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NON-ALCOHOLIC KUMYSS

AFTER careful and long-continued experiments, we have devised a method of preparing kumyss which is not only free from alcohol, but also possesses other advantages of a superior character. Ordinary kumyss contains a considerable amount of alcohol, due to the fermentation of cane sugar, which is added for the purpose of producing carbonic acid gas. The amount of alcohol depends, of course, upon the amount of sugar added and the age of the kumyss. The sugar is made to ferment by the addition of yeast. Kumyss made in this way contains yeast alcohol, and, if the alcoholic fermentation is not complete, a variable quantity of cane sugar. In addition, ordinary kumyss contains a variety of toxic substances, resulting from the development of the miscellaneous microbes which are usually found in milk.

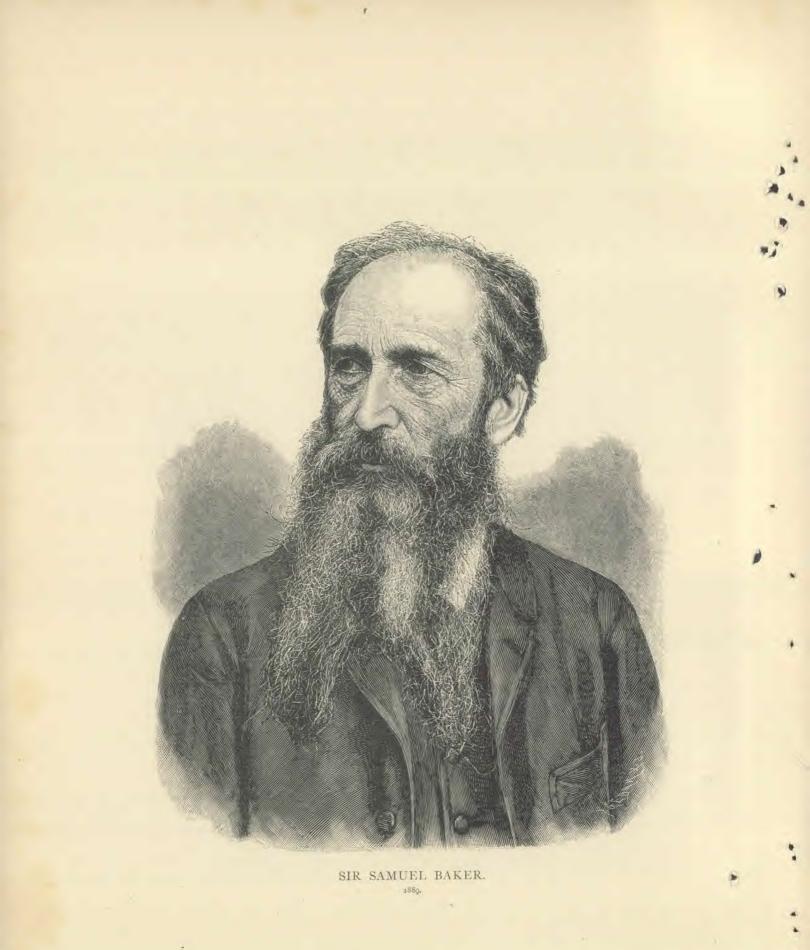
The improved form of kumyss which we offer is made from sterilized milk, and by processes which render it absolutely uniform in quality. The method of manufacture is such that its constituents are definite and constant. It is more palatable than ordinary kumyss, in consequence of the absence of foreign microbes, and is particularly suited to cases in which milk in its ordinary form disagrees with the patient, and in which so-called "biliousness" is a troublesome symptom. Cases of hypopepsia are rapidly benefited by it. It is also of great service in the treatment of gastric neurasthenia, or nervous dyspepsia.

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Sanitarium Health Food Co., BATTLE CREEK, MICH.







BIOGRAPHICAL HEALTH STUDIES.

BY F. L. OSWALD, M. D. Author of "Physical Education," "The Bible of Nature," etc.

2. - Sir Samuel Baker.

It has often been said that for real heroes the days of chivalry are not past, and it is equally true that a passion for outdoor sports and the spice of danger can be gratified in the most prosaic age. It might, indeed, be questioned if the adventures crowded into the career of Sir Samuel Baker have ever been surpassed in the days of Sinbad and Robin Hood; and on his return from his last expedition to the country of the upper Nile, the bold explorer could have written a most interesting book on the art of preserving health under difficulties.

"You might as well take a coffin along, unless you have a special remedy for the jungle fever," said his father when Master Samuel departed for the island of Ceylon, at the invitation of a military friend, but with the half-avowed purpose of trying his luck at elephant hunting. The British residents of Colombo, too, told him that he ought to have started in October, so as to reach the tropics at the coolest time of the year; but the newcomer had already devised a plan of his own for solving the problem of acclimatization. Instead of passing the summer in the listless idleness of a voluntary quarantine, he started for the plateau of Newera Ellia, the "King's Highlands," as the natives call a grand table-land mountain on the north coast, and, as he expressed it, "worked his way downhill toward the coast plain and the ability to resist the influence of a humid climate. In that way a native of the higher latitudes can adapt himself to a change of climatic circumstances at his own leisure, and keep open a loophole of escape from the consequences of a possible mistake."

The logic of that argument rests on the fact that in the tropics the transition from spring to hot summer is rather abrupt, while the refugee of the uplands can graduate this descent, and nip the premonitory symptoms of a fever by a timely retreat to the mountains.

Besides, the future explorer of equatorial Africa soon learned the wisdom of giving himself the benefit of the cool night air. In the valley of the Mavelli Ganga river he saw the native hunters sleep on the ground, covered only by a shroud of muslin, and it occurred to him that the influence of the night temperature might serve to counteract the heat of the day and brace the organism to a degree unknown to those who pass the night in air-tight, sweltering bedrooms. He tried the plan, and ever after preferred a tent to a house whenever the heat of the tropical summer exceeded an average of 80° Fahrenheit. He did not think it necessary to stint himself in bedclothing, but always arranged the head of his pallet in a way that enabled him to feel the draught of such breezes as might be stirring, and drink in cool air as he would quaff a draught of fresh spring water.

He also stuck to the belief that food spiced with genuine hunger can be digested in any part of the world. More than once he breakfasted on a handful of dates or ears of parched durha corn, then clambered over rocks and through woods under the load of a complicated hunting outfit, and returned at sunset to enjoy the first and last hearty meal of that day. In that manner he made himself climate proof and almost fatigue proof. While his countrymen, if they traveled at all, sat listless in their palanquins, Baker preferred foot tours to horseback rides, and indulged in such athletics as an uphill race after a wild boar or a rough-and-tumble fight with a refractory native. On one occasion he caught a baby elephant by the tail, and held on like a Cossack batman to a captured anarchist, though the young giant dashed through the woods at race-horse speed, and nearly dislocated the arms of his would-be captor. In rushing through a thicket, the little monster broke away altogether, and Baker returned to berate the coolies who had failed to answer his shout for assistance. One of the culprits burst out laughing. "This was too much," says Baker; "I looked around for a stick, and the rascal, guessing my intention, started off at full speed, and at first even improved his start, but I knew that in his fright he would soon get winded. I ran him down in heavy ground and I



BAKER PASHA. 1862.

dare say he will remember the day of the month."

Baker was so tall that, in the words of his military friend, "the recruiting sergeants of the eighteenth century would have kidnapped him at any risk." Constant exercise soon made him an athlete, as well as a giant, and all through the chronicle of his numerous journeys he has a sly way of quizzing the effeminacy of his fellow-travelers. In his rambles with his swarthy guides, too, he made it a point not to let any man outstrip him in walking, swimming, or riding. The only place where he ever met a physical superior was in a mountain valley of the Atbara (one of the eastern tributaries of the Nile), where he was introduced to a Semitic patriarch of superhuman proportions, and whose appearance he describes with the enthusiasm of a worshiper at the shrine of physical culture : "He was the most magnificent specimen of an Arab that I have ever seen. Although upwards of eighty years of age, he was as straight as a lance, and did not appear more than

fifty or sixty; he was of Herculean stature, about six feet three inches high, with immensely broad shoulders and chest, a remarkably arched nose, and eyes like an eagle, beneath large, shaggy, but perfectly white eyebrows; a snow-like beard of great thickness descended below the middle of his breast."

That description would have nearly fitted the appearance of Baker Pasha himself, when old age began to grizzle his long beard, though his eyebrows and the hair about his temples remained dark brown almost to the last.

He then goes on to describe the dress of the old sheik, and contrast his light robe and picturesque turban with the clumsy toggery of a European traveler. For his own part, Baker preferred a turban to any other headdress, and is probably right in questioning the sanitary advantages of a broadbrimmed hat.

He also recognized the absurdity of high-heeled shoes, and recommends the thick, but flat sole of an Abyssinian *sabalto*; but there is no doubt that the enterprising traveler often went too far in copying the dietetic habits of semi-barbarians. As a "hint to octogenarians," he mentions the circumstance that the Arabian patriarch had for years consumed two pounds of molten butter a day, and gives the following still more astonishing directions for improving the digestible qualities of cow's milk : " Persons of delicate health, who find liquid milk to disagree with the stomach, should allow it to get thick. (i. e., sour), similar to curds and whey. This should then be beaten together with the admixture of a little salt or cayenne pepper." "The Arabs generally prepare it in this manner," he says, and then inadvertently supplies the explanation of the preposterous custom : "In this thickened state it is not only considered to be more wholesome, but it is easier to carry upon a long journey."

The latter circumstance is, of course, the chief advantage of clabber rations, though their British admirer tries to fortify his theory by a physiological argument: "In a hot climate the operation of curdling milk is performed by the atmosphere; thus the most difficult work of the stomach is effected by a foreign agency, and it is spared the first act of its performance."

Exactly the same fallacy encouraged a correspondent of an American liquor dealer's organ to reprove the fastidiousness of total abstainers : "They object to fermented beverages," he says ; "don't they know that in the course of digestion a great number of liquids and semi-liquids undergo fermentation in the human stomach ?"—thus evidently confounding incipient putrescence with a process of organic disintegration.

In the very same chapter Baker admits that his own companions partook freely of fresh milk without experiencing any of the disastrous consequences predicted by their Arab guide.

Baker himself tried the native plan, but his habits of exercise would have enabled him to digest worse things than a mixture of curds and pepper. He used to rise at four, get his caravan under way before dawn, and while away the tedium of the journey by detours to the left and right, shooting, steeplechasing, or taking notes on the topography of the country. If a spring could be reached in time, the caravan was allowed to go into camp at 3 P. M., but Baker first supervised the tethering of the horses, and took a bath, before sitting down to supper.

In the camp of another sheik, Baker Pasha engaged his Bedouin friend in a facetious discussion on the subject of polygamy, and obliged him to confess that their custom was not quite fair from a standpoint of strict justice, and founded, on the whole, upon the right of superior strength. At all events, the disciples of the prophet could not retaliate by accusing the giaour of an undue fondness for strong drink. The white pasha did carry a flask of alcohol in his camp chest, but used it chiefly in combination with shellac to polish his gunstock. Of intoxicating liquors he had a wholesome dread, even in the rainy season, when his countrymen swallowed medicated brandy as a prophylactic, and held that risk of contagion is increased by anything that tends to impair the general vigor of the organism. A German trader of his acquaintance had weathered the sultry summer of the Soudan for eight years, but confessed that his immunity from climatic fevers dated only from the time when he ceased to abuse the best fruit of the tropic, for the manufacture of date beer. Nor did Baker learn to smoke tobacco till after his return from his last (the Blue Nile) expedition, and was glad to find that the vice of the American aborigines had not spread much south of Khartoom.

Like the Wahabees, the Abyssinian Arabs detest nicotine fumes, but are passionately fond of perfumes, which in Baker's opinion counteract the evil effects of the garbage piles — not to mention uglier sorts of rubbish that accumulate in the outskirts of every Bedouin settlement.

In the course of his numerous travels, Baker had picked up a sufficient practical knowledge of surgery to dispense with the aid of medicine men, his belief in the efficacy of drugs being rather small, though he admits that in conjunction with a vigorous faith, al-

most any prescription may work miracles - a rather pardonable hypothesis, after he had witnessed the success of such recipes as the following : "Upon a smooth board, like a slate, the dervish rubs sufficient chalk to produce a perfectly white surface; upon this he writes in large characters, with thick glutinous ink, a verse or verses from the Koran that he considers applicable to the case ; this completed, he washes off the holy quotation, and converts it into a philter by the addition of a little water; this is swallowed in perfect faith by the patient, who in return pays a fee according to the demands of the dervish." Patients of all sorts apply at that inexhaustible dispensary,- "a woman who requests some prescription to promote the blessing of childbirth ; a man who was strong in his youth but begins to feel the penalties of dissipation ; a cripple who wishes to be-



LADY FLORENCE BAKER. 1862.

come straight as other men; a blind child; and a dying old woman carried on a litter."

On another occasion he witnessed an equally remarkable attempt to make dogs hydrophobia proof: A dilapidated old cabin was filled with bean straw and brushwood, then fired, and while the blaze was at its height, dog after dog was flung into the bades of conflagration and left to effect its salvation the best way it could. If the poor cur dashed out, singed and howling, he was safe — his luck being a presumptive proof that he was never born to die an evil death. If the flames devoured him it was all for the best, too, he had not been predestined to survive the ordeal, and might have come to a worse end.

Only one disorder the natives considered wholly beyond the reach of the faith-doctor's skill; viz., the *coorash*, a sort of prurigo that made its first appearance upon the patient's feet, and spreading upward, covered his whole body with a whitish eruption, more intolerably irritating than scabies. The Arabs left the cure of that ailment to the mercy of fate, but Baker Pasha remembered that similar skin diseases can be relieved by means of sulphur ointments, and tried with striking success a prescription of his own : A paste of gunpowder, dried, thoroughly pulverized, and mixed with molten tallow. The natives at once promoted him to the rank of a Fakee-kabir, or sanitary commissioner-in-chief.

The white pasha's vigor of mental and physical constitution was attested by that surest proof of a *mens sana in corpore sano* — the ability to preserve his good humor under sore bodily affliction. About a week before he bethought himself of his gunpowder remedy, the contagion of *coorash* attacked his own person, and he consoled himself with the example of Job and the fact that "the whole country was scratching." Then he compounded a potful of the remedial ointment, and found that the "first effect upon a colored patient was that of a well-cleaned boot. Upon a white man it is still more striking, but it quickly cures the malady. I went into half mourning by this process, and should have adopted deep mourning if it had been necessary."

His little straw-patch hut on a promontory of the Abyssinian Alps he describes as an "eligible freehold in park-like grounds, free from poor rates, not more than 2000 miles from a good church, and with the advantage of a port town at the easy distance of seventy leagues."

Only a few years ago a commissioner of the British government traced the periodic outbreak of Asiatic cholera to the pilgrim assemblies at the shrine of Hurdwar on the upper Ganges, and it would be worth knowing by what process of sanitary intuition Baker

came so near anticipating that explanation. "Holy shrines," he says, "often become the pest spots of our planet. Thousands of pilgrims arrive afoot, from great distances, suffering from hunger and fatigue, and bringing with them an assortment of their native diseases, besides being in that state of exhaustion that courts the attack of any epidemic. Thus crowded together, with a scarcity of provisions, a want of water, and no possibility of cleanliness, with clothes that have been "unwashed for weeks or months, in a camp of unclean fellow-pilgrims, without an attempt at drainage, an accumulation of filth takes place that generates either cholera or typhus ; the latter in its most malignant form, appears as the dreaded plague. Should such an epidemic attack the mass of pilgrims debilitated by the lack of nourishing food and exhausted by their fatiguing march, it runs riot like a fire among combustibles, and the consequent loss of life is terrific."

It may be questioned if Sir Samuel Baker acted wisely in exchanging his active life for the quietude of an English country town. Every hunter perhaps looks forward to a time when he will rest from his toils and display the trophies of his adventures upon the walls of his family lodge, but Baker's mistake seems to have consisted in the abruptness of the change the same change that killed Napoleon on St. Helena and Marshall Saxe in his country palace. If the sport-loving pasha had accepted the invitation of Sheik Ayoub Ben Sinn, they might still be hunting elephants on the banks of the Blue Nile, though for all one can tell a protracted sojourn of the British Nimrod might have exhausted the resources of the Abyssinian hunting-grounds.

(To be continued.)

THE HYGIENE OF LAUGHTER .- It has been aptly said that there is not the remotest corner of the inlet of the minute blood vessels of the human body that does not feel some wavelet from the convulsions occasioned by good, hearty laughter. The life principle of the central man is shaken to its innermost depths, sending new tides of life and strength to the surface, thus materially tending to insure good health to the persons who indulge therein. The blood moves more rapidly, and conveys a different impression to all the organs of the body, as it visits them on that particular mystic journey when the man is laughing, from what it does at other times. For this reason every good hearty laugh, in which a person indulges, tends to lengthen his life, conveying as it does new and distinct stimulus to the vital forces. - Sel.

SOME PARISIAN TRICKS .- Some ingenious fruit dealers of Paris have invented a way of coloring their wares in order to improve their market value. They color ordinary oranges a deep red, making them look like mandarins, which fetch higher prices. They tint pineapples to make them look more attractive, and dye the common white strawberries a lovely red. Melons are treated in a similar way, and tinted a fine orange, their flavor being increased by injecting an essence of lemon. The latest development of this business is in connection with pears, which are dyed red for a third of their size, and blue below, thus presenting the national color when peeled. These are said to be in some demand for dessert fruit, on account of their novelty .- London Daily News.

GENERAL HYGIENE.

THE FESTIVAL OF THE NATIONS.

My brethren, we are free! The fruits are glowing Beneath the stars, and the night winds are blowing O'er the ripe corn. The birds and beasts are dreaming. Never again may blood of bird or beast Stain with its venomous stream a human feast.

To the pure skies in accusation steaming ; Avenging poisons shall have ceased To feed disease and fear and madness ; The dwellers of the earth and air Shall throng around our steps in gladness, Seeking their food or refuge there. Our toil from thought all glorious forms shall cull, To make this earth, our home, more beautiful ; And Science, and her sister, Poesy, Shall clothe in light the fields and cities of the free. Over the plain the throngs were scattered then In groups around the fires, which from the sea Even to the gorge of the first mountain glen Blazed wide and far. The banquet of the free Was spread beneath many a dark cypress-tree Beneath whose spires, which swayed in the red flame, Reclining as they ate, of liberty, And hope, and justice, and Laone's name, Earth's children did a woof of happy converse frame. Their feast was such as Earth, the general mother, Pours from her fairest bosom, when she smiles In the embrace of Autumn. To each other, As when some parent fondly reconciles Her warring children, she their wrath beguiles With her own sustenance; they, relenting, weep: -Such was this festival, which, from their isles And continents and winds and oceans deep,

HEALTH HABITS.

BY HELEN L. MANNING.

II. - BED CLOTHING AND NIGHT CLOTHING.

"I was called to see a sleepless patient last night," remarked a Sanitarium night nurse, to me one morning. "It was about two o'clock. She told me piteously that she was cold and nervous, and had not been able to get a moment's sleep thus far. The cause of her nervous discomfort and consequent chilly sensations, was not far to seek. The room was stiffingly hot and close, and she was smothered under a weight of bed clothing that would have terrified an Eskimo. She had on a woolen wrapper over her nightgown, her shoes and stockings on, and in addition, a woolen blanket wrapped around her feet. Her bed covering consisted of four woolen blankets, a light comfortable, and a counterpane."

"Well, what tactics did you employ in such an extreme case?" I asked.

"I glanced at the thermometer and noted that it registered 80° F., and then told her that her first need was fresh air and a cooler room. I opened a window and arranged a screen so as to shield the patient from direct draft, and by degrees lightened the bed covering. Next, I gave her a cool saline sponge bath to tone up her relaxed skin and give the pores healthy action, put a cold compress on her head, and in less than an hour I had the satisfaction of seeing her drop off into quiet sleep."

Hundreds of cases of sleeplessness are due to causes similar to those detailed in this true incident. In addition to shutting themselves into an atmosphere exhausted of oxygen, they smother their bodies under bedclothing non-porous or too heavy. When it is

remembered that the greatest amount of the bodily waste is thrown off through the pores of the skin, the necessity of clothing it day and night in a manner and with material that will permit ventilation of the skin, is apparent. For bed covering, woolen blankets are the best, as they are light, porous, and easily washed. Light-weight cheesecloth and cotton batting comfortables are next best to woolen blankets; but though the first cost is less, they are really more expensive in the end than blankets, as, when soiled, there is no way of restoring them to their first estate. The cotton will mat together if washing is attempted, and the desirable quality of porosity is thus lost. Ordinary cotton quilts and comfortables are far from hygienic. They have too little porosity in the first place, and are generally used for an indefinite period, until they become thoroughly saturated with bodily impurities. When washed, it is not easy to make sure that they are really clean, while the matting of the cotton, makes them still less desirable for future use.

It is sometimes recommended that old newspapers be tacked into comfortables for winter use, it being urged that they are light, cheap, and very warm. They are all this, but the warmth is at the expense of the non-ventilation of the body, and they are therefore very unwholesome. It might be better to use paper comfortables than to freeze, but that is the most that can be said in their favor. Commercial paper blankets are just as undesirable as those of home manufacture.

The physiological necessity of a thorough daily

airing of every bed which has been occupied during the night, is too little regarded, and the consequent impairment of health is serious. Every bed, before the occupant leaves his chamber, should be opened wide, or better still, the blankets, sheets, and mattress deposited on two or three chairs, the windows thrown wide open, that the currents of pure, fresh air may sweep away the cutaneous exhalations which have accumulated during the night. Do not make up the bed under two hours, and if it lies open for a half day, so much the better. It is too great a sacrifice of health to neatness to make up a bed as soon as one leaves it. Nor should one make it up at once for the sake of preserving the animal warmth for greater comfort at night. Grandmother Gtells me that when she was a young girl, her family lived on the frontier and were obliged to suffer some of the inconveniences of pioneer life. The children slept in a cold attic, and their grandmother always enjoined upon the girls that they must make up their beds as soon as they left them, if they expected to sleep warm the coming night. The houses of the olden time were well ventilated because of their loose construction, and that alone has made it possible for people to live to tell of such flagrant violations of the laws of personal hygiene.

As often as once a month, it is desirable that the entire bedding shall be taken out of doors for a day's exposure to the fresh air and sunshine. Choose a bright, dry day, and never mind if your chambers do look untidy meantime. The lack will be more than made up in the increased wholesomeness of your bed. This is particularly desirable for mattresses and other articles not washable or easily renewed. Feather beds should be an exception to this rule, for although fresh air is good for them, the direct rays of the sun make the animal matter in the quills offensive. However, it is hardly necessary to say this, for doubtless the readers of Good HEALTH are too much enlightened to tolerate feather beds.

During the winter months, whenever the mattress and bedding are given a prolonged airing, pains must be taken to warm the articles thoroughly before bedtime, especially for delicate people, else they may suffer chill. This may be done by spreading the bedding out near a stove or open grate, or by putting a warm soapstone or a rubber bag filled with hot water in the bed after it is spread up.

A word, too, may not be amiss as to precautions in the care of the bed in your guest chamber. Many a hapless guest is put into a bed which has not been occupied for weeks, and which is cold and has probably accumulated more or less moisture. A night passed in such a bed, especially if the room be also cold, may mean illness and perhaps ultimate death. The best plan is not to keep the spare bed made up, but merely dressed in counterpane and pillows until needed. Then, thoroughly air and warm the mattress, sheets, blankets, etc., for some hours before you send your guest to rest. It is high time that the slaughter which has been carried on for years by means of the spare bed, should cease. Even in summer it is hardly safe for one to occupy an unused bed without first giving it a good airing.

The hygienic reason for thorough airing of night clothing is still stronger than for airing bed clothing, since it is in direct contact with the person. No garment worn at night should be worn during the day. At each exchange of day and night garments, those taken off should be well aired for some hours. Much has been said and written upon this subject for years by physicians and hygienists, but it seems to need "line upon line and precept upon precept" to accomplish the necessary reform. It is still the too common practice to roll or fold the night garments tightly, at least as early as the bed is made, and place them under the pillow or in an embroidered case, and thus the accumulation of the impurities of one night are added to those of the next, and so on in crescendo. To make the matter still worse, a good many people seek to economize on their laundry bill, by wearing colored cotton or flannel night garments, and not having them washed more than once in four or five weeks. For elderly persons or invalids, whose bodily warmth is diminished, it is an excellent plan to wear a suit of light woolen undergarments beneath a cotton night robe or else to put a flannel robe over an ordinary cotton gown. It helps to maintain bodily warmth with a less weight of bed blankets, but do not wait until they "show dirt," to send them to the laundry, if you value your health more than the saving of a few cents.

It may not be amiss to touch upon another point connected with the hygiene of sleep, and that is the desirability of each person's having a single bed, both grown people and children. There are moral as well as physiological reasons for taking this ground. Benjamin Franklin went so far as to recommend that all who could afford it should provide themselves with two beds apiece, and on a warm summer night it certainly would be refreshing to change from one bed to another. Moreover, the beds could be more thoroughly aired. However, if every one who could afford it, would provide himself with a single bed, simple or elaborate, according to his tastes, it would greatly promote health and happiness. Children are

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often great sufferers from being obliged to sleep with grown people. No wonder baby frets when it is being poisoned through lungs and skin with the effete exhalations of one or both its parents. Its nervous system suffers from this unwholesome contact, and it is to a certain degree dwarfed in its three-fold nature.

To be alone some part of the twenty-four hours should be counted one of the necessities of civilized life, and the night is the most favorable time for this. The fret and worry of the day are heightened by continued personal companionship in the sleeping apart-

ORIGIN OF SEA BATHING.— The sea was held in dread by classical antiquity. Immersion in its waters was an experience to look back upon with a shudder; and the Greek or Roman who came out of it alive repaired to the nearest temple, and there suspended his dripping garments as a votive offering to the forbearing Posidon, or Neptune. This horror of the sea descended to mediæval times, when, indeed, ablutions of every kind were almost dispensed with, and the human integument so sparingly refreshed with water as to earn for the ages in question a double title to "dark."

A compulsory dip in the sea was a sentence sometimes passed on the mediaval offender — often with exemplary effects. The legend has it that a first-class culprit, who, though ill at the time, was visited with this penalty, emerged from it so much the better physically as to shake belief in its deterrent virtue. Ronsard, the French poet and scholar, sang the praises of the ocean and its health-giving waters; but this was only a faint and far-off anticipation of its modern worship.

It was in England, and toward the middle of the last century, that the sea was first recognized as the mighty sanitary agent the world now acknowledges it to be. At that time, Western Europe was heavily scourged by scrofula,—king's evil, as it was called, and all ranks of society, from peer to peasant, were more or less sufferers. Dwellers on the seaboard, guided by instinct, apparently, drank of the briny water, bathed in it, washed their sores in it, or bound them up with seaweed. And they had their reward in physical as well as moral invigoration.

The profession took notice of this practice, and Dr. Russel, a Court physician, who was first to become cognizant of it, did not wait for a chemical or physiological theory of its efficacy, but prescribed it at once for his patients, and was followed by others of his contemporaries. Soon the English coasts ment. It is much easier to regain our normal poise and self-control when we are apart with ourselves and can hearken to the voice of God within our souls. It is specially rasping to the nerves and temper if two who are uncongenial are forced to occupy the same bed. In families where the children are unhappy and quarrelsome, single beds would greatly promote peace and harmony. Grown people and children should always sleep apart, and so should invalids and those in health. If it is necessary to occupy the same room, as a matter of domestic economy, provide two single beds.

were planted with villas and cottages; and hamlets, from their sea-bathing advantages, expanded into towns.

At the close of the last century, Germany imitated England, then Belgium, then France, until, in the year 1812, Dr. Le Francois, of Dieppe, published a treatise on the internal and external virtues of sea water, and raised his native town into a muchfrequented health resort. So that, from having been first used in scrofula, the touch of ocean is now employed in countless other evils than the "king's;" and invalid Britannia repairs with yearly recurring alacrity to the waves over which she rules.—Sel.

KEEP YOUNG .- Judicious mental work may help to lift one out of the ruts of premature old age. Read, and think of what you read. Do n't use your mind as if it were a sieve, and you were trying to see how much you could pour through it. There is a belief extant that knowledge, if gained at all, must be acquired in youth. Fallacious theory ! Behold Galileo at threescore and ten pursuing his studies with unflagging zeal; Cato beginning Greek when advanced in years; Ogilby commencing classical studies when past fifty. Gladstone is as much the student to-day as when the bloom of youth mantled his cheek. Be kind to the feelings and fancies of youth. If they prove perennial, so much the better. Do n't forbid yourself glad, recreative thought and action. Smile without affectation; be pleasant without being silly - in short, be young as long as you can. - Sel.

Wife—"An' phwy do yes be takin' thim pills when yez are well again?"

Husband—"Faith, would ye be afther havin' me let a dollar's worth of pills go to waste? It's a thriftless family Oi married into, sure."

A HEALTH PRECEPTOR.

BY JULIA A COLMAN.

WHO does not value health? Who would not take pains to secure it, especially after it is gone? and it is sure to go sooner or later if not cared for. The better plan is to prevent its going. How can we do it? Not by any hit or miss arrangement, lucky lottery, or blind dependence on constitutional vigor and happy heredity.

Give the matter a little serious thought, and set about systematically looking over your personal possessions and taking an inventory. Learn to locate heart, brain, stomach, liver, kidneys. Give them plenty of room, and find out what they need to keep them in good order, and know what you can rightfully expect of them. Understand them as well as you do your feet, hands, eyes, and ears. The physiologies will help you about all this. The later ones are delightful reading, better than fairy tales, because they are all true. Discuss one of the "Man Wonderful" sort with your little people, and see if they do not say the same.

When your studious boys and thoughtful maidens are fully interested, give them "Hygiene of the Home," or "For Girls," and they will be sure to profit by it. We are apt to think of all this as hard, dry work, but that is because we did not make ourselves familiar with it in our youth. If we begin it with our children, and let them grow up with this knowledge, it will become as easy for them to live right as it has been for us to live wrong. Teaching them is often the easiest way for us to learn for ourselves.

Then the charming results ! To banish sickness, to have our children strong, elastic, vigorous, ready for any reasonable undertaking, and easily kept within the bounds of prudence by their own knowledge; no headaches, nor whining, nor colds, nor biliousness, and scarcely any of the besetting diseases of childhood, - all these things are not only possible but of actual occurrence. I have in mind at this moment three stalwart young men not stronger than many others by heredity, and not starting out entirely free from infantile complaints, but overcoming them and their effects by sensible treatment and right liv-There are some such exceptional cases without ing. hygienic teaching, but the tendency is the other way. Instead of throwing off habitual indisposition as they come to maturity, they develop complaints which become chronic, and which either take them early to their graves or follow them thither with life-long discomfort. Now what we are seeking is to increase the number of those whose tendency is in the favorable direction, and especially to put ourselves and our children in that category. To do that we must practice now. Waiting until we are broken down before we begin, is too much like letting a man become a drunkard before we teach him how to live an abstinent life. We are learning to correct that with regard to the drink, by training the children rightly; and we can do the same with regard to health, if we set about it resolutely. Indeed, total abstinence itself is an indispensable step toward health, for drink in all its forms is a most prolific producer of disease. When this is set aside, we may be able to make our main point, not so much the cure of disease as the maintenance of health.

Let us ask if we have not fallen into the bad habit of letting our health talks run mainly into medical treatment. Let a health superintendent discourse of her line of work, and if she does not of her own accord begin to treat of remedies, some one will query about some disease and its treatment, and perhaps enter into details, while those who call themselves well, sit by indifferent, if not uneasy, and get no teaching about the preservation of their precious possession. Such a talk is not on health, but on disease. This is one reason why "Health Talks" are so often a failure, and those who call themselves well, feel safe in their ignorance until they are broken down invalids. Then they run to get dosed with some drug instead of learning to preserve their health by intelligent care.

Doubtless for a while this study of health and disease must be more or less mingled, but our constant aim should be to learn all we can of the conditions of health, and to maintain them. In this we need guidance, and fortunately for us we find a happy suggestion in the practice of some physicians who go about giving lectures. Instead, however, of the five or six lectures usually crowded into one or two weeks, it would serve our purpose better to have the lectures extend through the year, and occur, say once a month. In the intervals we should pursue some course of reading related to the topics of the lectures, as arranged by the lecturer, and on which questions and information should be exchanged. These courses of lectures should have regular annual subscribers, previously engaged, with extra tickets for transient attendants. They should be strictly

confined to health studies, while the details of individual complaints should be reserved for private consultation and prescription. The time will surely come, and we may hasten it, when the indelicacy of inflicting such details upon any but the physician and our most intimate friends will be readily recognized.

In addition to this, the subscribers should make stated appointments with this *Health Preceptor* to visit their homes. She should be taken through the house to examine everything as she thinks best, asking questions and giving directions about diet, dress, plumbing, ventilation, the care of the children, and anything affecting health. This will require tact, skill, and unshrinking courage, but it can be made a good moral and intellectual drill to both parties. It should be paid for by the hour, and the time not spent in visiting nor gossip.

"But," you say, "very likely she will only tell us what we knew before." Perhaps; but if she makes you practice as well as you know, even that would be worth while. And might you not say the same thing about your minister? Does he not often tell you things you knew already, and find his authorities in a book that is open to us all, and by which we actually hold him accountable? Yet his help is so

SHALL WE BE WELL OR SICK?—Dr. T. DeWitt Talmage puts the case thus: "There are women to whom I write who are in feeble health, and they are worried about the future. They are making out very well now, but they are bothering themselves about future pleurisy and rheumatisms and neuralgias and fevers. Their eyesight is feeble, and they are worried lest they may entirely lose it. Their hearing is indistinct, and they are alarmed lest they may become entirely deaf. They felt chilly to-day, and are expecting an attack of typhoid. They have been troubled for weeks with some perplexing malady, and dread becoming lifelong invalids.

Take care of your health now, and trust God for the future. Be not guilty of the blasphemy of asking him to take care of you while you sleep with your windows tight down, or eat chicken salad at eleven o'clock at night, or sit down on a cake of ice to cool off. Be prudent and then be confident. Some of the sickest people have been the most useful. It was so with Payson, who died deaths daily, and Robert Hall, who used to stop in the midst of his sermon and lie down on the pulpit-sofa to rest, and then go on again. Theodore Frelinghuysen had a great horror of dying till the time came, and then went peacefully. Take care of the present, and let

indispensable that we make him a salaried resident. Some day we may do the same by our good physician as a health preceptor. We are facing in that direction.

This idea has often received theoretical approval, but perhaps no element in the community has been more favorably situated to carry it out than the Woman's Christian Temperance Unions of this country. Our members cannot afford to lose time in illness. We have too much to do, both for ourselves and others, and I trust I may add that we are willing to practice the requisite self-denial. We have our Health Departments, with superintendents to whom such an undertaking would be legitimate work. The superintendents in a county, or in adjacent counties, could co-operate in employing the same person, - perhaps some physician who would be able to please all. If no such physician could be found ready made, it would not require many years for some intelligent and enterprising "Y" to fit herself for such an honorable and remunerative undertaking, and be one of those to lead the way in a reform that is sure to come. Perhaps, too, this may give us the key to the question of non-alcoholic medication.

the future look out for itself. Do n't be oblivious of a future before you, but do n't worry and fret about it. Live in the present the very best you know how, let your kindnesses to others be of to-day, your life an immediate example for others."

NEW THEORY OF SLEEP .- A new theory of sleep has recently been advanced by a German investigator, to the effect that the anæmic condition of the brain in sleep is due to an excess of water in the brain cells. The idea is that sleep is due to fatigue of the nerve cells, which brings about some change in the circulation of the blood. The theory is that the nerve cells are supposed to be full of water when sleep comes on, and during sleep this water passes into the venous blood. When the water has thus passed out and the cells have received nourishment from the arterial blood, the sleeper awakens. At the same time that we note this theory, we also see another one advanced to the effect that sleep is caused by pressure on the surface of the brain due to a congestion of the pia mater. A number of theories have been advanced from time to time to explain this mysterious but very common phenomenon, sleep. We are not by any means satisfied with the two latest additions to the number .- Food.



HABITUAL POSTURES OF SCHOOL CHILDREN.

BY ELIZA M. MOSHER, M. D.

[Reprinted from the Educational Review.]

(Concluded.)

In sitting, the body naturally assumes a variety of attitudes, which, for purposes of study, may be classified as follows : —

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1. With pelvis resting equally upon the chair (or other support), spinal column erect, holding the head poised upon its summit. Arms balanced on the line of the hips. (Fig. 4.) (See illustration in February number.)

2. The same position, with shoulders placed diagonally to the transverse diameter of the hips. (Fig. 5.)

3. Body erect with both arms supported. (Fig. 6.)

4. With one arm supported. (Fig. 7.)

5. Arms and head in front of trunk. (Fig. 8.)

6. With pelvis resting on the front of the chair, and shoulders braced against its back. (Fig. 9.)

The first of these, like the first and second postures in standing, places the trunk in a symmetrical position. It is one in which gravitation largely replaces muscular activity, therefore it is economic of force. With support applied to the lower part of the back, and below the shoulder blades, it can be maintained a long time without general fatigue. It is, therefore, the position which should be acquired in early life as the habitual one in sitting.

The second posture, namely, with spinal column in rotation, is an exceedingly dangerous one if permitted to become habitual, because it places the bony segments of the spinal column in a position calculated to produce elongation of some of their connecting ligaments, with shortening of others. The muscles of the back are also used unequally, the whole tending toward production of that dreaded condition, lateral curvature of the spine. Too much care cannot be given to the prevention and correction of the habit of sitting or standing with the shoulders out of line with the hips.

The third position, namely, with both arms supported, while it is not especially detrimental to health, in time destroys beauty of figure. The trunk is, in shape, an inverted pyramid, poised upon a pedestal — the pelvis. The arms, attached to its base, act as weights, which, by their adjustments, have power to bend and mold the pliable, pyramidal trunk almost at will. Suspended upon the side line, they balance each other. Supported, nay, pushed upward by resting upon chair-arms or desk, they elevate the shoulder blades, with which, by virtue of their intimate union, they are practically continuous. The resultant shape betrays the habit.

The fourth posture in my classification tends to shorten the body line upon the weighted side, with the far-reaching results described in connection with third position in standing. Combine with it more or less rotation of the spine, and this attitude becomes one of serious menace, especially to growing girls.

The fifth position, or that in which the arms and head drop in front of the trunk, is also productive of evil results, if often assumed. In this position the muscles of the chest, after drawing the arms forward, remain in the position of contraction, one which is unfavorable to free inspiration. The shoulder blades are widely separated, with their posterior borders everted. The weight of the head drops upon the muscles which connect it with the spine. These, with other back muscles, become elongated and weakened by this gradual stretching process. The upper anterior-posterior curve in the spinal column, under the influence of this posture, deepens, and the obliquity of the ribs increases, diminishing the capacity of the chest, and with it the vital force of the body. Furthermore, this posture tends to fold the body together upon its anterior aspect. The result of this is to crowd the contents of the abdomen backward and downward, with the secondary effect of displacing and deforming the movable and easily molded organs of the pelvis. It is easy to demonstrate, therefore, that the indulgence in this habit of posture in early life, not only produces narrow chests, round shoulders, and drooping head, but much of the ill health to which girls so often become the victims.

It is not wise to direct children to "throw their shoulders back," as in attempting to do this they assume a position which they cannot retain involuntarily. They should, instead, be directed to raise the chest, and place the shoulders and elbows upon the line of the hips.

With the pelvis slipped forward upon the chair, and shoulders braced, as in the sixth position, the weight of the trunk falls mainly upon the sacrum and coccyx. These bones are not sufficiently cushioned by flesh to protect the nerves which lie upon their surface, hence the latter are liable to become injured by the pressure thus applied. In this position, too, the normal curves of the spinal column are replaced by one long one, with its convexity presenting posteriorly. Important muscles and ligaments are thus placed unduly upon the stretch, making permanent curvature of the spine in this direction, easy of occurrence in individuals of weak and lax tissues.

The sitting posture, at best, is not a safe one for children and delicate individuals to occupy continuously. The influence of gravitation, however applied to the spinal column, is one which it is difficult for so movable a structure to resist; so that the tendency to the production of abnormal curves is always great, and increasingly so the longer the posture obtains.

No one position in bed should be allowed to become habitual. The only one in which all the parts of the body are placed symmetrically (namely, upon the back with a low pillow beneath the head), unfortunately is not conducive to a free circulation of the blood. Side positions interfere more or less with respiratory movements, and the prone position does not allow free access of air to the nostrils; hence the

importance of frequent change without indulgence in a favorite posture.

The restless activity peculiar to infancy and childhood is the guardian of physical symmetry during this period. In sleep, as well as during waking hours, the muscles keep busy turning and twisting the little structure in a way our gymnasium teachers might well emulate. Occasionally, a specially "good baby" suffers in shape, because he does not demand for himself the right to kick and cry. Through some physical defect on the part of mother or nurse, infants are sometimes held habitually upon one and the same side. Pressure thus applied unequally to the easily molded bones, is liable to produce one-sidedness of the skull and chest, and sometimes of the pelvis also, which mars the individual through life.

With school work begins confinement within doors, and to the sitting posture, with a subduing of the restless activity so long the child's safeguard. Rarely is the seat assigned the little victim so constructed as to be helpful in maintaining the body in equilibrium. A desk is placed before him, which eloquently offers support, eagerly accepted by one or both elbows, placing his body almost continuously in the third or fourth position of our classification. Should the teacher's desk and the blackboard be at his right or left, as is often the case, instead of in front of him, he is obliged, in order to give her his attention, to twist his body into the second, and most dangerous, of the sitting postures described. The old custom of requiring children to sit sidewise at the desk to write, held the body with the spine placed strongly in rotation.

Relief from the monotony of sitting comes with the call to recitation. Here, perchance, the pupil stands, although, if the opportunity presents to lean against the wall or seat, he quickly utilizes it; otherwise he is sure to swing the body over upon one leg, into the third position of our series. In spite of his teacher's off-repeated command, "Stand up," he drops again and again into this posture, until it becomes habitual, with its far-reaching evil consequences.

The hands are troublesome members at times, and the disposal of them becomes a vexed question to teachers. The study of our fifth position in sitting, shows that no more serious mistake can be made in the schoolroom than to require children to fold the arms across the chest. Folding the arms behind the back, as a change from forward positions, is sometimes restful, but if long continued, tends to deepen the normal curves of the back. It is a common practice for children to carry a pile of books upon the arm, to and from school. This is harmful in its tendency, for several reasons: It confines one arm, preventing its easy swing in walking, an important element in equalizing the circulation of the blood. It unbalances the body, making necessary a shifting of the parts to restore equilibrium, thus placing the trunk in an unsymmetrical position. Most individuals, adults as well as children, acquire the habit of using one arm more than the other, in carrying books, bags, etc. That the habitual weighting of the same side tends to produce deformity, is shown in the figure of the man who has carried a pack on one shoulder continuously.

Nearly all occupations in life present temptations to the body to acquire a habit of posture which, in time, modifies the shape of the individual. The teacher herself, while using her best efforts to train her pupils to right habits of posture, is likely to become unsymmetrical. A careful physical examination made by me of over two hundred teachers (women), revealed the fact that a majority of them had the mark of their occupation stamped upon them, either in the twist of body, which results from standing on one and the same leg, with the other thrown to the side, or the high shoulders and projecting head, caused by sitting habitually in a chair with arms.¹

The woman who sews by hand acquires a low right shoulder, with head dropped toward the opposite side; while the one who spends many hours each day working on the sewing machine becomes high shouldered and short-necked. The man who stands at his desk all day acquires the same shape; so does the

sailor who climbs the mast. The man of letters does not sit over his desk many years without elongating the muscles which attach the head to the spine, thus acquiring the forward poise of the head so often seen in the pulpit and upon the lecture platform. Drug and dry goods clerks, if right-handed, work with the body resting on the right foot. The resultant shape we are all familiar with, if observant. The horse-car driver, the truckman, and even the hodcarrier, all receive in time their trademark.

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Since the evil results of habits of posture are so far reaching and so subtle in their influence upon the human body, it becomes the duty, not alone of educators, but of business men who employ a large number of people, and of architects who plan large public buildings, to make the surroundings of those for whom they are responsible as hygienic as possible.

Chairs and other seats should be provided which help the body to maintain itself in symmetrical postures. They should be so placed as to make it unnecessary to turn the head and shoulders in the act of giving attention. Sufficient space should be allowed for the extension of the lower extremities. Desks upon which the elbows can rest should not be placed before school children.

Workshops should be so planned that operatives may be able to change their work from side to side, or vary it, to prevent them from becoming unsymmetrical.

Furthermore, corrective exercises of three minutes' duration should be given at stated intervals during the day, in all our schools and workshops, with the definite object in view of preventing loss of symmetry and deterioration of health.

PHYSICAL TRAINING.

THERE are many who still see with apprehension the proportions which physical training has assumed in our higher institutions of learning, and doubt the utility of the great attention paid to athletics, especially in the intercollegiate games. There are those still living who remember when students passed their courses of study and came forth well equipped for the struggle of life without these artificial aids, at least without any scientific training in the sports of youth. The farmer's boy and the sons of manufacturers, traders, and professional men, even the lads from the cities, came up to college with sufficient stock of health to carry them through the curriculum. If the hard student broke down occasionally after he got his honors, there was no suspicion that his invalidism was not providential. In fact, a generation or so ago most boys were brought up to take some share in the industries of their parents, even when they were preparing for college. It is not so very long ago that work for well-to-do boys went out of fashion. The not distant predecessors of the students who now occupy luxurious steam-heated suites of rooms, used to saw their own wood and back it up stairs, and the labors of the Greek heroes about which they read they could fully appreciate. Indeed, in days still remembered, college presidents made daily sturdy if un-

⁴ Nearly all these women wore corsets habitually; hence, the statement that this garment prevents asymmetry is fallacious.

heroic attacks on their own woodpiles. To work with the hands was once not beneath the dignity of the scholar. A good proportion of the giants of those days who became famous in the law, in the pulpit, and in the Senate House, were stalwart men whose boyhood had been hardened and invigorated by manual labor. There are those who look back to those days with regret, and query whether modern athletics will produce a race of men like the old civic heroes.

But the question is not a practical one. Manners have changed, the whole social order has changed, and the modern scheme of education has to adapt itself to the new conditions. That athletics is a necessary part of the scheme of education can no longer be doubted, for it remains true as it was before the change that somehow a sound, vigorous body is essential to the best mental training and achievement. And it is the true scientific idea that health and bodily vigor are not accidental, but can be cultivated and developed more or less in every person, and that by this cultivation not only the physical but the moral and intellectual standard of the race is raised. Those who are foremost in athletics are foremost in the college in all that prophesies success in life, and they are generally not laggards in the class-room. Those who devote themselves to athletics with an almost professional zeal must be Spartans in their habits. Not only is every sort of dissipation forbidden them, but they must live lives of absolute abstemiousness and temperance, of rigid self-denial, of regularity, of discipline. They do not fast and keep

MUSIC AND LONGEVITY. — Notwithstanding I will soon pass my eighty-first birthday, my mind and body are still in good condition; which I attribute to the fact that I have a variety of occupations, which induces me to give exercise to different parts of my brain as well as of my body, without overworking and exhausting one part.

I have collected some statistics about men occupied exclusively in one kind of mechanical labor, and found that they die before the average of the life of such as have to perform labor which does not require the continuous exercise of the same parts of the body, but who are occupied in labor which allows the exercise of almost all parts; so, for instance, men whose main occupation is the use of the sledge hammer are very short-lived, and several crippled old men have testified to me that they were overworked in one certain pursuit without variation.

It is the same with the mind as it is with the body, and even more so; men occupied year after

vigils to emaciate the body and keep it under, but they exercise the highest self-control in order to develop the body to its highest strength and grace, and this not in a "training" spurt of a month or two, but practically in their entire college course, if they are to keep their position. This habit of selfcontrol, this subordination of all indulgence, is of the highest educational value to them. But not to them alone. They set the standard of conduct in college. And the standard is that of health, of manliness, of self-control.

The hero of the college is not the self-indulgent sybarite or flaneur, who loves ease and luxury, who dabbles with his books in an affectation of cynical culture, and sets the example of a man of fashion, but the student who wins trophies for his alma mater by the oar or on the green field. It is he who sets the fashion and gives the tone to college life, and it is a vigorous tone and a manly fashion. To this standard every man in college is more or less desirous of attaining, even though he does not expect to become a great athlete or a public competitor in the games. And so it comes about that the gymnasium is thronged, and that there are plenty of volunteers for the military drill. With this manliness, goes a sense of honor that makes the college games real trials of skill and endurance, and sets a standard for the country of fairness and honorable competition far removed from many public games and races that have not even the merit of being games of chance.-Charles Dudley Warner, in Harper's Magazine.

year with bookkeeping, or being cashiers, or teaching one exclusive branch of knowledge, or giving music lessons to beginners, or clergymen preaching orthodox sermons or praying according to the same system, break down early. Hence broken-down clergymen abound. When the mind is free to rove wherever reason calls it, a better mental health results than is the case when the mind is trammeled by theological dogmas.

But, as in the usual course of life, men frequently have monotonous daily duties to perform, which wear out their mind and body, it may be a blessing to them when they can indulge in another occupation which is utterly different from any daily routine; and such an occupation is music, which has the double advantage that it can be enjoyed also by those who have not been musically educated, but whose tastes run in such a direction as to be able to enjoy good music. — Dr. P. N. Van Der Weyde, in Scientific American.



MUTUAL HELPFULNESS.

MUTUAL helpfulness is an important element in the unity of the home. Let its members seek not their own, but each another's good. Children need to be trained to do this; it is not a spontaneous growth. There is danger that the child's strong sense of personality will degenerate into selfishness; there is no better safeguard against this danger than training children to do for others. Make each feel that he has his share to do in the home work, and that if he neglects it, so much will be lost out of the comfort . and pleasure of home. Children thus trained will be not only helpful children, - a beautiful characteristic, - but they will be unselfish, because they are continually doing for others, and in accordance with the law enunciated by John Locke two hundred years ago, their characters are being formed by this unselfish doing.

My heart is often pained by the way children are trained to selfishness through mistaken mother love that continually does for them instead of teaching them to do for themselves and for others. I have in my mind a family of a half dozen children, with a frail little mother, devoted to them and working herself to death for them, but never teaching them to do anything for themselves or for each other. The eldest was an unusually strong girl of twelve, who could be very helpful to her mother and the younger children, yet I never knew her to offer to do anything for any one of them. She did not seem to feel the slightest responsibility in regard to the younger children; indeed, the bonds of family affection seemed very slight between those brothers and sisters, and one great cause was, that they were not trained to work for each other and the family good.

It is a characteristic of human nature, as distinguishing it from brute nature, that our love for any object is increased by doing loving service for it. If we do not train our children to this loving service to parents and to each other, we sadly weaken the bonds of family unity. This is doubtless one reason why we often find these bonds strongest, not among the rich, where plenty of servants take away the necessity, and often the opportunity, of doing kindly deeds to others, but in the homes of moderate competence, where loving hands minister to each other's necessities. O, the blessedness of this ministry! Christ came not to be ministered unto, but to minister. Here, even more than in pecuniary things, is it far "more blessed to give than to receive."

As ministering to each other strengthens the love of brothers and sisters, and of children to parents, so does work for the common good strengthen love for home. This work should not be excessive nor harshly imposed, or it will have the opposite effect. But the consecrated common sense of father and mother can find much for children to do, and can incite them to doing it in such a way as to bind them to home. It is a good thing for a boy to take pride in the garden, or barn, or farmyard, and for a girl to feel the same commendable pride in a well-kept house and a well-stocked pantry, because they had something to do in making them so.

To me it seems utterly impossible to develop a symmetrical womanly character, without giving our girls thorough training in all housewifely arts.

In the same way, and for the same reason, boys should share the labors of their father. We know a wise father who often puts himself to great inconvenience to take his boys with him when he goes to the blacksmith shop, into the country to buy hay or oats for his horse, and on similar expeditions. And just as soon as they are old enough — before most fathers would thus trust their boys — he sends them on such errands alone. In his city office there is not very much that they can do, so he takes pains to utilize every occasion for employing them in service for the family good. He is thus preparing them for actual life, and is strengthening their interest in home by making them workers together with him for the common good. — Mary Allen West.

A SENSIBLE CYCLING DRESS.

MISS TISSIE REVNOLDS is the plucky young English girk who has lately made the journey from London to Brighton and back, a distance of one hundred and four miles, on a bicycle, in eight hours and thirteen minutes. Miss Reynolds is but sixteen years of age, but is the typical English girl, healthy, well developed, and muscular, by reason of plenty of fresh air, exercise, and with a merry, self-reliant disposition, the result of her acquaintance with outdoor life and outdoor sports from early childhood. She is naturally proud of her recent exploit, as well she may be; for a bicycle run always means a race against debility and disease, where the bicycle rider is sure to win. We heartily wish that more women would cultivate a liking for this inspiriting style of locomotion ; there would be fewer narrow chests, and fewer compressed waists; for, although while breathing in the vitiated air of overheated rooms a woman may not feel any ambition (or less than none) toward anything like reform in her clothing, yet see the same woman when her interest is once aroused in outdoor sports, and she becomes possessed of a sudden, fierce desire for a general loosening of belts and bands, — the happy result which will follow as a natural sequence upon her first unaccustomed lungfuls of pure oxygen.

To the unrestricted freedom of muscle and limb afforded by a dress which is at once comfortable and convenient, Miss Reynolds without doubt owes the muscular power and endurance which have made this recent record-breaking feat of hers possible. Her riding suit upon this occasion was a white shirt with white linen bosom, a four-in-hand tie, and a turn-down collar. Over this was worn a long-sleeved blouse-like garment thrown carelessly back at the throat and chest, belted at the waist, and with a skirt that reached a little below the knee. This garment was of navy blue silk-and-wool material ; the trowsers were of the same, and reached to the calf of the leg, where the slight fullness was gathered into an elastic band which was met by black silk stockings. A jaunty sailor hat and russet shoes completed this pretty and sensible dress.

E. L. S.

THE EVIL OF CARELESSNESS.

THE children had been put to bed, I had finished my evening paper. My tired wife, who had been picking up and putting to rights the many articles which the children had left strewn about, came and sat down beside me. With a weary sigh she said, "Do you not think churches and parents should look upon carelessness as they do upon falsehood and theft?"

"That, dear wife," I replied, "would be a rather severe view to take of it. There is usually no wrong intent on the part of the careless person."

"Nevertheless," argued my wife, "their act enlis labor and loss to others, which they have no right to impose. When you stop to think of it, how much more is broken or lost through carelessness in a household than is stolen, and think of the many weary steps some one must take to put in order what has been carelessly left in disorder!"

"You are tired to-night, dear," I said, "your judgment is a little harsh. Children at least have some excuse; for they are so forgetful, you know."

"And why," she asked, "can they remember that it is wrong to steal or to lie, and yet forget that their carelessness causes the burdens of others to be needlessly increased? It is because we weakly say, 'Oh, they did n't mean to,' or 'They did n't think.' If we treated lying or stealing as leniently as we do carelessness, I shudder to think what society would become. No; if teachers and parents would find as few excuses for carelessness as they do for some other sins, it could be as effectually stamped out as have been the others."

I was about to reply that children outgrew this fault as soon as they realized what a fruitful source of trouble it was, when I remembered how this failing still clung to me, and caused others vexation and loss. So I remained silent.

"It is better," resumed my wife, "for the children themselves that this selfish habit should be broken up. I remember listening, when a little girl, to a children's sermon by our old pastor. One sentence alone I carried away with me; it was this: "Remember, children, that what we neglect to do, tired hands will have to do." I have never forgotten it, and by bearing it constantly in mind I overcame a naturally careless and thoughtless disposition. I have been happier in consequence."

"Yes," thought I, "how happy you made your

father's home, and how happy you have made mine, by your unselfish spirit!" And kissing the tired little woman good-night, I resolved to request our minister to preach from the text, 'Remember, what we neglect to do, tired hands will have to do," and to have these words painted and framed and hung in our sitting-room.

I know of other households with tired mothers where these words might bring a blessing. Do you? -A. R. M. in N. E. Farmer.

THAT'S THE WAY.

Just a little every day. That's the way Seeds in darkness swell and grow, Tiny blades push through the snow Never any flower of May Leaps to blossom in a burst. Slowly — slowly — at the first. That's the way ! Just a little every day. Just a little every day, That's the way Children learn to read and write Bit by bit, and mite by mite. Never any one, I say, Leaps to knowledge and its power. Slowly — slowly — hour by hour. That's the way 1 Just a little every day. — Ella Wheeler Wilcow

AFRAID OF SPIDERS.

CARRIE jumped from her seat because a spider was spinning down before her from the ceiling. "They are such hateful black things!" she said.

"They are curious black things," said Aunt Nellie. "They have eight fixed eyes."

"Dear me! And maybe she is looking at me with all eight of them," groaned Carrie.

"They are very fond of music."

" I shall never dare to sing again for fear they 'll be spinning down to listen."

"They can tell you if the weather is going to be ine or not. If it is going to storm, they spin a short thread; if it will be clear, they spin a long one."

"That's funny."

"They are an odd family," Aunt Nellie went on. "I saw one on the window-pane the other day. She carried a little grey silk bag about with her wherever she ran. She had spun the bag herself. When it burst open, ever so many tiny baby spiders tumbled out, like birds from a nest, and ran along with her. Perhaps you didn't know that the spider can spin and sew, too. She spins her web, and she sews leaves together for her summer house."

"What a queer thing a spider is !" said Carrie, beginning to forget her dislike.

"Yes; and she has a queer sister in England, who makes a raft and floats on pools of water upon it in search of flies for the family, who live under water in a diving bell, which she weaves herself!"

"How I should like to see her!"

"Maybe you would rather see the one in the West Indies which digs a hole in the earth. She lines it with silk of her own making, and fits a door to it, which opens and closes when the family go in and out."

"Yes," said Carrie, "how delightful!"

"But you would be afraid of the inmates."

"Perhaps not, now I know their family affairs."-Our Little Ones.

THE TRUE EDUCATOR. — When will we ever learn that it is not what we do for the child, but what we help him to do for himself, which is of value to him — that it is not what he *has* but what he *is* which brings happiness? The bequeathal of a fortune, no matter how princely, does not compensate for a weak and marred character; and the priceless gift of a strong, true training of heart and will is within the reach of every mother who is willing to prepare herself by thought and study upon this great subject of child-training, it matters not how humble her position may be. — *Elizabeth Harrison*. COOKING VESSELS OF ALUMINUM. — A professoral, the Metallurgical Laboratory of Lehigh University tells us, after two years of actual experience, that in point of lightness, cleanliness, durability, and allround adaptability, cooking vessels of aluminum are perfect. The question of lightness is one not to be overlooked. Our grandmothers who had to lift heavy pots and kettles, were many of them strong, but they were constant sufferers from lame backs and crooked spines. In the age of aluminum there will be no excuse for this, at least in those who wield our kitchen utensils.

HOME CULTURE.

THE SONG OF THE SKIRT.

Sweer, sweep, sweep, With trailing skirt, O maid, Through the filthy flood and slush and mud, Till thy dress is tattered and frayed.

What matters though men may smile And street cleaners stop their work ; When fashion's decree says a thing must be, No woman will dare to shirk.

So sweep, sweep, sweep, Gather microbe and mud and dirt, For style and wealth beat comfort and health, And that is the song of the skirt. - Sel.

THE SMALL PROVIDER'S ECONOMIES.

THE tradition is current among housekeepers that there is great economy in buying supplies in large quantities. The learned among them will dilate upon the amount that may be saved by getting flour, sugar, and potatoes by the barrel. They prove to you that you can put money in your pocket by purchasing a crate of eggs at a time and pickling them for winter use.

While all these data are useful and encouraging to the woman who has big pantries and a roomy cellar, they strike dismay to the heart of her who must perforce dwell in a flat. There is no place in *her* apartment for a barrel of flour. If that came in, one of the family would probably have to go out. The mere thought of buying a bushel of potatoes at a time seems like a dream of extravagance, and in her moments of wildest unreason she never contemplated a barrel of sugar.

So when she reads or hears all these wise counsels of notable housewives, her heart sinks within her, and she feels that she is an extravagant wretch who wastes her income, in that she buys sugar and butter by the pound, potatoes by the quart or "small measure," and eggs by the dozen. What does it matter that her family is small and would take a week to consume a quarter of mutton? According to the best judges, she cannot practice true economy unless she buys her provisions in bulk.

After a while, if she is a woman of spirit, she plucks up heart and begins to do a little figuring and make a few estimates on her own account. And if she is clear-headed and practical she finds before long that there may be as much economy in her mode of living as there is in that of her neighbor who has larder-room to spare; for there are undoubted advantages in buying provisions in small quantities. In the first place, she sees that she would save little money in buying dry groceries by the large quantity, and that little would be more than lost by the extravagance generally induced by having a practically unlimited supply of any commodity in the house. Such extravagance is not confined to hirelings. The careful housekeeper herself feels it when she takes advantage of the full barrel of sugar, to make costly dainties. She would think several times before she made pound cake or fruit cake or puff paste if she had to send to the grocer's and pay ready money for the ingredients. She finds that where this is to be done, both she and the cook are more prudent.

Another advantage gained is that of knowing exactly what she consumes in the week. When she buys three and a half pounds of sugar, a pound of butter, and a dozen eggs on market day, she knows just about how long these should last. If there is a waste, she can check it promptly, and she can estimate pretty nearly what her housekeeping bills should be at the end of the week.

There is extra labor avoided by her system. For her there are no unpleasant hours spent in picking over apples, potatoes, and winter vegetables. She has not to count upon a certain amount of it rotting and withering. Her grocer bears that loss. His shop is her pantry, to which she goes and gets her vegetables and fruit by the quart or the half dozen. There will be no maggots in the cornneal or Graham flour when she gets only two or three pounds of it at a time. If a freshly opened package of oatmeal is musty, she knows that it reached that state on the grocer's shelves, and sends it back to him forthwith. Sufficient unto the day are her provisions, and the good and the evil thereof.— *Harper's Bazar*.

"WELL, Tom," said papa, "what have you been doing to-day?"

"I have n't been doing, I 've been do n'ting," said Tom.

EVIL ASSOCIATIONS.

BREAD.

It is said that the celebrated artist, Sir Peter Lely, would never allow himself to look at a bad picture, having found by experience that whenever he did so, he unconsciously transferred some of its faults to his own canvas. Is there not a lesson here for those who think they can mingle with evil, and yet escape contamination? The Scriptures say that evil communications are corrupting ; but many a young Christian starts out with such confidence that he thinks he may be excepted from heeding this warning. The fact is, and it is true of old and young, that we grow into the likeness of the things we look at, or into a likeness of the things that the mind dwells on. It is not safe to go into bad company, or to read bad books, or to allow the fancies to wander to forbidden objects for any reason; for if we do, our surroundings and mental occupations will be reflected in our characters.

You cannot dally with evil, even though with innocent motives, and not suffer from it. You cannot take coals into your bosom and not be burned. You cannot walk through a filthy street without soiling your shoes. Some hold the foolish theory that the young are benefited by engaging in questionable amusements, or by going to places of doubtful repute occasionally, that, by seeing sin in its worst phases, they may learn to abhor it the more. This is sometimes called getting world-wise. Such "wisdom" is to be seriously questioned. Pope's familiar verse is a pointed refutation of such a theory : —

> "Vice is a monster, of so frightful mien As to be hated, needs but to be seen ; Vet, seen too oft, familiar with its face, We first endure, then pity, then embrace."

No one needs to take special pains to see the vices of our day. They are crowded upon our sight all too often. The danger is of our becoming too familiar with vice, and thus ceasing to be shocked by it; yes, even molded by its influence.

The only safe way is to keep ourselves, so far as possible, away from sin, and the doers of iniquity, except as we may go to them to carry the gospel message. "Abstain from all appearance of evil," keep out of evil companionships, away from the loafing places of those who serve Satan, away from every place where impurity and ungodliness may be paraded before our eyes. We shall all know enough of sin before we leave this world without putting ourselves in the way of it, and we may count ourselves happy if, after every precaution, we escape its contaminating influence.— *The Evangel*.

BEAUTIFUL loaves of bread, Crusty and golden brown, Whose wholesome fragrance maketh glad The heart of king or clown,

Outside, the hue of the wheat, As it bent in the sun of June, Or lay in beaps of yellow bronze, In the light of the harvest moon;

And inside sweet as the scent Of tasseling heads of corn, And light as the sprays of the valley-mists That float in the wake of the morn.

In homes of wealth and case, The board is richly spread: But what would the choicest viands be If there was lack for bread?

And in the humble home -The cottage small and gray, The poor man's wife, in calico frock, Cheerily works away.

Her eyes are clear with health. Her dimpled cheeks are red, And she sings a tender, old-time song, As she kneads her sweet brown bread.

Homely and wholesome bread — This is our need each day, From the millionaire in his mansion grand, To the beggar beside the way.

The daily physical want Of nations from pole to pole, An humble type of the Heavenly Bread, That feedeth the hungry soul.

And do we comprehend, When our daily prayer is said, How great the gift we ask of God, When we ask for our daily bread ? — Good Honsekeeping.

GREASE stains on wall paper may be removed by mixing pipe clay with enough water to make a sort of cream. Spread this rather thickly on the stain,

leave it on for twenty-four hours, then take it off carefully with a knife, and dust and brush the paper thoroughly.

FOOD FOR THE AGED.

WONE of the first requisites of food for the aged is that it shall be easy of digestion, since with advancing age and decreasing physical energy, digestion and apimilation become correspondingly less vigorous, and foods that may be taken with impunity at an earlier period of life, overtax the enfeebled organs and prove highly injurious. The fact that the vital machinery is worn and weakened with age has led to the popular notion that old people require a stimulating diet as a "support" for their declining forces. That this is an error is apparent from the fact that stimulation either by drink or food lessens instead of reinforcing vital strength, thus defeating the very purpose desired. Flesh food in quantities is a peculiarly unsuitable diet for the aged, not alone because it is stimulating, but because it produces a tendency to plethora, a condition which is especially inimical to the health of old persons. Eminent authorities on diet also reason that the loss of the teeth at this period, whereby thorough mastication of flesh food is done with difficulty, even with the best artificial aids, should be considered a sign that nature intends such food to be discarded by the old.

A milk, grain, and fruit diet is undoubtedly the one best suited to the average person in old age. Vegetables and legumes in well-prepared soups may also be used to advantage.

The following bills of fare will perhaps serve to illustrate how a varied and appetizing regimen may be provided without the use of flesh foods :—

BREAKFAST.	
Fresh Fruits	
Rolled Oats and Cream.	
Baked Sw	veet Apples,
Macaroni with Crean	n Sauce.
Whole-wheat Puffs,	Stewed Peaches.
Caramel Coffee or 1	Hot Milk.
DINNER.	
Lentil Soup.	
Baked Potato with Cre	am Sauce.
Scalloped Tomato.	Green Corn Pulp,
Browned Rice and	Cream.
Fruit Bread.	
Lemon Apple Sauce.	Prune Pie.
Caramel Coffee or 1	Hot Milk.
BREAKFAST	
Fresh Fruit	5.
Rolled Wheat and	Cream.
Tomato Toast.	
Corn Bread.	Graham Gems.

Stewed Prunes, Caramel Coffee or Hot Milk, DINNER, Vegetable Oyster Soup, Baked Sweet Potato, Mashed Peas, Steamed Rice with Fig Sauce, Graham Bread, Stewed Dried Fruit, Apples, Caramel Coffee or Hot Milk,

In the selection of a dietary for elderly persons, much must depend upon their physical condition, the daily amount of exercise to which they are accustomed, their habits in earlier life, and a variety of other circumstances.

The quantity as well as quality of food for the aged should receive consideration. Diminished bodily activity and the fact that growth has ceased. render a smaller amount of food necessary to supply needs; and a decrease in the amount taken, in proportion to the age and the activity of the subject, must be made or health will suffer. The system will become clogged, the blood filled with imperfectly elaborated material, and gout, rheumatism, apoplexy, or other diseased conditions will be the inevitable result. The digestion of heavy meals is a tax upon vital powers at any time of life, but particularly so as age advances; and for him who has passed his first half-century, overfeeding is fraught with great danger. Cornaro, an Italian of noble family, contemporary with Titian in the sixteenth century, after reaching his eighty-third year wrote several essays upon diet and regimen for the aged, in one of which he says : "There are old lovers of feeding who say that it is necessary that they should eat and drink a great deal to keep up their natural heat, which is constantly diminishing as they advance in years; and that it is therefore their duty to eat heartily and of such things as please their palate, be they hot, cold, or temperate, and that if they were to lead a sober life, it would be a short one. To this I answer, Our kind Mother Nature, in order that old men may live to still greater age, has contrived matters so that they may be able to subsist on little, as I do; for large quantities of food cannot be digested by old and feeble stomachs."

Cornaro lived to be one hundred years old, doubtless owing largely to his simple, frugal habits.

THE latest thing in women's societies is a darning club organized in a Western town. The members decided that darning is too dull work to be done

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alone, so they organized a club, which meets every Wednesday morning. One woman reads aloud while the others repair the family hosiery.



THE COOL COMPRESS, THE ICE BAG, AND OTHER COLD LOCAL APPLICATIONS.

THE skin is a very important organ of the body. It is supplied with a network of blood vessels which have sufficient capacity to contain two thirds of the whole blood of the body. The skin being the organ in which are located most of the ends of the sensory nerves, any impression made upon its surface modifies more or less the functions and nutrition of all the other organs of the body. This rich blood supply in the capillaries, and the extensive radiating and evaporating surface is the chief avenue whereby the surplus heat of the body is given off. This function of the skin depends not so much upon the amount of blood in the surface blood vessels as upon the rapidity of the circulation, whereby the volume of blood is frequently changed, the cool current passing inward, and the warm current tending toward the skin to be cooled.

These important functions of the skin may be impaired by abnormal contraction or undue dilatation of the blood vessels, resulting in an insufficient or retarded flow of blood. The shrunken, pale condition of the skin during a chill is an example of the former; and the swollen, livid appearance of the surface of a boil is an example of the latter. Applications of water, either hot or cold, may be used to control the excess of heat or stimulate the circulation to greater activity. The effect of this treatment is to increase the activity of the nerves controlling the size of the blood vessels.

In the first, or active, stage of all inflammations, before stagnation and formation of exudates, great relief often follows the use of the cool compress or ice bag. This is especially true of inflammations of the internal organs, as peritonitis, pneumonia, pleurisy, etc. It is also useful in the over-functional activity of organs, as the painful, engorged condition of the breasts at the beginning of lactation, of the stomach during digestion, or of the heart, etc. In all these cases an ice bag or a cool compress will calm down the nervous excitement, relieve the overfullness of the blood vessels, and decrease cell activity, causing rapid decrease of the temperature and complete relief from pain.

For Nurse

chool

To reduce the temperature in fevers the cool compress may be used, changing it frequently. In a weak or torpid condition of the internal organs, as of the stomach or bowels, the wet girdle, worn a part of the twenty-four hours, acts as a tonic, exciting the organs to greater functional activity.

The use of the ice bag or cold compress is often very efficient in the arrest of hemorrhages, especially in hemorrhage of the internal organs, where direct pressure or surgical measures cannot reach the difficulty.

The cold water compress may be either a bane or a blessing according to how it is used. It should not be used when the surface is covered with goose pimples and the extremities blue and cold, and when used it should be retained in position so as to cover the surface equally and closely. This is especially important when the compress is to be worn for a number of hours, as it is often a source of discomfort when it is so loosely applied that a portion will slip out of place and become cold, and then by some movement of the patient is brought into contact with the flesh again.

To Apply Compress so as to Reduce Surface Heat, as in Fever.—Prepare the patient so as to protost the bed and clothing from dampness. Then take a soft linen cloth large enough to cover the surface to be acted upon. Where rapid cooling is desired, one thickness of cloth is better than two. If the treatment is for inflammation of the eye, use pieces of clean linen or cotton cloth about three inches square, and dip them in cold water, or, better still, lay on a cake of ice and change every five minutes, wringing them just enough to prevent their dripping. The same method may be used in applying cold to the head, only using larger pieces of cloth.

In case of fever, where the compress is used to re-

duce bodily temperature, a linen towel wrung out of ice water or cooled on a cake of ice makes a good application. It should be changed every ten or fifteen minutes. In these cases the compress is most encient when applied over the abdomen and chest.

The continuous effect of cold is best secured by the use of ice bags. These may be used with the old compress, making a moist cold application, or with a dry cloth, making a dry cold application. In cases of an engorgement of an organ, as of the breast from over functional activity, the chest jacket may be applied, for the purpose of exerting pressure over the parts. After the chest jacket has been adjusted, lay over it two rubber bags filled with ice, and keep them in place by inclosing them in a bag made of cheesecloth or thin cotton and fastening the bag to the jacket with safety pins. Be careful not to pin through the rubber bags, as it would ruin them. In all deep inflammations of the chest or abdomen, the bags may be applied in the same way. An ice bag will also frequently relieve neuralgia and pain due to great nervous excitement. An ice bag laid over the region of the heart will relieve palpitation due to nervous derangement, by causing a decrease in the frequency of the heart beats.

In cases where it is desirable to use a prolonged cold application, the good effect may be increased by removing the compress once in two or three hours, and applying hot fomentations for fifteen or twenty minutes, then replacing the cold. A hot bag applied to the spine at the same time the cold is being used on the chest or abdomen, will also increase the local effects of the cold by relieving the congestion, as heat over the nerve centers decreases the blood supply in the nerve terminations.

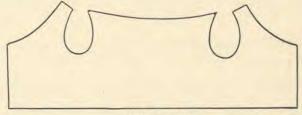
In case of torpid liver, weak stomach, constipated bowels, or any chronic disease due to malnutrition and impaired nerve tone and blood supply, in which it is designed to prolong the stimulating and soothing effect of the application, the compress should be covered by some material which will prevent too mpid evaporation, as rubber cloth, oil silk, or oil muslin.

To give a chest pack, a towel or another piece of cloth of the right size may be wrung out of cold water, and covered with an inch or two of cotton batting. The best quality of cotton batting should be used. Over this fasten the chest jacket, lined with waterproof material and covered with flannel; or the oil

A LITTLE boy caught a very severe cold while his mamma was out of the city, and on her return rushed up to her, and, throwing his arms around

cloth may be laid over the wet cotton and the dry flannel laid over this. The whole must be held in place by a bandage fastened with safety pins and straps over the shoulders. Inflamed joints may be packed in the same way. The compress may be applied to the abdomen by wetting a towel in cold water and putting over it a girdle of oil muslin covered with flannel. This compress should be from fourteen to eighteen inches in width and a yard or more in length, to correspond with the size of the patient, and should be held in place by tapes fastened on the ends.

The ice bag or cool compress may be used to arrest hemorrhage of the chest by putting the ice bag over the chest in front and applying a fomentation to the spine. Persistent nosebleed may be arrested by putting an ice bag over the nose and applying heat to the back of the neck and between the shoulder blades. In case of hemorrhage of the bowels,



CHEST JACKET.

the heat may be applied to the lower spine, and ice to the abdomen. In hemorrhage of the stomach, apply heat to the middle of the spine and cold over the stomach. In every case be sure that the extremities are warm.

In the prolonged use of the cold compress or ice bag, frequent rubbing of the parts will increase the efficiency of the application. In case of impending bed sore, and wherever there is a tendency to complete stagnation, repeated applications of alternate hot and cold have a very marked stimulating effect. This is especially true in cases of spinal trouble, when the patient is over-excited or nervous.

The local application of cool or cold water may be the means of reducing fevers and inflammations, of relieving pain and stopping hemorrhages, and of calming the over-excitability of the nervous system. It will also stimulate the functions and increase the nutrition of torpid organs. But it must be properly used in order to bring about certain remedial effects on the human organism.

her, cried, "O, mamma, both of my eyes is rainin' and one of my noses won't go." — Demorest's Magazine.

TRAINING SCHOOL.

MEDICATED FOMENTATIONS.

THERE are many forms of the medicated and cooling compress for the relief of pain. That most frequently used, perhaps, is the menthol application. Take ordinary menthol liniment and mix with it two or three parts of water and saturate in it a cloth large enough to cover the part to be treated. Extract of witch hazel and laudanum may also be used. The witch hazel may be used full strength. For the laudanum, use one teaspoonful to four or five teaspoonfuls of water. Dip the cotton in it, and spread over the part.

The fomentation may be medicated to increase its power as a counter-irritant, or to intensify the soothing effect. For the former, mustard, Cayenne pepper, or turpentine may be used ; and for the latter, laudanum or poppy-head tea.

To give a mustard fomentation, cover the part with one thickness of cotton cloth, and sprinkle over it about half a teaspoonful of dry mustard. Cover with another layer of thin cloth, and then put on the fomentation. As soon as the patient begins to be uneasy from the burning, remove the mustard, and continue the fomentation as long as desired. The pepper may be used in the same way. For a turpentine fomentation, take one thickness of woolen cloth, wet it in hot water, and sprinkle on it ten to twenty drops of turpentine. Wring or rub the cloth so as to distribute the turpentine evenly. Lay this over the painful part, and then apply the hot fomentation cloth. When sufficient reaction is secured, the turpentine may be removed, and the treatment continued as above. Twenty to thirty drops of laudanum applied in the same way as the turpentine, is used for a more prolonged application, as it is soothing in its effect.

As a fomentation in a private house has to be given in bed, great pains should be taken to avoid getting the bedclothes wet and also to keep from wetting the carpet or furniture. The water in the pail can be kept hot by covering closely with a blanket or anything that may be handy. If no oilcloth is at hand, common newspapers may be used under the pail and around the bed to protect the floor. Never try to give a fomentation with a cotton handkerchief or a small crash towel. See that the water is hot, not tepid, and make the treatment neat and pleasant for the patient. A fomentation may in reality combine all the pain-relieving virtues ascribed to the far-famed St. Jacob's or Wizard's oil by the most elastic imagination, stimulated by the prospects of a princely fortune from the sale of a nostrum to an easily humbugged public.

MAKING TREATMENT POPULAR IN THE NURSERY.

THE eminent Dr. West, of England, asks all mothers who are interested in the welfare of their children, to make the doctor and the doctor's visits popular in the nursery, and never to use either the doctor or his remedies as a means of discipline. Nevertheless this is often done. "Now, Johnnie," says the fond mother, "if you eat too much cake or candy, you will be sick, and I will have to send for the doctor, and he will make you take a whole lot of bad tasting, nasty medicine." Or, "Jennie, you stop eating so much sugar, or you will spoil all your teeth, and then I will have to take you to the dentist, and he will hurt you terribly." Then papa and mamma wonder why the timid children cry wildly, and make frantic efforts to escape, when the doctor is announced; and the more daring and pugilistically inclined, forcibly and fiercely resist all his efforts to to examine them. And as to administering medicines or applying remedies, that is a matter which occupies the attention and taxes the ingenuity of the

whole household. At last Johnnie is seized, overpowered, and forcibly held, while his mouth is pried open to examine his throat or to apply the remedies which have been prescribed. This method results in injury instead of benefit to the sick boy.

The doctor and his remedies in such cases are regarded by the children as the parents have educated them to believe. The children regard them as enemies to their individual welfare, and that they must be resisted at whatever cost or discomfort to themselves and others. As all children are more or less liable to be sick, they should be early taught to value and submit to all necessary examinations and to the applications of all needful remedies. To secure this is much less trouble than at first thought might be expected. Let the parents tell them of the relief to be obtained from the fomentations, a compress, or a bath, and the two-year-old baby will be eager to try papa's and mamma's remedy. And the oldest child so brought up will set a good example in turn to all the younger children; and the parents will be surprised to find that in thus educating their firstborn they have given all the others a start in the right dimension.

This educating of the children to value remedies and to understand the good that will follow their use, never deceiving them in any way, will lead them to bear even painful operations with less dread and more fortitude than does the average adult. As the life of some loved child may at some time depend upon the doctor's being able to diagnose the disease and prescribe the remedy, parents should think well before they speak and act in the presence of their children in such a way as to make the physician and his remedies unpopular in the nursery.

It is also important that parents should have faith in their children's ability to do whatever is needful, — to talk and act as if they expected nothing else from their children but success in all their efforts to do whatever is right and best in all cases. The writer has very often noticed how much a child will

CHANGES IN THE CHARACTER AND DEMEANOR OF CHILDREN. - The child lives outside of himself, and there is, in the expression of his desires, of his physical, moral, and intellectual necessities, a spontaneity and a vivacity which facilitate the appreciation of the slightest changes in his character. Indisposision, as well as disease, leads to certain moral modifications; but the former shows itself in the form of demands, the later (nearly always), by apathy. I do not affirm that this contrast always obtains, but I give it as at least a very general rule. A child indisposed is a grumbler, a child suffering from disease is dejected ; and to such an extent is this true, that observing mothers rejoice, and with good reason, when they see their sick children become refractory and imperious; it is a truly valuable sign of convalescence. The indisposed child rebels against his uncomfortable sensations; he feels a desire to live his ordinary course of life, to play, to run, to eat as usual; but his discomfort prevents him. He revolts against it, cries without assignable cause, shows a desire for a thing, and immediately rejects it, finds fault with everybody, and passes from one demand to another. The child with disease, on the other hand (including also the child about to become sick), is bewildered rather than irritated; there is diminished activity, he seeks repose rather than caresses, and his little countenance is neither lighted up with a smile nor clouded with ill-humor; he assumes the

do when it feels that an older person has full faith in its ability to accomplish something.

Sometimes, after prescribing treatment for a sick child, the parents have unwisely said in the child's hearing, "Well, you will never get my boy to submit to this treatment or take that remedy." One mother said, "Why, my boy will tear down the house before he will have his throat sprayed." Yet a firm, judicious nurse, after getting the mother to retire, soon made the throat spray so popular that he wanted to take it all the time.

The successful horse trainer knows that a young colt is ruined if he is frightened at everything he meets which is unusual; so he makes every effort to cultivate confidence and trust in the harmlessness of all outside objects. So in the child, faith and not fear should be fostered, and the timid should receive special help to overcome their natural infirmities in this direction. Let children learn to do right because it is right, and pleasing to their Father in heaven as well as to earthly parents.

serious air of an adult, and seem to feel a presentiment of impending physical suffering. There are differences between these two pictures, which mothers and physicians accustomed to the observation of young children seize upon with marvelous perception.

Gayety is one of the child's functions; he has the happy source of it within himself, and is able to produce it without external conditions being necessarily favorable. However short a time that spontaneous expansion of the soul may last, it nevertheless exists. Indisposition suppresses it for the time being only; it revives between its disturbances, conceals itself beneath a tear, shines out anew in a smile, is reassuring when it is present, and begets well-founded anxiety when it no longer shows itself. A sad child is a painful anomaly; his sadness is often also a warning, of all the more serious import, if his grief and cries be not accompanied by tears. If the eye be dry, the disease is grave; this is presented to the mother as an aphorism ; it will rarely be found at variance with the truth .- The Mother's Work with Sick Children.

WISDOM and experience, directed by reason and enforced by the dictates of a conscience guided by true principles, should be the guide of all action in the sick-room. Ignorant impulse is undirected force, which often results in destruction and disaster which can never be repaired.



THE TONIC EFFECT OF COLD.

CHANGES of temperature are a necessary means of preserving the tonicity of the system. Let a person who is feeling sleepy and languid step into a cold shower bath; his teeth chatter and his heart beats fast, but he is thoroughly awakened, and a moment afterward there is a feeling of exhilaration and relief. This is the feeling of reaction. It is the tonic effect of cold; and this is what nature gives us in the changes of the seasons and also in the sudden changes of the temperature, - warm to-day and cold to-morrow,-creating a change of the bodily conditions, which produces a vital reaction. It is this reaction which sustains the vigor of the body. If it were not for these changes of temperature we would be as dull and enervated as are the inhabitants of tropical climates.

It is usually a mistake to emigrate from a cold to a warm climate. A person suffering with lung trouble cannot accommodate himself to a cold climate, neither can one whose system is enervated through a deficient blood supply; these poor cripples must seek a warm climate. But if one is in ordinary health, he should accustom himself to the changes of temperature. A cool climate is much better for the system than one over-heated.

We have no right to take cold. We take cold simply because we are too much accustomed to coddling. I remember a gentleman, who lived neighbor to my father, who would never allow his children to wear shoes in any season of the year. His boys and girls waded through snow a mile and a half to the school-house, but they had cheeks as red as roses, and were as tough as knots. Those children never had a cold and never suffered from catarrh.

A thousand years ago our ancestors roamed about the forests of ancient Britain clad only in paint, although exposed to a cold and inclement climate; and to-day the descendants of this hardy race, who live in the British Isles, lead the whole world in physical stamina. One reason for this is found in the fact that they have ever had the benefit derived from battling with the cold. Thousands of persons die of too much coddling where one dies of exposure. Exposure would not be exposure, were it not for the coddling beforehand, which breaks down the bodily vigor.

Some years ago I had an opportunity of studying the Yuma Indians and their habits. They are now the most primitive of the native tribes, wearing no clothing save their little "gee cloths" and bark aprons. A few of these Indian children had been gathered into a school, and in conversation with the sisters in charge of the school concerning the habits of these boys and girls, I learned that the school was not prosperous, that there was much prejudice against it on the part of the parents, although the children were kindly treated and had plenty to eat. On inquiry I elicited the fact that they became sick as soon as they began to board at the school. The sisters were at a loss to know what was the matter, but some of the parents thought the trouble was with the food. I asked what food had been given them, and the sisters replied, "Corned beef, griddle cakes, etc." "What did they eat at home?" I inquired. "They lived on tortillas, parched seeds, and pump" kins." And she added, "But when they begin to eat our fare, they become dyspeptic and have waterbrash." I asked if they were affected by any other diseases, and she said they were troubled with catarrh and sore throat. Upon asking the reason for this, one of the sisters hesitatingly replied, "I have made up my mind that it is because they wear clothes ; as soon as we put clothes on them, they begin to take cold."

These children, before their entrance into the school and their adoption of the white man's dress, Now the best thing to do when the season changes and the weather becomes cold, is not to stay indoors, stopping up all the cracks.— even the key holes, as I have seen some people do — and sitting by a roaring fire, but to go out of doors, and accustom one's self to the cold. I have known persons to sit in the house in midwinter with a temperature of 85° or 90° . They would have complained of such a temperature on a summer's day. Instead of creating

AN ARAB'S CRITICISM UPON EUROPEANS. — Most of our readers are doubtless familiar with the name of the intrepid African explorer, Emin Pasha, who was murdered by the natives in Africa a few months ago. A London paper states that a press reporter in an interview with Rev. A. J. Swan, the missionary who first brought to England the news of the death of Emin Pasha, received the following account of a conversation held in the Ujiji language between the missionary and an aged and very wealthy and influential Arab. The Arab said : —

"On what principle do Europeans claim this land? How did you get India? Did the natives ask you to take it? Did you not get it by force of arms? and did I not conquer this route in the same manner? Then why dispute my possession? If I do not use my subjects in the way that you consider proper, are you justified in stealing my land and property? If so, I should be right in destroying every piggery in Europe, for I detest those who eat swine's flesh. Many Europeans in this country who buy slaves trom us are worse than the catchers or the buyers. I catch to sell; others buy to teach. If we Arabs are doing what is wrong, and you, being the stronger, are determined to reform us, then be honest and compensate us for our loss, or else stay at home and rectify your own errors, one of which, the extensive use of alcohol, is, by your own admission, killing thousands every year."

CHRONIC INEBRIETY. — Chronic inebriety is a disease, and it is certainly curable, but in most cases the cure is not permanent. The reason for this is

such a high temperature for themselves, they should make the temperature of the house some degrees colder than it would be in summer. A temperature of 60° F. is warm enough for most persons.

I did not find in England a hospital in which the temperature was above 60° . At the Consumption Hospital at Brighton, England, I found the temperature only 58° , but this is hardly sufficient for consumptives, who require a somewhat higher temperature than others. One great reason why we do not have the rosy cheeks and healthy bodies of the people who live in the British Isles, is that we keep the temperature of our houses too high, and as a consequence our cheeks are thin and pale. We should accustom the skin to the application of cold water until it is able to react to a temperature of 40° or 50° , and then we need never fear to go out of doors in cold weather.

that no sick person can ever be made as well as he was before he was sick. The part which was affected will always be a little weaker than the rest of his system, and under the same adverse circumstances he will be likely to have a repetition of his former sickness. The only thing to do for a chronic drunkard is to place him under conditions where he will not be exposed to temptation.

How TO CURE CHOLERA. - The great dread with which this disease is regarded finds an ample foundation in the terrible fatality which has nearly always attended the malady, as shown by the records of its ravages from the earliest times to the present. Doubtless a few persons fall victims to the disease through fright, but the usual cause of death in cholera is the intense poisoning of the system by a specific poison produced by the microbes or germs to which the disease is due. The futility of the alcoholic and other methods of treatment of this disease, has been very clearly shown by the more rational methods introduced in modern times. No physician who is thoroughly conversant with the results of modern investigations upon this subject, would think of giving alcohol to a cholera patient, although it was once relied upon as the most essential measure of treatment. As Dr. Ernest Hart, editor of the British Medical Journal, very ably remarked in his address at the last meeting of the American Medical Association, "The introduction of alcohol into the system of the cholera patient is simply to add another poison to those with which the body is already struggling."



TREATMENT OF CONSTIPATION.

THE matter of first importance in the treatment of constipation is the diet. The abundant use of fruit is one of the most excellent means of preventing and curing this disease. One or two oranges before breakfast; a couple of apples at breakfast; the free use of steamed figs, stewed prunes, and other fruits, are means to be recommended in nearly all cases of chronic constipation. There are, of course, some cases in which fruits must be avoided. In these cases coarse grains serve a useful purpose - cracked wheat, oatmeal, Graham or bran bread, bran cakes ; peas, beans, lentils, asparagus, green peas, string beans, and similar vegetables which are easy of digestion, but which contain a considerable amount of woody or indigestible substance, may also be advantageously used. Coarse vegetables, however, must be avoided in cases where there is marked dilatation of the stomach. Granola, gofio, and other excellent health foods manufactured by the Battle Creek Sanitarium Health Food Co., Battle Creek, Mich., have proved of very great value to thousands of persons suffering from this condition. A glass of cold water before breakfast is a prescription which has cured many cases of constipation. The free use of water, either hot or cold, taken one or two hours before each meal, is a means of value.

Exercises of various kinds, particularly such as bring into active play the muscles of the lower part of the trunk, are essential in the treatment of many cases of intestinal inactivity. Walking three to five miles a day, especially a brisk walk before breakfast, is sufficient to secure regularity of the bowels in many persons.

The exercises of the Ling system, known as Swedish gymnastics, we have found of special value in the treatment of this class of cases at the Battle Creek Sanitarium during many years. Horseback riding and bicycle riding are also of very great value. Various passive exercises are indispensable in cases of feeble persons, such as massage of the bowels. This is best taken lying upon the back with the shoulders raised and the knees drawn up. Pains should be taken to knead the bowels in the direction of the colon, beginning low down on the right side. Kneading may be done with the hands placed flat upon the abdomen or with closed fists. The movement should be begun at the lower right side of the abdomen, passing up the right side, then across just beneath the ribs, then down to the left groin, one hand following the other in such a way as to force, the contents of the colon along.

A cannon ball weighing five or six pounds covered with leather rolled along the course of the colon from right to left, is of service in many cases. Weighted compresses, consisting of a quilted compress containing shot of sufficient size to cover the whole abdomen, are very useful. The patient should lie with the compress upon the abdomen for half an hour ; kneading of the compress may be practiced at the same time, or the cannon ball may be used outside the compress. Shot bags may be used in much the same way as the cannon ball, and with equally good effect. The bag should contain five to ten pounds of rather fine shot. Such exercises as raising the limbs when lying upon the back, first one 🗳 and then the other, then both together, are of special value. Exercises of raising the hips are also useful. Raising the head and legs may be practiced at the same time, making a very vigorous exercise, which is of great value. Breathing exercises, which bring into full play the diaphragm and abdominal muscles, are a most excellent means of restoring intestinal activity.

Measures of treatment of a hygienic character are of far greater utility in these cases than drugs of any sort, for the reason that they do not, like drugs, lose their efficiency in a short time, requiring larger and larger doses and finally failing to act.

One of the most valuable measures of treatment in ases of constipation is the moist abdominal bandage. This consists of a towel wrung as dry as possible out of cold water and wrapped around the trunk and covered with several thicknesses of dry flannel to keep it warm; and if necessary, to prevent chilling, a covering of oil muslin may be placed outside of the flannel wrapping. This bandage should be worn over night, being removed in the morning, and the trunk and the rest of the body rubbed with a towel or sponge dipped in cold water. A dry bandage may be worn with advantage during the day, especially in cases in which there is prolapse of the bowels as shown by protrusion of the lower abdomen. In prolapse of the bowels the bandage should be placed around the lower abdomen and drawn tight so as to form a support for the bowels. In many cases of constipation, prolapse of the colon constitutes a mechanical cause of bowel obstruction.

Application of electricity to the abdomen, or to the abdomen and rectum, especially the use of the sinusoidal current, is of great value in obstinate cases. In some cases, especially those in which there is great tenderness of the abdomen, galvanism applied to the spine and abdomen is of special value. A sitz bath taken two or three times a week; a daily spinal douche of cold water, which may be taken by sitting upon the edge of a tub while water is poured upon the spine from a dipper; also the cold douche to the abdomen, taken in much the same way, are measures of great value in obstinate cases. In cases in which the bowels cannot be made to move otherwise, an enema should be administered. Care should be taken, however, not to become dependent upon the enema.

Introduction into the rectum of a small quantity of cold water, half a pint or a pint before breakfast, to be retained until after breakfast, is a measure of value. A small, cold enema taken at the regular time for the bowels to move, is better than a large warm enema, as it is a more powerful stimulant to intestinal activity. A small amount of cold water introduced into the rectum at night upon retiring, is a useful measure in cases where the intestinal contents are dry and hard ; half a pint or a pint is a sufficient amount. In some

cases in which the stools are large and the rectum irritable, an ounce or two of olive or almond oil introduced at night or before breakfast is a useful measure. Camphor water, consisting of three or four ounces of water with half a teaspoonful of spirits of camphor, may be introduced into the rectum before breakfast with advantage in many cases. Some cases are relieved by the introduction of a small quantity of glycerine, two or three teaspoonfuls with as many tablespoonfuls of water; in some cases a large amount of glycerine is necessary. Suppositories made of glycerine or glycerine and camphor are also valuable for the same purpose; they may be introduced either at night or before breakfast, or at both times, if necessary.

When the rectum is the seat of catarrh, a mixture consisting of equal parts of starch and boracic acid, introduced by means of a proper instrument, is a very valuable measure. Equal parts of boracic acid and sub-carbonate of bismuth, or sub-carbonate of bismuth alone, is preferable when there is an extreme degree of irritation.

It must not be forgotten that regularity in attending to the demands of nature is a matter of the utmost consequence in these cases, both as a preventive and a curative measure. In some cases the inability to evacuate the bowels is due to weakness of the abdominal muscles, it being sometimes necessary to aid the bowels by pressure of the hands. We have had several cases in which there was inability to evacuate the bowels when sitting in the usual position, but no difficulty when a crouching position was assumed; this is doubtless due to the increased pressure which is brought to bear upon the abdominal contents when sitting in a crouched position.

Some cases of constipation tax the skill and ingenuity of the physician to the utmost, and cannot be relieved by such simple measures as can be undertaken at home. There is now and then a case, like that of the notorious Dr. Hall, of New York, in which extreme dilatation of the colon exists, so that this organ has entirely lost its power to contract upon itself, and has become little more than a lifeless sac. In such cases the constant use of the enema or coloclyster is the only means by which the bowels can be relieved, and this means must be employed habitually.

How TO AID SLOW DIGESTION. — Most Americans have slow digestion, but some, of course, much slower than others. Now the secret of aiding these slow stomachs, is to give them a kind of food which is easily digested, and which will not require a sojourn in the stomach of a great length of time, food that will not require the secretion of a great quantity of gastric juice, and the retention of that irritating digestive fluid in the mucous membrane of the stomach for a long time. That is always the secret of good digestion. By referring to a table of digestibilities, we see that rice digests in 1 hour; sago, tapioca, etc., in 2 hours; roast goose in $2\frac{1}{2}$ hours; hard-boiled eggs require $3\frac{1}{2}$ hours for digestion; whipped eggs, $2\frac{1}{2}$ hours; stewed oysters, $3\frac{1}{2}$ hours; fried oysters, 3 hours; beefsteak, 4 hours; roast pork, $4\frac{1}{4}$ hours; roast mutton, $3\frac{1}{4}$ hours. Raw apples, if sweet and mellow, require $1\frac{1}{2}$ hours for digestion; baked sweet apples require still less time, while boiled cabbage takes $4\frac{1}{2}$ hours. Fruits and grains are easy of digestion, while fats and meats require a much longer time.

The next aid to slow digestion, is to give the stomach as long an interval between meals as is required by the food for digestion - the intervals between the meals must be prolonged, so as to allow the stomach to rest. If a person takes a lunch just before going to bed, that lunch will be undergoing the process of digestion all night, and it will keep him awake for hours. A physician from an Eastern institution once asked me how I made my patients sleep. Said he, "We have so much trouble with insomnia at our institution, and I have been troubled in that way myself." "Well," I replied, "it is a great secret, and I will impart it to you confidentially-we send our patients to bed without their supper." He thoughtfully replied, "I think there must be something in that, for I went to bed last night without my supper, and I slept well."

If food is wanted at night when the stomach is weary, take a glass of hot water and rinse out the accumulated mucus, and give the stomach a nice warm bath. That is what the mother does for the child when it is restless; she puts it into a warm bath, which acts like a poultice. Do this, and you will be ready to get up in the morning and take a hearty breakfast, and thus you will get more benefit from your food than if you took supper; because a poorly digested supper will furnish a large amount of poisonous substances, which must be eliminated by the kidneys and liver, and the digestive organs will be wearied in getting rid of them.

VALVULAR DISEASE OF THE HEART.— This is a very grave disease. It is an ailment in which the little valves of the heart, which act like the valves of a pump, have become so thickened that they cannot open and close properly, and so the heart leaks, just as a pump might leak if its valves were damaged. The cause of this thickening, is an inflammation of these valves. Sometimes the inflammation is set up by germs, and is a parasitic disease. There is no cure for this condition, but a person need not, for this reason, conclude that he is liable to die at any minute; because nature compensates for the loss. When the heart cannot pump the blood easily, nature makes it stronger, so that it can do more work; it grows larger, pumps harder, and beats stronger, and by this means a heart with leaky valves will do its work as well as the heart whose valves are intact, just as long as this compensation continues.

During the first stage of the disease, while this compensation may be excessive, a person will need to keep moderately quiet. I have sometimes sent such a person to bed and kept him perfectly still for a month, to allow this compensation to subside so as not to cause congestion of the brain. But when the compensation is deficient, the patient should exercise moderately, as in climbing hills or traveling on a treadmill in a gymnasium. By making the muscles strong, the heart will become stronger, and then, by the aid of the compensation which nature furnishes, it will be able to do its work almost as well as when in a normal condition.

DRINKING DURING MEALS. — If one eats zwieback, he would better drink a little; indeed he would find it difficult to avoid doing so. If one is making a meal of hot milk, soup, or gluten gruel, porridge, etc., he ought not to drink anything in addition, because he already has fluid enough with his meal. If one drinks while eating, he should take the fluid in small sips and when the mouth is empty.

TAKE CARE OF THE BODY. — If a man injures his liver by bad treatment, it can never be restored to perfect soundness. If a man abuses his stomach, it is injured for life. He may have his crippled stomach repaired to such a degree that it will digest, but it will never again be able to do the amount of work it once did. So we ought not to abuse these Godgiven bodies; we ought to make the most of our vital forces, and save and preserve, rather than view squander them.

WHEN TO DRINK.— Probably the best time to drink is before meals. It is necessary to supply sufficient fluid to the blood for the manufacture of the digestive juices, consequently it is well to take some fluid before eating. In many cases (especially in eating dry food), a glass or two of water should be taken before eating, in case the stomach is able to absorb it readily.

A DOCTOR'S CHATS.

ANSWERS TO CORRESPONDENTS.

DIET FOR NERVOUS DVSPEPSIA.— K. F. B. has nervous dyspepsia, and has hitherto confined his diet almost exclusively to fruit, grains, and vegetables. He is now advised by a physician to eschew these almost altogether, and to live principally upon meat and white bread. He asks our opinion in regard to the physician's advice.

Ans.— It is quite possible that the patient might be relieved by following the physician's advice; at the same time it is entirely possible so to regulate a diet of fruits and grains and other food, not including flesh, as to meet all requirements in cases of this sort. Indeed, our experience has been that dyspepsia can be more readily relieved without the use of meat than with it.

TAPEWORM. - J. L. K., Mich., asks, "What is the cause of tapeworm? Also, what is the remedy?"

Ans.— The embryos of the tapeworm are usually received into the system by eating underdone beef. For methods of treatment, see "Home Hand-Book of Domestic Hygiene and Rational Medicine," pages 946-950.

THE OYSTER. — J. C. F., Ohio, inquires: "I. On what kind of food does the oyster subsist? 2. What are its nourishing qualities in comparison with beef and mutton?"

Ans. — 1. Decomposing matter of various sorts found in the ooze at the bottom of the sea near the shore.

2. The nutritive value of the oyster is very small and in no way comparable with that of beef and mutton.

A CURE FOR THE TOBACCO AND THE LIQUOR HABIT. — This correspondent has seen, in a prohibition journal, a recipe for the cure of the tobacco and also the liquor habit, which is warranted to be "tasteless, harmless, and effective," and can be given "without the knowledge of the patient." She wishes to know if there is any drug or combination of drugs which can be depended upon to cure these habits.

Ans. - This is a humbug.

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MOTH PATCHES.— A subscriber wishes to know the cause and also the remedy for the rust-colored spots called moth patches, which often appear upon the face.

Ans.— This disorder, which is properly termed chloasma, is not always easy to cure. The general

health must be improved. Usually there is disordered digestion and liver action, which must receive special attention. Cases of this sort require a thorough course of treatment.

CROOKED NECK — PIMPLES — ETC. — J. K., Illinois, writes that he has been so long in the habit of carrying his head crooked, that now his neck seems to be permanently twisted, and asks (1) if there is any relief. He also inquires. "2. How do you cure pimples? 3. What causes one's hands and feet to go to sleep?"

Ans.—1. By a course of gymnastics.

2. Pimples are due to germs; the germs must be killed. This often requires treatment of each individual pimple together with the skin of the affected part. Attention must also be given to the general health. Pimples are most commonly associated with gastric or ovarian irritation.

3. This sensation is commonly due to pressure upon the nerve trunk.

STARCH—INACTIVE SKIN — ETC. — "A subscriber" inquires: "I. What is the kind of starch referred to some time ago in the GOOD HEALTH, when giving directions for the removal of superfluous hair? 2. What treatment is good for an inactive skin? 3. Is camphor injurious to the skin?"

Ans. - 2. Ordinary corn starch.

2. Warm bath once a week; cold bath every morning.

3. No.

BREAD — BAKING POWDER — ETC. — C. I. W., Conn., asks for, I. A recipe for making bread. 2. A recipe for healthful baking powder. 3. Directions for taking a successful enema. The patient is exceedingly constipated, and an ordinary enema does not relieve him.

Ans. — 1. See back numbers of GOOD HEALTH for recipes for bread making. Some excellent recipes will be found in the number for November, 1893.

2. There is no such thing as healthful baking powder.

3. One, two, or possibly three pints of water should be introduced if necessary, with the patient resting upon the knees. The addition of a little soap or salt to the water renders the treatment more effective. See article in this number on the treatment of constipation.

Relief Department.

[THIS department has been organized in the interest of two classes : ---

I. Young orphan children, and

2. The worthy sick poor.

The purposes of this department, as regards these two classes, are as follows : ---

1. To obtain intelligence respecting young and friendless orphan children, and to find suitable homes for them.

2. To obtain information respecting persons in indigent or very limited circumstances who are suffering from serious, though curable maladies, but are unable to obtain the skilled medical attention which their cases may require, and to secure for them an opportunity to obtain relief by visiting the Sanitarium Hospital. The generous policy of the managers of the Medical and Surgical Sanitarium has provided in the Hospital connected with this institution a number of beds, in which suitable cases are treated without charge for the medical services rendered. Hundreds have already enjoyed the advantages of this beneficent work, and it is hoped that many thousands more may participate in these advantages. Cases belonging to either class may be reported in writing to the editor of this journal.

advantages. Cases belonging to ertner class may be reported in writing to the editor of this journal. It should be plainly stated and clearly understood that neither orphan children nor sick persons should be sent to the Sanitarium or to Battle Creek with the expectation of being received by us, unless previous arrangement has been made by correspondence or otherwise; as it is not infrequently the case that our accommodations are filled to their utmost capacity, and hence additional cases cannot be received until special provision has been made.

Persons desiring further information concerning cases mentioned in this department, or wishing to present cases for notice in these columns, should address their communications to the editor, Dr. J. H. Kellogg, Battle Creek, Mich.

The wishes especially to state that those who apply for children will be expected to accompany their applications by satisfactory letters of introduction or recommendations.]

Two little boys, eight and ten years of age (Nos. 177 and 178), are left without a home and kind care from any one. The only love they know is that which they each have for the other. They are in Minnesota. They have blue eyes, light hair, and excellent health, and seem to be very affectionate.

No. 180 is a little boy eight years old, living in Kansas. He has been abandoned by both father and mother. He has good health, and is a brightlively boy. He needs careful training, but Christian kindness and love will doubtless yield a rich harvest.

A MICHIGAN boy (No. 181) seven years old, needs a home. He has blue eyes, light hair, and good health, and has been taught good manners.

A BAND OF FOUR.— Here comes a band of four boys (Nos. 189–192), to claim our attention and sympathy. Their ages are three, nine, ten, and eleven-They all have dark eyes and auburn hair. With the sad life they must have lived, they have not had the right kind of training, and hence will need careful watchcare from those who undertake their rescue. Has not some good Christian heart faith enough to take one of these lambs of the fold and bring him up for God? Surely the promise of grace and wisdom sufficient is not alone for those who minister to children who seem most promising. God alone knows what destiny awaits any one of his little ones.

Two little Swedish children, aged five and six (Nos. 196 and 197), demand a share of sympathy, for their father is dead, and their mother is too poor to take care of them. She has done the best she could, but is unable to do more. They have good health, and are nice appearing.

No. 198 is an orphan boy who has lost his mother and father, and has been living with his grandparents. They are very old, and cannot take proper care of him longer, so desire that a home be found for him. He is nine years of age, has dark eyes and light hair, and is of fine appearance. Here is an opportunity for some real missionary work, for this little fellow has been quite neglected.

Two SISTERS (Nos. 199 and 200).—Word from Pennsylvania tells of two little girls, ages six and eight years respectively, who have been left without a mother's care, and their father is desirous of placing them in good homes. They have dark eyes and hair, are intelligent looking, and have had good training.

Two DAKOTA BOYS (Nos. 201 and 202).— We have received the description of two boys who are sadly in need of a home. They have not known a father's care for six years, and their mother is no longer able to support them. The older, eleven years old, has black hair and eyes; the younger, ten years of age, has brown hair and blue eyes. They have had good training, and the greater part of the time they have spent in the country.

No. 203 is a boy living in Michigan, who is in need of a home. He is eight years old, has blue eyes and light hair, and is truthful, industrious, and obedient. Surely some home will be made brighter by his presence.

FANNIE (No. 204). — This little girl with bright blue eyes and light hair, who has been living with an aged relative, is in need of a kind mother's care. She is nine years old, and is now living in Pennsylvania.

ANOTHER BOY (No. 205).— A rugged boy twelve years of age has been left in the world without a fond mother's care. His father is out of work and wants to find a home for the child. He has

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dark hair and eyes, and a good intellect. Will not some one take this child and give him educational advantages, and at the same time provide him with a good home?

A BABY GIRL (No. 206). — This is a healthy baby girl five months old, and knows only a nurse's care. She is living in Indiana, waiting for some one to offer her a home.

ERWIN (No. 209) is a bright, pleasant looking boy only six years old. His father is dead, and the mother is very poor and living among strangers, so the child is left in the world with no friends to care for him. He is now in Michigan. What family will welcome him as one of their number?

Two ORPHANS (Nos. 210 and 211). — Two boys aged 13 and 11 years are sadly in need of a home. They have dark eyes and hair and are in good health. They are also in Michigan. Who will provide for these children who are left in the world with no one to care for them?

ALFRED (No. 213), a boy five years old living in the State of New York, is fatherless and his mother in poor health is left without means of support. He has blue eyes and black hair. Will some home in the Eastern States open its doors to receive this boy while his character is yet unformed?

A BRIGHT, amiable girl (No. 215), twelve years old, with gray eyes and dark hair, now living in Virginia, is left in the world without a mother's care. She is in perfect health, and quite well advanced in school. Will some one provide her with a home and give her the advantages of school, and at the same time direct her feet into the road to true womanhood?

A FATHER who is away from his motherless boy (No. 216) is anxious to find a home for him in some good family, where he can have the surroundings of a pleasant home and will receive Christian care and training. This boy is now hving in Pennsylvania. He is eleven years old, and has gray eyes and light hair. He likes to go to school, learns readily, and is said to have good traits of character.

WORD received from the "new mother" of No. 173 states, that "we have learned to love little Margaret very, very dearly, and have her welfare and happiness at heart. I never thought I could become so much attached to a strange child. I do not think I could have found one more satisfactory. Of course she has her faults, but what could one expect of a

little waif left with strangers or on the street the greater part of her life? She had many naughty ways, but with patience and the dear Lord's help I have so won her to me that I could not ask for a better child. I have tried at all times to put the right and wrong before her, leaving it for her to choose, and pointing her to Jesus."

THE Michigan baby (No. 194) has been placed in a home. The little girl living in Ohio (No 160) has gone to a good home in Maine. The kind mother who has received her writes: "I think we shall like her, and with good care and instruction she will make a happy addition to our home. I know that all children need a great deal of care and good training to help them to be of use in this world. She is very happy in her new home."

PERSONS making applications for children advertised in this department, are requested to send with their applications the names and addresses of two or more persons as reference. If possible these should be known, either personally or by reputation, to some member of the Board of Trustees.

CLOTHING FOR THE POOR.

THE call for clothing of all kinds and the numerous offers to supply assistance of this sort, have led us to organize a Clothes Department to receive and properly distribute new or partly worn garments which can be utilized for the relief of the very poor. In connection with this work it is very important that a few points should be kept in mind and carefully observed : —

I. Clothes that are so badly worn that repairs will cost more in money or labor than the garment is worth, will of course be of no service. Garments that are old, though faded, or which may be easily repaired by sewing up seams, or made presentable by a few stitches judiciously taken in some point in which the fabric is nearly worn through, may be utilized to most excellent advantage. But garments so badly worn that they need extensive patching, or clothes which have become much soiled and grimy by long use in some dirty occupation, should find their way to the rag bag instead of the missionary box.

2. Freight must always be prepaid. It costs as much to send 25 pounds or any amount less than 100 pounds as to send the full 100 pounds; consequently it would be well for those who think of sending clothes to be used in this department, to put their contributions together in one shipment, so as to get the benefit of the 100-pound rates. We are obliged to ask that freight should be prepaid as a means of preventing loss to the work in the payment of freight upon useless packages.

buttons together in one shipment, so as to get the bencht of the too-pound rates. We are obliged to ask that freight should be prepaid as a means of preventing loss to the work in the payment of freight upon useless packages. 3. Clothes that have been worn by patients suffering from any contagious disease — such as typhoid fever, erysipelas, consumption, and skin disorders of all sorts, as well as scarlet fever, measles, mumps, diphtheria, and smallpox — should not be sent. Infected clothes may be rendered safe by disinfection, but we cannot trust to the proper disinfection of such garments by those sending them, who, in the majority of cases, are quite inexperienced in such work ; neither should those who unpack the clothes be exposed to the risk of contamination while preparing them for disinfection at this end of the line. Such clothes should, as a rule, be destroyed. If they are not destroyed, almost infinite pains are required to render their use perfectly safe.

 All articles received here are carefully assorted and classified, and are then placed as called for where they will do the most good.

LITERARY NOTICES.

APPLES OF GOLD LIBRARY: Envelope Series. This is the title of a little monthly publication recently started by the Pacific Press Publishing Co., and is designed especially for use in personal correspondence. Each number will contain from four to eight pages of a size convenient to go into a number six envelope without folding. It is printed on thin supercalendered paper, and one or two numbers can be put in with an ordinary letter without increasing the postage.

The subscription price has been placed at ro cents per year, postpaid. Special discount when taken in quantities.

These tracts are published in library style in order to secure the pound rate of postage. The first five numbers are now ready, and bear the following titles : —

No. 1. "Looking unto Jesus." No. 2. The Christian's Privilege." No. 3. "The Sure Promise of God." No. 4. "How to Get Knowledge." No. 5. "The Church and the World."

These will be sent to any address at the rate of 50 cents per hundred, \$4.00 per 1000, postpaid. Sample copies free.

Address, Pacific Press Publishing Co., Oakland, Cal., New York, and Kansas City.

THE BOOK OF THE FAIR, by Hubert Howe Bancroft, promised much, and it is fully redeeming its promises. It is to be completed in 25 numbers of 40 imperial pages each, paper, pictures, and printing all of the very finest that can be made. It is the one thing that every one who visited the Exposition wants to secure, as a memento of his visit to the greatest industrial display the world has ever made, and as a full description of this display written for the benefit of those who were unable to attend.

EDWARD BOK'S successful articles in the January *Cosmopolitan* on "The Young Man in Business" have been reprinted in tasteful and handy booklet form at 10 cents by The Curtis Publishing Company of Philadelphia. To this reprint Mr. Bok has added some 14 pages of editorial matter answering "Three Uncertain Young Men."

SHOPPEL'S *Modern Houses* is an illustrated architectural quarterly. No. 41 contains 50 colonial designs and 26 designs of other styles; also stables, store front, staircase, picture hanging, building materials, and much other matter pertaining to building. Besides the elevation, it gives plans for each floor of the house, with practical suggestions to builders and architects.

"MORE FACTS" is a handsomely illustrated fifty page pamphlet issued by the Chicago, Milwaukee & St. Paul Railway Company, giving valuable information on Agriculture, Sheep Raising, Climate, Soil, and other resources of South Dakota. It also contains a correct map of North as well as South Dakota.

Every farmer, and in fact any one interested in agriculture, etc., should have a copy of it. Sent free to any address upon application to Harry Mercer, Michigan Passenger Agent, 82 Griswold St., Detroit, Mich.

"POEMS OF THE CHRIST LIFE," by Mrs. L. D. Avery-Stuttle. 48 pp., paper covers. Beacon Publishing Co., Lansing, Mich. These poems, some twentyeight in number, commemorative of scenes the in life of our Saviour from his birth to his ascension, are arranged in a series of recitations for use in Sabbathschool entertainments. They are written in pleasing style, and breathe a true devotional spirit. We should say that altogether they are well adapted to the purpose for which they were intended.

MANUAL OF PUNCTUATION, by Henry A. Ford, A. M. 107 pp., flexible covers. Robert Smith, publisher, Lansing, Mich. This bright and up-to-date little manual is a boon to the writer and teacher, as well as the private student, giving as it does the best American usage in the matter of punctuation and capitalizing. The fundamental idea is economy of punctuation, which subject surely appeals to all lovers of clear, unobscured English. The name of the compiler alone, a well-known author and journalist, is *prima facie* evidence of the good taste and the results of wide study and observation discerned in a close study of the book. As a manual for reference it is invaluable. Price 25 cents.

Do you believe in laughing? Then send for "Funny Bone," published by the Funny Bone Publishing Co., 1421 Market St., St. Louis, Mo. It is intended to be to the medical profession what *Puck* is to the general public,— a book of mirth for doctors, druggists, dentists, medical students, and others.

PUBLISHERS' DEPARTMENT.

A LECTURE by the editor of this journal was given on the evening of February I to a large audience in the Tabernacle, on the subject of Accidents and Emergencies and the Triumphs of Modern Surgery. Practical illustrations were given by Sanitarium nurses.

THERE are now thirty medical missionaries, members of the Battle Creek Sanitarium Training School for Missionary Nurses, at work in Chicago, under the supervision of the Sanitarium Medical Mission.

THE fine, large, new five-story building lately erected by the managers of the Sanitarium as a dormitory for its young women helpers, is now finished, and a portion of it is already occupied. The inmates greatly enjoy their commodious new quarters, which are supplied with every comfort and convenience, as well as fully equipped with all the latest sanitary improvements. The structure itself is a notable one of its kind, and constitutes a fine addition to the already imposing group of Sanitarium buildings. It is estimated to be capable of accommodating about 150 persons.

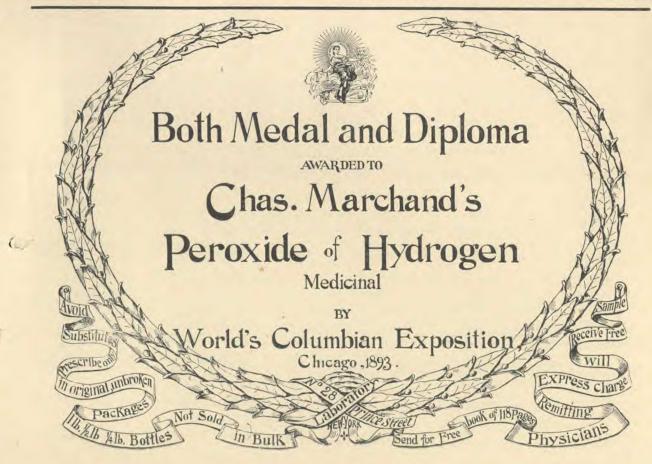
In spite of the hard times, the Sanitarium continues to be filled with patients who are enjoying to the full the delightful weather which has continued during the past month. The pure, crisp air of these bright mornings is a splendid tonic for a well-wrappedup invalid, while the beauty of the sunny days which follow is enough to win a hermit from his cell. Michigan weather, if variable, is rarely without some attractive or redeeming feature, and the stimulating and invigorating quality of this February air will offset many disagreeable days of the coming season. WE would call especial attention to the fact that the Sanitary Supply Co. has recently gotten out a new and complete catalogue of sanitary and invalid supplies, to which valuable additions have lately been made. The list is now a long one, and embraces a large number of articles, many of which are really indispensable to the comfort and convenience of any household endeavoring to live up to ordinary hygienic principles. The catalogue will be sent free on application to Sanitary Supply Co., Battle Creek, Mich.

THE second Students' Volunteer Convention will be held in Detroit, Feb. 28 to March 4. \land large attendance from all parts of the country is expected.

* *

THE eighth annual convention of the Christian Endeavor societies of Michigan will also be held in Detroit, March 21, 22. Preparations are being made to entertain, free of cost, fifteen hundred delegates. These, with two thousand Christian En. deavorers in Detroit, will make the largest convention of young people ever held in Michigan. An interesting program, covering all lines of Christian Endeavor work, has been prepared by the State committee. Several noted speakers will be present. **

MICHIGAN SCHOOL FOR THE BLIND, LANSING, MICHIGAN.— This institution is supported by the State. It is not an asylum, but a well appointed school, and maintained for the purpose of affording, as far as may be, an enlightened and practical education. Such blind persons and those whose defective sight prevents them from receiving instruction in the public schools are received as pupils. The ages fixed are for those between ten and twenty-



one, but the Board of Control may in their discretion, admit those who are under ten or over twenty-one. Residents of this State are admitted without charge for tuition, board, lodging, washing, medicine, or medical attendance. Applicants for admission from other States may be admitted, but such are required to pay a sum in excess of the necessary expenses.

The period for which pupils are admitted is eight years, and when the board of control deem it advisable in a particular case, it may be extended two years more, making ten years in all.

The school year begins the second Wednesday in September, and continues forty weeks. There are no vacations. Every effort is made to give thorough instruction, and nearly all those branches taught in the public schools of the State are taught at this school, and several trades are also learned by the pupils.

These advantages are free to every blind person in Michigan who is of suitable age and mental capacity.

Especial pains will be taken to secure that exercise and consequent bodily development necessary to good health, and earnest efforts are made to correct the unnatural and peculiar postures and habits which so frequently accompany blindness.

All that friends of the pupils are expected to do is to pay the traveling expenses and furnish approved, suitable, and sufficient clothing. If they are unable to do so, such necessary clothing will be furnished by the State.

All applications for admission must be passed upon by the Board of Control. For further information, address, THE SUPER-INTENDENT, School for the Blind, Lansing, Mich.

* *

THE cities of Los Angeles, San Diego, and San Francisco, California, can be reached comfortably and quickly via the Santa Fé Route from Chicago, St. Louis, and Kansas City. Vestibuled trains with through sleepers and free chair cars leave these cities daily for all important points in the west and southwest. Persons contemplating a visit to the Mid-Winter Fair cannot do better than to write to C. A. Higgins, Assistant General Passenger Agent, Monadnock Building, Chicago, for rates and free copies of this company's beautifully illustrated books of travel.

* *

THE WORLD'S FAIR FOR SALE .- Look at it! The Michigan Central has arranged with one of the best publishing houses in the United States for a beautifully printed series of World's Fair pictures, to be known as the Michigan Central's Portfolio of Photographs of the World's Fair.

The original photographs would cost not less than a dollar apiece, but the Michigan Central enables you to get 16 pictures for 10 cents.

It's the finest. It's the most complete.

It's the best. It cannot be beaten.

If you saw the World's Fair, you want it as a perpetual souvenir of a memorable visit.

If you did n't get there, you want this to see what you missed, and to fill your mind with the beauty and glory of the White City.

Call on the nearest Michigan Central ticket agent and he will furnish you with the first part and tell you more about it. * *

SIXTEEN WORLD'S FAIR PHOTOS FOR ONE DIME .- The Chicago, Milwaukee & St. Paul Railway has made an arrangement with a first-class publishing house to furnish a series of beautiful World's Fair Pictures, of a large size, at the nominal cost to the purchaser of only ten cents for a portfolio of sixteen illustrations. Nothing so handsome in reference to the World's Fair has before been published. The series would be worth at least twelve dollars if the pictures were not published in such large quantities, and we are therefore able to furnish these works of art for only ten cents.

Remit your money to George H. Heafford, General Passenger Agent, Chicago, Milwaukee & St. Paul Railway, at Chicago, Ill., and the pictures will be sent promptly to any specified address. They will make a handsome holiday gift.

* *

EXCURSIONS TO CALIFORNIA .- On account of the San Francisco Mid-winter Fair, the Chicago, Milwaukee & St. Paul Railway Company will sell excursion tickets to San Francisco, St. Jose, Colton, Los Angeles, and San Diego, Cal., and Portland, Ore., at reduced rates, good until April 1, 1894. For full particulars call on any coupon ticket agent or address Harry Mercer, Michigan Pass. Agent, 82 Griswold St., Detroit, Mich.

* * WHERE TO LOCATE NEW FACTORIES.

THIS is the title of a 150-page pamphlet recently published by the Passenger Department of the Illinois Central Railroad, and should be read by every mechanic, capitalist, and manufacturer. It describes in detail the manufacturing advantages of the principal cities and towns on the line of the Southern Division of the Illinois Central, and the Louisville, New Orleans, and Texas Railroads, and indicates the character and amount of substantial aid each city or town is willing to contribute. It furnishes conclusive proof that the South possesses advantages for the establishment of every kind of factory, working wool, cotton, wood, or clay. For a free copy of this illustrated pamphlet, address C. C. Power, Foreign Representative, 58 Michigan Ave., Chicago, Ill.



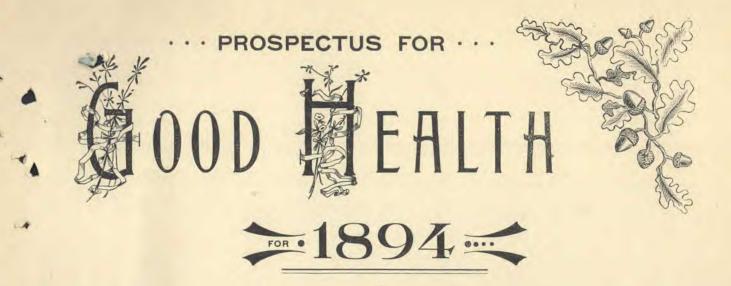
And to every Civilized Human Being.

A Thousand Important Questions Answered Clearly and Simply, Most of which are not Answered Elsewhere.

This book has long been looked for, and anxiously waited for, by thousands who have known that it was in preparation. It is not a com-pilation of the detestable and unwholesome mixtures called "recipes, which are the product of unskilled and aimless experimentation, but is the result of carefully directed researches carried on in the light of the most modern knowledge upon the mixture of food and the hygiene of die-tetics. This work is the product of many long years of patient toil and experimental impurity. The large opportunities for observation, research, and experience which Mrs. Kellogg has had in the constant supervision of the cuisine of the Sanitarium and the Sanitarium Hospital, and the ever increasing necessity for new methods and original recipes to supply the growing needs of an immense health institution numbering always from yoo to 700 inmates, have served to develop an altogether New System of Cookery, the outcome of which is this valuable work that we now offer to the Public. Agents wanted everywhere to introduce this popular and rapidly selling work.

PRICE, in Oilcloth, \$2.90; Muslin, Marbled Edges, \$3.25.

MODERN MEDICINE PUB. CO., 65 WASHINGTON ST., BATTLE CREEK, MICH.



J. H. Kellogg, M. D., Editor.

Member of the British and American Associations for the Advancement of Science; The Society of Hygiene of France; The American Microscopical Society; The American Social Science Association; American Statistical Association; American Association for the Advancement of Physical Culture, Etc. Author of "Home Hand-Book of Domestic Hygiene and Rational Medicine;" "Man, the Masterpiece;" a series of school text-books in Physiology and Hygiene; Editor of "Modern Medicine;" President of Medical Missionary and Benevolent Association; Superintendent of the Battle Creek Sanitarium; Surgeon-in-Chief to the Sanitarium Hospital; Director of the Battle Creek Laboratory of Hygiene; and Superintendent of the Chicago Medical Mission.

··· GOOD HEALTH ····

is the most widely circulated scientific health journal in the world. It not only reaches every part of the United States, but a large number of regular subscribers in Europe, South Africa, Australia, and every part of the globe, where the English language is spoken. This journal has now been

BEFORE THE PEOPLE FOR TWENTY-EIGHT YEARS,

during which time it has been the champion of every good social and sanitary reform. During the twenty-one years in which the journal has been published under its present management, it has grown from a monthly circulation of a few hundred to many thousand. The journal is the organ of no party, sect, or institution. Its aim is to present to the public in practical form

All that is Best and Newest of Scientific Progress in Relation to the Preservation of Bealth.

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The small subscription price charged for this Journal is bar_ly sufficient to cover cost of paper and printing. It is not published as a money-making enterprise, but as a means of placing in the homes of the people reliable information respecting the care of the health, and right development of the body physically and mentally, and in other ways doing good.

The Following Are Some of the Leading Attractions

· · · For 1894 · · · ·

Biographical Health Studies

By Felix L. Oswald, A. M., M. D. In the felicitous style which is peculiarly his own, Dr. Oswald will present the readers of this journal during 1894 with a most interesting series of biographical health studies, the subjects of which are, for the most part, well known and prominent personages, men who

have made themselves distinguished in some art or profession. The subject of one sketch is John Tyndall, the noted English scientist and discoverer.

Popular Health Talks

By J. H. Kellogg, M. D. For nearly twenty years Dr. Kellogg has been giving his patients, two or three times a week in the lecture room of the great Sanitarium at Battle Creek, popular lectures on various subjects relating to the preservation of health and the rational treatment of disease. These

talks are always practical, and are listened to with interest and attention, and it is in obedience to an urgent demand for them in printed form that some of these valuable lectures will appear in the pages of GOOD HEALTH during 1894. Of the thousands of patients who annually visit the Sanitarium, a very large number remark that they have been amply repaid for the time and money expended by what they have learned of the body and its care, irrespective of the immediate gain in health which they have experienced. Among the topics which will be considered are the following: New Discoveries Relating to the Liver; Original Studies n Relation to Digestion and Indigestion; Hypnotism; Mind Cure; How to Renovate the Slums of our Great Cities; New Discoveries in Relation to the Effects of Alcohol; The Philosophy of Getting Well.

The Home Gymnasium This department will present, during the year, instruction which, if carefully followed, will in a few months give to any young man or woman a good figure, and a graceful and dignified bearing.

Home Culture This department, under the charge of Mrs. E. E. Kellogg, A. M., is devoted to those interests of the home which relate espe-

cially to the mental, moral, and physical welfare of the younger members of the household. The following are some of the subjects which will be considered in this department: Kindergarten Methods for the Home; Manual Training for Children, adapted to the Home; Mothers in Council; nome Government; Methods of Dealing with Child Faults; Character Building; Training of the Faculties; The Nursery; Gymnastics for Babies; and in addition, all the various interesting and practical subjects which have heretofore been considered in the departments devoted to Dress, Social Purity, and Household Science.

Nurses' Training School at Home

This department, conducted by Dr. Kate Lindsay, of the Battle Creek Sanitarium and Training School for Nurses, will undertake to give during 1894, beginning with the February number, a course of instruction for the home training of mothers in the art of nursing. Every number will contain instruction, hints, suggestions, recipes, etc., relating to the care of the sick, what to do in accidents and emergencies, etc., which will be invaluable. This department, as well as the others, will be PROFUSELY ILLUSTRATED.

EDITORIAL

scientific thought in this channel.

A Doctor's Chats with his Patients

This department will contain, each month, a racy discussion of live medical topics, new ideas in medical philosophy, simple remedies for disease, new theories of disease, etc.

The editor serves up, each month, a rich variety of hy-

gienic tidbits, pithy, practical, and representing the latest

In each number the editor devotes one or two pages to an-**Question Box** swering questions from subscribers. This is one of the most practical departments in the journal. It is open to all subscribers.

The Relief Department

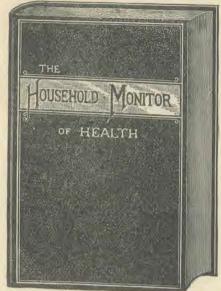
journal.

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Which, during the past year, has been the means of placing in good homes a large number of homeless little ones, will be continued, as also the other departments which have become features of the





NEW EDITION, TWENTY-FIFTH THOUSAND.

HIS is not a prosy scientific treatise, but a condensed, lucidly and entertainingly written, practical treatise on health subjects, which every one interested in such topics will certainly find both pleasant and profitable reading. The following is a partial list of the very practical and important subjects considered in this work :—

Forty Scientific Arguments against the Alcohol	Simple Remedies for Common Diseases.
Habit.	Accidents and Emergencies.
Ten Scientific Arguments against Tobacco- Using,	Hydropathic Appliances.
Practical Hints about Health.	Tests for Adulteration.
Food and Diet.	Useful Hints and Recipes.

SIX COLORED PLATES.

The work also contains a lengthy chapter entitled,-

Nostrums and Secret Medical Systems,

In which will be found the results of careful chemical analysis, made by competent chemists of

MORE THAN 300 SECRET REMEDIES,

Including nearly all the popular nostrums, such as "Garfield Tea," "August Flower," "Jayne's Expectorant," "Safe Liver and Kidney Cure," "Ely's Cream Balm," "Radway's Ready Relief," "Kaskine," Etc.

The secret remedies and methods used by irregular doctors and quacks are fully explained, and

THE MOST STARTLING FACTS EXPOSED.

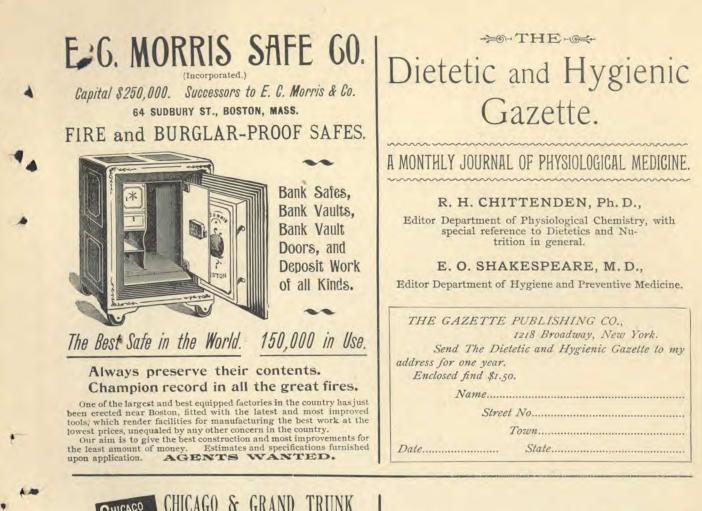
400 Pages, bound in Muslin.

PRICE, \$1.50, post-paid.

This Invaluable Work is Furnished with Good Health at \$1.75 for both.

GOOD HEALTH PUB. CO.,

Battle Creek, Mich.



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	G EA			STATIONS.	GOING WEST. Read up.					
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Trains No. 1, 8 4, 5, 6, 7, 8, 9, run daily; Nos. 10, 11, 23, daily except Sunday, All meals will be served on through trains in Chicago and Grand Trunk dining cars. No. 23, Battle Creek Passenger, leaves Pt. Huron Tun. at 3:49 p. m., ar-rives at Battle Creek 9:35 p. m. Valparaiso Accommodation daily except Sunday. Way freights leave Nichols eastward 7:15 a. m.; from Battle Creek weetward 7:05 p. m.

westward 7:05 a.m.

† Stop only on signal. A. B. Mc INTYRE,

10 Mail Ex. a m 8.40 11.10 pm 12.45 1.29 2.21 2.39

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3 Asst. Supt., Buttle Creek.

A. S. PARKER, Pass. Agent, Battle Creek. MICHIGAN (

"The Niagara Falls Route."

	Correcte	d Feb.	11, 1894.			_
EAST.	TDetroit Accom.	†Mail & Express.	*N, Y. & Bos. Spl.	* Eastern Express.	*N.Shore Limited.	*Atl'ntie Express,
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STATIONS. Boston. New York. Syracuse Rochester. Buffalo Detroit. Ann Arbor. Jackson Battle Creek. Kalamazoo Niles. Michigan City. Chicago.	7.05 8,10 9.20	am 7.25 8.50 10.25 n'n12.00 pm 12.48 2.55 4.25	am 12,05 2,10 3,10 9,355 10,30 11,40 pm 12,53 1,81 2,45 3,45	pm 6.00 am 2.10 5.30 pm 1.00 1.55 2.55 4.02 4.35 6.00 7.05	nm 3.35 5 40 7.00 pm 4.45 6.05 7.40 9.13 10.00	9.55 pm 11.45 8.25 9.55 11.35 am 1.13

^aDaily, †Daily except Sunday, Niles accommodation train goes west at 8,30 a. m. daily except Sunday, Jackson ^a east at 6,14 p. m.

Jackson " east at 6.14 p. m. " and 4.10 p. m., and arrive at 1.30 p. m. and 7.05 p. m. daily except Sanday. O. W. RUGGLES, General Pass, & Ticket Agent, Chicago. Ticket Agent, Battle Creek.

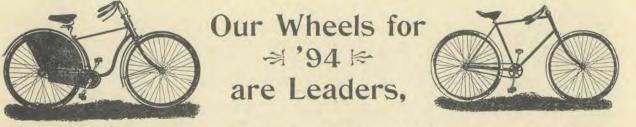
Scatters the blues, cushions care with PNEUMATIC Tires, fills the soul with sunshine, and saves from loss of appetite, insomnia, indigestion,-



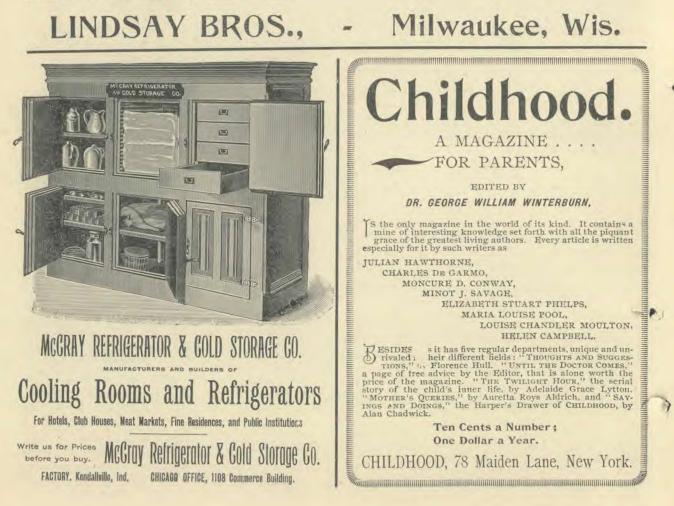
HEALTH PRODUCES

THE GREATEST

"To Ride or Not to Ride" is NOT the question. . . Whether 'tis best to ride a mount of doubtful reputation, OR, be equipped with a wheel of steel, with all the latest features, is worthy of con= sideration? .



Every one, and absolutely guaranteed. Elegance, Lightness, and Durability, enter into their construction. Their handsome finish is not excelled, and their easy running qualities unparalleled. A two-cent stamp sent to us will bring back a handsome Catalogue by return mail.



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White Gracker	rs.				à		2			į,			2	ŝ	i.		i,		1	l
Whole-Wheat	W	a	fe	12	8.		.,											.,	1	(
Gluten Wafers	s					ļ					2		ļ		į				3	10
Rye Wafers						1	.,						l		į	2			đ	ġ
Fruit Gracker	8.				2			2	1						í,			2	2	l
Carbon Cracke	ers					2			J			5	2	1	2	į			3	ž

Wheat Granola (bulk 10)	Cta per 1b.
Avenola (bulk 10)	
Granola (bulk 10)	
Gluten Food No. 1	
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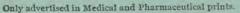
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