



A JOURNAL OF HYGIENE

CONTENTS OF THIS NO.

DEVOTED TO  
PHYSICAL, MENTAL & MORAL CULTURE

A SOUND MIND  
IN A SOUND BODY

HEALTH IS  
WEALTH

PROPER CLOTHING  
ADEQUATE REST  
AMBLE EXERCISE

CLEANLINESS NEXT TO GODLINESS  
TEMPERANCE IN ALL THINGS

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.....	6.25	8.05	8.15	4.10	.....	Port Huron	.....	10.20	1.20	7.45	.....
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.....	8.53	10.05	10.10	6.20	.....	Flint	.....	7.55	11.37	5.55	.....
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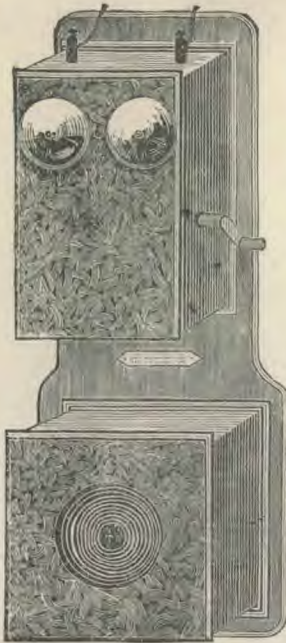
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**GLUTEN FOOD.** This article is to be used in the same cases as those for which the gluten wafer is recommended. It is not only an indispensable adjunct to treatment in such cases, but is so palatable and nutritious as to be a desirable article of food for any one suffering with a weak digestion, and general or nervous debility. It is a perfect substitute for animal food in cases in which the latter is thought to be indicated.

**INFANTS' FOOD.** The demand for infants' food has in modern times become so great that several large establishments are devoted almost exclusively to its manufacture. It is well known to scientific physicians, however, that most of these preparations are utterly worthless for the purpose for which they are sold, most being very largely composed of starch, which the feeble infantile stomach is unprepared to digest. We are often asked to recommend some variety of infants' food which we consider the best; and as we have been unable to find in any of the many varieties offered to the public such qualities as we could confidently recommend, we have at last decided to undertake to supply the article ourselves, being prepared to manufacture a food which we can assure our patrons is possessed of the proper constituents for the nourishment of infants with feeble digestive powers. Used according to directions, this food may safely be employed as a substitute for mother's milk, when the latter cannot be obtained, and it will often be digested when other articles of food cannot be eaten without producing serious derangement of digestion.

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<b>Plain Graham Crackers, (Dyspeptic Crackers,)</b>	<b>10</b>	<b>"</b>
<b>White Crackers,</b> .....	<b>10</b>	<b>"</b>
<b>Whole-Wheat Wafers,</b> .....	<b>12</b>	<b>"</b>
<b>Gluten Wafers,</b> .....	<b>30</b>	<b>"</b>
<b>Anti-Constipation Wafers,</b> .....	<b>12</b>	<b>"</b>
<b>Passover Bread,</b> .....	<b>15</b>	<b>"</b>
<b>Fruit Crackers,</b> .....	<b>20</b>	<b>"</b>
<b>Carbon Crackers,</b> .....	<b>15</b>	<b>"</b>
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<b>Ground Crackers,</b> .....	<b>12</b>	<b>"</b>
<b>Wheatena,</b> .....	<b>12</b>	<b>"</b>
<b>AVENOLA,</b> .....	<b>13</b>	<b>"</b>
<b>Granola,</b> .....	<b>12</b>	<b>"</b>
<b>Beef and Bread Granola,</b> .....	<b>20</b>	<b>"</b>
<b>Diabetic Food,</b> .....	<b>40</b>	<b>"</b>
<b>Gluten Food,</b> .....	<b>40</b>	<b>"</b>
<b>Infants' Food,</b> .....	<b>40</b>	<b>"</b>

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# GOOD HEALTH

A JOURNAL OF HYGIENE.

MENS SANA IN CORPORE SANO.

Volume XXI.

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Number 3.

## HYGIENE IN RELATION TO THE PRIVATE FAMILY.

BY R. J. HICKS, M. D.

LAW regulates our being, presides at our birth, develops our bodies, carries them on to maturity and decline. These processes are as natural as those of the heavenly bodies in their appointed courses, and would move with the same uniformity did no perturbing agents come in conflict with them. It is a fact, however, that such agents do exist, and that their existence is as yet unavoidable. It is a further fact that we are responsible for them to a much larger extent than we are willing to admit. Many are chargeable to ignorance and recklessness. It is ignorance that makes the child regardless of the path; that makes him fall into the ditch; that makes him reckless of wet feet and wet clothes while sitting in the school-room. It is criminal indifference on the part of the instructor not to give his attention to these early lessons,—lessons generally impressed on the child by sad experience.

Many grown persons are not much in advance of children. Can it be supposed that any young lady would lace herself into the shape of a wasp,—a deformity rather than a mark of beauty,—did she appreciate the absolute necessity to health of an untrammelled heart, an uncompressed liver, and the free and unbiased expansion of the lungs? Is it not at the bidding of an ignorant vanity that she defies the weather in short sleeves, low-necked dress, and slipper shoes? I have illustrations of this sort in my own personal

experience and observation, resulting in rheumatism, bronchitis, pneumonia, consumption, and death. I suppose every other physician present could furnish similar illustrations.

In justice to the fair sex, however, I must add that these are exceptional instances, based upon imperfect knowledge, and that in sobriety, in prudence, and in all the virtues that adorn the domestic circle, they are man's superior, in consequence of which, provided they escape certain critical periods of their life, they are blessed with greater longevity. Their convictions, being stronger, are truer bases of life-action than are those of men. To them, therefore, we shall at last have to appeal for the establishment of the first principles of hygiene, as well as other principles of reform.

Dr. Richardson, who has made this subject a lifetime study, very truly says in an address on the future of sanitary science: "I want strongly to enforce that it is the women on whom full sanitary light requires to fall. *Health in the home is health everywhere.* Elsewhere it has no abiding place. I have been brought to the conclusion by experience, that the whole future progress of the sanitary movement rests for permanent and executive support on the women of the country.

"When as a physician I enter a house where there is a contagious disease, I am, of course, primarily impressed by the type of the disease, by the age, strength, and condition of the sick person. From observations made on these points, I form a judgment of the probable course and termination



of the disease, and at one time I thought such observations sufficient; now I know them to be but partly sufficient. A glance at the appointments, arrangement, and management of that house is now necessary to make perfect that judgment. By this glance is detected what aid the physician may expect in keeping the sick in a condition most favorable to escape from death, and by this is also detected what are the chances that the affection will be confined to one sufferer, or be distributed to many.

"As a rule to which there are the fewest exceptions, the character of the judgment is hereupon dependent on the character of the presiding genius of the house—on the woman who rules over that small domain. The men of the house come and go, know little of the 'ins' and 'outs' of anything domestic, are guided by what they are told, and are practically of no assistance whatever. The women are conversant with every nook of the dwelling from basement to roof, and on their knowledge, wisdom, and skill the physician rests his hopes. How important, then, how vital, that they shall learn as a part of their earliest duties, the choicest sanitary code!"

Public legislation, while every way desirable, can do little else than establish general laws of quarantine against the great plagues, enforce vaccination, guarantee the supply and purity of the matter, and see by wholesome inspection that the supply of water is sufficient in quantity and pure in quality, which involves the great question of drainage. But it cannot enter the private house, except in a very general way; it cannot reform the domestic habits, regulate the private policing, or enforce purity in the private wells. On these principles, after all, mainly rests the health of the family. The nation is but an aggregation of the individuals. As is the individual, so is the nation, in this respect as in others. Toulon and Marseilles are to-day paying the penalty of the filth of their inhabitants.

The happiness, the average longevity, even the success of an individual are all largely dependent on an intelligent recognition of

the laws of health. Misery, pain, disease, and failure are the penalties of their violation,—penalties extending beyond one generation. The sins of the fathers are visited upon the third and fourth generations. Ailments, little or big, the result of indiscretion on his part or that of his ancestors, handicap many a man, and hold him at a disadvantage in the race of life.

"To know and to counteract the causes of disease before they become effective, is the triumph of our art; but it will be long before mankind will accept the aid we proffer them." But let us not be discouraged. All reforms are slow, and much of our teaching has not been unmixed with error. Increase of knowledge gives increased confidence, and carries with it an authority which doubt can never command. The pathology of diseases is far better understood now than it was a few years ago. We now know that "most of them are perverted life processes, and therefore preventable, and far more easily prevented than stamped out when once begun." An ounce of preventive is also cheaper than a pound of cure.

Should I tell you that consumption was largely a preventable disease, it would come as a startling announcement; for it has been accepted as a hereditary disease the world over. Yet of every one hundred who die of it in the city of New York, only twenty-six per cent can be traced to hereditary influences. *Seventy-four* per cent is charged to damp air, insufficient food, poverty, and filth. It is an admitted fact, abundantly proved by statistics, "that dampness of soil is an important cause of tuberculosis, and that the effect produced by draining the subsoil, in lessening the amount of consumption, is marked." Are we not individually responsible for the drainage of our locations?

But however developed, it acquires a capacity for further transmission, and thus in a geometrical ratio adds annually to the ever increasing harvest of suffering and death. I would like to impress upon the public the great fact that tubercle is not a new formation, dependent upon hereditary taint. It is merely an alteration of normal



nutrition, a degraded and degenerated tissue frequently resulting from neglect of trivial complaints, in connection with a disregard of ordinary sanitation. The lung consolidated by exudation from pneumonia, under the old system of lowering treatment, frequently degenerates into tuberculous matter.

Since living in Fauquier, four children out of five in an Irish family have died of consumption in rapid succession. As fast as one died, another fell a victim to it. I am assured that in Ireland the disease was unknown to this family. The poor old mother asked me in the saddest possible manner to examine her premises, and tell her whether the house had killed her dear children. All had slept in a garret room with an end window only, and without a fire-place. The staircase to this room, which was tightly plastered, led from a room below where the family congregated and lived, through which ascended all the foul air that had already served the purpose of respiration, to pollute the supply of those who slept in this low-pitched and ill-ventilated room. To aggravate the matter, the house was located in a bottom, on a cold, damp, clay soil. The father, having considerable means, by my advice changed his location to a hill, on which he built a comfortable house, and carried with him his son, the only remaining child, and according to advice, put him in a comfortable and well-ventilated room, with a fire in an open fire-place night and morning during all damp weather. Though threatened with the same disease, this young man is now the picture of health, and the father of a family.

The idea that because the parent died of consumption, therefore the offspring should meet with the same fate, should be abandoned. This depends upon whether sanitary laws are understood and regarded. "Diseased tendencies are for a generation or two; the laws of health are for a thousand years," and can therefore completely eradicate the seeds of disease. It may be suggested by some of our late investigators—in the case just mentioned—that a bacillus, floating from the lungs of the diseased to those of the

healthy above, formed a nidus there, and began the work of destruction. But without favorable surroundings, in my opinion this bacillus would have perished.

In consumption it is the weakened nutritive system that is inherited, just as it is the weakened will and the craving appetite for alcohol that is inherited by the drunkard. This tendency of medical men to consider more closely the conditions of disease, promises the greatest possible benefit to mankind.

I am glad to be able to say that these unmistakable lessons teach us that no inexorable decree like the sword of Damocles hangs over the heads of the offspring of consumptives, condemning them to the fate of their fathers; that breathing and exercising in the pure air, bathing in Heaven's health-giving light, aided by nutritious diet, a milder climate on a warmer and dryer soil if necessary, may and does furnish a strong and almost sure means of escape from this dread disease that is said to claim for its victims, in some parts of our country, more than half of those who die between the ages of fifteen and thirty-five.

Of four brothers within the limits of my practice, three died in rapid succession of consumption. They were tradesmen, and carried on their trade in a close, badly ventilated store, confining themselves strictly and successfully to their business, each taking it up as the previous one died. The fourth, induced by the pecuniary success of the older ones, endeavored to continue the succession, but his health soon broke down, and consumption threatened him. Being frightened by the fatality connected with the business, he regarded my advice, abandoned merchandise, went to farming, and is now—twelve years since—healthy and well.—*Sanitary Monitor*.

TO BE CONTINUED.

—A Russian Journal, entitled *Health*, has recently been suppressed. No cause was assigned, but it is supposable that the Russians are not prepared to appreciate the advantages to be derived from the popularization of sanitary science.



## WHICH THE GREATER EVIL?

WHERE one person in this country dies of hydrophobia, a hundred or more die by tobacco poison, in the use of cigars, cigarettes, or the pipe. In smoking, death does not occur as speedily as in the case of hydrophobia. The bite of a mad dog does not always result in death; neither does indulgence in smoking or chewing. But in both cases there is damage to health, and danger to life. Tobacco-smoking is undoubtedly a poisonous and therefore a dangerous practice, and similar in its results to the use of intoxicating drinks, which are also poisonous. Some constitutions can bear more tobacco poison or alcoholic poison than others. We admit that, in some cases, poisonous liquids, drugs, and minerals may be properly used as *medicine*; but in ninety-nine cases out of a hundred, no one can *safely* indulge in the use of cigars or of intoxicating drinks. All are more or less harmful, and if immoderately used, will surely result in an early death. If moderately used, the damage will be sure, but less apparent.

The bite of a mad dog is a frightful matter anywhere, and probably there are in this country a hundred deaths caused thereby every year. If one man dies of hydrophobia, the whole community is greatly excited and scared. "Run for your life!" "Load your gun!" "Kill all the dogs!" is then the loud and immediate cry in all directions. But not a ripple is made, nor hardly a word is uttered, if ten thousand men and women die in a year of delirium tremens, or a thousand die of tobacco poison. It is fashionable to drink and to smoke; and hence thousands of young men begin very early to indulge in these practices, with scarcely a thought of the risks and dangers of such indulgence. Pale faces, yellow skins, bloated bodies, restless nights, loss of appetite, heart disease, and poor health generally, do not seem to frighten them in the least. They will send for medicine and the doctor, but will not stop tampering with poison. They will drink and smoke, smoke and drink, day and night, year in and year out. That is the *fashion*, and that is law, no matter what the conse-

quences are. "I'll take the risks," is the answer to all entreaties of friends to stop.

If you should see a mad dog in the street, you would run for your life, as we have before said, to get out of his way. If you see a man drunk in the gutter, you simply say, "Poor fellow! I pity him. His friends ought to take care of him," etc. If you hear of the death of a man by cancer which was caused by smoking, you are at first startled, but never yourself stop for a day the beastly practice of smoking. A hundred thousand deaths, at least, are caused every year by indulgence in drinking and smoking; and those who are trying to stay its dreadful results are called bigots and even worse names.

While we flee from mad dogs, malaria, small-pox, and typhoid fever, let us wake up and banish forever such senseless and dangerous indulgences as smoking and liquor-drinking. People are beginning to wake up on this subject. Congress is talking about temperance, and physicians are speaking plainly about smoking. Tobacco is more dangerous in its direct and indirect effects on human life than would be the letting loose of all the mad dogs in the nation. Alcoholic drinks destroy more lives yearly among us than do hydrophobia, small-pox, and all sorts of fever combined. These dangerous and deathly practices should be stopped everywhere if possible.

Life-saving on the *ocean* is now regarded as a proper theme for discussion in Congress and elsewhere. Why should not life-saving on *land* be also considered? As to the shameful drinking and smoking practices in the halls of Congress, it is high time that both were by law suppressed. Let us have pure air, clear heads, and a healthful example in the Capitol and at the White House. While we do well to attend to mad dogs and prevent infectious diseases, let us not forget or fail to check the immense, the untold, loss of life caused by a worse madness in the shameful indulgences we have named.—*Independent.*

—It is no exaggeration to say that health is a large ingredient in what the world calls talent.—*Mathews.*



## THOUGHTS FOR A YOUNG MAN.

WERE a young man to write down a list of his duties, Health should be among the first items in the catalogue. This is no exaggeration of its value; for health is indispensable to almost every form of human enjoyment. It is the grand auxiliary of usefulness; and should a man love the Lord his God with all his heart and soul and mind and strength, he would have ten times more heart and soul and mind and strength to love him with, in the vigor of health, than under the palsy of disease. Not only the amount, but the quality of the labor which a man can perform, depends upon his health. The work savors of the workman. If the poet sickens, his verse sickens; if black, venous blood flows to an author's brain, it beclouds his pages; and the devotions of a consumptive man scent of his disease as Lord Byron's obscenities smell of gin.

Not only "lying lips," but a dyspeptic stomach, is an abomination to the Lord. At least in this life, so dependent is mind upon material organization,—the functions and manifestations of the soul upon the condition of the body it inhabits,—that the materialist hardly states practical results too strongly when he affirms that thought and passion, wit, imagination, and love are only emanations from exquisitely organized matter, just as perfume is the effluence of flowers, or music the ethereal product of an Æolian harp.

In regard to the indulgence of appetite, and the management of the vital organs, society is still in a state of barbarism; and the young man who is true to his highest interest, must create a civilization for himself. The brutish part of our nature governs the spiritual.

Appetite is, Nicholas the First, and the noble faculties of the mind and heart are Hungarian captives. Were we to see a rich banker exchanging eagles for coppers by tale, or a rich merchant bartering silk for serge by the pound, we should deem them worthy of any epithet in the vocabulary of folly. Yet the same men buy pains whose prime cost is greater than the amplest fund of natural

enjoyments. Their purveyor and market-man bring them home headaches and indigestion and neuralgia by hamperfuls. Their butler bottles up stone, and gout, and the liver complaint, falsely labeling them sherry, or Madeira, or port, and the stultified masters have not wit enough to see through the cheat.

The mass of society look with envy upon the epicure who, day by day, for four hours of luxurious eating, suffers twenty hours of sharp aching; who pays a full price for a hot supper, and is so pleased with the bargain that he throws in a sleepless and tempestuous night as a gratuity. English factory children have received the commiseration of the world, because they were scourged to work eighteen hours out of the twenty-four; but there is many a theoretic republican who is a harsher Pharaoh to his stomach than this, who allows it no more resting-time than he does his watch, who gives it no Sunday, no holiday, no vacation in any sense.

Our pious ancestors enacted a law that suicides should be buried where four roads meet, and that a cart-load of stones should be thrown upon the body.

Yet, when gentlemen or ladies commit suicide, not by cord or steel, but by turtle soup or lobster salad, they may be buried in consecrated ground, and under the auspices of the church, and the public are not ashamed to read an epitaph upon their tombstones false enough to make the marble blush.

Were the barbarous old law now in force that punished the body of the suicide for the offense which his soul had committed, we should find many a Mount Auburn at the cross-roads.

Is it not humiliating and amazing that men, invited by the exalted pleasure of the intellect and the sacred affections of the heart to come to a banquet worthy of the gods, should stop by the wayside to feed on garbage, or to drink of the Circean cup that transforms them into swine?

If a young man, incited by selfish principles alone, inquires how he shall make his



appetite yield him the largest amount of gratification, the answer is, *By temperance*. The true epicurean art consists in the adaptation of our organs, not only to the highest, but to the longest enjoyment. Vastly less depends upon the table to which we sit down, than upon the appetite which we carry to it. The pallid epicure who spends five dollars for his dinner, extracts less pleasure from his meal than many a hardy laborer who dines for a shilling.

The desideratum is, not greater luxuries, but livelier *papillæ*; and if the devotee of appetite would propitiate his divinity aright, he would not send to the Yellowstone for buffaloes' tongues, nor to France for *paté de foie gras*, but would climb a mountain, or swing an ax.

With health, there is no end to the quantity or the variety from which the palate can extract its pleasures. Without health, no delicacy that nature or art produces can provoke a zest. Hence, when a man destroys his health, he destroys, so far as he is concerned, whatever of sweetness, of flavor, and of savor, the teeming earth can produce.

To him who has poisoned his appetite by excesses, the luscious pulp of grape or peach, the nectareous juices of orange or pine-apple, are but a loathing and a nausea. He has turned gardens and groves of delicious fruit into gardens and groves of ipecac and aloes. The same vicious indulgences that blasted his health, blasted all orchards and cane-fields also.

Verily, the man who is physiologically "wicked" does not live out half his days; nor is this the worst of his punishment; for he is more than half dead while he appears to live.—*Horace Mann*.

#### RELATION OF HEALTH TO THE CHRISTIAN GRACES.

FOR the following excellent thoughts, we are indebted to an able address on the "Relations of Health to Morality and Religion," by S. W. Sample, delivered at a Sanitary Convention held at Lansing, Mich., in March, 1885:—

"Health is the basis, or at least the great aid and friend, of many of the personal virtues. So far from true is Pascal's old saying that 'Disease is the normal state of Christians,' that numerous diseases are the inveterate enemies and often the destroyers of the goodnesses and graces of those who would live in the spirit of Christ Jesus, but are hindered by their bodily ailments,—whose spirit indeed is willing, but whose flesh is weak, and yet its very weakness is a power that wars against the spirit, and often overcomes it. Hannah More once said that there are only two bad things in this world, sin and bile. Was she not aware that bile is sometimes the cause and sin the effect? Sydney Smith was not far out of the way when he said that 'Old friendships are often destroyed by toasted cheese, and hard salted meat has often lead to suicide.'

"It is well known and generally acknowledged that gout renders its subjects irritable and crabbed; those suffering from abdominal affections are given to melancholy; heart-troubles cause caprice and changeableness, suspicion, timidity, and fear; while blood-poisoning is likely to give rise to absolute indifference. The malady of dyspepsia is answerable for many of the miseries and wrongs of life, such as ill-temper, malevolence, envy, jealousy, and uncharitableness, which suck the 'sweet reasonableness' out of the individual, and introduce pyæmia into the life-blood of society and the home.

"It is not improbable that John Calvin's bad digestion had something to do with the spoliation of his nobler parts, and, through this, with his cruel treatment of Servetus. In the course of the latter's trial at Geneva, Calvin wrote to the Protestant pastor at Zurich: 'The wicked people about me, knowing that I am irritable, my stomach troubling me often and in various ways, have lately been striving to get the better of my patience.' His patience, his brotherly kindness, his former nobleness of spirit, did give way; Servetus was burned; and perhaps the bad condition of John Calvin's stomach was in part responsible therefor.



"It is my belief that grand old Thomas Carlyle missed the mark of being a true prophet in his later years, and deteriorated, instead, into a 'Little-Faith,' because of his increasing dyspepsia, which grew by what it fed on, and which at length made him selfish and pessimistic, out of sympathy with the world, unable to lay commandment on its great pulse, out of joint with everything and everybody, powerless even to understand or to appreciate the sublime self-sacrifice of his own lovely wife until she vanished out of his sight, he was so fooled, so cheated by his own bad blood! Voltaire tells us that 'The massacre of St. Bartholomew was primarily due to the utter incapacity of the king to digest his food.' Whether this be true or not, it is quite certain that from disordered stomach, vitiated blood, and ill-filled lungs (which means ill-repaired blood), comes yearly an amount of disease, not only not simply of weak mentality and folly, but also of indolence, intemperance, passion, vice, and even crime, which it would be impossible to estimate."

#### SENSIBLE TALK ABOUT SLEEP.

MARGARET SIDNEY, in one of a series of three prize papers upon "How to Eat, Drink, and Sleep as a Christian Should," recently published in *Good Housekeeping*, offers the following sensible remarks about sleep:—

"An old saying that has frightened a great many people from taking the rest that nature demanded for them is, 'Nine hours are enough for a fool.' They may be; and not too many for a wise man who feels that he needs them. Goethe, when performing his most prodigious literary feats, felt that he needed nine hours; what is better, he took them. We presume it is conceded by all thoughtful persons that the brain in very young children, say three or four years of age, requires all of twelve hours for rest, or sleep. This period is shortened gradually until, at fourteen years of age, the boy is found to need only ten hours. When full grown and in a healthy condition, the man may find a night of eight hours sufficient to

repair the exhaustion of the day and new-create him for the morrow. *But if he discovers that he needs more sleep, he should take it.* There is surely something wrong about him; perhaps a forgotten waste must be repaired. His sleep, evidently, has not been made up; and until it has, and he can spring to his work with an exhilaration for it, he should sensibly conclude to let his instinct control him, and stay in bed.

"So to lose our cares, our worries, our individual burdens in the oblivion of sleep as to waken obliged to form a new acquaintance with them, is to deprive them of half their stinging power. It is not their capturing us at the beginning of a day when we are fresh and hopeful, that demoralizes us; it is the gnat-like capacity they have for following, for fastening to us when nearly spent with toil, that completely breaks us down. We ought never to be in the condition where the chances would hand us over to them a wreck.

"That we may continue to be of use in the place in which God for wise reasons has put us, let us wisely keep in our hands a reserve power of bodily and mental vigor produced by a careful balancing of the hours of sleep with the hours of work. We do not know to what of struggle or of sorrow we may be called. Let neither find us too weak to accept it as we should.

"Just here bear with us while we remark that not every person who retires for the night at the good old-fashioned hour of nine, and is not seen again until the breakfast hour of eight, should have the credit of being a good sleeper. No need to say, if one could see the face sometimes brought to that same breakfast table, that its owner has not yet learned the grand secret of a restful night. He took all his cares to bed with him; wrote that business letter bringing up an annoying question the last thing before putting out his light, then said his prayers piously, closed his eyes, and tossed, sighed, and longed for dawn, counted interminable flocks of sheep jumping over a never-ending wall, and at last fell into an exhausted state to be roused by the rising bell. Better have



one hour of good, solid sleep than a night of this fashion, we say as we look at him.

"If this were an attempt at an exhaustive paper, it would wisely descant on the benefit of a little gentle exercise indulged in before retiring; of games with the children and the rest of the family; of singing, and the introduction of merry anecdotes. It would recommend a night-cap for some wakeful soul, in the shape of a glass of hot water, and would suggest the good to be derived from toasting one's feet before the hickory hearth-fire. It would seriously advise the duty of unburdening the heart from evil thoughts, from envy, from morbid longings, from all uncharitableness and anxious repinings. In unlimited space it would treat of the size, shape, and position of the ideal bedroom. It would give all the best theories extant for preparing the bed and its coverings, going back to the initial feather of the goose that supplied the pillow-stuffing. It would tell how much air to let into the apartment, with the latest ideas on the subject. In short, it would spread itself over a great deal of space; it might be like a very little butter over a large piece of biscuit. At all events, it would deal with many things.

"The few things are all that can hope for treatment here. Let us honestly strive to put them plainly before those readers who wish to so order their lives as to make them conform to the Christian standard, aiming to be suggestive rather than theoretical, and hoping more from the future widening in the reader's mind of the lines of thought laid down than from any trick of expression, or novelty of truth produced here.

"It will never do for us to adopt a universal plan to refresh man, and send all the world to bed at nine o'clock. Civilization has made too great strides for that. Because some men cannot bear excitement, and are worn to a thread mentally, and are unable to sleep a wink after an evening gathering of friends or the opera, shall we sit in judgment and condemn all these amusements? His next-door neighbor goes home from one of them refreshed in body and mind, hops into bed humming a tune, and is off in deep

sleep; if he dreams at all, it is to go over the sweet, recreating scenes he has passed through. Sensible, seasonable amusements within bounds, no doubt,\* are healthful. When any one of them becomes an absorbing passion, then it is that it works destruction on man, soul and body.

"'Ah! but that is the nature of amusement,' you cry. 'It can never stop short of excess, therefore we will discountenance the whole thing before it undermines us.' My dear, prudent friend, you may dissipate in anything, even your religious theories, if you will. Spare yourself the delusion of believing you are wholly safe in your retirement. It is a mind of very unusual caliber and a very pure heart that can truthfully say, 'We are habitually self-controlled.'

"We do not let reason act in this matter. We either adopt a measure headlong, asking no questions, or we sternly have none of it, and throw the whole thing to the dogs. We are governed by our feelings,—allow some one to make a convert of us spasmodically in certain directions, to find, on looking into the question, that we have been deceived, or carried away by overearnestness.

"It will never do to relegate our thinking powers into another man's custody. One mind is probably as much as the Creator intended one man to manage. If he does that acceptably, he is a genius.

"We must give the question, 'How much sleep do I require?' our most thoughtful consideration. No one can think it out for us so well as we can for ourselves. All our circumstances, our habits of life, our constitutional tendencies, are best known to our own minds. It is only parents or guardians of children, or the physician or nurse who cares for the invalid, who should take the responsibility of deciding these matters for another.

"A smart, tireless woman, one of those who are known in New England parlance as 'drivers,' silenced us on the occasion of our inquiring if she never took a nap in the daytime. 'Nap? I should be ashamed of such a thing. There is too much to do in the world to allow me to waste my time. I can



at least knit.' And there she would sit, when she was willing to sit at all, knitting interminable stockings that nobody cared for. It nearly drove the family frantic to never see her quiet. It was only when this piece of machinery was fairly in bed for the night, that relief came to the household.

"But we were told, the other day, of another representative woman, and it delighted us. She was also tireless, heavily freighted with the consciousness of the immense amount of work to be done in the world, and under the constant sense of being called upon to do something. It suddenly occurred to her that this habit of incessant activity was growing upon her alarmingly, and she was heroic enough to shut herself up in her own apartment every day to an hour of absolute quiet. To use her own words, 'I found that the world could exist without me for that hour.' She was fresh, sweet, and charming when she discovered that, and doubled her real service in every way.

"The animals are never ashamed to lie down when they are tired. Look at that hound, unwearied, keen, every nerve alert and quivering with intense life as long as there is need for action. When it is over, and he feels a relaxing of muscles, a flagging of interest, a drooping of eyelids, does he sit bolt upright, pretending that he is a wide-awake dog? He is proud to say he is tired; he has earned his rest, and he stretches his long, slender limbs contentedly, takes the attitude best suited to his slumber, generally in the nicest chair in the room, heaves one lengthened sigh of supreme content, and he is off, every breath making him over into a new dog.

"If we had power to lift the load of struggling humanity, it would be from the shoulders of farmers' wives and all tired women, workers who never experience one moment of rest from sunrise till they go to bed for the night. We should insist that an hour each day, or if that were not possible, a half hour, be taken after the dinner is eaten, for refreshment in sleep. It is imperative to consider tired nature then for a few moments.

We have heard of many exhausted women, who, by the time the dinner was on the table, were so nearly ready to drop that they could not taste a mouthful. Moreover, knowing well that the instant the meal was concluded, they must spring to their feet, clear the table, wash the dishes, and then on to the hopeless list of afternoon duties, they preferred the pangs of hunger to the disordered stomach induced by eating, as they express it, 'on the jump.' "

#### CONCERNING SANITARY SCIENCE.

"ONE of the marked changes of our time is the altered position of the physician in the community. The traditional duty of the doctor was to cure disease, and disease was supposed to be a sort of malignant entity which had gotten into the system, and could be expelled only by the most energetic and heroic remedies. Physicians were said to belong to the medical profession, as the chief business of the doctor was to prescribe medicines, which were mostly drugs; while Voltaire wittily summarized the work of the physician as an attempt to work a miracle by reconciling intemperance and health. A half century has altered the whole scope of medical study. Sanitary science profoundly affects medical theories; and the upshot of it all is that the old faith in drugs and medicines of all kinds is fast dissolving. People are everywhere learning that sunlight, pure air, good food, proper dress, regular habits, plenty of sleep,—in short, right living, is a million times better than all the medicines of the world.

"The great physicians of our time are vastly more interested in sanitary science and hygiene than in therapeutics. They are studying anew the questions pertaining to life. They are investigating the conditions of perfect physical existence. They are giving lectures and writing books on the great art of keeping well, of developing physical force, of building up a perfect body. The questions of drainage and ventilation, of the nutritive values of the different kinds of food, and the proper methods of cooking, of artificial exercise, when it is necessary to resort



to such expedients, the heating of houses, and the quantity and fashion of clothes that should be worn, are assuming an importance hitherto unknown.

"Everything that relates to the art of living so as to avoid sickness and pain, and maintain the highest degree of power and enjoyment, is invested with new importance. The physician is no longer 'a medicine man;' we send for him when ill, it is true, and value his curative services as highly as ever; but we would pay him a double fee to keep us well. He is a member of a health police, whose function it is to keep people from getting sick, and hold a disease at bay. And instead of killing a doctor when a patient dies, after the manner of the Emperor of China, the skill and proficiency of the physician of the future will be determined by his success in keeping his patients strong and well; and should they fall ill, he may be dismissed for a better one."—*California Architect.*

#### ABUSE OF HIGH HEALTH.

HIGH health is one of our blessings. It enables us to make the most of life with the least wear and with the greatest enjoyment.

With it is connected a vigorous digestion. Its possessors incline to eat more than is needed to supply nerve force to the machinery of the system, or to make good its incessant waste; for they are either unconscious of harm from undue indulgence, or they rapidly rally from its immediate effects. To this class belong those who live to eat, instead of eat to live.

\* We are not mere animals. We were made to be, predominantly, moral and intellectual beings. Now nature allows no one to violate her laws with impunity. We exalt the bestial in us only the expense of our higher nature. Some of the Roman emperors thus came to be more brutish than the brute. They were, of course, extreme cases—veritable monsters.

But even the great pulpit orator of England once wrote, "I ate like a hog, and I preached like a hog." Many a man of lofty powers and position has been, for the time, utterly

shorn of his strength, through the demand made by his stomach on his brain. He who is thus daily yielding to the sway of his lower nature, cannot reach the full capability of his higher. If he does not embrate himself, he must come far short of the full stature of his manhood.

But there is another penalty which falls upon our physical powers. Where more food is eaten than is assimilated, it is deposited as encumbering fat; or it undergoes chemical changes that give rise to gout; or it inflames the kidneys in their struggle to eliminate it; or it congests the stomach and liver; or it breaks down the brain with softening or with apoplexy. Men of high health ought to live a hundred years; but they are apt to fail of their threescore and ten.

But high health may be abused in the direction of the intellect. Its possessor can work mentally more hours a day than others without exhaustion, can curtail sleep, can neglect physical exercise, can carry great loads of care and responsibility. But with such there comes to be, in time, a mighty momentum toward and beyond the limits of safety, and either their own habits, or the influences with which they surround themselves, lead to the partial or complete breakdown of their brains. These are the saddest of all wrecks; but they are numerous.—*Youth's Companion.*

#### SWEET OBLIVIOUS ANTIDOTES.

ANY physician whose practice is chiefly among rich or fashionable women, will bear witness that the daily use of stimulants is increasing among them, and now and then a case of chronic alcoholism appears, not only on the doctor's register, but in the records of divorce courts. The very conspicuousness of these offenses, however, testifies to their extreme rarity, and it is not final sottishness which is to be feared by wine-drinking women half so much as that nervous reaction which inevitably follows the use of powerful stimulants.

\* Physicians themselves are not wholly free from blame in this matter. When a listless



woman complains that she can hardly drag herself about in the morning, finds the grasshopper a burden, is overtaxed by demands of housekeeping, rearing of children, and social duties, feels "all gone" after slight bodily exertion, her medical adviser seldom troubles himself to inquire whether her bedroom is perfectly ventilated at night, her dress loose enough to give the vital organs free play, her food digestible yet nutritious, her outdoor exercise regular and sufficient, her sleep secured, and her life not frittered away in harassing trifles. He permits, if he does not advise, the use of tonics and stimulants, which is simply resorting to the spur when oats are demanded, and inviting a day when the spur shall be useless.

American women have abnormally sensitive nerves. These with social duties (a phrase which commonly means late hours, ill-adapted clothing, exciting suppers, and the fancied necessity of talking to a hundred different people on a field-day of visits and receptions) use up all the nerve force they have, and borrow from the future daily; while to these demands are added those of husband, children, servants, and house. Their lives are passed in trying to put a quart in a pint cup, and they die unconvinced that the experiment cannot be successful.

Probably the remedy must begin far back, as the causes of the trouble certainly do. Our school-girls should live more in the open air, lead simpler and less hurried lives, and when they leave school, have some one serious and earnest occupation which shall give a weight of reality to their gossamer hours. It may be music, drawing, study in any direction, literature for its own sake,—anything which calls out the best powers of the worker. But whatever it be, it must be considered, not as the fleeting fashion of the hour, but as that consecration of one's best powers which is to ennoble life. Nothing wears out body and soul like the endless nothingness of mindless occupations; nothing develops and assures moral, mental, and bodily sanity like that high intellectual and emotional activity which vivifies the physical organization to its finger tips.

It is not the woman whose brain and heart respond instantly to all the nobler uses of existence, who suffers from listlessness, feebleness, and flaccidity. And if the great sisterhood of the "delicate" would resolve to use nature's tonic of simple living,—abundant sleep, out-of-door air, and equal with all, if not above all, the liberal use of mind and soul in the highest ways,—decanters, morphine needles, and chloral bottles might gather dust on the closet shelf, and our Juvenal rack his brains for some new feminine error to deery.—*Harpers' Bazar*.

#### MORAL NECESSITY OF HEALTH.

LIFE is devoted to the pursuit of *happiness*; and to this, health is obviously indispensable. *Usefulness* is so essential to happiness that all good and enlightened men teach that the most useful life is the happiest; and health is also obviously indispensable to the greatest usefulness. *Morality* is essential to usefulness; and while morality evidently promotes health, it is equally true, though unfortunately not so evident, that health promotes morality; for the laws of health are the laws of nature's God, and obedience to these laws is necessarily good morals, and such treatment of the body as will in no wise diminish the fullness or vigor of its vitality; that is, the capacity for usefulness is demanded by the highest morality. Health and morality are, then, to a great extent interdependent, each one promoting the other. *Knowledge*, as well as morality, is essential to usefulness. How dependent knowledge is upon health is made sufficiently obvious by the fact that however great a man's knowledge may be, he, if sickly, is less useful and happy than is an ignorant man who is healthy. Thus it seems that knowledge, and morality, and usefulness, and happiness—the four great objects of life—are all dependent on health.—*Sanitarian*.

Oh! that men should put an enemy in  
Their mouths to steal away their brains! that we  
Should with joy, revel, pleasure, and applause  
Transform ourselves into beasts!

—*Shakespeare*.



\* TEMPERANCE AND MISCELLANY. \*

Devoted to Temperance, Mental and Moral Culture, Social Science, Natural  
History, and other interesting Topics.

CONDUCTED BY MRS. E. E. KELLOGG, A. M.

"ONLY AN EARTHEN VESSEL,"

THE Master stood in his garden,  
Among the lilies fair  
Which his own right hand had planted  
And trained with tenderest care.

He looked at their snowy blossoms,  
And marked with observant eye  
That his flowers were sadly drooping,  
For their leaves were parched and dry.

"My lilies need to be watered,"  
The heavenly Master said;

"Wherein shall I draw it for them,  
And raise each drooping head?"

Close to his feet on the pathway,  
Empty, and frail, and small,  
An earthen vessel was lying,  
Which seemed of no use at all.

But the Master saw, and raised it  
From the dust in which it lay,  
And smiled as he gently whispered,  
"This shall do my work to-day."

"It is but an earthen vessel,  
But it lay so close to me;  
It is small, but it is empty,  
And that is all it needs to be."

So to the fountain he took it,  
And filled it up to the brim;  
How glad was the earthen vessel  
To be of some use to him!

He poured forth the living water  
Over his lilies fair,  
Until the vessel was empty,  
And again he filled it there.

He watered the drooping lilies  
Until they revived again,  
And the Master saw with pleasure  
That his labor had not been vain.

His own hand had drawn the water  
Which refreshed the thirsty flowers;  
But he used the earthen vessel  
To convey the living showers.

And to itself it whispered,

As he laid it aside once more,  
"Still will I lie in his pathway,  
Just where I did before.

"Close would I keep to the Master,  
Empty would I remain,  
And perhaps some day he may use me  
To water his flowers again."—*Sel.*

**BAD COOKERY THE ALLY OF INTEM-  
PERANCE.**

BY MRS. E. E. KELLOGG.

THE more we study the temperance question, the broader its scope appears. Years ago, when the temperance reformation was first agitated, its promoters thought a few years of agitation, of persistent pledge-signing by old and young, of convincing arguments and moral suasion for the slaves of the cup, would soon rout the enemy from their midst. Alas, how little was it realized what a deep and firm hold that enemy had obtained!

In later years, we are coming to see how this great curse is so closely interlinked with every phase and department of life that many reformatory measures must be set in motion before we can expect to see it wiped away from our fair land. We are beginning to realize that there are innumerable by-ways and side-paths that lead into the broad highway of intemperance, some of them so hedged about by hereditary prejudices and time-honored customs that their downward tendency is so nearly hidden from view as to be readily overlooked. We are learning that we must be ever on our guard against this arch fiend of nations; that the only real hold upon the evil is to secure those who are in danger of being swept away before they are drawn into the stream; that in the education of our children, in our social customs, in our methods of daily living, there may lurk many a temptation to indulge in that cup which cheers while it ruins.

In nothing is this more true than as regards our manner of living. Our present habits of life, particularly those of eating and drinking, have many



tendencies toward intemperance. It is a sad fact, but none the less true, that many a wife and mother is partly responsible for a drunken husband or son, through the improperly cooked food provided for her household. An insufficient meal, lacking not so much in quantity, perhaps, as in quality, or an abundant one so badly prepared as to be more or less indigestible, and served or seasoned with strong and thirst-provoking condiments, often creates a morbid craving which clamors for some narcotic or stimulant. The licensed or unlicensed neighboring saloon furnishes the stimulant, and the first step is taken on the downward road to drunkenness.

Says one who has given this subject much thought: "How often it happens that women who send out their loved ones with an agony of prayer that they be kept for the day, also send them with a breakfast that will make them half frantic with thirst before they get to the first tavern, and doubtless with never a thought of the danger they are exposing them to!" Much rests in the hands of women in this matter.

I know of a dear little woman in one of our Western States, whose husband, like many another unfortunate being, has inherited an appetite for alcoholic drinks,—an appetite which he nobly struggles to overcome, and which under favorable circumstances he is able to hold in check; but when he falls, the tempter comes to him not through the alluring voices of his gay companions, or the flattering enticements of some wily dram seller,—for, with a will like iron, he can resist these baneful influences,—but through the food which he finds upon his daily board. Not that this food contains a trace of alcohol; his little wife is too staunch an enemy to the drink fiend to allow that; but the poor man, partly by heredity and partly by acquirement, is a dyspeptic, and his noble wife, though she tries hard to help him overcome the drink habit, and often keeps the wolf of poverty from their door with her needle, has so little knowledge of the nutritive value of foods and the requirements of the human system that she often unwittingly serves to him viands that cause such an aggravating thirst,—a result of the congested condition of the stomach induced by the food taken,—together with such feelings of pain and depression as hamper his will-power, that he is driven to the cup in spite of everything. In *his* case, and it is but one out of thousands, the downfall is the result, not of outside temptations, but of an inward condition which it is possible with care to avoid,—a condition which requires no laws upon the statute books of the State, but which *does* require a knowledge and practice of the laws of

God's health decalogue, by every wife and mother throughout our land.

Perhaps you may think the case I have cited is an exceptional one. I wish, indeed, that it were; but from my own observation and the testimony of others, I fear such cases are quite too common. If any of you have ever suffered from a fit of indigestion, and can recollect the headache, the lowness of spirits, which accompanies almost any derangement of the stomach, varying in degree with the violence of the attack from slight dejection and ill-humor to the most extreme melancholy, until the power of reason seems almost paralyzed, the intellectual faculties dazed, and the moral feelings blunted, you will hardly wonder that when such a condition becomes chronic, as it so often does, the victim resorts to stimulants to drown the depression and enliven the mind.

Perhaps you say such a person ought to learn to know what harms him, and avoid it. Most truly; but then, all diseased conditions lessen to some extent the power of self-control; and a morbid appetite for food that is harmful is quite as difficult to overcome as is the appetite for strong drinks, to which it so often tends.

It is all very well to talk of moral heroism and will-power, but why should we make an extra demand for heroism on the part of men and boys, to meet temptations which it is in our own power to prevent? It is just as easy for women to furnish their tables with well-cooked, easily digested food, uncombined with any deleterious substance, as to supply it with any other, if they only have the knowledge and the will, and indeed if they have the *will* they will *get* the knowledge, which in this progressive age need not be far sought for. There are many ways in which this subject affects our temperance work, and what we need is to encompass them all, that what we gain in the field may not be lost at our own fireside.

The primal purpose of food is to furnish material to repair the waste which is constantly taking place with each activity of the body. Every breath, every thought, every motion wears out some particle of the delicate and wonderful house in which we live. Various vital processes remove these worn and thenceforth useless particles; and to keep the body in health, their loss must be made good by constantly renewed supplies of material properly adapted to make just the living substance needed.

This renovating material we must supply through the medium of food and drink. In reality, then, our bodies are made of the food we eat; and it is evident that such important building material should be the very best obtainable in quality, and



sufficient in quantity; since poor food must necessarily make poor blood, poor brains, poor muscles, poor bodies.

So true is this that it has been said, the quality of a person's food determines his character. Although this may not be correct in the strictest sense, it has been proved that man's dietary has much to do with his moral nature and intellectual ability as well as his physical condition. It certainly is reasonable that, since the brain is nourished by the blood which is made of the food eaten, if that blood be formed of improper food, or clogged by too much of it, the result will be a disordered organ incapable of first-class work.

Says Miss Frances Willard upon this subject: "I have formed a settled conviction that the world is fed too much. Pastries, cakes, hot bread, rich gravies, pickles, pepper-sauce, salads, tea, and coffee are discarded from my bill of fare, and I firmly believe that they will be from the recipes of the twentieth century. Entire wheat-flour bread, vegetables, grains, fruit, fish, with a little meat, and milk as the chief drink, will distill in the alembic of the digestive organs, into pure, rich, feverless blood, electric but steady nerves, and brains that can think God's thoughts after him," as they have never yet been thought. "This is my recipe: Plain living and high thinking, and this is my warning: With high living you will get exceedingly plain thinking."

That we may develop our powers to the utmost, and make the most of our own lives in the consecrated work of saving humanity from the evils of intemperance, even this sacred purpose, if there were no other, is reason quite sufficient why Christian temperance women should think and study about these things, and put in practice in their households the recipe just given. But view it from what light we will, the links which connect the subject of food with that of temperance seem almost numberless.

Dr. Norman Kerr defines inebriety as "a diseased state of the brain and nerves, characterized by an irresistible impulse to indulge in stimulants and narcotics for relief." Dr. James Muir Howie, an Englishman of note, who has made the subject a life study, says: "It is this excessive nervous irritability which is inherited by these children of the drunkard, that makes their lives so miserable that they naturally fly to drink for the comfort which they fail to find elsewhere." He also asserts that a similar condition of nervous irritability is brought about by other means than the drinking of alcoholic beverages, and that this condition inherited, has quite as great a tendency to make its possessors fly to drink for solace, as does the inherit-

ance of a similar state resulting from the use of intoxicating drinks. Prominent among these disease-producing agents, he mentions imperfect nutrition, the result of improper or impoverished food.

The preservation of a healthy nervous system is particularly dependent upon proper nutrition. Poor food makes poor, weak nerves, and weak nerves are always more or less irritable, and to continue the analogy, this hyper-sensitive condition creates the desire for some stimulant or narcotic agent to render life more endurable.

Of course not every weak-nerved person becomes a drunkard, or even the parent of a drunkard; for like the drink habit itself there are degrees of the evil, but wherever there is a liability, there is always danger, and that this danger is a great one, the history of hundreds of victims plainly shows. And when we remember what a small proportion of the women of our land ever stop to think what food is best suited to the physical needs of their households, but prepare and place before them whatever happens to be most pleasing or convenient, much of it often largely deficient in the proper nerve and muscle forming elements, can we doubt that this may have much to do with the proneness of our youth to follow the downward path?

TO BE CONTINUED.

### DRESS FOR YOUNG GIRLS.

"SUSIE is most twelve years old," said a fond mother; "do'n't you think I had better put corsets on her? She does not want to wear them. She says they hurt her, but I am afraid she will not have a good figure if she does not put them on soon."

"Never let her have it to say that her mother *put* corsets on her," said I.

"But she will grow all out of shape, and get round shoulders. She is as large around her waist now as she is under the arms."

"Thank God for that," said I.

Mrs. Y. looked shocked. I continued: "You are a Christian, Mrs. Y. Don't you think the Lord made Susie's body, and the figure she has is molded by Divine wisdom? I say, reverently, thank God if a girl of twelve has a waist of natural form and size. She has a better future before her than one who has a slender, compressed waist. Did you worry about Tommy's figure, and put corsets on him?"

"Why, no; but he is a boy."



"Must I infer, then, that the Lord knows better how to make boys than girls?"

Mrs. Y. looked as though she thought me a little deranged, and I presume did not heed my suggestions; and yet I believe they are correct. The clothes of the girl ought from the very first to be so loose that the mother's hand can be inserted between them and the body of the child, even around the waist. All skirts, drawers, and even stockings, should be suspended from the shoulders. I would rather use the old-fashioned garter than to suspend the hose from a band around the waist. The under-clothing should be equally distributed over the whole body, arms and legs receiving as many thicknesses as the trunk. The combination under-wear is the best that has been invented. With these, fewer skirts are needed, the extra clothing being added in a suit that covers the whole body, like the layers of an onion. One petticoat will then be enough, and this can be sewed to a waist. Dresses of the princess pattern are the most healthful, as they have no belts. Sailor dresses are objectionable, because they must have a tight belt to keep the blouse in shape; so, while they look loose and pretty, they are in fact unhealthful, because constricting the waist.

If a skirt and basque or polonaise are worn, the skirt should be suspended by a waist or straps. Even the weight of that one skirt is enough to tire out the physical strength, and worry the girl, who cannot understand why she feels so dragged down. An experiment will prove the truth of this statement. Under-waists can be made to fit beautifully, without being tight at any point, and the girl who has never felt the constraint of corset bones will find them instruments of torture. Not long since, I was in a room where a delicate girl was taking a lesson in singing. She felt faint, and went to lie down upon the sofa. I followed her to loosen her clothing, and when she recovered, I could not refrain from saying, "My dear, your dress is too tight."

"Oh, no, it is not tight at all."

"Now," said I, "your dress is unfastened; see if, after taking a deep breath, and while

holding the air in your lungs, you can fasten it." Of course she could not.

"But I do not ever want to breathe that way," said the girl. And with an air of offended dignity she held her breath, and drew together the stiff corset steels. A premature grave or a life of invalidism doubtless awaits her.

Girls, when by proper dressing and careful living you have attained an eminence of power and usefulness, no one will ask whether you wore homespun or silk in your girlhood. Be brave enough to defy fashion, and live for that day when you shall be able to do something in the world. Without health you can never be an active verb. Is it not better to *do* than merely to be or to suffer?  
—*Congregationalist.*

#### BREAKING OFF BAD HABITS.

It is easier to break off a bad habit suddenly than gradually. The gradual plan was tried at the inebriate asylums, but it was found that the best thing to do with an old toper was to cut off his supply of drink at once. For a day or two, or even for three or four days, he suffered much; but the vital powers, after being relieved of the daily poison, quickly rallied, and the man improved in health every hour.

It is so with the tobacco slave. An interesting anecdote in point is told of the late James Harper, one of the founders of the great publishing house of Harper Brothers. When he was a young publisher in Cliff street, he tried hard to dissuade one of his neighbors from drinking. One day, when he had talked earnestly upon the subject, his friend turned upon him thus:—

"Neighbor Harper, you do not like the taste of liquor, but you are as much the slave to tobacco as I am to rum, and you couldn't break off that habit any more than I could break off drinking."

To this retort Mr. Harper made no reply at the time, but it sunk deep into his mind. He thought it over all day, and finally made up his mind that no habit of his should ever be a snare to another. Before he slept that night, he put his pipes, his tobacco, and all



the apparatus of smoking away up out of sight on the top shelf of his kitchen. To the day of his death he never used tobacco again.

It cost him a severe effort to keep his resolution, but he made it cheerfully, and did not mention the matter until the victory was complete.

Many persons are still living who have heard him relate this incident of his early life.

Thurlow Weed did something similar. When he had been a pretty hard smoker for fifty years, his physician told him that his cigars were injuring him, and that he must stop smoking if he wished ever to have better health. Mr. Weed took his cigar from his mouth, threw it away, and never smoked again.—*Temperance Record.*

**Success for Women.**—The Philadelphia *Press*, in a recent article, says: "Women must excel in order to be successful. Excellence implies strength,—not spasmodic nervous strength, which makes an effort once in a while, under extraordinary pressure, but the strength, which can turn off daily work without excessive fatigue,—the strength which leaves the eye still bright and the step elastic, after a long day behind the counter, over the sewing-machine, at the desk, at the easel, in the kitchen, or in the school-room. Such strength as this does not go with a small waist; from the nature of things it never can—unless as has been pointed out in exceptional cases—be found in women with small waists. Strong back and abdominal muscles, muscles which can do their work without the deadly props of steel and whalebone now so universally worn, a large digestive capacity, a rapid and utterly unobstructed flow of the blood in the veins and in the arteries,—these are some of the requirements of health and strength. These things take up room."

"If women," says the New York *Herald*, "want to help their working sisters along, let them take a hint from the *Press*, and unite in making ill health and puny figures unfashionable."

#### WHAT TO DO.

TAKE a morning stroll,  
If you have the leisure;  
You may aid the soul  
And body with such pleasure,  
Keep your spirits up  
Without spirit drinking;  
He who trusts the cup  
Cannot keep from sinking.

Take the plainest food,  
And time enough to eat it;  
Do not overload  
Your chest, or overheat it.  
Shun wine, ale, and gin,  
The fiends of indigestion;  
If they once get in,  
They'll riot in congestion.

Take an early bed,  
Sleep like tops a-spinning;  
Pillows under head  
May save a deal of sinning.  
Take the temperance pledge,  
Keep it without breaking;  
It may be the wedge  
To open fortune making.  
Never take a drop  
Of lager, gin, or brandy,  
Though the tempting shop  
Be nice, and neat, and handy.

—*Bungay.*

**Fire and Brimstone.**—A West-of-Scotland clergyman was going to the Highlands for his holidays, and being very fond of the "Nabob pickles," he took a bottle with him. The "Nabob pickles" are extremely hot, and should be sparingly used. On arriving at a hotel, he placed the bottle on the table, and took one or two of them. A Yankee was sitting opposite, and got his eye on the pickles. "Stranger, pass the pickles, please." The clergyman said: "These are private property, but you are welcome to them." He passed the bottle across the table. The Yankee emptied half the bottle into his plate, and stirred them up well with his spoon. He took a big spoonful, but they were not long down when he drew a long breath, and said, "Oh, dodgast it! Look here, stranger, I guess you are a parson?" "Well, I am a clergyman, and I preach the gospel." "Look you here," said the Yankee, "I have heard them preach about fire



and brimstone, but you are the first one I ever knew who carried a sample bottle."—*Exchange.*

**Remarkable Rivers.**—Among the world's natural curiosities are several rivers, each of which has some positively unique characteristic. In Algeria, for instance, there is a small stream which the chemistry of nature has turned into true ink. It is formed by the union of two rivulets, one of which is very strongly impregnated with iron, while the other, meandering through a peat marsh, imbibes gallic acid. Letters have been written with this compound of iron and gallic acid which unite to form the little river. In Columbia there is a river which, by admixture with sulphuric acid, becomes so sour that it is appropriately named, Rio de Vinagre, or Vinegar River. Many varieties of fish abound in the large Orange River of South Africa, until the river passes through a rocky region containing copper ores, below which the water is said to be poisonous, and to kill the fish that venture into it.

"China's Sorrow" is the name that has been given to the great Hoang-Ho, which rises in the mountains of Thibet, and follows a wonderfully circuitous channel for 2,500 miles to the sea. The waywardness of this mighty volume of water makes the river a constant source of anxiety and danger, instead of wealth, to 170,000,000 people inhabiting the central plain of China. It is known to have suddenly changed its course nine times. It has moved its mouth over four degrees of latitude, each time emptying its vast floods in different directions, and digging a new channel for itself where scores of villages had stood. It has greatly changed the physical character of a wide area, turning fertile regions into a sandy waste, or making shallow lakes of them, in which nothing grows, and over which nothing can sail. Whether it is within the power of Western science to save this great plain from disastrous overflows and changes of the river bed, is a question that has been considerably discussed in England of late years.

A very curious river is the Webbe Shebeyli

of East Africa, a deep and rapid stream, abounding in fish and crocodiles. Though it flows for hundreds of miles through fertile lands, the immense volume of water never reaches the sea. A little north of the equator the river loses itself in a desert region a few miles from the Indian Ocean.—*Christian Union.*

—What does drink cost in human misery? Can I count the leaves of the forest, or the sands upon the shore? And the sounds of this misery are like the sighing of the leaves of illimitable forests, and the plashing on the shores of unfathomable seas. . . . It costs us millions of money, myriads of criminals, thousands of paupers, thousands of ruined women, hundreds of thousands of men and women goaded by misery into suicide or madness, with every blossom in what might have been the garland of their lives blighted as by a fury's breath. . . . Shall it be nothing to you that the blood of your brothers and sisters in this great family of God is being daily poured upon the altars of this deadlier Moloch of a Tophet, more awful than that of Hinnom's Vale, while in disowning that you are your brother's keeper, you become his Cain?—*Canon Farrar.*

—Mr. Stanley says the length of the Congo is 2,100 miles, and the Mississippi and the Nile together would scarcely equal its tribute of water to the ocean. From the mouth of the river a steamer drawing fifteen feet can steam up 110 miles, at which point a land journey of 52 miles has to be taken, on account of rapids. Then another steaming or rowing voyage of 88 miles occurs, which is succeeded by a land journey of 95 miles. After that it is possible to steam up 1,060 miles.

—"I am just as much opposed to intemperance as anybody," said Smith, "but, nevertheless, liquor rightly used is a blessing to humanity. When I was ill last year, I really believe it *saved my life.*" "Very likely," said Brown, "but how does that prove that liquor is a *blessing to humanity?*"



## POPULAR SCIENCE.

—In South America there is a species of palm having the power, in a remarkable degree, of attracting atmospheric moisture, which condenses and drops from it upon the earth as a refreshing dew.

—The smallest quadruped in the world is the pigmy mouse of Siberia. The most diminutive plant is the arctic raspberry, which is so small that a six-ounce vial will hold the whole, root and branches.

—Sir William Thomson has recently calculated that the average size of a chemical atom is not less than six and not greater than sixty billionths of a cubic inch. It has also been calculated that in a cubic inch of air there are three hundred quintillions of atoms; hence the cubic inch of air is by no means full, and it is possible for them to move eighteen miles a minute, and collide against each other 8,500,000 times a second, as has also been lately calculated that they do.

—It is a curious fact that flowers in the arctic regions never become confused by the action of the sun in that latitude. Mr. Seeman, the naturalist of Kellet's arctic expedition, states that although the sun never sets during the long arctic day, plants make no mistake about the time when it should be night according to their calculations, but regularly, as the evening hours approach, they droop their leaves and sleep, precisely as they would do in a climate where the sun does not stay out so late.

—M. Albert, a Vienna artist, has perfected a process for rendering natural colors in a photograph by means of a peculiarly constructed photographic steam-press. The principle consists in the analysis of white light into the three colors, yellow, blue, and red, and in the recovery of the three colors ready for the press. On a plate chemically prepared so as to receive but the yellow parts of the light, and the tones of the colors of the object to be reflected, the first photograph is taken, when a negative of that plate is at once put under the press, the cylinder of which is dabbed over with yellow paint. None but the tones of the yellow colors are now seen in this impression. After that, the object is photographed on the plate made to reflect but the blue colors; this plate now under the press, reflects a blue impression, the cylinder being dabbed over with blue paint. In the same manner the tones of the red colors are provided for by means of a third plate. By printing the

individual pictures of the yellow, blue, and red over each other, the colors intermix in the production of the picture.

**Natural Language.**—A few years ago a society of eminent Frenchmen discussed the question: "What language would a child naturally speak if never taught?" Twenty different results were predicted.

To test the matter, two infants were procured, and isolated with a deaf and dumb woman, who lived alone in the Alps, surrounded with her sheep and chickens.

After six years, the children and the nurse were brought before the *savants*, who were on tip-toe of expectation as to the result; when, lo! not a word could either of the children utter, but most perfectly could they imitate the crowing of the cock, the cackling of a hen, and the bleating of sheep.—*Chicago Medical Times.*

**A New Volcano in the Pacific Ocean.**—According to a correspondent of the *New Zealand Herald*, a new and vast volcano has appeared in the Pacific Ocean. One of an exploring party from Tonga, who visited the spot writes of it as follows:—

"I have not words to express my admiration and wonder at its changing splendor. Eruptions take place every one or two minutes, changing its appearance every second like a dissolving view. I can only say it was one of the most grand, awful sights I ever witnessed on the high seas in all my life. And now for the position of the island that has been thrown up by this volcanic eruption. It is, as near as I have been able to calculate at present, on the southeast edge of Culebras reef, as placed on the chart by H. M. S. Falcon in 1865, and N. W.  $\frac{1}{2}$  W. magnetic; fourteen to fifteen miles from the island of Honga Tonga. As to the size or extent of the island thrown up, I am at present unable to state correctly, there being so much steam and clouds hanging about and over it! but I should imagine, from what little I could see of it that it was from two to three miles long, southwest and northeast; high about sixty feet; lat., 20°, 21' S.; Long., 175°, 28' W. position of Sandfly Island."

### HOW THE BOTTOM OF THE OCEAN IS LIGHTED.

ONE of the most striking things noticeable in dredging is the great variety and brilliancy of colors in the deep sea animals. There are bright red sea-anemones, deep purple sea-pens, delicate pink



corals, pure white sea-cucumbers, and dull black fishes, all mixed up in a mass of bluish gray mud. A few of these animals are blind, but most of them have very well-developed eyes. In depths of over 1,000 fathoms it is physically impossible for the faintest gleam of sunlight to penetrate. It must be darker on the ocean bottom in 2,000 fathoms than the darkest starless night, that is, if nothing but sunlight were to be depended upon. If it was as dark as that, neither eyes nor colors would be of any use. Nature does not support useless organs, and when an organ is no longer needed, it is dropped. The fish of Mammoth Cave, no longer needing eyes, have become blind. Such would be the case in the deep sea. Another proof that there is light on the ocean bottom is the fact that many unprotected animals assume the colors of the larger animals on which they habitually live. There is a brittle star that is always found in the branches of a bright orange-bush coral, and unless looking at it very closely, one can hardly distinguish it. There is an object in this—the starfish wishes to conceal itself; but if the ocean bottom was totally dark, there would be no need of such an arrangement, for the darkness alone would be sufficient.

One evening the dredge came up at eleven o'clock, and the electric light suddenly went out while we were examining its contents. Just before it became dark, I had thrust my hand into the mud to draw out a rare shell; and when I withdrew my hand, it glowed with phosphorescence, the mud was covered with a phosphorescent light, and many of the animals when touched gave out a brilliant glow. This was the secret of the deep sea eyes and colors. With such a light, both sight and color would be as useful at the bottom of the sea as on the surface.

I believe if we could suddenly find ourselves on the bottom of the ocean in 2,000 fathoms, we would see brilliant white lights, casting intense shadows, illuminating the ocean bottom in an effectual manner. There would be vast tracts of darkness almost absolute, and here the blind forms would habitually live, having no use for colors or light. Groves of coral would shine with this intense light, shrimp and fish would dart about, specter like, over an illuminated pathway, each carrying his own lamp, and the whole ground would be one glow of phosphorescent light.

On the surface many animals are phosphorescent; the large schools of mackerel and menhaden can be seen for miles emitting a bright light. In the evening, on the sea-shore, the surface is often aglow with a silvery light. On such nights the sailors say, "A storm is coming." The billions of embryos and microscopic animals that fill the surface waters each emits a little fire-fly spark, and all

vie with each other to see which can excel in brightness. The result is a sheet of pure white light. The boat leaves a train of bright light, and silvery drops fall from the oar back into the water, sending a little spray of light into the air, and spreading out little ripples of phosphorescence. Why these tiny animals emit their little sparks is not known, though it is generally said that it is the result of nervous excitement or irritation. When sailing in the Gulf Stream, I have passed through schools of jelly-fish, when the prow of the vessel turned up brilliant waves of living light, and the whole surface for miles around was aglow with phosphorescence. In this case the light is for protection. Animals that might be dangerous enemies to the soft-bodied jelly-fish have learned that behind that brilliant light lurk deadly stinging powers, and they instinctively avoid it. But young and inexperienced fish have not yet learned the lesson, and so, attracted by curiosity, they approach the light and receive the deadly shock, and furnish food to the well-protected jelly-fish. If one escapes, it never tries the experiment again; for just as certain as it comes near the jelly-fish, it receives a shock that, if not fatal, is strong enough to inspire it with a terror that will never be forgotten. An inoffensive animal has learned the terror that the jelly-fish inspires its enemies with, and has assumed the same protective light. This is pyrosoma, the sea-lamp, a cluster of ascidians that have no stinging power whatever, but which defraud fish that might be dangerous enemies into the belief that they are jelly-fishes.

There was a time when the ocean bottom was much nearer the surface than at present, and when sunlight pervaded the entire water. Phosphorescence was then in use by a few animals just as it is to-day, for protective powers. Gradually the ocean bed sank and became darker, until the sunlight was no longer of use to the denizens of the deep. The few phosphorescent animals found another use for their light than protection. It became serviceable as a lamp to illuminate their dark home. Other animals saw the use of the light, and, as in the case of pyrosoma, began to adapt themselves to their surroundings by becoming phosphorescent. There is some strange law of evolution that allows this to be done. Animals and plants alike in their struggle for existence can assume colors and forms best adapted for survival. This is illustrated on every hand in the sea and on the land. What the power is that allows them to do this is unknown. Be it Providence, instinct, or unconscious change, the result is the same; it is done and is being done every day, nearly always to the advantage of the species.—*Scientific American*.





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J. H. KELLOGG, M. D., EDITOR.

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### CONTENTS OF A TEA-POT.

THE vast number of tea-pots in constant requisition in all civilized countries of the globe, warrants the supposition that in the estimation of the tea-drinking public, at least, the tea-pot is an indispensable culinary utensil, and the steaming decoction which it contains, an innocent or necessary beverage. The object of this article is to call attention to the fact that the revelations of modern scientific researches, as well as the observations of scientific physicians in various parts of the world, have found in tea and its congeners, coffee, coca, chocolate, etc., active causes of serious disease.

Tea contains two harmful substances, theine and tannin—from three to six per cent of theine and more than one-fourth its weight of tannin.

Coffee contains both theine and tannin, though in less proportion than tea.

Coca and chocolate contain a substance similar to theine, which is equally harmful, though usually present in less proportion than in tea.

It will surprise many devotees of the cup to be told that these common beverages contain a violent poison, but such is the fact. Theine has been separated from both tea and coffee, and experiments have been made with it which show most conclusively that it is a deadly poison, capable of producing immediate death in both human beings and lower animals.

Theine belongs to the same class of poisons as strychnia, and is still more closely allied to the newly discovered cocaine. The last-named drug is obtained from coca leaves,

which are used in South America as tea is in this country, and with the same effects. The effects of cocaine upon those who become habituated to its use are found to be more terrible than those from any of the numerous vice drugs which have been longer known, not excepting opium or alcohol. Theine is almost identical with cocaine both in its chemical composition and in its effects.

Dr. H. C. Wood and other writers on the various drugs used in medicine, describe numerous experiments with this poisonous constituent of tea. One observer found that one-seventh of a grain killed a frog in a very short time. Five grains killed a good-sized cat and also a rabbit. Death occurs in lower animals in a manner almost the same as that in which death occurs in poisoning from strychnia. Strong convulsions are produced with the arrest of respiration, and in a short time the heart ceases to beat. Tea contains about three per cent of theine, or more than thirteen grains to the ounce. Every pound of tea contains enough of this poison to kill fifteen hundred frogs or more than forty cats. One case is on record in which a fine horse belonging to an English army officer was killed by eating accidentally a small quantity of tea.

The largest dose of theine which is recorded as being taken by a human being, is twelve grains, which produced very dangerous symptoms, and with the addition of a few grains more would undoubtedly have proved fatal; yet half an ounce of tea containing six and one-half grains of the poison is often used in making a strong cup of tea. Many persons drink half a dozen such cups of tea daily, thus



imbibing a sufficient amount of poisonous theine to kill two men not accustomed to its use, if taken at one dose.

If tea contains such a poison, why does it not produce fatal results more frequently than it does? may be inquired. We answer, simply because a tolerance of the drug is established by use, just as in the case of tobacco. One-tenth of a grain of nicotine will kill a frog, and so small a dose as one-sixteenth of a grain has produced dangerous symptoms in a man; it has also been shown that the smoke from a half ounce of tobacco contains sufficient nicotine to produce death, yet sudden death from tobacco-smoking is not a very common result of the almost universal use of this poisonous drug. The wakefulness and increased mental activity which many persons experience from the use of tea, are evidences of its poisonous character. The same thing is observed in cats and other lower animals when tea is administered to them in a little less than the fatal dose, or when a fatal dose has been given, and before the fatal effects make their appearance. The poor creatures manifest sometimes the wildest excitement.

But the tea-pot sometimes contains other things besides theine and tannin. Probably there is no article in common use which has been so extensively and so harmfully adulterated as this. According to the *Chicago Grocer*, a reliable trade journal, not less than one-fifth of all the tea sold is adulterated more or less. Lead, Prussian blue, and many other poisonous and harmful substances are used for this purpose, and the injury done in this way, aside from the harmful effects of the drug itself, may be said to be incalculable.

The adulteration of coffee is equally notorious. It is stated by those who are authority on this subject that it is practically impossible to obtain a pound of ground coffee which is not adulterated; and it has recently been discovered that unground coffee is also skillfully adulterated by means of machinery which molds the adulterants into the exact form of the real coffee bean.

In view of the above facts, would it not be well for the thousands of tea-drinkers in this

and other civilized countries to pause and consider between the sips of the steaming beverage, whether it would not be well to substitute hot water, hot milk, or some other harmless beverage for this subtle but certainly harmful drink?

#### A NEW VICE DRUG.

ABOUT a year ago a sensation was created, not only in the medical world but wherever the public prints were circulated, by the announcement of the wonderful anæsthetic properties of a newly discovered drug, cocaine. This drug possesses the power to temporarily annul sensation in any part of the body to which it is applied. Simply applying it to a mucous membrane is all that is required to secure its effects, but when it is desired to benumb the skin, it is necessary to inject it into the tissues just beneath the surface. This remarkable drug is certainly a boon to surgery, as it renders the employment of chloroform and ether unnecessary in many cases in which they were formerly used; but recent developments suggest that it may prove to be on the whole a curse rather than a blessing. There is in all civilized countries a growing class of persons who are more or less addicted to the use of drugs which produce a transient felicity or at least a temporary relief from infelicity. These persons are always on the watch for every new narcotic, stimulant, or nerve benumber which scientific research makes known to the world, and are not slow to try its efficacy as a means of securing to their exhausted nerves a new sensation, or a mitigation of the sufferings induced by their long indulgence in lethal drugs. It would naturally be expected that this class of persons would not be slow in seizing upon so promising a drug as cocaine, and it seems that the facts fully justify the expectation. A number of cases have already been reported in which persons had become addicted to this new drug, and the effects of its use have been found to be much more dreadful than the use of any other narcotic or stimulant previously known. Only a few cases have come to light as yet, but it is to be expected that



the use of this new agent of nerve destruction will soon outstrip all its competitors in its damaging effects upon the human race, unless its high price should prove to be an efficient obstacle to its extensive use, or some measures shall be adopted whereby its use for other than strictly medical purposes may be prevented.

#### A LABOR-SAVING MACHINE.

A RECENT number of the *Scientific American* describes a novel and ingenious labor-saving machine, which ought to be introduced into every community. The apparatus is known as a "smoking machine," and it is shown in an illustrative cut in the act of smoking four "number nine" cigars simultaneously. The machine is said to imitate exactly the action of human smokers, and consumes the weed at a more uniform rate, not being subject to any interruptions from eating, talking, and other trifling things which seriously interfere with the regular business of the smoker, and detract greatly from the profits of the great tobacco industry. The alleged purpose of these smoking-machines, is to test the quality of cigars manufactured from different varieties of tobacco leaves; but since their excellent smoking abilities have been so fully demonstrated to the entire satisfaction of the French "administration of tobaccos," we would earnestly recommend that the machine be imported into this country, and given the entire monopoly of the smoking business. A great number of men and youth might be thereby relieved from a burdensome, degrading, and noisome occupation, and thus set at liberty to devote their energies to some healthful and useful industry. The machines could be attached to smelting works or rendering establishments, in such a way that the poisonous fumes emitted by them would be conducted off in the huge chimneys of these establishments, and consumed along with the other noxious gases arising from these industries, so that not only smokers would be delivered from the onerous burden which they now sustain, but a vast number of other members of every commu-

nity would be saved the nauseating effects of breathing tobacco-poisoned air.

#### AN EVIL THAT NEEDS ATTENTION.

AN exchange calls attention to a well-known gentleman of Boston, Mr. J. M. Hubbard, as repeatedly remonstrating with the trustees of the Public Library of that city for allowing school-children to draw from the library books which are not only questionable, but really immoral in their tendency. According to the writer referred to, "Mr. Hubbard believes that it is wrong to circulate at the public expense any books of an immoral tendency among children. He is right beyond the shadow of a doubt. The trustees claim that they 'do not consider themselves in the position of parents or guardians to the community, bound to select for it only such books as suit their own taste.' This may be the true position; but it does not exempt them from keeping entirely out of the reach of the children, books that are known to be vicious; nor does it exempt them from examining the books that come to their shelves that they may know their true character. The *gravamen* of Mr. Hubbard's charges is, that there are books of vicious character in the library, and that they circulate among the children.

"We may safely leave the Boston library to his care. We are very sure that the people of that city do not want their children poisoned. We think it altogether likely that since the issue of his circular, more of the questionable books will be put in the 'Inferno,' where it will be hard even for adults to get them. This will be as it should be. We believe in the right of the authorities, even of a public library, to exercise a restrictive power over that which may do harm to the community. We call attention to the matter here because it is one upon which we should be ever vigilant. A single vile book circulated among the children may do untold harm. There is constant need that library authorities, parents, teachers, keep themselves informed as to the character of the books the children are reading, and that they keep from them, at least as zealously



as they would strychnine or arsenic, the poison of an immoral literature."

#### JAUNDICE FROM POISONED WALL PAPER.

DR. ALFRED FREER, M. R. C. S. L., of England, mentions several cases of jaundice arising from poisoned wall paper, and reports as follows, which indicates the importance of looking carefully after this source of poisoning, liable to enter any home:—

"The following six cases of jaundice, due to arsenic taken in by the respiratory organs, are worth recording, if they were only to illustrate the singular uniformity of effects produced by that poison upon the biliary ducts.

"On September 20th last, I was called in to see a boy and girl, aged nine and ten, children of a gentleman lately come into a renovated and enlarged house. I found them suffering from vomiting, tenderness at the epigastrium, furred tongues, with well-marked icterus jaundice. In a fortnight they had recovered.

"On October 30th, I was summoned to another boy and girl in the same family, but a little older. Their symptoms were precisely the same, and recovery soon took place after a week's bed, etc. I suspected the drains of this house (just out of a transition state) might be out of order, but could get no proof of thi .

"On November 13th, I was again called in for two older sisters, aged sixteen and eighteen. They, too, presented jaundice, and all the symptoms of the other four, but more acute. Convalescence was established in a fortnight. Noticing in the dining-room a little damp on the paper, I examined it more closely. It was a provisional paper of a light blue, blue tint relieved by white figuring. Scraping off some of this white dust, and submitting also a piece of the paper to tests, I found the presence of arsenic in a large quantity. On visiting the airy play-room where the children had of late passed more time than usual, I found the walls covered with a pale paper with white relief, but not the same as in the dining-room. Some of this I also tested, and found in it the pres-

ence of arsenic in large quantity. It would have seemed that arsenic respired is very apt to produce icterus, through tumefaction of the ductus communis at its outlet. The papers have been renewed, fresh ones supplied, and the family has continued well ever since."

*Slowing Digestion.*—A writer in the *British Medical Journal* has discovered a new argument in favor of the use of stimulants, which certainly does not lack the merit of novelty. The author of this new theory, a certain Sir Wm. Roberts, supposes that we are in danger from too rapid digestion, which singular position he maintains thus: When in a primitive state, man was obliged to subsist upon coarse and raw food. His digestive organs were consequently calculated to supply the body with nutriment under circumstances less favorable than those which we now enjoy, when food is rendered much easier of digestion by the art of cookery. The increased facility with which the food is digested, renders us liable to digest more than is good for us, so that it is necessary for us to take something to slow down the digestive process. It is well known that stimulants do this, and hence their usefulness, and the almost universal craving for them which is experienced by thousands.

This theory may be satisfactory to those who are determined to find some apology for the dietetic use of alcohol at all hazards, and without regard for scientific truth; but it does not tally well with the claims of those wine-loving physiologists who have for so many years been arguing that alcohol assists digestion, and is on this account very essential for the aged, the feeble, and those who are insufficiently supplied with food.

*Inventory of a Cistern.*—An English health journal publishes the following from a correspondent who had been exploring his cistern:—

"At first I could not find the cistern. I hunted about until I discovered it in an out-of-the-way hole, to which access was only to be had by groping along a dark,



narrow space between the ceiling and the tiles. This journey of exploration cost me a coat and a pair of unmentionables. When I at last succumbed to the attempts, and had my plumber in, we discovered an 'old curiosity shop' in the said cistern, which had, of course, been left uncleaned for years. We found as follows: *Item*, four inches or so of nice soft mud; *item*, several dozen lively worms, species unknown; *item*, skeletons of mice or other quadrupeds; *item*, plenty of stones; *item*, several nails; *item*, one lively eel; *item*, two fragments of cloth, source unknown; and *item*, an old boot. The last-named article constitutes the great mystery of my cistern. Privately, I suspect it belongs to some plumber who found a watery grave in the tank, but as yet I haven't succeeded in discovering his remains!"

We have heard of some cisterns almost as bad as the above. A few years ago we investigated one which we found thoroughly contaminated by the refuse thrown into it. The water had been used by the family for drinking and cooking purposes. A broken drain from the kitchen sink was situated so near it that the water from the sink went into the cistern; thus the same water was used over several times, so that after a few months the water acquired a considerable thickness by the accumulation of germs, decomposing matter, and impurities of various sorts.

**Candy-Eating.**—There are few abuses of the stomach so seriously and positively harmful as the very common one of candy-eating. Many persons whose dietetic habits are correct in the main, indulge themselves in this pernicious and foolish practice. A correspondent in a Southern State writes us that not less than three-fourths of the entire population of the town in which he resides, are addicted to the practice of chewing "taffy." He mentions that the taffy-chewers include several doctors, and wishes to know our opinion of the practice. We do not know of any way in which the doctors could do themselves much more harm, or set a much

worse example, unless they should substitute tobacco for "taffy." The growing consumption of confectionery and sweets of all sorts is unquestionably one chief cause of the increasing prevalence of dyspepsia, for which Americans are acquiring a world-wide fame.

**An Ingenious Device.**—A German girl swallowed her artificial teeth. A dentist was called to extract them, and found they were stuck fast in the gullet, about half way to the stomach. They could not be withdrawn, and so were pushed down into the stomach. The danger was that the sharp-edged plate would cut the stomach and intestines, and thus excite inflammation. To prevent this, the girl was made to swallow a lot of thread cut into short lengths and mixed with beaten white of egg. The result was a brilliant one. The plate was passed four days later without pain or inconvenience, and was found to be completely enveloped by the threads.

**An Inspection of Drunkards.**—Dr. Formad, of Philadelphia, has been inspecting dead drunkards for some time back, and recently made a report of the results of his observations in the autopsies of two hundred and fifty cases. All the cases examined were those of persons who had for a long time been addicted to the excessive use of alcohol, and did not include those who usually call themselves moderate drinkers. Dr. F. found in almost every one of these cases induration of the kidneys, enlargement and fatty degeneration of the liver, and chronic catarrh and mammillation of the stomach. These researches are of great value, as they develop the fact that the morbid conditions produced by alcohol are of a peculiar character, and different from those which, while somewhat resembling them, are the result of other causes than alcohol.

It would be well if every drunkard in the land could peruse this interesting paper, and thus get well in his mind a true picture of how he looks inside.

—A perfect balance of one's powers constitutes perfect health.



*A New Danger from Flesh Meat.*—Dr. Klein, an eminent English microscopist, has discovered another source of danger in flesh meat. A large number of persons partook of beef and ham at a public sale. Seventy-two of them were taken very sick, and four of them died. Examination showed in the ham used on the occasion a new form of bacillus, which was also found in the bodies of some of the victims of the disease. It is noteworthy that the bad effects of this diseased meat were felt, notwithstanding it had been thoroughly cooked. Diseased meat should never be eaten, even if it has been cooked ever so thoroughly. It is an unsafe doctrine that any meat is wholesome if it is cooked with sufficient thoroughness.

—According to the report of the German Vaccination Commission, the following results were obtained by the operation of the law requiring re-vaccination in Germany:—

“From 1816 to 1870 the average annual mortality per 100,000 of population in Germany, was from 15 to 25 in the intervals between occasional epidemics, rising in those epidemics for one or two years to from 40 to 60. During the great epidemic that occurred in connection with the Franco-Prussian war, the mortality rose to 243 and 262 in the years 1871 and 1872 respectively. The effect of the new law first became apparent in 1875. From that year to 1882 the mortality per 100,000 did not reach four in any year, and the average was less than two and one-half.”

—Dr. Edwin Chadwick, of London, has suggested that pure air in cities might be obtained by drawing the air down from a considerable height, by means of shafts with suction pans attached. It is somewhat questionable whether this method affords any advantage for large cities, on account of the enormous quantities of smoke and other gases which are continually sent up into the air. Impure air in cities is naturally warmer than pure air, and consequently rises; while the pure air from the suburbs continually crowds in at the surface of the ground. It seems somewhat doubtful whether the suggestions will be any material improvement over the methods in common use, although of course it should be understood that fresh air should always be taken from

a few feet above the surface, so as to avoid contamination by ground air.

—French ladies consider carrot soup eaten with brown bread a specific for the complexion. This is a valuable suggestion for ladies who try in vain to hide the pimples and muddiness of an unhealthy skin, the result of a diet of fat meats, fried foods, and strong coffee, by the liberal use of enamel and all sorts of cosmetics. The secret of the French woman's diet is not in the carrots, but in its simplicity.

—The *Milwaukee Sentinel* complains that although more people die every year from trichinosis than in twenty years from hydrophobia, yet the owners of hogs pay no tax, buy no muzzles, and have no hogs shot down. Surely this is a most unfair partiality in favor of the hog. Every dog should rise up and bark a vigorous protest against such unfair treatment.

—The *Boston Globe* says: “The quantity of high-spiced articles consumed in this country, would cause astonishment in the breast of even a Brahmapootra owner of a white elephant. If Peter Piper picked and ate a peck of pickled peppers, he would still, in this respect, be far behind the average American school-girl.”

—It appears from recent investigations that the arsenic-eating of Styria, of which so much has been written, while not wholly a myth, has been grossly exaggerated. The drug is used by a very few persons, but by no means in such enormous doses as has been reported.

—A Chicago man has discovered that Chicago ice-cream, which is sold by the manufacturers at one dollar a gallon, is skimmed milk, oleo-butter, corn-starch, and gelatine, flavored with vanilla.

—A New Jersey lady was recently made very sick by washing her hands with soap made of the fat obtained from sick or decayed animals.





## DOMESTIC MEDICINE.



**About Colds.**—An English doctor makes the following very sensible suggestions about colds, which are especially worthy of note, as the ideas suggested will undoubtedly be new to many :—

“It is not a correct practice, after a cold is caught, to make the room a person sits in much warmer than usual, to increase the quantity of bed-clothes, or wrap up in flannel, and drink hot teas ; for that will invariably increase the feverishness, and in the majority of instances, prolong rather than lessen the duration of the cold. It is well known that confining inoculated persons in warm rooms will make their small-pox more violent by augmenting the general heat and fever ; and it is for the same reason that a similar practice in the present complaint is attended with analogous results, a cold being in reality a slight fever. In some parts of England, among the lower order of the people, a large glass of cold spring water taken on going to bed, is found to be a successful remedy, and in fact, many medical practitioners recommend a reduced atmosphere and frequent draughts of cold fluid as the most efficacious remedies for a recent cold, particularly when the patient's habit is full and plethoric.”

**Sleep Producers.**—The fashion of “taking something” to produce sleep was probably never so prevalent as at the present time. The bustling business man, hurried, harassed, and worried by the exigencies of the trade and the risks of speculation, finds his nervous system at night wrought up to such a high tension, and his brain so charged with feverish blood, that sleep is impossible ; and without pausing to consider the propriety of removing the causes by which the sleeplessness has been induced, he recklessly resorts to the use of some drug by which a state of unconsciousness, which has been very appropriately termed “poison sleep,” may be induced.

The fashionable woman who dissipates in late suppers, balls, etc., resorts to the same means for postponing the penalty of violating nature's laws. The use of alcoholics and strong tea and coffee also creates an abnormal state of the nervous system which tends to sleeplessness, and leads to the use of means for producing artificial sleep.

The dangers from this growing evil are well depicted in the following, which we clip from the *London Lancet* :—

“Again we have to record with deep regret a sad proof that those who give or take chloral or bromide of potassium for sleeplessness, are guilty of a deplorable error, and do a grievous wrong. The narcotics which poison sleep, also deprave the higher nervous centers, enfeeble the controlling power of the will, and leave the mind a prey to the depressing influence of a conscious loss of self-respect and self-confidence. The cultured mind feels the ignominy of this intellectual and moral depreciation with great acuteness, and in the end succumbs to the sense of powerlessness to recover self-control and do right. The depravation wrought is purely physical. The baneful influence of the lethal drug is, so to say, organic. The essential elements of the nerve tissue are blighted by the stupefying poison, as by alcohol in habitual drunkenness. In short, the recourse to chloral and bromide is precisely the same thing as a recourse to alcohol. The man or woman who is sent to ‘sleep’—the mocking semblance of physiological rest—by a dose of either of these narcotizers, is simply *intoxicated*. No wonder habitual drunkenness of this class first impairs and then destroys the vitality of the mind-organ, and places the subject of a miserable artifice at the mercy of his emotional nature, and makes him the creature of his passions. When will the public awake to the recognition of facts with regard to the use of these most pernicious stupeficients ? Persistence in recourse to them has no better excuse than unwillingness to take the trouble to search out the cause of the ‘wakefulness’ which prevents natural sleep.”

**How to Take a Vapor Bath.**—Many people who are troubled with spring biliousness may escape the usual annual attack by drinking from six to ten glasses of hot water daily, and employing the weekly or tri-weekly vapor bath. This bath can be readily and successfully administered with such conveniences as every family possesses. Place the patient in a cane-seat chair, having first taken the precaution to spread over the seat a dry towel.



Surround the patient and the chair first with a woolen blanket, and then with two or three thick comfortables, drawing the blankets close around his neck, and allowing them to trail upon the floor so as to exclude the air as perfectly as possible. Now place under the chair a large pan or pail containing two or three quarts of boiling water. Let the blankets fall quickly, so as to retain the rising vapor. After a minute or two, raise the blankets a little at one side, and carefully place in the vessel a very hot brick or stone, dropping the blankets again as soon as possible, to avoid the admission of cold air. Before the first brick or stone has cooled, add another, and so continue until the patient perspires freely. The amount of perspiration must be judged by the face and forehead, as much of the moisture on the skin beneath the blankets is condensed steam.

Should the bath become at any time too hot, a little air may be admitted by raising the bottom of the blankets a little, being careful to avoid chilling the patient in so doing. The bath should seldom be continued more than half an hour, and fifteen to twenty minutes will usually accomplish all that is desired by the bath. If too long continued, it induces faintness. A too high temperature will be indicated by a strongly accelerated pulse, throbbing of the temples, flushed face, and headache. The head should be kept cool by a compress wet in cool water and often changed. The temperature of the bath should be from 100° to 115°. Unpleasant effects are sometimes produced at 120°.

The bath should be taken at night, so that the patient may retire at once. By this plan there is little or no liability of taking cold, though it is usually well to wear an extra suit of under-flannel the following day, or to rub the body with oil on rising in the morning.

**Bumps.**—When a child falls, or gets a bruise by any mishap, apply at once a large sponge wrung out in hot water. Repeat for ten or fifteen minutes, and then cover the parts with dry flannel so as to protect from the cold, and in nine cases out of ten the soreness will be entirely removed. In the majority of cases the black and blue discoloration will be prevented. The same remedy is good for old people as well as children.

**Ice to the Bowels in Typhoid Fever.**—Dr. J. M. De Costa, in the *Philadelphia Medical Times*, recommends ice-water applications to the bowels as a means of reducing the high temperature during typhoid fever. It is applicable when a general bath is not, and frequently will reduce the temper-

ature after large doses of quinine have failed. We have employed cold applications to the bowels in typhoid fever for a dozen years, and have been so well pleased with the results that we are glad to know that the method has succeeded so well under so skillful a hand as that of Dr. De Costa.

**Vertigo.**—When a person is suddenly seized with vertigo, or dizziness, he should lie down at once. If it occurs in a position in which there is danger from falling, as in looking over the edge of a precipice, looking down from a tower, and similar situations, the individual should at once withdraw to a sufficient distance from the point of danger to secure safety, and should lie or sit down and close the eyes until the symptom disappears. If a person feels dizzy in climbing, he should look up.

**Migraine.**—This obstinate affection is almost exclusively confined to persons of aristocratic classes. High living, excessive brain and nerve taxation, and deficient muscular exercise are unquestionably the chief causes. The best remedies are the free use of hot water, to secure a thorough cleansing of the stomach and insure abundant excretion, and muscular exercise to the extent of thorough fatigue. These measures will rarely fail in the most obstinate cases.

**For Sleeplessness.**—An eminent German physician recommends the leg pack for sleeplessness. A cotton bandage about eight-een inches wide, and sufficiently long to go several times around the leg, should be wet and wrung dry enough so that it will not drip, using water at a temperature of about sixty degrees. Cover the wet bandage with a dry one of flannel sufficiently thick to keep the limb warm. A large amount of blood will be drawn to the lower extremities by this means, and thus the head will be relieved of its surplus, and refreshing sleep will be the result. Sleep obtained in this way is certainly much to be preferred to that state of torpor which follows the employment of a hypnotic or a narcotic.

—A Maryland physician has recently adopted a method of treating dyspepsia, which originated in Vienna several years ago, and consists of cleansing the stomach by means of a tube passing into it, through which water is passed out and in until the stomach has been thoroughly washed. He claims to have met with great success with this method.

—According to the Jewish Talmud, disease was unknown before the flood.



QUESTION BOX.

**Food Elements.**—S. Y. of Ind., an old subscriber, inquires in what proportion are the principal foods nitrogenous and albuminous, and in what proportion have they starch, fat, and sugar, and what are the general principles governing their use respectively?

ANS.—We cannot do better in answering this question than to quote the following table, which was prepared some years ago for the "Home Hand-Book" with considerable painstaking labor, in which the relative proportion of nitrogenous to other elements is made apparent:—

	Album. or Nitrog.	Carbonaceous.		Album. or Nitrog.	Carbonaceous.
Lean beef	1	.5	Wheat meal or		
Eggs	1	1.9	bread	1	7.0
Peas	1	2.7	Indian meal	1	7.7
Beans	1	2.7	Rye meal	1	9.8
Lentils	1	2.4	Potatoes	1	10.7
Milk	1	3.6	Carrots	1	11.5
Fat beef	1	5.0	Barley meal	1	12.7
Oatmeal	1	6.1	Rice	1	13.0

The system requires a certain amount of nitrogenous or albuminous elements daily. The proper proportion of albuminous and carbonaceous elements is one to seven. The quantities given in the following table represent the amount of each kind of food which one would have to eat in order to get the necessary amount of nitrogenous material:—

	Ounces.		Pounds.
Lean meat	15.6	Grapes	24%
Eggs	21.2	Apples	99½
Peas	11.2	Peaches	50.0
Oatmeal	23.6	Plums	99½
Baker's bread	36.7	Cherries	22.0
Wheat flour (fine)	27.5	Carrots	15.0
Graham flour	25.5	Turnips	16.0
Indian meal	26.8	Cabbage	22.0
Rye meal	37.1	Parsnips	18.0
	Pounds.		Pints.
Rice	3.0	Milk	4.5
Potatoes	8.8	Beer	185.0

The following table also quoted from the "Home Hand-Book," shows how different kinds of food may be combined so as to make a mixture having the right proportion of carbonaceous and albuminous elements:—

COMBINE	OZ.	Lean Beef	WITH	LB. OZ.	8 Potatoes
"	8	"	"	1	8 Rice
"	7½	"	"	1	8 Indian Meal
"	1½	"	"	1	6 Rice
"	12	Eggs,	"	5	2 Potatoes
"	9	"	"	1	Rice
"	3 pts.	Milk	"	4	4 Potatoes
"	2½	"	"	1	4 Rice
"	7½ oz.	Peas,	"	5	Potatoes
"	6	"	"	5	Rice
"	1 lb.	Oatmeal	"	1	11 Potatoes
"	1	"	"	5	Rye Meal
"	1	"	"	10	Indian Meal

**Chemically Raised Bread.**—A Canadian correspondent inquires:—

1. Do you consider bread raised with bicarbonate of soda, and hydrochloric acid wholesome?

2. What system do you recommend for making unfermented bread?

ANS.—1. No; bread raised by any chemical process is less wholesome than either fermented bread or that made without yeast or any chemical-raising agent.

2. Good unleavened bread may be made by many very simple processes, as the following:—

Stir together flour and water or flour and milk to the thickness of pancake batter. Pour into cast-iron gem-pans, previously wiped smooth and heated very hot, and bake in a quick oven. After practice, most delightful bread may be made in this way.

Another way is to make a stiff dough of flour and water, kneading the dough thoroughly. Cut up into strips about as large as the finger, and bake in a quick oven.

Here is still another way: Make a stiff dough of graham flour and milk, and beat with a hammer or mallet for thirty or forty minutes. Cut into small cakes, and bake in a quick oven.

All kinds of unleavened bread require a quick oven. Bread made by any of the methods mentioned will be found to be exceedingly palatable, and far superior to any form of leavened or chemically raised bread.

**Amaurosis.**—M. J. J., of Vt., has a brother who is suffering with amaurosis, causing almost complete blindness, and inquires whether the disease can be successfully treated, and if so, whether it can be treated at home.

ANS.—Amaurosis covers a good many different conditions of the eye, some of which are curable and others incurable. The most curable form of the disease is that which is occasioned by the use of tobacco, particularly smoking. If the amaurosis in your brother's case has been brought on by this means, a suspension of the cause and the employment of appropriate measures of treatment will be likely to effect a cure, otherwise I fear the case offers little encouragement. Would recommend that you consult the best oculist within your reach.

**L. J. P., of Patterson, N. J.**—If you will send your full address, and repeat questions, you will be answered by letter.

—It is a wise provision of nature that a man can neither kick himself nor pat his own back.

—The world may owe a man a living, but it is always best to go out and collect it by a little work.



## SCIENCE IN THE HOUSEHOLD.

CONDUCTED BY MRS. E. E. KELLOGG.

## A SONG FROM THE SUDS.

QUEEN of the tub I merrily sing,  
While the white foam rises high ;  
And sturdily wash, and rinse, and wring,  
And fasten the clothes to dry ;  
Then out in the free, fresh air they swing,  
Under the summer sky.

I wish I could wash from our hearts and souls  
The stains of the week away,  
And let water and air by their magic, make  
Ourselves as pure as they ;  
Then on the earth would be joy indeed,—  
A glorious washing day.

Along the path of a useful life  
Will the heart's-ease ever bloom ;  
The busy mind has no time to think  
Of sorrow, or care, or gloom ;  
And anxious thoughts can be swept away  
As we busily wield the broom.

I am glad to me a task is given  
To labor at, day by day,  
For it brings me health, and strength, and hope,  
And I cheerfully learn to say:  
"Head, you may think ; heart, you may feel ;  
But, hand, you shall work away."

—*Louisa M. Alcott.*

## RUGS IN THE PLACE OF CARPETS.

BEFORE another twenty years shall have passed away, we venture to predict there will scarcely be a room in the city which will be covered from end to end and side to side with thick, impenetrable carpet. Apart from all fashion and all theory, it will be recognized as a fact that health demands movable floor coverings, or failing these, coverings which can be cleansed daily. The ancients understood this perfectly. Socrates waxed eloquent in describing what a house should be, how needful air and sunshine and cleanliness were for health ; and imagination calls up the interiors of that time, with their mosaic pavements and the absence of all that would have harbored dust, and therefore disease.

The luxurious native of the East, the inventor of carpets, never, even in his most indolent moments,

conceived the possibility of saving himself the trouble of shaking his carpet by fixing it to the floor ; and although we cannot credit him with any exalted ideas of cleanliness in his domestic arrangements, we must at least concede that he showed a good deal of common sense in this respect.

Twenty-five years ago physicians began to enter a protest against the enervation of modern homes ; thence they passed to detail. The more enlightened entered upon a sort of crusade against floor covering, and declared that infectious diseases were harbored in the woolen hangings and carpets of their well-to-do patients, quite as surely as amid the squalor and filth of over-crowded alleys.

People no longer sleep (at least sensible people do not) in four-post bedsteads, with woolen curtains drawn closely around them ; they are even recognizing the desirability of leaving their windows unencumbered with voluminous folds of velvet and rep ; and going a stage further, they are beginning to realize that floors and their coverings are important factors in the question of hygiene.

Rugs are certainly free from many of the most serious objections to carpets, even when they are fixed to the floor, which in our estimation they never ought to be. It is possible to wash well all around them, to remove the dust from the corners of the room, and even under the edges of the rug itself ; but such a condition of affairs is still far from satisfactory. There is always more or less dirt about a stationary carpet, in any room that is much lived in, and the best house-maids in the world cannot rid an immovable rug of dust as readily on the floor as they could off it. Carpets ought, as a matter of health, to be taken up once a week, laid over a line and thoroughly beaten, but where is the household in which this rule is enforced ?

The growing conviction of the superiority of rugs to carpets, is shown in the newest houses, in many of which the floors are expressly arranged with stained borders or a parquet flooring, which it is possible to leave entirely uncovered. What a boon this is to persons of small means ! Nothing eats into a small sum of money for house-furnishing more disastrously than a carpet. It is useless



to buy a cheap one; cheap carpets are never of any use, and the price of a good one is a formidable consideration. This is another argument in favor of rugs; cheap rugs wear a great deal better than cheap carpets, for the obvious reason they are not pulled and strained in every direction, and are only subjected to legitimate wear and tear.—*New York Times*.

**Care of Silver Ware.**—Many efforts have been made to devise a method of preventing the tarnishing of silver and silver-plated ware upon exposure to the atmosphere. The blackening which such articles speedily suffer, is due principally to the formation of a superficial film of silver sulphide, by the action of the sulphurous vapors in the atmosphere, especially in cities where the large consumption of coal and coal-gas charges the atmosphere with sulphur and sulphur compounds. Of all the suggestions that have been made, none appear to have given as satisfactory results as a varnish of collodion,—a solution of gun-cotton in a mixture of alcohol and ether. All other varnishes appear to impart a yellowish tinge to the silver or plated wares, but collodion varnish is quite colorless. The articles should be carefully brushed with the varnish with an elastic brush, making sure that the entire surface is covered. The film of collodion will protect the underlying metal surface for a long time. Where silver plate is laid aside, and not often used, a prepared cloth or paper is sometimes used as a wrapper, which, if carefully placed around the article, will prevent, or at least greatly retard, the tarnishing. These protective wrappers are easily prepared, and at small expense. Caustic soda is dissolved in water until the hydrometer shows 20° Baumé. To this mixture is added oxide of zinc until the amount reaches about two-thirds the quantity of caustic soda, and the mixture is boiled until perfect solution is effected. Water is then added gradually to reduce the solution to 10° Baumé. Into this solution, muslin or paper is dipped, and when dry, is ready for use.—*Popular Science News*.

**Cleaning Mica.**—Every woman who has been obliged to spend half a day, several times during the winter, cleaning the mica in her coal stove, usually by taking them out and washing in soap-suds, will rejoice to know that there is a much easier way to clean them, and that there is no need to take them out, or to let the fire burn very low in order to do it successfully. Take a little vinegar and water, and wash the mica carefully with a soft cloth; the acid removes all stains, and if a little pains is taken to thoroughly clean the corners and

wipe them dry, the mica will look as good as new. If the stove is very hot, tie the cloth to a stick, and so escape the danger of burning your hand.—*N. Y. Post*.

**For Squeaking Boots.**—Squeaking boots or shoes are often a greater source of annoyance to nervous invalids than afflictions of a painful character. A druggist suggests that squeaking may be prevented by placing French chalk between the layers of the leather in the soles, when the shoes are made; or by cutting a hole in the in-sole, and injecting the powder between the used soles. Certainly squeaking shoes or boots should not be allowed in the sick-room; and if it is unavoidable, a remedy should be employed to remove this source of annoyance. Here is a good chance for some enterprising shoe-maker to make a fortune, by engaging in the manufacture of squeakless shoes and boots.

**To Prevent Wooden Vessels from Cracking.**—Wooden bowls and other ware of this sort, as well as all cross sections from tree trunks and short log cuts for various purposes, are very apt to crack and split while seasoning. To prevent this completely, the pores of the wood should be well filled with linseed, or some other vegetable oxidizing oil, while it is yet green, and before it begins to show any signs of cracking or checking. This will completely obviate this inconvenience.

**How to Test Potatoes.**—A good potato, when cut, will show a light cream color, and a white froth will be the result produced by rubbing the cut surfaces together. Reject that variety where drops of water appear. Another test is to put potatoes into a solution of salt; the good will sink, the poor float.

**Keeping Lemons.**—A good way to keep lemons for use in pies or stewed fruit, is to grate the yellow rind and squeeze the juice, then add one pound of granulated sugar to four lemons, and put into glass covered cans, when well mixed together.

**To Clean Bottles.**—Put into the bottle some kernels of corn, a tablespoonful of ashes; fill half full with warm water, and shake vigorously till the bottle looks fresh and clean. Rinse thoroughly.

—To prevent smoke from a lamp, soak the wick in strong vinegar, and dry it thoroughly before using. It will then burn both sweet and pleasant, and will give a great deal of satisfaction for the trifling work in preparing.



—An exchange says that an excellent glue to join the parts of broken crockery, is made by stirring plaster of Paris into a thick solution of gum arabic until the mixture assumes the consistency of cream. Apply with a brush to the broken edges of the ware, and join together. In three days the article cannot be broken in the same place. The whiteness of the cement adds to its value.

—Emery and oil will remove slight portions of rust from iron and steel, but if there is much corrosion, some muriatic acid will be necessary, which, however, will remove some of the metal as well as the rust. Nice table cutlery, packed away for a season, is in great danger of rusting. It may usually be avoided by covering the metal with a thin coat of paraffine.

—Kerosene oil, spilled upon the carpet, will often entirely disappear if the room is kept free from dust. If the spot still remains, a thick coating of powdered French chalk put over the spot, and occasionally heated by laying a piece of brown paper upon it and passing a hot iron over it, will generally remove the oil.

—An excellent paste for inlaying fine engravings, mounting photographs, and preserving manuscripts is made by boiling rice flour *very* slowly, in about the proportion of four parts water to one of flour. When cold, it will be about the consistency of bandoline, and is even more adhesive than starch or gum arabic. It does not leave a stain, as flour paste does.

—If brooms are wet in boiling suds once a week, they will become very tough, will not cut the carpet, will last much longer, and always sweep like a new broom.

—An excellent duster with which to clean carved furniture is a new, soft paint brush; all dust can be easily removed with it.

—Petroleum is used for fuel on many of the ferry boats and steamboats between Oakland and San Francisco.

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## LITERARY NOTICES.

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THE American Humane Association, impressed with the importance of the report of the Committee of the American Ornithologists' Union, for the protection of birds, which appears in the current number of *Science*, is making arrangements for the

distribution of 100,000 copies, and would be glad to receive substantial aid from friends of our American birds.

The report shows that unless immediate measures are taken to prevent the present rate of destruction, our woods and fields will shortly be without birds. "Think of your woods and orchards without birds," and lend a hand to the Association.

Address G. E. Gordon, President, Milwaukee; Thomas E. Hill, Secretary, 103 State Street, Chicago; or Levi Knowles, Treasurer, 252 North Broad Street, Philadelphia. Checks to the order of the Treasurer.

DORCAS: Published at 872 Broadway, New York.

Price of subscription, \$1.00 per year. Ten cents for sample copy.

The February number is at hand, and we find it contains an excellent article on Home Decoration, written by the Editor, and accompanied with two designs for screens. We wish to commend these articles, as they will enable one with a small amount of material and moderate skill to make a handsome home at little cost. Also, an article on Crewel Painting, by Miss Hepworth Dixon, of London, besides many Knitted and Lace Crochet Patterns; a couple of Squares for Counterpanes, Lady's Breakfast Cap, Infant's Plain Knitted Skirt, Antique Tidy, and a Knitted Shawl.

OUR BEST WORDS: Published at Shelbyville, Ill.

Subscription price, 75 cents per year.

This journal still comes to our table, having reached its seventh volume. Its prospectus states that "it contains stories worth telling, news worth knowing, words worth repeating, and means to give the best in the fewest words possible, on how to make good times, how to have good health, how to be thrifty, how to be helpful, how to behave well, how to make home happy." From our long acquaintance with the paper and its able editor, Rev. J. L. Donthit, we are sure the high standard toward which it aims will be fully sustained.

It numbers among its many contributors:—

Rev. Wm. G. Elliot, D. D., St. Louis, Mo.; Robert Collyer, New York City; Hon. George W. McCrary, ex-Sec. of War, Kansas City, Mo.; Rev. A. P. Putnam, D. D., Brooklyn, N. Y.; Rev. James Freeman Clarke, D. D., and Rev. E. E. Hale, D. D., Boston; J. B. Merwin, of *American Journal of Education*, St. Louis; and H. D. Stevens, of *School News*, Indianapolis, Ind.

Other publications on hand will receive attention in next issue.



## PUBLISHER'S PAGE.

A note has been recently received from Eld. S. N. Haskell, who has been spending several months in Australia and the Sandwich Islands. Eld. Haskell writes that GOOD HEALTH and our other health publications are received with great favor in the various cities he has visited, and he has frequently met persons who, even in this out-of-the-way corner of the globe, have been for years acquainted with GOOD HEALTH and the work in this country which it represents. A very interesting account is given in the letter referred to, of a gentleman who many years ago obtained, by accident, a single copy of this journal, which had been thrown aside by some one who had no interest in it; and as the result of what he learned from this single copy, not only the gentleman's entire family, but, through his efforts, almost the entire community in which he resided, became converts to hygienic principles. Two hundred copies of GOOD HEALTH are sent regularly to Australia and the Sandwich Islands, and we expect the number in a few months will be greatly increased.

Our agents at New Orleans are sending us large numbers of subscriptions to GOOD HEALTH, and report that they find the people of that city not only wide-awake, intelligent, and progressive, but especially interested in sanitary matters and the general subjects to which this journal is devoted. The present prospect is that the list of subscribers to the journal in the Southern metropolis will soon number several hundred. Our experience has been that the subject of hygienic reform is nowhere received with greater interest, or its principles adopted with greater enthusiasm, than in this section. There is ample room in the several large Southern States for hundreds of canvassers to do excellent missionary work in introducing our various health publications.

The number of patients at the Sanitarium has steadily increased during the last few weeks, until the present number is greater than at any previous time, not excepting the busiest season of the summer. The large addition completed only a little more than a year ago, is barely large enough to accommodate the throng of patrons, which increases with each succeeding week. The treasurer reports the weekly receipts to be the largest ever known in the history of the institution; and altogether this great philanthropic enterprise appears to be in a very prosperous condition.

Winter in this section of the country has this year been very brief, and so mild, much of the time, that it has been hard to believe that we were passing through the severe season of the year. Already spring seems to be beginning to open up rapidly. The snow has all left the ground, and the genial sunshine infuses new life and vigor into those who seek its benefits in the sun-bath rooms of the Sanitarium, or the commodious sun parlors and inclosed verandas, which afford ample opportunity for employing this potent curative agent.

Dr. Kellogg's new work, entitled, "Man, the Masterpiece," is just out of press, and promises to have a very large and rapid sale. The work meets an evident want in supplying young men with just the information they need to enable them to make the most of themselves. It is really a *vademecum* of what young men ought to know on every subject relating to their physical welfare, and ought to be placed in the hands of every young man and boy in the country. It contains a vast deal of information of interest and value to old men as well.

A Sanitary Convention was recently held at Howell, Mich., under the auspices of the State Board of Health. The interest manifested in the meeting by the large audiences, from the first session to the last, speaks well for the intelligence of the people of this enterprising town. A number of prominent physicians were present from different parts of the State, who read papers upon various important topics, and participated in the discussions on the different subjects presented. The papers and discussions were eminently practical in character, and the convention was, on the whole, one of the most successful we have ever attended. By invitation, the Editor had the pleasure of addressing the Convention on the subjects of Ventilation, and the Disposal of Slops, Garbage, and Refuse. He also had the pleasure of meeting a number of old patients and many new friends.

We are pleased to notice the card in our advertising columns calling attention to Dr. Wilbur's Home for Feeble-Minded Children, located at Kalamazoo, Mich. The Home is delightfully located in one of the most healthful and beautiful cities of Michigan. The grounds are capacious, the buildings elegant and well fitted for the purpose for which they are employed, and the appointments are all that could be desired in a place of this sort. Dr. Wilbur is not only a pioneer, but an acknowledged leader in enterprises of this sort. Twenty years of his life have been devoted to this work in one of the largest institutions of this class in the country, and he has now a private institution of his own, where pupils can probably receive better care and training than in any other establishment of the sort. There are thousands of children who ought to have the benefit of the advantages afforded by a well-regulated institution of this kind.

Our energetic friend, Eld. J. G. Matteson, for many years deeply interested in hygienic reform, has succeeded in starting and establishing on a firm basis, the two first health journals ever published in the Scandinavian languages, one being printed in Swedish, the other in Danish-Norwegian. Arrangements have been made for issuing an edition of the Swedish journal in this country.

We are pleased to hear good reports of the prosperity of the institution at St. Helena, Cal. The establishment is beautifully located at the head of Napa Valley, which is said to be one of the most salubrious localities at all seasons of the year to be found anywhere in California.

The revised edition of "Plain Facts," which is just from press, presents numerous points of superiority over former editions, and makes a handsome volume of 644 pages. The work is still meeting with rapid sale.

A number of old patients have recently returned to the Sanitarium to spend a few weeks, and enjoy the new advantages and improved facilities now afforded by the establishment.

A number of new machines have been added to the mechanical-exercise department, some of which are pronounced by patients as "the best thing yet."

The health officer reports the death-rate of the city of Battle Creek, for the last year, as only about seven per thousand, a health-rate which has rarely been equaled by any city in the world.



# GOOD HEALTH FOR 1886.

**T**WENTY years ago, when the first number of this Journal was published, most of the principles which it advocated then, and which it advocates still, were regarded by the masses as the outgrowth of an unhealthy fanaticism, and by those even kindly disposed, as utopian and unpractical. Only here and there were to be found those who were willing to undergo the ridicule of avowing adherence to them. Now nearly every one of the reforms then so earnestly advocated have obtained sufficient foothold so they have become at least respectable, and a man can now eat graham bread to his heart's content without being shunned by his neighbors, and hooted at by street Arabs as a "bran-bread eater." Oatmeal, instead of being found only on the bill of fare of a few despised health-reformers, is now served up every morning hot, and usually well cooked, at every first-class hotel in the country; and among the more intelligent classes *A Strong Tide of Public Opinion* is setting against the use of such articles of food as cause the throat to "burn and tingle" as they go down. There is, perhaps, no less faith in mustard plasters on the outside of the stomach; but there is certainly a growing suspicion that mustard plaster is not an appropriate application for the inside of the stomach.

## EARNEST ADVOCATES OF REFORM IN DRESS

Have sprung up in so many different quarters, and are waging such a vigorous warfare against the galling reign of fashion, that those who advocated this reform half a generation ago almost feel as though the battle-ax had been wrested from their hands, and placed in the hands of others. Certainly, considerable progress has been made in the various branches of health reform; but there is still

## PLENTY OF WORK TO BE DONE.

The battle is not yet won. There are many more battles to be fought. Bad air kills more people every year than either bad dress or bad diet. People must be taught how to supply their homes with pure air. *Unnecessary diseases destroy 20,000 lives in this country alone every year.* This great slaughter should be stopped. Ten times as many people are sick and helpless from one end of the year to the other as is necessary. These idle, suffering people ought to be made well and restored to usefulness. Gross immoralities of various sorts flourish in the midst of our enlightened and boasted civilization. These ought to be uprooted. There is work enough to be done, and "**Good Health**" proposes to undertake to do its share of this reformatory work.

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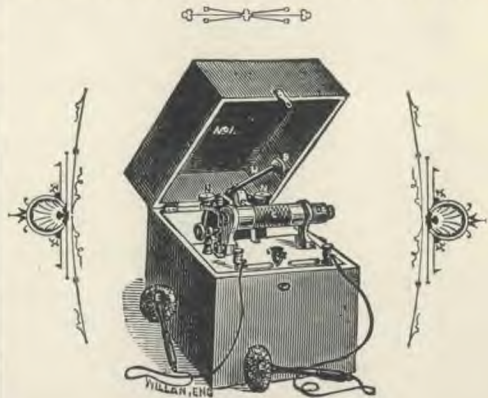
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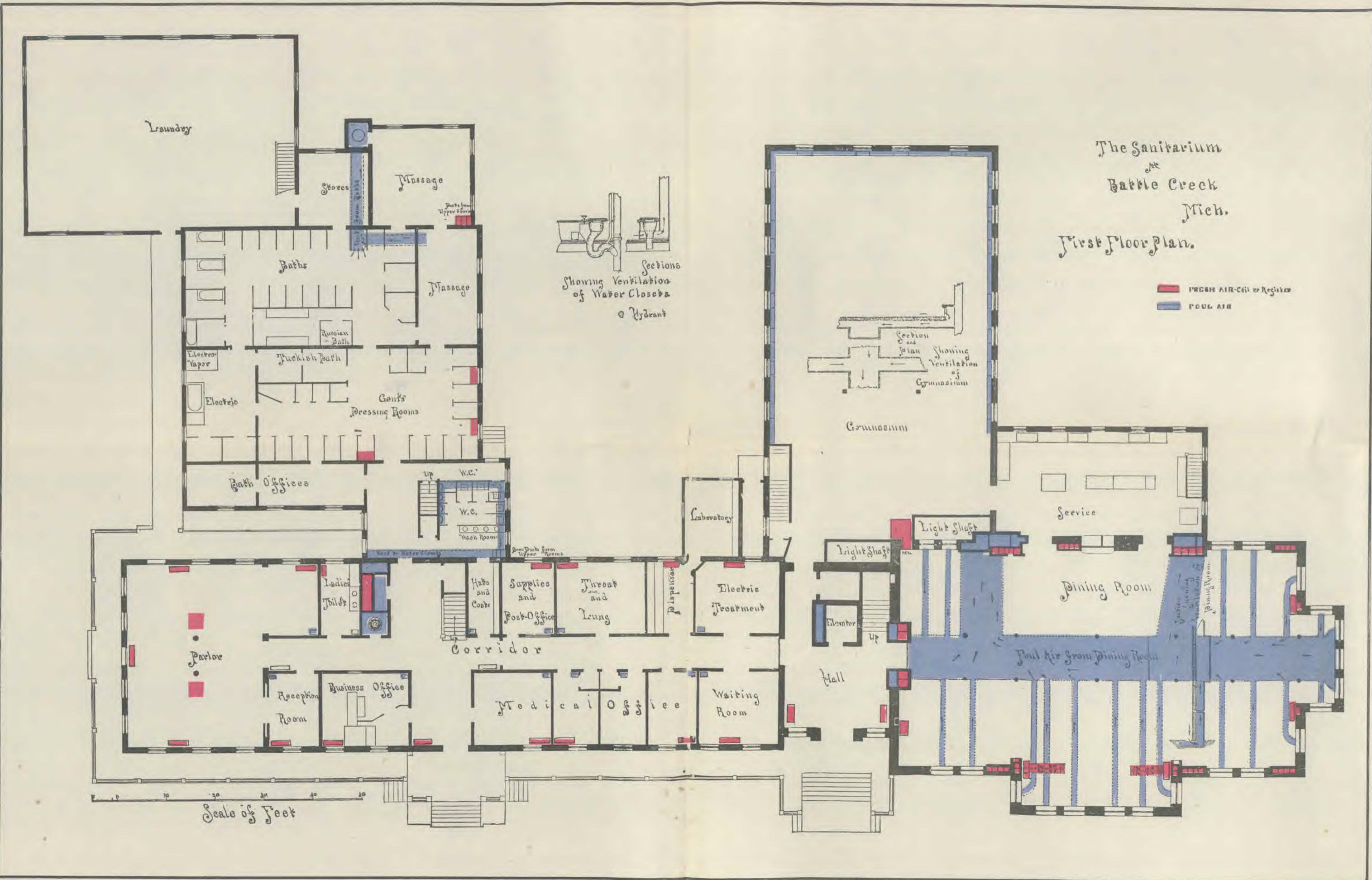
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