close by a lone little cottage; it looked neglected, and poor, and I knew it was from this home the sound of mourning issued. I hastily descended and knocked at the door. A pallid, sad-eyed young woman appeared, and kindly bade me enter. She recognized me, saying, "I hoped you would come; though you do not know me, I know you are the lady who is holding meetings in our village." As she thus spoke, I noticed that five little, poorly-clad children clustered around her and called her "Mother." Lovingly taking her hand I asked, "Dear woman, what is the cause of your desolation and grief?"

With bitter sobs she replied that her husband had been robbed and murdered, and his body lay coffined and shrouded in the adjoining room, awaiting burial. I asked, "Who has done this cruel and dreadful deed? Was it an enemy? or some insane, wandering wretch?"

"Neither," she replied; "he had no enemies, and strangers come rarely or never near this secluded spot; the foul deed was done by three of his neighbors,—two men and a woman; they

smiled on him, took his hand, and called themselves his *friends*; thus they enticed him into their homes and gave him poison to drink, sometimes telling him it possessed *wonderful* medicinal properties; that he needed it to guard against the effect of cold, or heat, or sudden change, or possible illness; and that it was 'a good creature of God,' and would make him strong, and his heart merry, and was a sure remedy for every ill that humanity is heir to. This poison dulled his intellect, and at times paralyzed his limbs, impaired his speech, and dethroned his reason; each potion made him sick and wretched, yet more fond of it, and thus more and more its slave. At first they took only part of his money for it,—indeed, they sometimes gave it to him free of charge; but as he became a slave of the insidious poison which was fast destroying him, he developed an overwhelming, maddening thirst for it, which rendered him at times a raving maniac; and then his wife and children had to flee from him, and take shelter in one of the neighbors' houses. Sometimes they hid in the woods for hours, till his delirium was overpast; and then he was so sorry, so very penitent, that he sometimes went down upon his knees to ask my forgiveness. He often vowed he would never take any more of the accursed poison; but his strange acquired appetite soon overcame his good resolutions and he went down like a man of straw before his enemy. At last an insidious disease was developed by the many repeated doses of the poison he had taken, and now he is dead."

This the brief, sad story, and this the result. "Oh!" said the poor young widow, "how I hope you may do much good in our poor, sin-cursed, poison-cursed village. There are many, many going the same road to ruin and death that my poor husband has passed through; and the strangest part of the bewildering, fascinating evil is that you cannot convince them of their danger. Come," said she, "and see his poor, wasted form."

I followed her, and the dear children kept close to her too. She reverently raised the cloth from the shrunken, emaciated face, and I recognized him as one whom I had seen a few times, and had been told that, when not under the influence of the poison, he was a remarkably quiet, industrious, and skillful workman. Poor fellow! he should be just in the prime of early manhood; only thirty years of age.

"Dear Mrs. T.," said his widow, through her

sobs and tears, "when he was himself he was the most affectionate, kind, and gentle husband and father that ever lived."

Just then his little son, a toddling infant scarcely two years old, began crying and calling, "Papa, papa, dit up; I ont oou." He had called him repeatedly in this way, thinking his father asleep.

At this the widow's tears flowed afresh, as she said, "You will want your papa a great many times, Sammy, before you are grown up to be a man."

"Too true," I said, and thought of the cruel thorns that would pierce the tender feet of the murdered man's orphaned children.

We were roused from the sad sight and our sad reflections by, if possible, a sadder sight, when the murdered man's father and mother entered. How shall I tell you of their grief, especially of his silver-haired mother's anguish? She seemed quite overwhelmed as she looked on the face of her cherished youngest son. They had traveled hundreds of miles to be present at the funeral, and their convulsive, heart-rending sobs told how tender and strong the love which existed between parents and child had been.

The dead man's sweet little daughters' faces were sad, and their young eyes dim with weeping, though they were too young to fully realize their loss.

The hour for the funeral had come, and the friends and neighbors began to arrive. Some noble men and women, with firm, elastic step and fresh, healthful complexions, and eyes as clear as heaven, came in; and I said mentally, "Surely the blight does not rest on these." But others came with the sure mark of the slow poison, that first maddens and then destroys, upon them. Some were only partially enslaved by this woful appetite, while there were others whose hands trembled, whose faces were haggard, and eyes blood-shot and wild. Strive as they would to hide it, I saw the fangs of the deadly serpent had fastened in their hearts; and surely, swiftly, they were speeding down the broad road to eternal ruin,—to that dark region of despair, whose only light is the glow of the fires that burn forever in the abode of lost souls. There were women and children, widowed and orphaned, who wept in a despairing, pitiful way with the bereaved family, showing plainly they had been afflicted, cursed, made desolate, by the same slow poison which had blighted this poor home.

There was a slight commotion near the door, and

a young man with a spiritual face and gentle expression entered. He laid aside his hat, and, taking a position in the door leading to the inner room, where the mourners were already beside their precious dead, he opened his Bible and, after reading the one hundred and third psalm and a portion of the twenty-first chapter of Revelation, said: "In this book, which is the word of God, I find these words, 'Who hath woe? who hath sorrow? who hath contentions? who hath babbling, who hath wounds without cause? who hath redness of eyes? They that tarry long at the wine; they that go to seek mixed wine. Look not thou upon the wine when it is red, when it giveth his color in the cup, when it moveth itself aright. At the last it *biteth* like a *serpent*, and *stingeth* like an *adder*.'" "

A pause and then a renewed stirring and turning of heads by the people near the door. Turning to see the cause I beheld the woman who had been chief in the awful conspiracy, who had robbed the dead man of peace, joy, happiness, self-respect, manliness, and life in time and eternity,—who had helped to make this broken-hearted widow's home a hell,—had kept her in poverty, deprived her of her husband's care in sickness and health, robbed her and her helpless babes of clothing, food and love, and had at last made her a widow and her children orphans—this woman, with the brazen effrontery of such hardened evil-doers, had insulted them at this solemn hour with her hateful presence. She was well-dressed, smooth-faced, and wore a self-satisfied air. "Why should she not come to poor Sam's funeral? Her neighbors, friends, and customers"—as she chose to call her victims—"were there, and why not she, also?"

After Mrs. Fuller (for she was a wife and mother) was seated, the minister turned again and re-read the Scripture lesson, and at the conclusion remarked: "We see practical illustrations of the truths just read around us everywhere; but in connection with the foregoing I will read one more verse; it is found in Habakkuk (chap. 2 : 15), 'Woe unto him that giveth his neighbor drink, that putteth thy bottle to him, and maketh him drunken also.' These are the words of God, and the *woe* must surely come to the evil-doer and slayer of his brother."

I looked at Mrs. Fuller, but the self-satisfied smile still rested on her hard face. I thought her business had taken away all conscience and humanity, and had given her a heart of stone. I looked

toward the sorrowing ones. The aged mother and bereaved wife were weeping silently beneath their sable veils; the orphaned children were sobbing, and some of the neighbors were affected to tears. The young minister said, "Let us pray," and kneeling, he raised his voice and prayed:—

"O thou mighty and eternal One! thou who didst create heaven and earth, and all that are therein, and pronounced it good, 'very good,' before the tempter and sin came, we bow before thee in this sad home, where death has come and taken the head of this family, leaving the wife and children desolate. Almighty God, we acknowledge that by the fall of man—in consequence of sin—death came into the world; and we know 'the wages of sin is death, but the gift of God is eternal life through Jesus Christ our Lord.' Still sin blights and curses our world, and suffering, sorrow, and death follow in its train. The result of sin is the death that knows no life. O Lord, comfort these afflicted souls; these parents who mourn a son cut down in the prime of his manhood; this widow, whom death has robbed of a companion; these children, who are fatherless. We thank thee that they cannot be orphaned from God. Now, Lord, have mercy upon us, and stay the progress of the poisonous evil, alcohol, which is blighting this fair village, desolating its homes, and robbing defenseless women and helpless babes of their protectors,—that is destroying the young especially, and bringing down the gray-haired parents in sorrow to the grave. Mighty God, open the eyes of the men and women who sell this accursed poisonous beverage, for which men pay such an awful price,—honor, manhood, health, love, life, aye, their souls are laid on the altar of this insatiable monster. There are men and women who are suffering the agonies of a living death because of the appetite for this accursed poison, which men have invented and call alcohol; they are here, Lord, and know they are blighted, scorched, withered, and already well-nigh lost, by this *dark beverage of hell*; may they take warning by the sad death of their companion, who has been betrayed and murdered by his neighbors for the few paltry dollars they gained by selling him this poison. In mercy, arrest those who are going the same fatal way, or soon it will be too late; and their graves will be written all over with that one word, *lost*; may they take warning by this sad event and turn away from the fatal cup forever. Our Father, thou hast said: 'Woe unto

him that giveth his neighbor drink;' if they will persist in thus destroying the lives and souls of their fellow-men, let the woe come."

A sudden crash, a wild cry, and in a few moments many were by the wayside, where—lying in the last agonies of death, with his brains oozing from his crushed skull—was the son of Mrs. Fuller! He had been for years a wild and dissipated young man; and to-day, while half intoxicated (which was his usual condition), he was driving a span of spirited horses down the mountain road, when some part of the harness gave way, the horses became unmanageable, and the carriage was capsized, throwing out young Fuller. His head struck a jagged rock with such force as to crush in his skull, and death immediately ensued. Mrs. Fuller had made her way to his side, though she dreamed not till her eyes rested upon him that it was her son. Then her heart was touched,—the motherhood in her nature asserted itself,—and she uttered a piercing shriek of agony and horror.

It broke the spell. I was awake at last. Was it a dream, or had I been reviewing some scenes long past and almost forgotten? Surely it was not all a dream.—*T. Alcliffe Teske, Hartford, Conn.*

WHAT LIQUOR COSTS.

THE production of useless drink costs yearly the energies of 7,000,000 working people. In other words, the working classes of this country have to build and keep in repair the houses and furniture of 7,000,000 unproductive people. They have to find fuel to warm them, and bread to feed them, and material to clothe them, and physicians to attend them; and after they have done it all, not one of these 7,000,000 produce a solitary thing in return for the comfort of these workmen during the whole of the year.

If the working people of this country were to take 7,000,000 of their number, and put them along the sea-shore, and say, Now the rest of us will work hard this year, and we will build houses for these 7,000,000, and we will keep them in furniture, and we will see that their houses are warmed, and we will take care that they are comfortably clothed, and out of our toil they shall be well fed, and all we will ask these 7,000,000 to do will be to kick the ocean back with their toes, and we will keep them at it next year, and the year after, and as long as we live; and we will do it though

our boys and girls are lacking for clothes, and our houses are bare of comfort, and our wives and mothers are worn out with worry; and if anybody tries to reason us out of doing it, we will call them fanatics and fools, and oppose them and hate them, and say that they are enthusiasts and men whose brains are filled with impractical ideas; that determination on the part of the workingmen would be wisdom, bright, sparkling genius compared with the folly of allowing themselves to be burdened with the support of 7,000,000, who not only do nothing to help them, but absolutely weaken the bodies, dull the intellects, impair the morals, and ruin the souls of tens of thousands of your numbers.—*Rev. T. G. Huckle, in Michigan Christian Advocate.*

WINE DRINKING.

IF persistent assertion made that which is asserted true it would certainly be a fact that wine drinking tends only to sobriety, for the whole wine subsidized press of California, parrot-like, have repeated this statement so frequently that it has not only become threadbare but the editors themselves seem almost to have come to believe it, notwithstanding the evidence to the contrary which thickens on every side. Let it be remembered that even the light wines contain alcohol, and that alcohol taken habitually even in small quantities produces a demand for more. The fiction that wine-drinking countries are the most temperate countries has been exploded time and again.

It will be remembered by our readers that California has now in the East a paid "missionary" preaching the "gospel" of temperance reform by the wine-drinking method, which, if it does not prove effective in reforming and elevating drunkards, may possibly secure the equality of those who embrace it by bringing all to the level of common tipplers. "Look not thou upon the wine when it is red, when it giveth his color in the cup, when it moveth itself aright. At the last it biteth like a serpent, and stingeth like an adder."—*Signs of the Times.*

THE City Council of Atlanta, Ga., has black-listed nine white drunkards, and prohibited the sale of liquor to them under penalty of \$500 fine or thirty days in jail. One of the drunkards has begun a suit against the city for defamation of character in being black-listed.

HOW COFFEE CAME TO BE USED. ●

It is somewhat singular to trace the manner in which arose the use of the common beverage of coffee. At the time Columbus discovered America, it had never been known or used. It grew only in Arabia and Upper Ethiopia. The discovery of its use is ascribed to the Superior of a monastery in Arabia, who, desirous of preventing the monks from sleeping at their nocturnal service, made them drink the infusion of coffee upon the reports of shepherds, who observed that their flocks were more lively after browsing on the fruit of the plant. Its reputation spread through the adjacent countries, and in two hundred years it reached Paris. A single plant, brought here in 1714, became the parent stock of all French coffee plantations in the West Indies. The Dutch introduced it into Java and the East Indies. The extent of the consumption can scarcely be realized. The United States alone annually consume it at the cost, at its landing, of from \$15,000,000 to \$16,000,000.—*Sci.*

TOBACCO BLINDNESS.

THIS infirmity, it is said, is becoming a common affliction. At present there are several persons under treatment for it at one London hospital. It first takes the form of color blindness, the sufferers, who have smoked themselves into this condition, being quite unable to distinguish the color of a piece of red cloth held up before them. Sometimes the victim loses his eyesight altogether. Tobacco being a narcotic, naturally benumbs the nerves. When the nerves are thus benumbed people do not see as distinctly, and this defectiveness of vision tends to increase and become permanent.

PUTTING AN ENEMY IN HIS MOUTH.

A BOSTON physician, who is a graduate of the Harvard Medical School, and who enjoyed, a few years ago, a good practice, which has been sacrificed, together with a large inheritance, was sentenced in the Superior Criminal Court to pay fine and costs for drunkenness. He was in jail one month awaiting trial, and had to remain about three months longer, as he had no money to meet the demands of his sentence.

THE majority of cases of palpitation of the heart are due to tea, tobacco, or dyspepsia.

Miscellaneous.

SURFEITING.

BUT how has man fulfilled his sacred trust?
 Has he the tyrant, or protector play'd?
 Alas! for sensual and cruel man,
 Has he not reasoned thus: "I, lord of all,
 May deal with those below me as I please.
 They, made for *my* enjoyment, not their own,
 Except my just convenience allows;
 They have their instincts, which prescribe their food,
 Forbid to range beyond the boundaries
 By nature fixed for them, as fitted best
 To their condition; whilst I, by reason
 Endowed supreme, may gratify my tastes
 As far as my imagination leads,
 And tempt my appetite with new desires.
 I'll kill and eat what seemeth to me good:
 Those beasts which interfere with my declared
 Prerogative shall, noxious, be destroyed;
 The useless creatures which obstruct my path
 I'll trample underfoot, so that, when freed
 From such annoyances, I on the rest
 May feed. For me alone shall they increase
 And multiply; myself I'll satiate
 With luxury and enjoyment to the end."
 Thus man becomes the butcher of the world.

—T. Baker, in *Vegetarian Messenger*.

L I F E.

ANIMALS do not possess the power of building themselves up directly from inorganic matter, although they are wholly composed of material which has once existed in the inorganic form, and which, after the death of the animal, is resolved back into inorganic matter. The process of transforming dead, inert matter into a vitalized substance takes place in the vegetable kingdom. Vegetable substances while growing gather various gaseous, liquid, and mineral substances, and organize them into protoplasm.

Protoplasm is a homogeneous substance, it is undifferentiated in all its parts, it can hardly be called the structure, yet it has vital properties, and performs vital functions. It has contractility, can change its form; has irritability, and acts in response to the touch, or contact, of other substances from without; has assimilative properties, can transform substances unlike itself into its own being; has eliminative properties, can eliminate from itself such substances as it finds unassimilative; yet possesses no structural organs with which to do this work.

Protoplasm is found in the scum or froth seen floating on stagnant pools, and on the surfaces of all vegetable or animal matter while in process of decay in moist places. When a protoplasmic being takes food, it first converts itself into a stomach. Coming in contact with an atom of matter suitable for food, it first proceeds to take the food into itself by spreading itself over and around it. Having done this it next digests and transforms the food into protoplasm like itself. If the particle which it is digesting possesses any indigestible substances, it expels them by withdrawing itself from around them.

In this manner any part of the protoplasmic being may become a mouth, a stomach, an arm, a tail, or any other needed member, to serve as such for the time being, then withdraw. This is because it is undifferentiated material, just alike in all its parts. When the protoplasmic being has increased sufficiently in size, it propagates its species by simply separating itself into two parts, each of which possesses all the vital properties of the parent being.

In the process of vegetable growth these protoplasmic bodies are arranged into vegetable cells, and the vegetable cells are arranged into vegetable tissues and structures. All vegetable substances, from the smallest mould to the mightiest *Sequoia*, numerous and variable as they all are, are built of undifferentiated protoplasm. The same is also true of every specie of being belonging to the animal kingdom. All, from the smallest insect to the largest mammoth, are built up of protoplasmic beings. This work of transforming, arranging, or organizing protoplasm into vegetable and animal structures, is not a hap-hazard or chance work, however. There must first exist a germ possessing transforming or organizing properties, or powers. I shall not stop to inquire how the first germ originated. We find it true that every plant and every animal being starts from a germ, and that each germ can build up a body like its parent body, and like no other body. In every case, however, certain conditions are necessary or their transforming work cannot be accomplished, and the greater the complication of the structure, the greater will be the number of the conditions on which its organization depends. In plant life a few conditions only are requisite. There must first be material suitable to be organized into protoplasm; this, supplied under a proper degree of

temperature and plant germs, will, if in contact with it, convert it into protoplasm, then from the protoplasm will construct their various cell structure. Animal organisms, being more complicated than those of plants, have more numerous requirements.

They subsist only upon food which has been transformed into protoplasm by vegetable organisms. It is true that some animals subsist upon a diet of animal food, and that man to a greater or lesser extent makes use of flesh diet, but it is also true that when we trace all the varieties of food used by all classes of animal organisms back to the inorganic world, we find that all has passed through the vegetable kingdom, all has once been organized into vegetable structure, and that whatever substance can serve as food to sustain animal life, can do so only by virtue of having received a certain organization in the vegetable kingdom.

The simplest forms of animal life scarcely differ from protoplasm. The amœba is one of the simplest and most common of lower forms of organic being, its mode of existence and reproduction being the exact counterpart of that above described. The amœba, however, is a distinct cell, that is, a membranous sac inclosing a fluid. The fluid within the membrane is a vital fluid, which has the power of setting itself in motion. And it is by the continuous motion, or flux and reflux, of this fluid that the amœba changes its form or performs its various actions. Coming in contact with food, the fluid within the membrane moves about in such a manner as to cause the membrane to inclose the morsel of food as before described.

A microscopical examination of the tissues of living bodies shows us that the amœba is typical of all cell life. The living tissues of all animal beings are composed of cells. Every cell is quite similar in its make-up to an amœba. It is a living organism, it has its own individual life to maintain, it has contractile power, has the property of irritability, has the power of receiving and assimilating food, can secrete and expel from its organism any waste or unusable substances, it has power to inhale oxygen and throw off carbonic acid gas, and possesses the power of producing other cells.

In all these respects each of the minute cells of which the body is composed is typical of the body itself.

Cell life is not limited to animal structure alone,

however. All vegetable structures are composed wholly of cells. All cells, whether animal or vegetable, are built up from protoplasm. Animal beings of every variety have a digestive apparatus of some sort, whose function it is to digest its food, that is, to reduce the cells of the food, whether animal or vegetable, into protoplasm. This work the various digestive fluids of the animal body can do, although they cannot elaborate protoplasm directly from the mineral elements as the vegetable germs can, neither can they convert every sort of vegetable into protoplasm. Hence we see that one of the conditions on which animal cell life depends is proper food. In the human body we find a very great variety of structure. Some of the structures, as the bones and tendons, are very firm and solid, while the brain is very soft and delicate, being almost fluid. Other structures are more or less firm and solid according to the function they have to perform, for wherever there is a change in the functions performed there is a corresponding change in the structure of the organ performing the functions.

It seems indeed wonderful that the human body is an association of millions of living beings, each of which eats, drinks, breathes, throws off waste matter, produces offspring, in short, is possessed of all the vital attributes which we see manifested by the whole body, yet it is true. It is also true that most, if not all, the wants of the body, such as hunger, thirst, and suffocation, are but the demands of the cells for food, water, or air.

Were it not for the fact that the many cells of which our bodies are composed become hungry, thirsty, or feel lack of oxygen, we would never know the need of any of these things. It is indeed true, as the psalmist has said, that "we are fearfully and wonderfully made." When we consider that the human body is a sort of confederation of living cells, and that these cells have requirements which must be supplied, we see at once the necessity for a frame-work and mechanism just adapted to supply all the wants of the cells, for when the requirements of the cells are fully met the body feels no want.

In the next I will examine the make-up of the human body. M. G. KEELLOGG, M. D.

IN Norway, after the removal of the tax on whisky, insanity increased fifty per cent and idiocy one hundred and fifty per cent.

HORRORS OF ALASKA.

I HAVE journeyed over eighteen thousand miles by land and water, but the incidents of the trip have been, I dare say, much like those of other tourists who follow the same route. What has impressed me most profoundly and filled me with horror which grows with the recollection of it is the awful condition of the Indian women in Alaska. Travelers hint vaguely at this evil, and official reports allude briefly and apologetically to it, but the great world is ignorant of its existence. If people realized that in the wilds of its Alaskan Territory, this civilized, refined, advanced nineteenth century United States holds a perfect inferno of crime and torture, where helpless women and mere children are being sacrificed and gradually exterminated, surely some remedy might be found. In all that country there is no law—there can be no restraint—and the lowest animal passions of the rough miners, trappers, hunters, soldiers, and sailors rage unchecked. The Indian woman is considered the lawful spoil of these men. They steal them if they can; if not they buy them of their parents for a knife, a jug of rum, or a string of beads. If these considerations do not weigh, then they make the old people drunk and carry off the girl. A miner will come and dicker for a child of fourteen and bear her off shrieking with terror. She becomes the slave of the whole camp, and is finally sent back to her parents to die. A lady of Sitka with whom I talked of these horrors told me of a case which had come under her own observation, as she could vouch for its truth in every revolting particular. This lady, by the way, is the first white woman who ever went to Alaska. Of course there may have been some Russian women there before, but I mean the first woman from our country or England. Well, she knew of a little girl having been carried off forcibly by some soldiers, and one day a few months after an Indian woman came to her exhibiting signs of great grief and begged the white mother, as she called this lady, to go and look at her daughter, who was dying. The lady went to the place where the girl lay on the ground, a mass of rags, filth, and corruption. She had been returned to her people by her captors when she was no longer useful. Such horror is felt by the Indians at the approach of anyone afflicted as she was that they avoid the victim as though she was plague-stricken. In the case of this poor

child, who was only fifteen years of age, they had built a stockade about the place where she lay, completely inclosing her. A small aperture had been left on the side close to the ground through which food and water were thrust to her. The white mother crawled through this hole to reach the sufferer and did what was in her power for the wretched young creature. One ear was entirely gone and the girl's face horribly disfigured. Because she had been kidnapped by soldiers, the brave white lady sent word to the garrison that they must give medical aid. A physician came, through whose efforts the child's life was saved. This girl now keeps vigilant watch over the young Indian children in her vicinity. She is a pupil in the school.—*Mrs. Voorhees, of New York.*

DEATH IN THE SPARE BED.

ON one occasion, having need to see a minister early the morning after conference adjourned, I went to his boarding-place, one of the choicest in the city. He and his room-mate were making their toilet, and revealed their presence by hoarse and almost incessant coughing. Their entertainment had been most hospitable; but they had been assigned to the "spare room," in that case an elegant apartment reserved for favored guests. The spacious and yielding bed had an inviting look, but a damp and mouldy smell. Indeed, the whole apartment revealed an alarming unfamiliarity with sunshine. But it was the "best room;" any intimation from them that both room and bed were damp had seemed rude and ungrateful. So they occupied the room and bed and contracted colds, from the effects of which one has since died and the other still suffers.

Said a pale and haggard sufferer not long since, "I think I should be able to visit my appointments at least a few times more if friends would not persist in putting me away in their chilly spare rooms and damp beds." When such cases have run their course, doctors may say, "Died of hep- atized lungs;" but more will understand them if they say, "Died of sleeping in spare beds."

The motives of good people cannot be questioned; but unwittingly they literally "kill with kindness." In the name of the brotherhood I protest if we are to occupy the "spare room," and sleep in the "spare bed," they should be dry and well aired. We certainly do not elect to be *sui-*

cides from courtesy, and you would not give us death for a bed-fellow.—Northwestern Christian Advocate.

TRANSMISSION OF MENTAL DISEASE.

DR. CHARLES ELAM, an eminent English physician, has just published a book in which medical problems are discussed. Of the transmission of mental disorders, he says:—

“There is no form of heritage more remarkable than that of the tendency to suicide without any other marks of aberration of intellect. Dr. Winslow relates the case of a family where all the members exhibited, when they arrived at a certain age, a desire to commit self-destruction, to accomplish which the greatest ingenuity and industry were manifested. Dr. Gall relates a very striking instance of seven children of one man who all enjoyed a competency and good health, yet all possessed a rage for suicide, and all yielded to it within thirty or forty years. ‘Some hanged, some drowned themselves, and others blew out their brains.’ Many other examples of the same tendency are brought forward by the same writer. I may add one case to the above from my own experience. Sitting one day with an acquaintance, I noticed some depression in his spirits. After a prolonged silence, he broke out into the following dreary attempt at conversation. ‘My grandfather hung himself, my uncle took poison, my father shot himself, I shall cut my throat.’ The facts were correct; but constant surveillance prevented the sequel in his own history.”

A BLANK IN THE FARM-YARD.

SOME friends of a country minister came upon him one day unexpectedly for dinner, and his wife, whose larder at the time happened unfortunately to be empty, was sadly puzzled to know what she was to give them to eat. At length, in her dilemma, she bethought her of a fine large hen turkey, which was strutting about the yard attended by a numerous family; and as the young turkeys were almost completely reared, the prudent housewife thought they might safely dispense with the services of their mother, whose body would then furnish the needed dish for her to place before her guests. Accordingly the good lady ordered the parent bird to be forthwith killed and cooked. The food thus provided was, it may well be be-

lieved, not very tender, but most of the party made the best of it. The minister, who knew the state of the case, said nothing, and ate his meat, if not with gladness, at least with singleness of heart. His friends were too polite not to eat what was set before them, asking no questions for conscience' sake.

But there was one person at the table who could not be induced to taste the old turkey. This was the minister's son, a boy of eight or ten years of age. He, like his father, knew very well what it was that he was asked to eat, but, unlike his father, he preferred going without his dinner to dining off his old friend of the farm-yard.

After dinner the minister and his guests went out for a walk, followed by his little son above mentioned, who brought up the rear of the party. No sooner did they make their appearance in the farm-yard than the entire flock of young turkeys which had lately been deprived of their mother, gathered tumultuously about them, and by their incessant screaming and “skraighing” and flapping of wings, seemed to reproach the minister and his friends. The adult members of the party may have guessed the cause of the uproar, but they passed on and left the little boy in the rear to bear the brunt of the orphans' upbraids. This he did not see fit to put up with, but turning upon the yelping brood with all the indignation of injured innocence, he shouted at them, so as to be heard by his father and father's friends, “*Ye need na be yammering at me, I did na eat your mither!*”—*Harper's Magazine.*

A DELICIOUS DISH.—Do tell me, monsieur, what this delicious dish is, said pretty Mrs. H., the star boarder. “Zat, madame, zat is a grand triumph of ze art. Only ze Frenchman can mek ze delicious deesh—zat is ze—vat you call ze owel—ze pet owel.” “Owl!” exclaimed a chorus of voices, and a dozen wry faces were made. “O monsieur, how could you have the heart to kill the poor thing?” chirped the star boarder. “It ees you zat mek so cruel accusations, madame; I no keel him—he die.”

PHILADELPHIA will receive nearly a million dollars from high license fees this year. A Law and Order Society exists especially to prevent the sale of liquor to children. It is said that 30,000 children are daily sent to purchase liquor.

Household.

THE GRUMBLER.

HE sat at the dinner-table
 With a discontented frown:
 "The potatoes and steak were underdone,
 And the bread was baked too brown.
 The pie too sour, the pudding too sweet,
 And the roast was much too fat;
 The soup so greasy, too, and salt,
 Sure 'twas hardly fit for the cat.

"I wish you could eat the bread and pies
 I've seen my mother make;
They are something like, and 'twould do you good
 Just to *look* at a loaf of her *cake*."
 Said the smiling wife: "I'll improve with age,
 Just now I'm but a *beginner*,
 But *your mother* has come to visit us,
 And *to-day* she cooked the dinner."
 —Lizzie M. Hadley, in *Good Housekeeping*.

A PLAIN TALK TO MOTHERS.

No one who has had experience with large classes of children can have failed to notice the dark undercurrent of impurity which runs beneath much of the fair surface of child-life. It is a hard, unpleasant fact, but a true one, that in the flower-garden of childhood, along with innocence, truthfulness, and purity, grow depravity, deceit, and the rankest impurity. Mothers instinctively feel this, when they dread to start the little seven-year-olds on their school life. How often we hear them say, "Oh, I dread to send them to school; they pick up so much that is bad there!"

But it is not surprising that there is so much depravity existing among children, when we think of the home influences surrounding some of them. In country schools there will be perhaps only one or two families in a district whose children are a terror to the neighborhood on account of their vile bringing up; but in a city school there are sometimes dozens of such families represented in a single building. But it is not alone among children of the lower element in society that we find impurity. Three of the most morally depraved girls I ever knew, belonged to three of the leading society families. There are a few facts which it is our duty as earnest mothers to consider.

First, our little ones, when out from under the sheltering mother-wing, are exposed to the danger of hearing the holiest, most sacred and beautiful

subjects discussed in the coarsest, rudest style possible to depraved and vulgar minds. Structural differences of physique, the relation of the sexes, and the mysteries of birth and reproduction are discussed among many children far more vigorously than the spelling book or arithmetic. It is a certainty that our children pick up knowledge concerning these things far sooner than we think they do, and the question for each mother to put to her own conscience is this: "Since I cannot guard my little ones from learning all about these subjects at a very early age, shall I leave them to pick up their information from rude, vulgar children, impure pictures and books, or shall I teach them the pure, holy truth about it all, as only a pure mother can?"

There is no use in shutting our eyes and ears to this state of things; no use to say, "Oh, *my* children never think of such things."

How do you know they don't? There are many dreadful things placed before childish eyes. The pictures in the illustrated papers, so freely thrown about, also the pictures on cigarette packages, are often thoroughly vile; and the talk of older boys and girls among the lower classes is too vulgar to even give an example of.

If we knew that our children would certainly be exposed to small-pox, how quickly we would have them vaccinated. Why? Because we believe that by inoculating their systems with the virus, they will be better prepared to withstand the attack of the small-pox germs.

Now, as we can be certain that our children will gain an impure and vulgar knowledge of the great facts of sex, reproduction, the uses of the various organs (and, alas! their misuse, too), why not employ a moral vaccination? That is, teach them all this, in such a pure, reverent way that the knowledge will be a blessing, not a curse. Only God knows how much women have suffered from the sin of uncontrolled passion, and I firmly believe that women hold the remedy in their own hands. Let us teach our boys to be wise, temperate, and controlled by pure principles; teach our girls to take care of their precious physical systems, even as we teach them to care for their souls, and a higher order of civilization will result.

Some things can neither be prayed away nor legislated away; they must be educated away. The question naturally arises, "What shall we teach? and how shall we teach it?" Teach them the

pure truth. It isn't necessary to tell them everything at once, but let what we do tell them be true. To begin with, one of the first questions that little ones ask is, "Where did I come from?" This craving for knowledge of our origin marks us as of a higher order than the rest of creation. "Whence are we? Whither do we go?" is the earnest cry of the soul, but what ridiculous lies are told in answer to this question!

The child's first craving for knowledge is met with an out-and-out lie, and as he asks more questions, they are met with such shrugs, glances, smiles, and winks between older persons, that he knows there is a mystery kept from him, and what is stronger in an undisciplined mind than curiosity? This leads him to give a more ready ear to those who are only too willing to tell him all he seeks to know. Children are quick to observe, and soon see the relations between domestic animals, and draw their own conclusions. The low talk they hear from others who are too wise for their years has two serious effects. One is to give them vulgar, impure ideas of what God designed to be pure and holy; another is to excite their nervous systems to action, leading to the terrible physical abuses so common to children. The sex instinct awakens in some children far sooner than in others, and this helps on the mischief, until, when the age of puberty appears, the unfortunate youth is like one intoxicated with new riches, and squanders and wastes his precious, God-given powers with utter recklessness.

Mothers, we can save our children if we try. Not always will we succeed, but we must try anyway. We must teach our children the names and uses of every organ in their beautiful little bodies—not all at once but carefully, gradually, and accurately. As they grow older, teach more and more the internal structure, the wonderful mechanism of the brain, lungs, stomach, heart, etc., and keep in view always the desire to show them the beauty of it all and the perfect adaptation of every part for its use. Above all, keep in view the design of the divine Creator. Teach them that this beautiful body is the temple of the living God, and to him we must account for our use or abuse of it. As they grow older, broaden and widen the scope of the lessons, until they have a clear idea not only of their physical systems, but of the moral obligation resting upon them to properly guard and control the powers with which they are endowed; and

when young manhood or womanhood asserts itself, there will be no timid, ignorant child suddenly thrown out to sea in a frail boat, but a calm, well-poised mariner, strong with the strength of pure knowledge, ready to steer his well-provided craft among the rocks and snags of life's voyage. It will be hard enough at best, this troubled voyage, but as far as a mother's love can reach let us go, and prepare our children to resist temptation by teaching them both their strength and their weakness.—*Lida Newman Diederich, in Housekeeper.*

THE TABLE AS AN EDUCATOR.

As a certain famous cook has well said, there is no silent educator in the household that has higher rank than the table. Surrounded each day by the family, who are eager for refreshment of body and spirit, its impressions sink deep; and its influences for good or ill form no mean part of the warp and woof of our lives. Its fresh damask, bright silver, glass, and china, give beautiful lessons in neatness, order, and taste; its damask soiled, rumpled, and torn, its silver dingy, its glass cloudy, and china nicked, annoy and vex us at first, and then instill their lessons of carelessness and disorder. An attractive, well-ordered table is an incentive to good manners; and being a place where one is incited to linger, it tends to control the bad habit of fast eating; while, on the contrary, an uninviting, disorderly table gives license to bad manners, and encourages the haste which is proverbial among Americans. The woman, then, who looks after her table in these particulars, is not doing trivial work, for it rests with her to give, silently, these good or bad lessons in manners and morals to her household as they surround the daily board.—*Boston Post.*

IMPROVED milling gives much more nutriment in flour than formerly. In the old process, a nutritive layer, called the perisperm, was, on account of its close attachment to the inner husk, largely carried away. Hence the vegetarian, Sylvester Graham, whose name is applied to bread made from unbolted flour, was correct in his time in saying that such bread contained the most nutriment. The "gradual reduction" process saves this portion of the wheat. The wheat loaf of white flour now contains a much larger percentage of nutriment than the graham loaf of unbolted flour mingled with the woody husk or bran.—*Dr. George Hays.*

ECONOMICAL BILLS OF FARE.

Breakfast.—Hominy with cream, creamed potatoes, poached eggs, corn-meal muffins, canned prunes.

Dinner.—Celery soup, mashed potatoes, baked beans, spinach, cream pie; dessert, nuts in variety and raisins.

Hominy.—Take one cut of hominy, wash thoroughly, and soak overnight. In the morning add one quart of water and a little salt, steam three or four hours. Prepare this the day before, and for breakfast re-heat by steaming fifteen or twenty minutes.

Creamed Potatoes.—Pare and cut potatoes, as many as desired, into small squares, put into boiling water with a little salt; cook from fifteen to twenty minutes. Turn all the water off, letting them dry a few minutes over the fire, then add a cup of cream, and a little chopped parsley, simmering for two or three minutes, and serve at once.

Poached Eggs.—Have ready a frying-pan of boiling water. Break fresh eggs carefully into the water so as not to break the yolks. Let them stand where they will keep hot, but not boil, until the white is set. Should the water boil after the eggs are in, the white becomes tough and hard to digest. Dish from the water with a skimmer.

Corn-Meal Muffins.—Mix together at night six teacupfuls of corn meal with two of tepid water, half cup of good yeast, a teaspoonful of sugar, and a little salt. In the morning bake in muffin-rings or gem-pans.

Celery Soup.—Take three roots of celery, strip off the coarse outside stalks, cut the remaining stalks in shreds, add two quarts water, and boil until the celery is perfectly soft, then rub through a sieve and return to the sauce-pan. Roll fine flour or five soda crackers and sift through the fingers into the soup. Last of all add half pint of cream, and salt to taste. Do not let the soup boil after the cream and salt have been added.

Mashed Potatoes.—Pare and steam as many potatoes as desired. When perfectly cooked turn from steamer into a hot granite iron pan and thoroughly mash. Season with salt and cream and beat well with an iron spoon. When thus prepared they will be as light as a sponge and as white as flour. Never put butter into them. In case the potatoes are boiled instead of being steamed, be

sure to put them into boiling water, and cook them as quickly as possible. Pour the water off and let them dry a few minutes over the fire before mashing.

Baked Beans.—Look over one quart of dry beans, wash them and soak overnight in soft water; if in hard water, add a teaspoonful of carbonate of soda. Skim them out of the water in the morning, and put on fresh water enough to cover them when they have boiled up. Put them in a covered dish (some use a bean-pot) in the same water, and bake three or four hours in a moderate oven. Salt to taste. An hour before taking them from the oven pour over the beans one teacupful of cream. Water should be added as fast as it cooks out. There should always be water enough so that it can be seen by tipping the dish a little.

Spinach.—Look over carefully, and wash in plenty of water; put it into a sauce-pan, over which pour boiling water with a little salt, cover close and cook slowly twenty minutes. Drain off all the water. Put over the spinach a little butter and serve at once.

Cream Pie.—For two pies take three cups of new milk, heat it till boiling hot, when add two heaping tablespoonfuls of corn-starch dissolved in a little cold milk; let it come to a boil, being careful not to let it scorch. Then remove from the stove and add the yolks of four eggs well beaten, one cup of sugar, the grated rind and juice of one lemon. Line the pie tins, having the crust well perforated with a fork to prevent blistering, and bake in a quick oven. Then fill with the cream as prepared, over which spread the white of four eggs beaten to a stiff froth, in which one cup of sugar has been added, return to the oven and brown lightly.

A. M. LOUGHBOROUGH.

DR. CHEYNE observes that, "when men are sick, that is to say, when they are enfeebled and helpless, they are ordered by their physicians to leave off wine and stimulants, because at that time they must not have anything supposed to give them strength. But when they have become well again and strong, then they may return again to the thing that makes strength." The clever satire conveyed in this criticism is singularly happy.—*Vegetarian Messenger.*

SIFT flour into your cake tin after greasing and your cake will not stick to the dish.

MAXIMS FOR A YOUNG MAN.

NEVER be idle. If your hands cannot be usefully employed, attend to the cultivation of your mind.

Always speak the truth.

Keep good company or none.

Make few promises.

Live up to your engagements.

Keep your secrets, if you have any.

When you speak to a person, look him in the face.

Good company and good conversation are the very sinews of virtue.

Good character is above all things else.

Never listen to loose or idle conversation.

You had better be poisoned in blood than in your principles.

Your character cannot be essentially injured except by your own acts.

If anyone speaks evil of you, let your life be so virtuous that none will believe him.

Drink no intoxicating liquors.

Ever live, misfortunes excepted, within your income.

When you retire to bed, think over what you have done during the day.

Never speak lightly of religion.

Avoid temptation through fear that you may not withstand it.

Make no haste to be rich if you would prosper.

Small and steady gains give competency with tranquillity of mind.—*Counsels for Life.*

POSTAGE ON AGRICULTURAL SUPPLIES.—The abundant supply of cheap fruits and plants increases their demand. Man in his *natural state* lived chiefly, if not exclusively, on fruits and vegetables, and disease was unknown to him.

The free consumption of good fruits and vegetables aids digestion, cools and thins the blood, tones down animal instincts, makes people cheerful, healthy, and happy, and diminishes or extinguishes the appetite for tobacco and alcohol, and the demand for patent medicines.

Every reduction of postage on agricultural supplies must stimulate home planting, tend to increase the supply and consumption of fruits and vegetables, and to lessen the now excessive consumption of grease and meat.

Hence the reduction of postage on agricultural supplies is a move clearly needed in the interests of civilization.—Orchard and Garden.

HEALTHFUL HINTS.

A PERSON suffering from quinsy sore throat will find relief by gargling with a strong solution of common soda dissolved in warm water.

NEAT mats may be made by cutting a stiff piece of woolen goods into the shape desired, and crocheting a border of fancy colored yarn.

To make the top crust of bread thin and of a delicate brown, dip the hand in water and dampen the top of the loaf upon placing it in the oven.

CLEAN brasses on mahogany or other furniture, by rubbing with chamois skin dipped in either powdered whiting or rotten stone mixed with sweet-oil.

FURNITURE POLISH.—One ounce each of shellac and coal oil, half ounce each of linseed oil and turpentine, keep well corked. Shake well before using. Apply with flannel cloth or a sponge and rub well while drying.

FRECKLES.—Take equal parts of glycerine and lemon juice. Apply it at night. In the morning wash the face with quite warm water. After it is wiped dry, rub it over lightly with a cloth dipped in the flour of oatmeal.

FIRE-PROOF MATERIAL.—Dr. Doremus says that even the lightest fabrics can be rendered unflammable by dipping them in a solution of phosphate of ammonia in water. It will be found impossible to set on fire fabric so treated.

TO TAKE RUST FROM KETTLES.—Rub them with kerosene while they are hot, then wash thoroughly with soap-suds. To keep them from rusting, rub them with tallow when you put them away, or with kerosene if you do not intend to use them for some time.

INK stains may be removed from silk or woolen goods by saturating the spot with spirits of turpentine, and letting it remain several hours, then rubbing it between the hands. To remove ink stains from cotton and linen goods, apply alternately a strong aqueous solution of oxalic acid and chloride of lime; then rinse well in clear water.

ODDS AND ENDS OF SOAP.—Every piece that becomes too small to use lay aside, and when a sufficient number have accumulated boil them in a little hot water till all are melted, then pour into a mould, and when cold you will have a nice cake of soap. You can use a glass dish for a mould by heating it thoroughly before pouring the melted soap into it.

Healthful Dress.

A PHYSIQUE.

BY FANNIE BOLTON.

It is said that the feminine nature
Is changeable, full of caprice;
This saying has gone into classics
From the lore of old Rome or of Greece.
But could you hope more when Dame Grundy
Demands maids to change week by week?
For once 'twas "*eclat*" to be dainty,
And now one must have a physique.

The *élite* maid was once sought as something
Ineffable, angelic, and meek;
Her waist, in its wasp-like proportion,
Was bodiced in kind of a peek.
Her cheeks must be pale in their color,
Her hands must be helpless and weak;
But now, *la! mirabile dictu!*
The *élite* maid must have a physique.

And ever since Dives, the miner,
There's been admiration, I'm told,
For the belle whose most exquisite beauty
Is made by a setting of gold.
But even the influence of lucre
Blinds not to the happier wealth,
And, donning his glass, the connoisseur
Says, "Rich?" you don't say! "Has she health?"

And once 'twas society's custom
To eye all the heroine o'er,
And pass her within the charmed circle
If *a la mode* were the garments she wore.
And even now Worth, compromising,
Relieves of the bands that distress;
For his patrons are charmed with the comfort
Of the graceful "*Jeness-Miller dress*,"

Not only is it, "Have you read Milton?
And do you on Emerson dote?"
But, "Have you developed your muscle?
And can you ply oars to a boat?"
E'en Culture's pale face is in blushes
To see yet a glory unwon;
For Miss Vassar stands back for Hercula,
Whose beauty was born in the sun.

The question's not, Have you seen Europe?
And do you philosophy know?
But, Have you the qualifications
To make you of use here below?
Are you fitted for some place of blessing?
Have you that which the sensible seek,
Mens sano in corpora sana,
An inner and outer physique?"

No more will cosmetics and lotions
And waists like the wasp's win your praise,

There's a critical gaze that is fastened
On the beauty that walks in our days,
The model is Venus de Milo,—
Nay, a full-blossomed woman, and meek,
That is blessed with good health and sound morals,
Who has inner and outer physique.

A FEW WORDS ON DRESS REFORM.

MUCH has been said and written on the dress of women, and a few have in vain tried to improve on the taste and extravagance displayed outwardly. The alarming increase of disease among women, known to be caused by their method of dressing, has called forth the cry—not only from every tired, worn, and weary woman in the land, but from the young and sensibly thoughtful ones—"Wherewithal shall we be clothed?" Time, labor, and money have been spent for a perfect, simple under-dress, to free women from the slow suicides they have been committing, leaving for later efforts the outer dress, over which fashion holds such a relentless sway.

Very few ladies know how to appreciate an easy, healthful dress. They think their dresses are loose, when a man or boy put into one would gasp for breath, and feel incapable of putting forth any effort except to break the bands. Ladies are so accustomed to the tight fits of the dress-makers, that they "fall to pieces" when relieved of them. They associate the loose dress with the bed or lounge. To be up, they must be stayed up, and to recommend a comfortable dress to them is not to meet a conscious want of theirs.

It is a great pity, none the less. If they could once know what a luxury it is to breathe deep and full at each inspiration, to feel the refreshment which the system takes in by having the blood enlivened and sent bounding through the veins, to have the aids to digestion which such a process gives, to have their own strong, elastic muscles keep every organ in place, and themselves erect; if they could for a good long time know this luxury, and then be sent back into the old stiff straight-jackets, they would fume, and fret, and rave in very desperation if they could not get rid of them.

Hygienic under-garments are constructed on principles consistent with grace and beauty, so that no sensible woman in adopting them need be afraid of making a guy of herself.

No woman who has ever tried hygienic garments has ever complained of an uncomfortable "pull" or "drag" at any point, and when they are worn, properly made and fitted, she is sensibly, healthfully, and prettily clothed, with nothing to bind or to impede her circulation or movements. From her outward appearance, no one would suspect that her under-garments were more sensibly arranged than heretofore, and might be at a loss to account for the improvement which is sure to take place, both in health and disposition.

MRS. S. S. M. WILSON, M. D.

"THE prime cause of uterine diseases among our young and delicate women, is the imperfect mode of dress adopted in this country; first, by its uncomfortable form, resting upon the delicate and tender portions of the body; second, by its want of adaptation to the vicissitudes of climate."—
Professor Draper.

DRESS REFORM AND HYGIENIC GARMENTS.

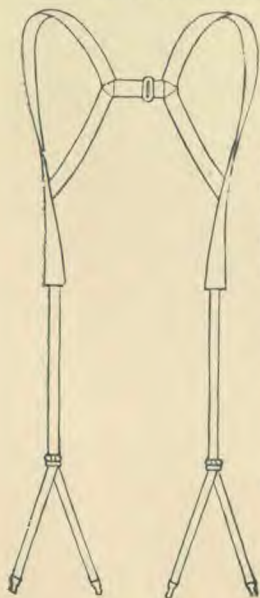
WHAT position in the entire gamut of female suffrage demands more attention at the hands and oratory of their defenders than that reform which can be classed as *hygienic dressing*?

Space has been annihilated, in the endeavor of some to regulate the political suffrage of women, and volumes have found the paper-mills as second-hand material, devoted to the defense of woman's right, which advantages, if gained, are hard to find. If we run back in such records as history has left us, we find the classic contour of Diana, Carthage's beautiful queen, to be a normal one, that is, the lower part of the chest larger than the upper. We see in paintings Cleopatra's magnificent physique, and Helen of Troy in her perfect symmetry, all famous beauties, belles, and society successes of their day, attracting the admiration of poets, philosophers, artists, indeed living in history as the most beautiful women of the day and age.

Doctors cry in vain that the present character of underwear and methods of dressing are ruining the present female race. Few ladies know how to appreciate an easy, healthful dress, and know less of its beauties. The hygienic garments now in the market will effect a revolution in this direction.

In considering the subject of properly clothing the body there is one very essential point which should ever be kept in mind, that is, to so adjust the clothing to the body that there may be a free circulation of the blood in the superficial or surface veins of the body. To this end the body should not be so bandaged in any of its parts as to retard the circulation. Where this is done the veins become distended—varicose veins resulting. These veins are very painful, and in some instances burst. The wearing of tight garters to hold up the stockings is a very pernicious practice. How much better to use such an arrangement as is here represented, called a

SHOULDER-BRACE HOSE SUPPORTER.

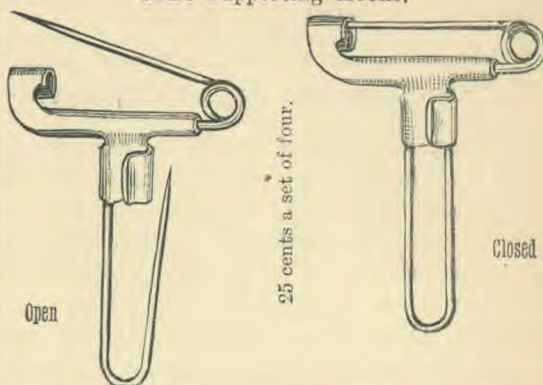


By this simple and substantial device the stockings are nicely supported from the shoulder. These are sold at the Rural Health Retreat, as follows:—

- No. 7, Ladies'60 cents
- No. 8, Misses'50 cents
- No. 9, Children's . . .40 cents
- No. 10, for Children
age 3 to 5 years . . .35 cents

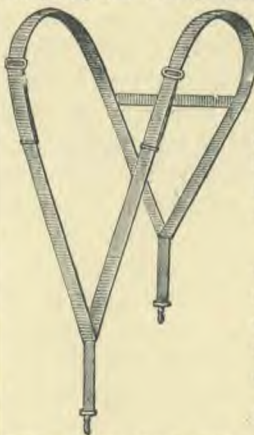
Sent, post-paid, on receipt of price.

Skirt Supporting Hooks.



The Ladies' Hygienic Safety Supporter.

For firmly and securely holding in place the periodical bandage.



This useful and much desired article, unlike all others in the market, supports the bandage from the shoulders, thereby avoiding all pressure upon the hips and abdomen, and avoids the injurious effect caused by wearing belts.

It has received the highest recommendations from the medical faculty, is approved and worn by the Ladies' Dress Reform Committee, and commended by every lady at sight.

Mailed on receipt of 50 cents.

For any of the above articles, address

RURAL HEALTH RETREAT,
ST. HELENA, NAPA CO., CAL.

SAFETY POCKET,

—FOR—

PENS AND PENCILS.

Attached by pin to coat or vest.

Price, with 2 pockets, 15 cents.

Price, with 3 pockets, 20 cents.

Who has not lost pens and pencils? Who is not in constant fear of losing his invaluable stylographic or fountain pen? Here is the preventive—simple, efficient and cheap.



The SAFETY POCKET is usually worn with bottom in the vest pocket, and top fastened with the safety pin, not shown in the cut. The leather, by its elasticity, holds securely any size of pen or pencil. After a trial, no student, clerk, merchant, or lawyer will do without one.

Mailed to any address on receipt of price.

Address **RURAL HEALTH RETREAT,** St. Helena, Cal.

Publishers' Department.

IMPROVEMENTS AT THE RETREAT.

THERE are improvements in the grounds surrounding the Rural Health Retreat that the managers have long wished to make, but which required the use of water for summer irrigation. Some of these improvements have been delayed on account of the unsettled condition of our water supply. There is one large spring of crystal, pure water, near to the Retreat, ample for all culinary and bathing purposes, but it would not furnish sufficient water for our hydraulic elevator, steam boiler, laundry, and such irrigation as we wished to do. As our corporation owned four acres of land three miles above the Retreat, on which was a great spring which poured more water into Howell Creek than we wished to take from the creek, we supposed we had a right to take that amount of water and convey it by pipes to the institution. This we accordingly did. But, when the matter was brought to the test of the peculiar riparian law of California, it was decided to cut off our supply of water from that source. At this juncture the Rural Health Retreat Association bought a ranch of eighty acres one mile from the Retreat, some four hundred feet higher up the mountain-side. On this ranch are two springs of water; these flow into no one's creek, and water no lands but our own. This water is now connected by pipes with the "main" we had already laid, and so the water question seems to be, for the present, settled.

On the said ranch are several acres of vineyard which will furnish the Retreat tables with some choice fruit in its season. There are now about one hundred fruit-trees on the place, such as apricots, prunes, pears, etc. Some of the helpers have had a fine time of late cultivating the soil in the orchard and vineyard. These will not need irrigation. Near to the Retreat, on the side-hill below the laundry, we are placing a nice lot of black-berry bushes. These, with the tomatoes, and other vegetables beside them, will receive a fine irrigation from the suds of the laundry, which is now saved in water tanks for that purpose.

A nice summer-house (*arbor*) is being constructed near the Retreat. Over this will be climbing roses, ivy, and choice flowers. Within, in the center, will be a water-bowl with pipe and

faucet of pure cold water from the spring. Seats will be placed on either side on which the patients can sit or recline. The ground around the arbor is being planted with choice plants, shrubs, and flowers. All of which will add to the comfort and good cheer of the patients.

PATIENTS.—The superintendent informed us that there were more patients at the Retreat the first of February than had ever been there before; and still they were in correspondence with many who were expecting to come soon. On that date the Board of directors took steps to provide and furnish still more room for the accommodation of patients. The weather has been remarkably fine all through the winter, which has given the patients the full benefits of open-air walks, either on the ample grounds or on the verandas of the institution. A salubrious climate, pure water, wholesome food, with cheerful surroundings, are among nature's most potent remedies for the cure of human ills. These all seem to be found in good measure at the Crystal Springs Health Retreat. We frequently hear from the lips of patients, "Oh! what a home-like place;" or, "Oh! I think I shall get well in such a place as this if I can get well anywhere."

A WISE MOTHER.—*Aunt*—"Can you get your Cod Liver Oil down, my child?" *Little Patient*—"It tastes horrible; but mamma gives me five cents every time for my savings bank." *Aunt*—"And what do you do with the money, my dear?" *Little Patient*—"Oh, mamma buys Cod Liver Oil with it."—*Fliegende Blätter*.

THE USUAL RESULT.

It is not to be denied that a good sewing machine is one of the most important appurtenances of the modern household.

We thought we had a good machine until one day the agent of the NEW HOME presented himself at our door, and proceeded to deliver an oration upon its characteristic merits.

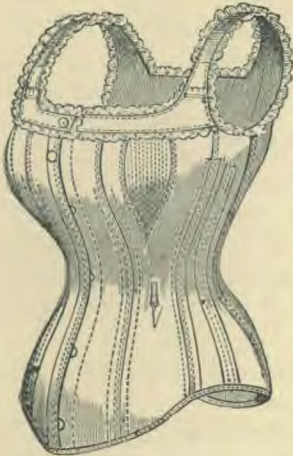
"But," we answered, "our machine suits us well, and we do not care for another."

The agent, however, begged the privilege of leaving one of his machines with us, "for the ladies to try."

The request was not unreasonable, so we granted it—but more to oblige the agent than anything else; for we really did not want the machine, and had not the remotest idea of buying it.

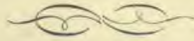
The machine once in the house, it was natural that the ladies should look it over; they did so, and as a consequence fell in love with it. They say that without the slightest wish to decry or disparage any other machine, this, all things considered, is, in their opinion, the most desirable one to be had.

This unrivaled machine is manufactured by the NEW HOME SEWING MACHINE CO., Orange, Mass., and 30 Union Square, New York.



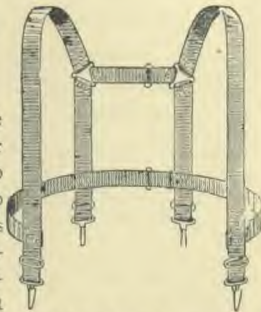
THE HYGIENIC CORSET

Is suspended from the shoulders. It is so arranged that the garment may be attached to it by means of hooks, as shown in this diagram. This useful article, as may be seen in another column, can be obtained from the Rural Health Retreat. Price post-paid, \$2.00.



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.**

**HEALDSBURG COLLEGE,
HEALDSBURG, CAL.**

**A MODEL EDUCATIONAL INSTITUTION,
ESTABLISHED IN 1882.**

SEVEN YEARS OF GREAT PROSPERITY BECAUSE FOUNDED ON SOUND PRINCIPLES. LABOR COMBINED WITH STUDY.

Four courses of instruction, classical, scientific, biblical, and normal; also preparatory instruction given in a primary and a grammar course.

Instruction thorough and practical, not only in the collegiate courses but especially so in the preparatory courses.

Discipline rigid, yet parental, combined with strong moral and religious influences.

Expenses moderate. The whole cost to the student for tuition, board, lodging, lights, washing,—all expenses except for books and clothes, from \$18 to \$20 per month of four weeks.

Spring term begins Monday December 31, 1888. For descriptive catalogue and further information address the principal.

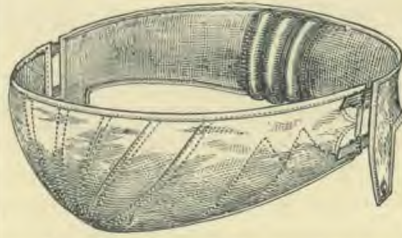
W. C. GRAINGER, Healdsburg, Cal

MILK sold at three cents a quart pays about the same net as butter sold at twenty-eight cents.

DRS. GRAY & FOSTER'S

Abdominal * Supporter.

PATENTED DECEMBER 18, 1877.



FOR many years a want has been strongly felt by all our leading Physicians and Surgeons for an Abdominal Supporter that

would more fully meet the requirements of common use. To this end, Drs. Gray and Foster, having had an extensive experience in the treatment of Chronic Diseases of Females, and knowing just what was wanted, devised this Supporter, the merits and worth of which have been at once recognized and appreciated by every Physician who has seen and examined it.

Relief to the Back.

LADIES who are suffering from pains in the back, hips, loins and sides, accompanied with constipation, nausea, headache and neuralgic pains in the limbs,—troubles which are often caused by the weight and downward pressure of the bowels, may be greatly relieved or permanently cured by the use of this Supporter; and for ladies just before and after confinement it is especially adapted.



Aid in Walking.

THESE Supporters can be worn with ease at all times, and are the greatest aid ever yet devised to give comfort and support in walking up and down-stairs, riding over rough roads, or any active exercise whatever.

Support to the Bowels.

THEY are so adjustably constructed that they can be made to fit the form perfectly, and hold up the bowels in a comfortable position without undue pressure. Provision is also made for attaching a hose supporter, as shown in the right-hand figure above. For slender forms, this will aid greatly in keeping the Abdominal Supporter in place.

Made in two widths of front, at following prices:

Regular Width, \$2.50; with Hose Supporter, \$3.00.
Extra " 3.00; " " " 3.50.

Orders from any part of the United States will be sent by mail, postage prepaid, on receipt of price.

Address,

**Rural Health Retreat,
ST. HELENA, NAPA CO., CAL.**

HEALTHFUL FOODS.

HAVING lately added to the facilities of our Health Retreat a revolving oven, and first-class cracker machinery, we are now prepared to furnish the foods advertised below, at their respective prices. These foods are especially adapted to those suffering from digestive ailments, but are also excellent for all persons who wish food free from lard and all other deleterious shortening. None but the purest and best articles are used in the manufacture of these foods.

OATMEAL BISCUIT.—These are about twice the thickness of an ordinary cracker, are slightly sweetened and shortened, and made light by yeast, exceedingly palatable. They are recommended for constipation, if the person is not troubled with acidity or flatulence; per lb. 12 cts

MEDIUM OATMEAL CRACKERS.—Made about the same as the above, only they are not fermented; per lb. 10 cts

PLAIN OATMEAL CRACKERS.—These are neither fermented, shortened, nor sweetened. They have an agreeable, nutty flavor, and are crisp and nice; per lb. 10 cts

NO. 1. GRAHAM CRACKERS.—Slightly sweetened, and shortened. Just the thing for persons with fair digestive powers and inactive bowels; per lb. 10 cts

NO. 2. GRAHAM CRACKERS.—Shortened but not sweetened. Very palatable; per lb. 10 cts

PLAIN GRAHAM (DYSPEPTIC) CRACKERS.—These crackers contain nothing but the best graham flour and soft water, yet by the peculiar preparation of the dough they are as crisp as though shortened. If by exposure to dampness they lose their crispness it may be restored by placing them in a hot oven for ten or fifteen minutes; per lb. 10 cts

WHITE CRACKERS.—These are made of the best patent flour, shortened. But they are not mixed with lard or any other deleterious substance; per lb. 10 cts

WHOLE WHEAT WAFERS.—Composed of flour and water. Made especially for dyspeptics, and those of weak digestion; per lb. 12 cts

GLUTEN WAFERS.—Especially good for those troubled with acid or flatulent dyspepsia; or those suffering with nervous exhaustion, and who wish to restore nerve power speedily. Such as have to live largely on meat, because they cannot digest vegetable food, will find in these wafers a valuable substitute; per lb. 20 cts

ANTI-CONSTIPATION WAFERS.—Composed of rye meal and whole wheat flour. Crisp and palatable. Persons suffering with painful dyspepsia, or tenderness at the pit of the stomach, should use whole wheat crackers in preference to these. For all other forms of dyspepsia or constipation, these are just the thing; per lb. 12 cts

PASSOVER BREAD.—Made from patent flour. Neither shortened nor fermented. In the form of wafers. Is very light, thin, crisp and toothsome; per lb. 12 cts

FRUIT CRACKERS.—The best varieties of foreign and domestic dried and preserved fruits are used in the preparation of these crackers. They are exceedingly wholesome for those of normal stomachs, but are not recommended for confirmed dyspeptics; per lb. 20 cts

CARBON CRACKERS.—These are especially intended for cases of dyspepsia in which there is acidity of the stomach, heartburn, and flatulence of stomach or bowels. The black color of the cracker is due to the presence of pulverized carbon, which acts as a preventive of fermentation, and is an absorbent of irritating gases resulting from indigestion; per lb. 15 cts

WHEATENA.—This is a preparation of wheat which is subjected to a process by means of which it is partly digested, and rendered readily soluble in the digestive juices. Good for persons suffering with slow digestion and constipation; per lb. 12 cts

AVENOLA.—This is some like the preceding in the mode of its preparation, except that it has also the finest oatmeal with the wheat in its combination. It contains a large proportion of bone, muscle, and nerve-forming material. It is a good food for infants, and for all invalids of weak digestion; per lb. 13 cts

GRANOLA.—This is a preparation from various grains, and combines all the qualities of the preceding preparations. There is no farinaceous preparation in the market that will compare with granola. This is the verdict of those who have given it a fair and impartial trial; per lb. 12 cts

DIABETIC FOOD.—This is a form of bread deprived of its starchy and saccharine elements, but retaining all the other palatable and nourishing elements of the flour. By the use of this food, and the observance of careful dietetic rules, this obstinate disease (diabetes), may be kept at bay for many years, and cured in cases where a cure is possible. It is prepared with great care, and has been thoroughly tested; per lb. 40 cts

GLUTEN FOOD.—This article is a perfect substitute for animal food in cases of nervous debility, and is to be used in the same cases as those for which the gluten wafer is recommended; per lb. 40 cts

INFANTS' FOOD.—Most of the foods offered in the market as infant's food contain too much starch for the digestive power of the infantile stomach. The article here offered will often be digested when other articles of food cannot be eaten without producing serious derangement of digestion; per lb. 40 cts

SOME of the goods here offered may be higher priced than those shortened with lard, etc., but you may rest assured of securing, in these foods, pure, healthful articles, conscientiously prepared. Directions for using these foods will be sent with the goods.

FOR fifty cents you may receive, post-paid, a sample package of these foods, and thus decide what to order in larger quantities. Give them a trial. Address,

RURAL HEALTH RETREAT, St. Helena, Cal.
Orders taken at Pacific Press, Oakland, 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 75
FORM (BOSOM)	50
DR. GRAY'S ABDOMINAL SUPPORTER	2 50
DR. GRAY'S “ “ WITH HOSE	
SUPPORTER (extra large)	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 But-	
ton (Ladies')	50
NO. 18 HOSE SUPPORTER, Daisy Clasp (Misses')	40
NO. 19 “ “ “ “ (Children's)	35
NO. 7 “ “ Shoulder, Button (Ladies')	60
NO. 8 “ “ “ “ (Misses')	50
NO. 9 “ “ “ “ (Child'n's)	40
NO. 10 “ “ “ “ “ “	35
CORSET HOSE SUPPORTERS (especially for Hygienic	
Corset).	35
HYGIENIC SAFETY SUPPORTER (monthly bandage)	50
SKIRT-SUPPORTING HOOKS, double set of four	25
“ “ SWIVEL, set of four	20
CORSET LACES (Elastic)	10
CLASPS FOR SUPPORTERS	5
COMBINATION SUIT PATTERNS	30
FOUNTAIN SYRINGE, Glass Tubes	{ No. 1. \$2 00
“ “ “ “	{ No. 2. 2 25
“ “ “ “	{ No. 3. 2 75
“ “ “ “	{ No. 1. 2 25
FOUNTAIN SYRINGE, Metal Tubes	{ No. 2. 2 50
“ “ “ “	{ No. 3. 3 00
“ “ “ “	{ No. 1. 2 50
FOUNTAIN SYRINGE, Hard Rubber Tubes	{ No. 2. 3 00
“ “ “ “	{ No. 3. 3 25
SYPHON SYRINGE, Glass Tubes	3 50
RUBBER WATER BOTTLES, 1 quart	2 25
“ “ “ “ 2 quarts	2 50
“ “ “ “ 3 quarts	2 75
“ “ “ “ 4 quarts	3 00
RURAL HEALTH RETREAT, St. Helena, Cal.	

THE AMERICAN SENTINEL.

AN EIGHT-PAGE WEEKLY JOURNAL, DEVOTED TO

THE DEFENSE OF AMERICAN INSTITUTIONS, THE PRESERVATION OF THE UNITED STATES CONSTITUTION AS IT IS, SO FAR AS REGARDS RELIGION OR RELIGIOUS TESTS, AND THE MAINTENANCE OF CIVIL AND RELIGIOUS RIGHTS.

It will ever be Uncompromisingly Opposed to anything tending toward a Union of Church and State, either in name or fact. It is well-known that there is a large and influential association in the United States bearing the name of the "National Reform Association," which is endeavoring to secure such a RELIGIOUS AMENDMENT to the Constitution of the United States as will "place all Christian laws, institutions, and usages on an undeniable legal basis in the fundamental law of the land." While there are many persons in this country who are opposed to, or look with suspicion upon, this movement, there are few, outside of the party, who realize what the influence of this amendment would be. The object of the *American Sentinel* will be to Vindicate the Rights of American Citizens, which, we believe, are threatened by this association. It will appeal to the very fundamental principles of our Government, and point out the consequences which would be sure to follow should they secure the desired Amendment to the Constitution. Every position taken will be carefully guarded and fortified by sound argument. Due respect will always be paid to the opinions of others, but the rights of conscience will be fearlessly maintained.

TERMS.

Single copy, one year, for - - - - - \$1 00
American Sentinel one year and "Prophetic Lights," paper cover, - 1 50

Sample copies FREE.

If no Agent in your vicinity, write to the Secretary of your State Tract Society or Address, **AMERICAN SENTINEL,**
 1059 Castro St., Oakland, 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." Sent by mail, on receipt of the price. Address,

**RURAL HEALTH RETREAT,
 St. Helena, Cal.**

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AND TEMPERANCE ADVOCATE.

A THIRTY-TWO PAGE MONTHLY MAGAZINE, devoted to the dissemination of true temperance principles, and instruction in the art of preserving health. It is emphatically

A JOURNAL FOR THE PEOPLE,

Containing what everybody wants to know, and is thoroughly practical. Its range of subjects is unlimited, embracing everything that in any way affects the health. Its articles being short and pointed, it is specially adapted to farmers, mechanics, and housekeepers, who have but little leisure for reading. It is just the journal that every family needs, and may be read with profit by all. Price, \$1.00 per year, or with the 300-page premium book—"Practical Manual of Hygiene and Temperance," containing household and cooking recipes—post-paid for \$1.40.

Address, **PACIFIC PRESS, Publishers, Oakland, Cal.**

OAKLAND, CAL.

TESTAMENTS.

Diamond 48mo Testaments.

India Paper Edition.

SIZE, $3\frac{3}{4} \times 2\frac{1}{4} \times \frac{1}{4}$ INCHES.

SMALLEST TESTAMENT IN THE WORLD.

NO.	PRICE.
10 VENETIAN MOROCCO, limp, round corners.....	\$0 50
12 PERSIAN MOROCCO, limp, red under gold edges, round corners	65
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25 RED ROAN, tuck	40
30 FRENCH MOROCCO, seal grain, limp, round corners	35
33 FRENCH SEAL, divinity circuit, round corners	40
35 VENETIAN MOROCCO, padded, gold sprays, red under gold edges, round corners.....	50
55 PERSIAN CALF, limp, "feather" design, round corners, red under gold edges	65
56 PERSIAN CALF, limp, arabesque pattern, gilt line, round corners, red under gold edges.....	75
57 PERSIAN CALF, scored, divinity circuit, round corners, red under gold edges	85
34 PERSIAN CALF, scored, fancy center, divinity circuit, round corners, red under gold edges.....	85
36 LAMB'S SKIN, scored, divinity circuit, round corners, red under gold edges	70
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42 TURKEY MOROCCO, cut circuit.....	1 00
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209	PERSIAN CALF, limp, engine-turned center, diced border, round corners, red under gold edges.....	I 35

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