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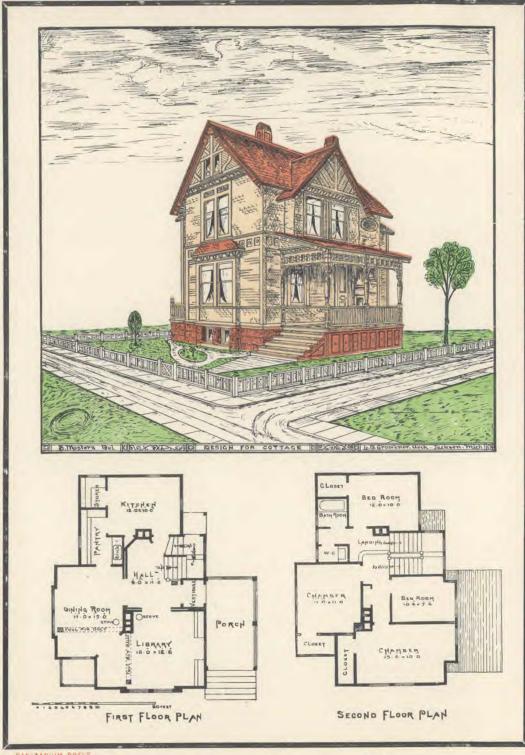
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MENS SANA IN CORPORE SANO.

Volume XXII.

BATTLE CREEK, MICH., APRIL, 1887.

Number 4.

A HEALTHY HOME.

On an accompanying plate will be found plans for a model cottage home. We shall not enter into a description of the architectural details of our model cottage, as these are left for the specifications prepared by the architect, which will be furnished if desired. These plans have been studied with great care, and it is believed that they embody many excellences which will be recognized by those who are interested in the building of moderate-priced houses; especially, numerous features valuable from the standpoint of health. The plans are self-explanatory to such an extent that only a brief description is needed.

Construction.—Our cottage is supposed to be made of wood. To make it warm, the outer walls must be ceiled, and covered with builder's paper, before the outside sheathing is put on. The outside walls should also be lathed and plastered between the studding.

Rooms.—There are seven rooms, besides closets, pantry, bath-room, etc. On the first floor we have a library, or sitting-room, a dining-room, and a kitchen. On the second floor there are four chambers. Some will inquire, "But where is the parlor?" This useless and superfluous room is not to be found in our model cottage. We want no room which is not in constant use. The cold, damp parlor, musty with the accumulated odors from the kitchen, or the mold developed upon its damp and shaded walls, has been an unsuspected cause of disease and death for generations.

It is time to dispense with this undesirable, though time-honored, apartment.

There is no waste or surplus room anywhere in our cottage. Unused rooms or corners in a house are always dangerous, as they become a harbor for gases or other forms of filth, and germs.

Beneath our house is a dry, airy basement, which is not to be used as a vegetable cellar, but as a room for storing such things as are not likely to decay or mold, and which may contain a furnace or a jacketed stove for heating purposes. The cellar bottom and side walls must be cemented very thoroughly, so as to secure dryness, and in clayey soil, or a location which is not well drained, must be under-drained by porous tile.

The kitchen is not large, but is of sufficient size to afford room for all the necessary conveniences. In the warm months, it may be supplemented by a summer kitchen, built against the back side of the kitchen.

The chambers are all convenient of access from the hall, as is also the closet and bathroom. It will be observed that these two necessary conveniences for every healthy and comfortable home are not in one room, but separated. This is a decided improvement over the common, but certainly inconvenient and somewhat indecent, custom of placing the closet and the bath-tub in close proximity.

Heating and Ventilating.—Our cottage must be heated by means of a furnace or jacketed stove. A furnace is much preferable; but if this cannot be afforded, then a large, cast-iron heater should be placed in the basement, and completely inclosed in a sheet-iron jacket, from which two large pipes should run to registers, one in the lower and one in the upper hall. For a house of the size proposed, this pipe should be at least a foot in diameter. The pipe running to the upper hall, should be closed during the day, and the lower hall pipe at night. This will supply air at all times to those parts of the house where it is needed, and also a considerable amount of heat. In moderate weather no additional heat will be required; but in severe weather the assistance of stoves will be needed.

In order that each room shall receive its proper supply of air at all times, a register, or an open transom, should be placed over each door communicating with the halls, with the exception of the door leading to the kitchen.

The foul air will be removed by means of register-openings at the floor, placed, when possible, beneath a window upon the most exposed or windy side of a room. These registers in the lower story, must communicate with ducts placed beneath the floor, by which the foul air may be carried to the ventilating shaft placed beside the chimney, so as to be warmed by it, thereby accelerating the draft. In the second-story rooms, the registers communicate with ducts which run up through the roof at the most convenient place, as it is not so important to have the floor warm in a chamber as in a sitting or dining room. It is desirable, for good effect in the external appearance of the house, that the several small ducts from the chambers should be brought together in the attic in such a manner as to find exit at a common ventilator, which may be placed beside the chimney and ventilating shaft, and built in conformity with them.

The rooms containing the closet and bathtub should have separate ventilating ducts communicating with no others, but going directly out through the roof. The foul-air opening for the ventilation of the closet should be beneath the closet seat. The front of the seat, if closed, should have a register opening in it, so as to allow a good circulation of air beneath the closet. A still better arrangement is to have an opening between the top of the closet bowl and the seat, so that the air can pass over the bowl into the space beneath the seat. This space should be at least one inch.

In the ventilation of the kitchen, an opening for the exit of foul air should be near the ceiling, instead of at the floor. The reason for this is that the kitchen odors, which it is desirable to exclude from the rest of the house, are mostly produced upon the stove and associated with hot vapors, which rise to the ceiling just over the stove; hence, this is the proper place for their removal.

The most satisfactory means of ventilating a kitchen, is to have a chimney built larger than usual, the smoke from the stove or range being carried up to the top through a pipe placed in the center of the chimney, instead of being allowed to enter the chimney itself.

A tin or sheet-iron hood should be so constructed over the stove as to open into the space around the pipe. The heat from the smoke-pipe will create an excellent draft, and secure—thorough ventilation of the kitchen, and the absence of kitchen odors. No fresh air supply is needed for the kitchen, as the air will be drawn in from other parts of the house.

The closets of the second floor should be ventilated into the attic. An opening made through the ceiling of the closet will furnish an outlet, while a register at the bottom of the door of the closet affords an inlet for air.

Sewerage.—If our cottage is located in a city provided with sewers, the water-closet and sink will of course be connected with the common sewer; if there is no sewer, both may be connected with a water-tight cess pool in the rear of the house. In either case, care should be taken that both the soil-pipe and the drain-pipe from the sink are carried up above the roof of the house. Both closet and sink must also be carefully trapped, and the drain-pipe, which connects both with the sewer, should be ventilated outside of the building by means of a pipe running up to the open air above the ground. If a cess-pool is employed, this

must also be ventilated. A cess-pool located in an ordinary village lot is always a source of danger if the water supply is obtained from a well upon the same premises. The danger is reduced to a minimum if the water is obtained from a bored, or driven, well, and from what is known as the second water, there being an impermeable stratum between the surface water and the source of supply.

If our house is provided with a cistern, it should not be located under the house, and should be built of brick or stone, and well cemented. Care should also be taken that a drain-pipe or cess-pool is not located so near by as to incur risk of contamination with impure water.

The architect who prepared the drawings from which the accompanying engravings were made, estimates that the cost of this house, substantially constructed, will be \$2000. Complete working plans, with specifications, bill of materials, etc., will be furnished those who desire. The ordinary cost of these plans and specifications, if prepared for a single individual, would be fifty to one hundred dollars : but we have made arrangements for obtaining duplicate plans so that they can be furnished at \$15.00 a set to subscribers to this journal. This is an unparalleled offer, the price named being less than the actual cost to the publishers; but it is made for the purpose of encouraging the construction of houses in relation to health. For further particulars, see last page.

A DINNER IN A CHINESE RESTAURANT.

The peculiar manners of the Chinese are always a source of interest to foreigners, especially to those whose customs differ so greatly from the grotesque manners of the Celestial, as do the habits and practices of the American. Probably the Chinese differ from us in their habits of life in no particular more than in their dietetic customs. The numerous strange, and to us amazing, mixtures which appear in their bills of fare, must be anything but tempting to an unsophisticated palate, yet now and then a civilized human being has the

hardihood to satisfy his curiosity by making a trial of some of these outlandish viands. It is not surprising that the Frenchman, with his penchant for mule-steak, donkey-sausage, snails, and green oysters, should be the venturesome individual to make the experiment. Some time ago a French army officer made a visit to a Chinese eating-house, and recorded his experience in a letter, from which we present the following:—

"Our coolies arranged beforehand that the price was to be two piastres per head, a large sum for this country, where provisions are so cheap. As a preparation for dinner, we had to thread our way through a labyrinth of lanes, crowded with dens in which crouched thousands of ragged beggars, poisoning the very atmosphere with their exhalation. the entrance to the open space in front of the eating-house, stood numerous heaps of refuse, composed of old vegetable stalks, rotten sausages, and dead cats and dogs; and in every hole and corner was a mass of filth as disagreeable to the nose as to the eve. It required a strong stomach to retain an appetite after running the gauntlet of such a horrible mess. A few tea-drinkers and card-players were seated at the door, and seemed to care very little for the pestilential character of the neighborhood. We tried to be equally courageous, and, after admiring two immense lanterns which adorned the entrance, and the sign inscribed in big letters, The Three Principal Virtues,' we ventured to hope that honesty would prove one of them, and that the tavern-keeper would give us our money's worth.

"Our entry into the principal room created a little excitement; for, accustomed as the Chinese are to see us, we still, in the quarters of the town where Europeans seldom venture, cause a certain amount of curiosity, not unmixed with alarm. Two small tables, surrounded by wooden benches on which had been placed, as a particular favor, some stuffed cushions, had been prepared for us. The waiters thronged round us with red earthen tea-pots and white metal cups. There were no spoons. Boiling water was poured on a pinch of tea-leaves, placed at the bottom of the

cups, and we were obliged to drink the infusion through a small hole in the lid. When we had got through this ordeal like regular Chinamen, we called for the first course, which consisted of a quantity of wretched little lard cakes, sweetened with dried fruit; and for horsd'œuvre, a kind of caviare made of the intestines, the livers, and the roes of fish pickled in vinegar, and some land shrimps cooked in salt water; these were really nothing but large locusts.

the fore and middle fingers. The natives lift the saucers to their lips, and swallow the rice by pushing it into their mouths with the chopsticks, but we tried in vain to accomplish this, and all the more so, that our fits of laughter prevented us from making any really earnest attempt. It was, however, impossible for us to compromise the dignity of our civilization by eating with our fingers like savages, and happily one of our number, with more forethought than the rest, had brought with him



"We did not get along very well with the first course, but it was immediately followed by the second. The waiters placed on the table some plates,—or, rather, saucers, for they were no larger,—and some bowl-shaped dishes full of rice dressed in different ways, with small pieces of meat arranged in pyramids on the top of it. Chopsticks accompanied these savory dishes. What were we to do? Nobody but a regular Chinese can help himself with these two little bits of wood, one of which is usually held stationary between the thumb and the ring finger, while the other is shifted about between

a traveling-case containing a spoon, and a knife and fork. We then each in turn dipped the spoon into the bowls before us, with an amount of suspicion, however, that prevented the proper appreciation of the highly-flavored messes they contained. At last some less mysterious dishes, in quantity enough to satisfy fifty people, made their appearance; chickens, ducks, mutton, pork, roast hare, fish, and boiled vegetables.

"White grape wine and rice wine were at the same time handed to us in microscopic cups of painted porcelain. None of the beverages were sweet; not even the tea, but to make up for it, they were all boiling hot. The meal was brought to a close by a bowl of soup, which was really an enormous piece of stewed meat swimming about in a sea of gravy.

"Satiated rather than satisfied, we should have preferred some more Chinese dishessome swallow's nests, or a stew of ginseng roots-but it appears that such delicacies as these must be ordered for days beforehand, and paid for by their weight in gold. The day was drawing to a close; the tavern rooms, which were at first nearly empty, were filling with customers, who, after furtively scanning us, betook themselves to their usual occupa-The waiter kept calling out in a loud voice the names and the prices of the dishes that were ordered, and these were repeated by an attendant standing at a counter, behind which sat the master of the place. Some shop-keepers were playing at Pigeon Fly; one held up as many of the fingers of both hands as he thought fit, his antagonist had to guess immediately how many, and to hold up simultaneously exactly the same number of his own. The loser paid for a cup of rice wine.

"The room was beginning to reek with a nauseous odor, in which we recognized the smell of opium smoke. It was the hour for that fatal infatuation. Smokers with sallow complexions and hollow eyes, began to disappear mysteriously into some closets at the end of the room. We could see them lying down on mat beddings with hard horse-hair pillows."

TOBACCO AND SELF-INTEREST.

BY PRESIDENT JOHN BASCOM, D. D., LL. D.

THERE are few prevalent and accepted habits, we believe, more at war with a wise self-interest than that of the use of tobacco. We wish to present this relation in the present article, reserving for a later one the relation of this habit to spiritual defilement.

The very positive and unwholesome effects of tobacco on the human body, are obvious, aside from all medical testimony on the subject, from the simple fact that it creates an intense, almost ungovernable, appetite. Such

an appetite arises, as in the use of opium or of alcohol, from a decisive change in the tissues of the body, a change of the nature of disease: it is not from a normal, but a very abnormal, condition that this insatiable crav-It discloses the unfortunate ing springs. change which has been wrought in the physical system by tobacco—a change of which every chewer and smoker has a most humiliating witness within himself. He need not go elsewhere for a proof of the very positive power of tobacco. A whole day's abstinence will be sufficient to assure him, at once, of the character of the mischief-making and tyrannical inmate he has received into the household of his appetites.

Such transformation cannot take place in the delicate human organism, without altering the general tone of the body, endangering its health, limiting its capacity of pleasure, and greatly marring its productive power. We may be surprised that so vigorous an agent, and one so alien to nourishment, does no more mischief than it seems to do; but our surprise should be reduced by the fact that the mischief is often very obvious, and, when of a remote and obscure character, is often hidden rather than overcome.

The devils of weakness and disease which possess humanity, are legion; and a goodly number of them find entrance by this appetite. No man can afford to reduce, by any indulgence, the tone of his physical system; and, when such reduction is following from other causes, he cannot afford to hide it by the sedative effects of tobacco. If a man wishes to know where he is in physical resources, and to handle his physical powers with economy and wisdom, he must not confuse the whole problem by this habit.

A decided reduction of pleasure in a long life, is almost sure to follow from this appetite. The appetite, once established, confers comparatively little enjoyment, but is sought as a relief from the discomfort which attends nervous exhaustion, or denial. The man is driven forward by the inconvenience of abstinence far more than drawn onward by the pleasures of indulgence. The use of tobacco

is completely opposed to that peaceful possession of one's appetites, which brings many gratifications, and demands none. The right relation to one's enjoyments is lost; and, instead of holding them in easy subjection, he is held in subjection to them. This relation involves a loss of pleasure just as certainly as of manhood. When the recognized limit of indulgence is reached, the cutting edge of discomfort is partially removed; but if even a brief denial is put, by intention or by accident, on the appetite, it becomes at once restive and clamorous.

Other better and more enjoyable pleasures are sacrificed to this enjoyment. All pleasures are not open to us; we must choose among them. He who chooses tobacco as his after-dinner indulgence, leaves behind him the more delicate appreciation of food, and the more varied and wholesome gratification of fruits, which belong to a perfectly healthy appetite. Strong stimulants, in securing their own pleasure, take away the power of a much wider, more discriminating, and more healthful use of the pleasures of the palate. One cannot say positively where the line of highest enjoyment is found; but when one chooses tobacco as his solace, he has slipped into the snare of a seductive fallen angel, who will drive from him many wiser, better, and more gentle spirits, that would have sought his permanent delight in many delicate ways.

It is an unsocial habit. In a limited way, in the form of smoking, it is social, but even then, it is narrowly elective of those of like habits, and comes in to reduce the mental tone, and straiten the circle of feeling. The indulgence, as more or less offensive, repels many, and the persons repelled are those of a more refined and inspiring temper. The habit is exclusive and narrow in its social and physical relations.

The use of tobacco puts a serious obstacle in the way of the success of a young man. There is no employment to which it recommends him; there are many employments in connection with which it is a formidable or a fatal difficulty. Indeed, the use of tobacco is rarely a predisposing term in the favor of any young man; while, in many cases, even with those who themselves use it, its use is a decisive objection when any position of delicate trust is under consideration. In very many minds, it lowers, both directly and by association, the sense of soundness and strength which they wish to connect with a young man whom they are to encounter constantly in important relations.

Rarely, indeed, would any man, himself addicted to a temperate use of tobacco, recommend the habit as a wise and grateful one to a young man in whom he was interested. How many fathers would give this counsel to sons? How very many, on the other hand, out of their own experience, would give with great urgency the opposite advice? A man of good judgment, having reached mature years without the habit, very rarely takes it up. It is fastened on boys and young men in that period of crudeness and greenness, in which they are mistaking the vices of their elders for their virtues, their errors for their excellences. A boy once gotten beyond this unripe age, so succulent of moral malaria, without the habit, finds nothing in it to appeal to his growing judgment and experience.

The expense of this habit is an important and uncompensated burden on any young man. A wise economy is a universal condition of success. Here is an economy large enough to be in itself of considerable importance; one which in no way interferes with progress and self-improvement; and one which tends to remove the temptations to indolence and wastefulness in many directions.

The funds which a young man addicted to the use of tobacco devotes to this end, are quite sufficient, if he is without wealth, to seriously reduce his chances of success in business; while this form of expenditure will often anticipate for him very desirable outlays for social and intellectual improvement. He often chooses between this one habit with its unfavorable associations, and a large variety of truly valuable attainments to be won at a much lighter rate.

With working-men, this habit is especially unfortunate, as narrowing narrow means;

making more gross, gross tendencies; reducing ambition, and consuming on personal indulgences the resources of the entire household. If an angel of hope and prosperity shall ever descend on the homes of the poor, one of the first things she will drive out will be tobacco, which deadens all the incentives of life, and consumes its resources in utter waste. We certainly do not envy the poor their pleasures, we only regret that they are of so unproductive a character.—S. S. Times.

Seasonable Mints.

—The first day of April some millions of people annually lay off their winter under-garments, because spring has come, and they imagine that the clothing should be regulated by the almanac. This is a fallacy which is responsible for thousands of lives annually. The advice of an old English physician upon this subject was very wise. He said, "Lay off your undergarments on a midsummer's day, and be sure to put them on again the next day."

—Many people suffer more real discomfort from cold during the months of spring and summer than in midwinter, simply because they don't take pains to protect themselves as in cold weather. With the spring house-cleaning, the stove in the sitting-room is taken down and sent to the barn or the store-room to be idle until snow flies again in the fall. The writer has often seen a whole family shivering around the kitchen stove with blue hands and noses on an April morning, vexing the cook by delaying her operations, when all would have been comfortable if there had been a stove with a little fire in the family sitting room. In this latitude, stoves are needed the year round; if not always for warmth, to get rid of dampness.

— "Fickle as April" is a trite and expressive saying, and April fickleness is significant of something more than the inconvenience of delayed work or postponed out-of-door recreation. Every change of the barometer, every change in atmospheric moisture or dryness, every disturbance of the electrical state of the atmosphere, every variation of the thermometer, and even changes in the direction of the wind, occasion corresponding variations in the delicate adjustments of the vital organs and processes to external conditions. So every thunder-storm is accompanied by a sort of vital

storm within the body. Witness the pangs of the chronic rheumatic, and the tortures of the victim of neuralgia when a thunder-storm is brewing, and the prostration of the nervous invalid while the atmospheric disturbance is taking place. Weather changeableness affects all people more or less, and invalids in particular; consequently, April is a month in which it is well for those who value health and comfort to look carefully after their habits.

Death under the House.—Death lurks under the house in early spring, in the shape of decaying and moldy vegetables in the cellar, and the decomposing remains of weeds and fungi which developed the preceding season in the damp, dark, unventilated space beneath that portion of the house not included in the cellar. Killed by the winter's frost, this decomposable matter is ready to send forth the pestiferous gases and disease-producing germs which cause some of the common maladies incident to spring. Clear away the filth from these oft neglected places, and save suffering and doctors' bills.

Spring Colds.—Many persons take cold more frequently in the spring than at any other season of the year. This is occasioned by neglect of the fact that the grass and walks in early spring are still damp when appearing to be dry, by reason of the slowness with which the ground thaws out after it has been frozen during the winter months. In the spring, also, the melting snow and rains keep the soil saturated with moisture for weeks, so that much evaporation takes place from the surface. Sensitive persons, particularly invalids, should protect their feet with rubbers when walking out in early spring, and should resist the temptation to sit or recline on a grass- or moss-covered bank without first spreading upon the ground a thick rubber cloth as a protection.

How to Test Well-Water.—Look at it, holding a clear glass full of it up to the light. Taste it, taking care that the mouth is free from anything else. Smell of it, shaking a portion in a closed can, then smelling the air of the can by placing your nose to its mouth. Pure water is free from color, taste, or odor.

To be sure, apply this test: Get at a drug store a solution of three grains of permanganate of potash and twelve grains of caustic potash in an ounce of distilled water. Add one drop of this to a glassful of the water to be tested. If the pink color produced remains for half an hour, the water is pure; if not, it is open to suspicion. Water not known to be pure should be boiled and filtered before using. Many savage tribes escape injury under most insanitary conditions by invariably boiling their water before drinking it.

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

Conducted by Mrs, E, E, Kellogg, A. M.

APRIL.

THE wild and windy March once more Has shut his gates of sleet, And given us back the April-time, So fickle and so sweet.

Ah, month that comes with rainbows crowned, And golden shadows dressed— Constant to her inconstancy, And faithful to unrest!

The swallows round the homestead eaves— The bluebirds in the bowers, Twitter their sweet songs for thy sake, Gay mother of the flowers.

The morning sets her rosy clouds
Like hedges in the sky,
And o'er and o'er, their dear old tunes
The winds of evening try.

Before another month has gone, Each bush, and shrub, and tree Will be as full of buds and leaves As ever it can be.

-Alice Cary.

MRS. CORRY'S JOKE.

"Mother is always playing some joke upon us," said Beth rather thoughtfully, "and I wonder what it will be this year."

"Your mother plays jokes upon you!" exclaimed Nellie Graham, a friend who was visiting her. "Why, I would as soon think of my mother's telling a falsehood or even talking slang, which of course, all mothers just abhor."

"Don't your mother always play jokes upon you April-fool's day?" asked Beth, in her turn surprised. "Why, our mother," and she said this with a little tone of pride, "our mother is just as jolly as she can be, and enjoys our fun as much as the rest of us. But I don't see what she can do this year. It seems as if all the jokes that ever had been or ever can be, have been called into service. We have had our doughnuts and cream puffs filled with cotton, our eggs without any filling at all; and then, last year, she made us some tarts, and covered them with varnish instead of jelly. Oh, I warn you to look carefully at whatever you find on our table to-day," and with these words she left her friend for a few moments to attend to some household duties.

"What a strange kind of mother," said Nellie, when she was left alone; for these two girls were college friends, and this was her first glimpse at Beth Corry's home and family. "Mrs. Corry must have had an easy time in life to be so jolly," she thought, when she received her cordial kiss, and heard her say, "I am so glad to welcome one of Beth's friends, and I do hope you will have such a good time that you will want to come again."

They were all on the alert that morning, Mr. Corry, the two boys, and Beth, watching to see that the mother did not succeed in fooling them at that meal. "Why, do you suppose I would do such a thing when we have a guest?" said Mrs. Corry, with a twinkle in her eye, and a gay little laugh. "What would Nellie think of me, if I should treat her to varnished tarts or cotton doughnuts?" "Now mamma, I know you are trying to impose upon us" said Harry, the older boy. "We may expect to be teased all the more mercilessly," added Mr. Corry, "because there will be another one to laugh at us." But all passed off quietly at the morning meal. The eggs had

their usual contents undisturbed. The butter was not oleomargarine, and the coffee retained its usual flavor. The morning passed, also, with only a ripple on the surface, occasioned by a few innocent jokes.

"We all try to play some pleasant little joke upon each other on this day," Mrs. Corry had said to Nellie when she saw her look of surprise over their table-talk. We all agree that it shall be nothing that will injure any one, and we also agree to take the jokes in the spirit in which they were intended. They all take especial delight in fooling their poor, unsuspecting mother," patting Fred, the younger boy, on the head, "and of course I must be revenged."

"Oh, mother, you know we always wait until you have had your say," he replied.

"Yes, but you know you only do that so as to get the best of the joke," returned Mrs. Corry, laughing.

I would that we had more Mrs. Corrys in our homes, who would laugh when the children laugh, not frown down their light-heartedness, and tell them they must be more dignified. We have too many dignified children, too many sallow, melancholy little old men and women; and are not the fathers and mothers to blame for this state of things? Let the fathers and mothers try to fill these childhood days with mirth and good cheer, and they will quickly find their reward in the sunny faces and kindly dispositions about them. It was this that Mrs. Corry was trying to do, and she was succeeding remarkably well.

The morning passed all too swiftly for Nellie and Beth. There were some duets to practice, a walk to the dress-maker's, and with it all a great deal of talking to do. So before they imagined it could be noon, they heard the dinner-bell. Everything upon the table looked delicious. The freshly baked puffs, the roasted chicken, mashed potato, nicely cooked vegetables, and a basket of oranges—all looked so good and inviting! "Which part of the chicken do you prefer, Miss Nellie, and will you have some of the dressing?" asked Mr. Corry. 'Why, how dark this dressing looks. Aha! we have almost forgotten that it is the first

of April. We ought to insist on mother's tasting everything before we try."

"Everything tastes just a little queer, don't you think so, Nellie?" asked Beth. "Why no," was the reply, "I think I see where the joke comes in," looking knowingly at Mrs. Corry. "I hope you will enjoy your dinner," said that lady a little anxiously.

"Oh, we are very hygienic at home, and so I am used to it," replied Nellie laughing.

"The plum-pudding is quite a plain one, and is in honor of Miss Nellie," said Mrs. Corry, as the maid handed their guest her dish. "Made in honor of my absent family, also, I suppose?" said Nellie interrogatively.

"Of course," answered Mrs. Corry, and then they laughed again.

It was especially amusing to Mrs. Corry to see how pleased they were with the whole dinner, and to think how they would be looking the rest of the day for mother's joke, "This is just a blind, children," said Mr. Corry as they left the table; "and," with a mock sigh as they betook themselves to the sitting-room, "we must be well on our guard during the rest of the day." Then, as he threw himself into an easy chair, Mrs. Corry replied, "Why, my acute husband, the joke has been played, and no one has been bright enough to see it but Miss Nellie, and I fear she would not have done so if all her associations had not been of such a character from her earliest infancy." "The joke, what joke?" repeated Mr. Corry in a bewildered sort of way, at which the two laughed again. "They say laughter aids digestion, my dear, and you, as a mother, careful for the health of her family, should allow us to laugh with you. You don't half practice your pet hygienic theories of late," at which last remark there was another merry peal of laughter from the two. "I declare I am going to ask the cook. I will not be deprived of my natural privilege of laughing," and he hurried out of the room, followed by Beth and the boys. Mrs. Corry and Nellie listened breathlessly for a moment, and then a faint sound of laughter came to them through the closed doors. Presently they all trooped back again, Beth leading the way this time. "Graham! graham!" she exclaimed. "Why, you darling little Miss Graham. We didn't dream that we were having your namesake served up to us in the dressing of the chicken, in the bread, and in the pudding." "And to think," added Mr. Corry, "that I perseveringly ate those Graham puffs rather than ring for something else, thinking perhaps you were out of white bread. Yes, you have fooled us well, mother."

"I wouldn't have touched a bit of anything, if I had known that all those things were made with graham flour," said Harry, a little thoughtfully; "but," he added, laughing, "I believe it tasted just as well after all."

"That is where the joke comes in," said Mrs. Corry pleasantly. "And now that mother

CURIOUS MODES OF TRAVEL.

CONTINUED.

In a previous article we mentioned the *jinrickisha*, *palanquin*, and *barrow* as among the various vehicles used by the Chinese. In the accompanying cut are shown other means of travel common in some parts of the Celestial Empire.

The mule litter, swung on poles and carried by two mules, one going ahead, and the other behind, is said to be the most comfortable form of conveyance to be found for long journeys. It is large enough to enable the occupant to recline; but, as a recent traveler remarks, it is gloomy enough to "give one the impression of going to his own funeral."



has proved to us that graham flour is just as good as white, and we know it is a great deal more wholesome, I move that we have Aprilfool's day all the year round," said Mr. Corry.

"All in favor say, 'aye,' " said Mrs. Corry, and the response was so hearty that she decided not to ask for the nays.

J. L. M. S.

—When Daniel Webster was a youth of eighteen, while in college, he wrote to a friend these suggestive words: "I am fully persuaded that our happiness is much at our regulation, and that the 'Know thyself' of the Greek philosopher meant no more than rightly to attune and soften our appetites and passions till they should symphonize like the harp of David."—New England Magazine.

—The best thing to take people out of their own worries, is to go to work and find out how other folks' worries are getting on.

Another form of vehicle frequently seen in China, is a huge barrow drawn by a mule, with a sail spread to the wind to facilitate progress, and a pair of handles behind. One man rides the mule, while another keeps the barrow right side up by means of the handles. A Sedan Chair, swung on long bamboo poles and borne by two, four, or eight men according to the rank of the occupant, is the vehicle of the nobles, and members of the royal families, in many eastern countries. In China, rank is shown by the color of the chair as well as by the number of attendants. Yellow is a sacred color, consecrated to the emperor, who alone can ride in a chair of that color. The color next highly esteemed is green.

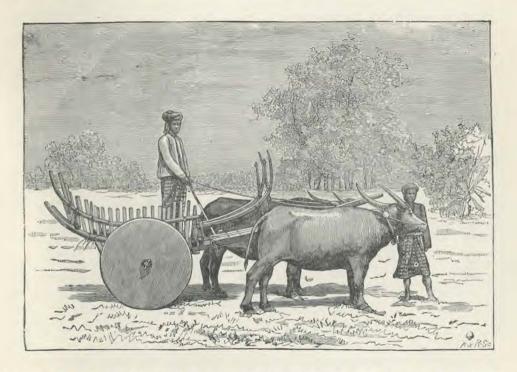
Cumbersome and comfortless as these various vehicles may seem to those who are accustomed to the luxurious accommodations of modern carriage and railway travel in civilized lands, they are far superior to the bullock cart,

the vehicle of the neighboring Burmese, which is constructed with wheels of solid wood, thin slices of the trunk of a tree, solid beams for axle and pole, to which the body of the cart is attached with no springs or other intervening elastic substance to lessen the inevitable jolting. This style of cart which is shown in the cut is excellently well adapted to use in Burmah, a land which is utterly destitute of roads. Until recently, access to this quaint land has been difficult, and comparatively little has been

SPARE THE PRETTY BIRDS

Speaking of the wicked slaughter of the forest birds for the adornment of ladies' hats, a writer in the New York Sun recently penned the following cruel facts:—

"A single local taxidermist handles 30,000 bird-skins in one year; 11,000 skins were brought back from a three months' trip by a single collector; from one small district on Long Island, about 70,000 birds were



known of the customs of the people, on account of the opposition of the late King Theebaw to foreign innovations.

The recent deposition of this cruel monarch, and the annexation of Burmah to the English possessions in India, has opened the door, however, to the freest exploration and intercourse, and we shall soon know more of this interesting country and its people.

—Great efforts from great motives is the best definition of a happy life. The easiest labor is a burden to him who has no motive for performing it. brought to New York in four months' time. In New York, one firm had on hand, Feb. 1, 1886, 200,000 skins. But the supply is not limited by domestic consumption. American bird-skins are sent abroad. The great Euro pean markets draw their supplies from all over the world. In London there were sold in three months from one auction room 404,-464 West Indian and Brazilian bird-skins, and 356,389 East Indian birds. In Paris 100,000 African birds have been sold by one dealer in one year. One New-York firm recently had a contract to supply 40,000 skins of American birds to one Paris firm. These

figures tell their own story, but it is a story which might be known even without them. We may read it plainly enough in the silent hedges, once vocal with the morning songs of birds, and in the deserted fields where once bright plumage flashed in the sunlight."

The foregoing facts are enough to make a sensitive heart shudder; but it is a pleasure to add that all are not equally callous with the parties referred to above. The same paper speaks of a movement in the great metropolis, which, if generally carried out, would put a stop to this wholesale slaughter of the feathered songsters. It says:—

"The students of the Packer Institute, in Brooklyn, have for a week past been banding themselves together into a branch of the Audubon Bird Protection Society, and have pledged themselves to do their best to stop the slaughter of birds of handsome plumage for the decoration of bonnets. Their enthusiasm for the cause was due to the appeals of Prof. Walter Stevens, who is a member of the Audubon Society, and of the teachers of the Institute. The girls were told they did not need to give ap wearing hats they had already bought, which had bright feathers for trimming, but that they should refuse to buy any more of them when the hat was worn out."

Shortly after these appeals were made, one hundred slips of paper had been handed in to the teachers, bearing signatures to the following pledge:—

"I pledge myself not to make use of the feathers of any wild bird as ornaments of dress or household furniture, and by every means in my power to discourage the use of feathers for decorative purposes."

The girls and misses who signed this pledge, are handing around among the other girls of Brooklyn the statistics of bird-slaughter given at the commencement of this article.

It is most earnestly to be hoped that all the lady readers of Good Health will, for the sake of innocent bird-life, imitate the girls of Brooklyn, and stoutly refuse to follow a fashion which is wholly built up and sustained by such reckless and wanton cruelty.

G. W. AMADON.

Temperance Notes.

- —Our annual liquor bill would send a Bible to every inhabitant of the globe.
- —The Scientific Temperance Instruction Bill has recently passed the California Legislature.
- —The Prohibitory Amendment Bill for Illinois has been voted down by the State Legislature.
- —The number of persons addicted to the use of opium in the United States is said to be 600,000.
- —Six thousand four hundred of the eight thousand saloon-keepers in New York are said to be ex-convicts.
- —According to a published report, the production of beer in Germany during the year 1885 was 1,100,-000,000,000 gallons, enough to make a lake a mile square and six feet in depth.
- —Facts will hardly sustain those who, like Dr. Howard Crosby, advocate moderate drinking as a temperance measure. Of the 933 inmates of the Washingtonian Home last year, 647 are put down as moderate drinkers.
- —At a recent State dinner given by the President in honor of the diplomatic corps, the new mistress of the White House set a beautiful example for temperance by having the wine glass omitted from her plate, and drinking nothing but cold water. At a recent dinner party of her own, given to a company of lady friends, it is said that wine was not on the bill of fare.
- A Striking Figure.—Roscoe Conklin, the eminent statesman, is as famous for his striking figures in the court-room as in the senate chamber. He thus described, on a recent occasion, an intoxicated witness who had sworn falsely: "I think I see him now, his mouth stretching across the wide desolation of his face, a fountain of falsehood and a sepulcher of rum." There are many such sepulchers in America.
- —By the request of the late John B. Gough, the following sentence has been inscribed upon his monument:—
- "I can desire nothing better for this great country than that a barrier high as heaven should be raised between the unpolluted lips of the children and the intoxicating cup; that everywhere, men and women should raise strong and determined hands against whatever will defile the body, pollute the mind, or harden the heart against God and his truth."

Popular Science.

Fire-Proof Dresses.—Many chemicals have been used from time to time to render ball-dresses and other textile fabrics incombustible, but one of the most efficacious and least expensive is tungstate of soda, which may be most conveniently applied by mixing it with the starch for dressing: Add one part of the tungstate to three parts of good dry starch, and use the starch in the ordinary way. For fabrics which do not require starching, dissolve one pound of tungstate of soda in two gallons of water, saturate the fabric well in the solution, and let it dry.

It will not change the most delicate colors or affect the quality of the fabric in any way, and ironing will not in the least interfere with the efficacy of the process. Muslins or silks, so treated, may be held in the flame of a candle or gas without catching fire; so that, although the portion in contact with the flame may by continuance be charred, or even destroyed, there is no danger of spreading the combustion.—Samitarian.

Humming Bird's Umbrella,-in front of a window where I worked last summer was a butternut tree. A humming-bird built her nest on a limb that grew near the window, and we had an opportunity to watch her closely, as we could look right into the nest from the window. One day there was a heavy shower coming up, and we thought we would see if she covered her young during the storm; but when the first drops fell, she took in her bill one of two or three large leaves growing close to the nest, and laid this leaf so it completely covered the nest; then she flew away. On looking at the leaf, we found a hole in it, and in the side of the nest was a small stick that the leaf was fastened to, or hooked on. After the storm was over, the old bird came back and unhooked the leaf, and the nest was perfectly dry .-American Sportsman.

—The grandmamma of two little boys was once obliged to reprove the younger brother. "My dear," said she solemnly, "if you tell lies, God will not love you, and when you die, your soul will not go to heaven."

"What ith my thoul?" inquired Johnny, pleasantly.

"Your soul!" grandmamma was overheard to exclaim, "your soul, my child, is—I am surprised that a child of your age does not know what his soul is. It is—is it possible that you do not know? Well, then—ahem! Pick up grandmamma's specs, Johnny. There, now, you may run out and play, my dear."

This is one of the questions that still vex both theologians and scientists.

SIMPLE EXPERIMENTS IN PHYSICS.

Wind is simply air in motion, and is caused by variations of temperature and barometric pressure in different parts of the earth. In a warm region the air becomes heated, expands, and rises; while the colder air flows in to take its place. Air also tends to flow out from a region of high barometer to that of a lower one. In regions bordering on the sea-coast, as



the air becomes heated in summer, it rises, and the cool air from the ocean rushes in, producing the refreshing sea-breeze. In a room heated by artificial means, currents of air are in constant motion; and where such a room connects with a colder one, the existence of this circulation can be proved very clearly by the simple experiment with three candles, as shown in the illustration. The air in the warm room, as it becomes heated, ascends toward the ceiling. and passes out at the top of the door; while the cooler air from the adjoining room rushes in to take its place, as shown by the flickering of the candleflames. At a certain point near the middle of the room the opposing currents will neutralize each other, and the flame will remain stationary. This interchange of air is continually going on, and is a very efficient means of ventilating our rooms in winter. The great trade-winds which blow so steadily over certain parts of the ocean, to the great benefit of sailors, are due to this same cause; the neated air from the equatorial regions rising, and being replaced by a cooler current from more northern latitudes. This system of winds is so extensive that their direction is modified by the rotation of the earth; and, instead of blowing directly north and south, they are deflected to one side. In this latitude the trade-wind blows from the south-west.-Science News.



"Blessed are the Pure in Heart."

Newspaper Immorality .- One of the most surprising phenomena of the nineteenth centnry is the apathy with which Christian men and women view the scandalous looseness as regards the propriety, even morality, of half the newspapers of the day. The publishers of newspapers claim it to be their duty to print all the news, regardless of its character. Harper's Easy Chair for February, deals with this question in such a thorough and conclusive manner that we are glad to quote the following paragraphs :-

"The sophistry lies in this, that all that happens is not news; and that if it were, no paper could publish it all, and consequently that every paper must choose. Thus the whole category of crimes and accidents includes innumerable incidents that by the limitations of space cannot be published, and in consideration of their morality ought not to be

published.

"The newspaper may select any spot five hundred feet square in the city of New York, and while in every such space there occur every day and every night, incidents whose mere publication would create an uproar, the newspaper does not publish them. It is prevented by two reasons; one is the law of the State, the other is the law of public propriety.

"If details are given of horrible crimes and the trials of horrible criminals, which pander only to the worst passions of the community. the reason lies not in the necessity of the case, or in the duty of the newspaper, or in the right of the public, but in the choice of the newspaper conductor to pander to foul tastes; because, for whatever reasons, he believes such pandering to be primarily profitable."

Atrocious Laws .- The little State of Delaware, that still supports the pillory and the whipping post, has upon its statute books a law fixing the age of consent at seven years. Many other States fix the age at ten years. The Legislature of Michigan is discussing the propriety of raising the age from twelve years to fourteen, while last year, England raised the age from fourteen to sixteen, as the result of the wholesome agitation excited by the Pall Mall Gazette. Why should America be so far behind slow-moving old England in this matter?

What a Bad Book Did .- In a seduction case recently tried in Toronto, the defendant's lawyers urged in his behalf that the mother of the young woman had allowed her to read a grossly immoral book, which had so poisoned her mind that she was "more than a willing party to the sin." The judge received the evidence for consideration. Let the blame rest where it belongs. How many mothers are preparing their daughters for shame by neglecting to keep a careful supervision over the books they read and the company they keep!

Why She Ought to Take a Fan with Her.-. Are you going to take your fan with you to the ball, Araminta?"

- " No."
- "Well, I think you should,"
- "What's the use? There is not too much heat in the house at this season."
- "But I should think you would want something with which to cover yourself after you take off your cloak."

Danger in Schools .- Very few parents are awake to the dangers which surround their boys in schools. Not one school in a hundred is free from vicious influences. Many of the select schools to which parents send their children are vastly worse than are the public schools. Some years ago, a mother consulted a physician of the writer's acquaintance concerning her favorite son. He had just returned from school and seemed to be ailing, but made no complaint of serious illness, excusing his weakness and listlessness by a hypothetical accident of some sort. A careful physical examination and a few questions disclosed the fact that the young man was suffering from a vile disease contracted at school, and yet this fond mother would have staked her own character on the purity and integrity of her son. "Why," said she, "how can it be possible for this to be true? I have never allowed my son to attend the public schools, and have taken much satisfaction in knowing that he was in one of the very best schools in the country."

The evil influences which lead the young to ruin are everywhere. The only real protection for them is to fortify their minds against evil by building up, from earliest infancy, bulwarks against vice. Teach them pure thoughts and pure manners, and surround them with good influences at home, and they may be able to stem with safety the tide of evil in the world, which they are bound to enter sooner or later.

There is no greater need of earnest effort for purity reform anywhere than in our public and private schools. Who will engage in the work?

A Cause of Vice.—Much is said now-a-days of the wrongs of working women, through the refusal of employers to pay reasonable compensation for the labor performed. No doubt there is an evil here which needs to be uprooted; but is there not a greater evil back of all? Is it not true that the real cause of the starvation wages at which women are asked to labor, is, in many cases, the result of the ruinous competition in trade? If one dealer puts the price of manufactured goods low, the competition must be met by others, as

the universal principle with buyers is to patronize the man who sells at the lowest price, no inquiry being made as to how he is able to sell lower than others. The few cents saved to the purchaser on each article bought may be wrung from the weary hands and half-starved bodies of widows and orphans; but this, the economical purchaser asks nothing about.

Doubtless we should find, were we to make diligent inquiry, that many of those that criticize very sharply the great manufacturers who pay the women and girls in their employ but a mere pittance, are not infrequently to be found among the most ready purchasers of the goods which have been cheapened to please the purchaser at the price of the souls and bodies of toiling wage-workers. Purchasers must have a conscience in this matter, also, if they expect manufacturers to regard the rights and interests of those whom they employ.

A Girl Trader.—The term, "a slave trader," was once supposed to represent about all possible degrees of inhumanity, utter heartlessness, selfishness, and depravity. But the Pall Mall Gazette exposed in London an abominable traffic in girlhood, worse than any African slave-trade; and recently the fact has been established beyond reasonable doubt that this same terrible business is actively carried on between New York and Newark, Hoboken, and other cities adjacent. The police have known of this traffic for years, but have done nothing to suppress it.

A Good Law.—The State Legislature of Michigan was sufficiently stirred by the account of the atrocities committed in the Northern Peninsula, previously noted in these colums, to pass a law against prostitution, which, if well enforced, will do much toward making vice less convenient than it has heretofore been. Here is the penalty clause: "All persons keeping or resorting to such houses, are subject to imprisonment for five years in State's prison or \$1,000 fine, or both.

Now let every lover of purity do his part toward securing the execution of this excellent law.



"CLEAN" AND "UNCLEAN."

ALL Bible students have noted with interesting comments the fact that the division of foods into two classes, "clean," which were allowed, and "unclean," which were forbidden, as found in the Pentateuch, was something more than an arbitrary law imposed upon the Jews. A careful study of the list of animals excluded from the category of allowable foods as unclean, will show that all of them are by their habits rendered specially unfit for food. Except when pressed by hunger, most of them are rejected by the most barbarous tribes, and are not considered choice food even by those animals which prey upon others; as the lion, tiger, etc.

Not a single predatory or scavenger animal was allowed in the list of foods; and why? Evidently because in the eating of flesh food, the flesh of the eater is deteriorated. lion might eat the same sheep that the man intended to eat; but man must not eat the lion. He might take the grass and grains at second hand, but not the sheep. Is there any reason for this? Experience shows that when an animal whose usual food is chiefly grains and other vegetable substances, exchanges its ordinary diet for animal food, its flesh becomes unpalatable and unwholesome. Evidently, animal food leaves in the tissues of the eater certain impure and unwholesome elements which are not left by vegetable food. Is not this the reason why flesh-eating animals were interdicted by the law of Moses? The flesh of a flesh-eating animal is rank and unsavory; and that of a vegetable-eating animal, as a sheep or an ox, becomes rank and unsavory when the animal eats flesh food, tainly the evidence seems to be conclusive,

But there is still another conclusion which may be legitimately drawn from the facts re-

ferred to. If the use of flesh as food, has such a deteriorating effect upon a sheep or an ox, and upon all carnivorous animals, as thereby to render them unfit to be eaten, is it not probable that the same cause may produce a like effect upon the flesh of human beings? It is not pleasant for one to contemplate a condition of his body which in another animal would render it unfit to be eaten; and when we consider the high purposes for which the human body was made, mental and moral, as well as physical, and the infinitely delicate functions which its marvelous machinery must perform in the mechanism of thought and mind-in feeling, knowing, and willingdoes it not occur to one with considerable force that a body unfit to be eaten, is unfitted for thinking and for exercising the highest powers of heart and mind and soul, of which a human being is capable? If fruits and grains, the pure products of the earth, make the best flavored flesh, will they not also make the best brains and the best nerves as well?

FOOD OF JOHN THE BAPTIST.

THERE are those who seem to entertain the idea that every food mentioned in the Bible as permissible, should be accepted without question as a wholly suitable article of diet, and not to be objected to on scientific grounds. Such persons evidently possess that sort of faith in the Bible which is illustrated by the story of an old preacher in the South who was made the victim of a joke by some mischievous boys. The preacher announced that his Bible lesson to be given the next day, would be about Noah. The bad boys found the place, and carefully glued two of the connecting leaves together. So when the minister came to read the lesson, he read at the bottom of the page, "When Noah was

one hundred and twenty years old, he took unto himself a wife who was " [turning over the pagel "140 cubits long, 40 cubits wide, built of gopher wood," etc. The preacher was much puzzled : and, after reading the text over two or three times to verify it, said: "My friends, this is the first time I ever met this in the Bible, but I accept it as an evidence that we are fearfully and wonderfully made."

The Bible permits the use of locusts as food, and there has been much controversy as to whether the locust eaten by John the Baptist, was the relative of the grasshopper, or a kind of fruit known by the same name, now commonly called "St. John's bread." Here is what W. M. Thomson says upon the subject, which will doubtless be of interest to our readers .__

"Do you suppose that the meat of John the Baptist was literally 'locusts and wild honev'?

"Why not? By the Arabs they are eaten to this day. The perfectly trustworthy Burckhardt thus speaks on this subject: 'All the Bedawin of Arabia, and the inhabitants of towns in Nejd and Hedjaz, are accustomed to eat locusts.' I have seen at Medina and Tavf locust shops, where these animals were sold by measure. In Egypt and Nubia they are only eaten by the poorest beggars.' The Arabs, in preparing locusts as an article of food, throw them alive into boiling water with which a good deal of salt has been mixed. After a few minutes they are taken out and dried in the sun; the head, feet, and wings are then torn off; the bodies are cleansed from the salt and perfectly dried, after which process whole sacks are filled with them by the Bedawin. They are sometimes eaten boiled in butter, and they often contribute materials for a breakfast when mixed with butter and spread over unleavened bread.' Locusts are not eaten in Syria by any but the Bedawin on the extreme frontiers; and it is always spoken of as a very inferior article of food, and regarded by most people with disgust and loathing-tolerated only by the very poorest class. John the Baptist, however, was of this class, either from necessity or election. He also dwelt in the desert, where such food was and is still used: and therefore the text states the simple truth. His ordinary 'meat' was dried locusts-probably fried in butter and mixed with honey, as is still frequently done. The honey, too, was the article made by bees and not dibs from grapes, nor dates from the palm, nor anything else which ingenious com mentators have invented. Wild honey is still gathered in large quantities from trees in the wilderness, and from rocks in the wadies. just where the Baptist sojourned, and where he came preaching the baptism of repentance."

HEALTH BIBLE-READING.

EXERCISE.

1. God is the author of our bodily activities, as well as the structure of our bodies. Acts 17:28.

2. All bodily movements are due to the action of muscles.

3. How many muscles in the body? - About 500. 4. What is the structure of muscles? - Composed of hair-like fibres.

5. How do muscles act?-Each fibre contracts,

thus shortening the whole muscle.

6. Do all the muscles act in obedience to the will? The heart, and the muscles of the stomach and intestines, act independent of the will.

7. What are the chief uses of the muscles?—(1) Locomotion; (2) Use of hands; (3) Expression; (4) Breathing; (5) Digestion; (6) Circulation.

8. Among many peculiar and interesting facts about the muscles, may be mentioned muscle-music, a sound caused by the contraction of muscular fibres.

9. What benefits are derived from muscular exercise ?-(1) Makes muscles strong and body useful; (2) Heart strong and circulation even and vigorous; (3) Digestion sound; (4) Brain clear and

10. What are the effects of idleness ?- Causes mus-

cles to waste and decay.

11. What bad effects arise from bad attitudes and positions?—Bad positions in lying, sitting, or standing, cause deformity of the spine and chest, and disease of internal organs.

12. How does improper dress affect the muscles?— Tight clothing by pressure prevents action of the muscles and causes them to waste away and become

13. What does the Bible teach respecting the value of physical exercise in relation to health? Eccl. 5:12.

14. Was it the design of the Creator that man should engage in active physical labor? Gen. 2:5, 7.

15. What work was assigned to man after "the fall"? Gen. 3:19.

16. What portion of his time was he required to labor? Ex. 20:9,

17. Is idleness a sin? Eze. 16:49. 18. Does the New Testament enforce the duty of

labor? 1 Thess. 4:11; 2 Thess. 3:10.

19. What illustrious examples are given in the Bible which show the dignity of labor?—God worked. Gen. 2:2. Christ worked as a carpenter with his father, Paul worked. Acts 18:3.



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



TERMS, \$1.00 A YEAR.

BATTLE CREEK, MICH., APRIL, 1887.

APRIL is the month for house-cleaning everywhere among civilized people in northern latitudes. But we don't believe in these annual house-cleanings. How much every member of the family suffers during the general tearing up! Even the cat is glad to keep out of the house while the whitewashing, carpet-stretching, scrubbing, and the general tearing up are going on. Who does not dread these annual domestic revolutions?

Bur shall we live on in the midst of the accumulating dirt, and dust, and debris? By no means. Instead of an annual house-cleaning, let us have a daily search for dirt and germs, which will keep the dwelling in such a sanitary condition that there will be no occasion for so serious a breaking up of the family peace as the usual first-of-April house-cleaning.

But to begin our new era, we must have a thorough renovation of the house and premises. Don't forget a single closet or corner or cupboard or wardrobe. Pull off the old paper and disinfect the walls before re-papering. If you can afford to do so, dispense with paper, and paint your walls. If you have never yet put paper on your walls keep it off as long as possible. An excellent sanitary measure in relation to plastered walls is the application of a coat of varnish. This closes the pores in the plaster, and prevents the absorption of deleterious gases, germs, etc.

It is by no means conducive to one's peace of mind to recall how many bad smells and dangerous and infectious collections of rubbish and odds and ends of things decomposing or decomposable, were unearthed on the occasion of the last spring cleaning. Perhaps some of these dangerous germ-nests have been in active operation for many months, making business for the doctors, and causing a great amount of unnecessary suffering and disease.

Soap and water, vigorously applied, are among the best of disinfectants; but more potent agents are needed to produce that condition of absolute cleanliness which sanitary science requires. Among the best for home use are white vitriol, or sulphate of zinc, green vitriol, or sulphate of iron, and sulphur. The first-named is to be used in the proportion of a half pound to the gallon, for disinfecting wood-work, floors, clothing, furniture, and articles likely to be soiled by solutions of iron, which are liable to leave a rust stain behind. The solution should be washed off with pure water before becoming dry.

COPPERAS, or green vitriol, is one of the most available of disinfectants for domestic use, as it is at once cheap and effective. It is to be used in solutions of two pounds to the gallon of water. Nothing better could be desired for the disinfection of cellars, cesspools, drains, sinks, and vaults. Several gallons of the solution should be made and kept on hand ready for use. It should be applied plentifully. A quart daily poured down a drainpipe from a sink, will keep it sweet, pro-

vided it is connected with a well-ventilated drain or cesspool.

SULPHUR, in its ordinary state, is of no value whatever as a disinfecting agent; but by burning it, a gas is produced (sulphurous oxide) which is a very excellent disinfecting agent. Rooms which have been occupied by persons sick with fevers of any sort, especially diseases of a contagious character, as diphtheria, scarlet fever, measles, small-pox, whooping cough, etc., should be disinfected by burning in them a quantity of sulphur. The amount of sulphur required depends upon the size of the room.

Three pounds should be burned for every thousand cubic feet of air. The sulphur will burn more easily if mixed with an equal quantity of pulverized charcoal. The sulphur, mixed with charcoal, should be placed in some iron vessel, as an old skillet. A tub or a large pan containing about one inch of water should be placed in the center of the room. Two bricks should be placed in the pan, and the skillet containing the sulphur put upon the bricks. After igniting the sulphur by lighting a bit of paper partly buried in the material, the room should be shut up for twenty-four hours, after which it should be thoroughly aired.

The burning of sulphur is also an excellent means for disinfecting musty rooms, cellars, fruit-houses, or any apartment which has acquired a stale or musty odor, as it destroys vegetable spores and germs of all sorts. If any room in a house has a musty odor which cannot be removed by ordinary scrubbing and disinfecting, then shut it up and burn a quantity of sulphur in it as already directed.

It must not be forgotten that pure air and sunshine are among the most potent of nature's disinfectants.

In the general cleaning up about the premises outside the house, do not forget to examine the well, and to clean out the cistern. We do not say to clean out the well, since we are of the opinion that a well that needs cleaning out

is absolutely unfit and unsafe for use. At any rate, the water from such a well is utterly unfit for drinking or for culinary purposes.

THE MISCHIEVOUS PIE.

THE "pie" is distinctly an American dish. What the Englishman calls "pie" is wholly a different thing. The English are very fond of referring to Americans as a nation of dyspeptics, and they are not slow to charge our miserable condition, stomachically, to our "pie." Undoubtedly this ingenious compound of savory indigestibles is largely responsible for the wide-spread want of digestion. which is daily growing more prominent among the maladies which require the services of a hundred thousand medical men to palliate. The mischievous influence of the pie is due not alone to its indigestibility. The flaky "crusts," scarcely more digestible than soleleather, with the scarcely less indigestible "filling," tax the stomach not only by the obstinacy with which they yield to the action of the digestive fluids, but by the excess which they add to a stomach already burdened with a full sufficiency of food. This comes of the dietetically immoral custom of bringing on, at the close of the meal, an assortment of dainties to tempt the palate to the eating of an excess. This is a species of gluttony which is almost universally prevalent, but which is none the less culpable.

Another aid to the mischievous mission of the "pie" as a disturber of the peace in the digestive domain, is the unseasonableness of its eating. " A piece of pie" is the handiest possible thing for the generous mother to put up in a basket or a package for the recess lunch of the school-children, or a late evening lunch for "the man of the house" and the big boys when they come home late from an evening lecture or a visit at the neighbors'. A certain New England mother always keeps a mammoth "pie" on the side-board, with a knife beside it, so that her husband and sons can run in from their work and help themselves whenever an appetite for "pie" happens to seize them. It is no wonder that such husbands and sons often get, after a time, an "all gone feeling" at the stomach which "pie" will not appease, and which occasions resort to the whisky bottle, or to some popular "bitters" which have all the bad qualities of the whisky, and some others added.

If the cooks could be called to account for all their evil concoction of dietetic "dopes," it would be found that a very large proportion of their misdeeds would be catalogued under the head of "pie." Pies prepare the way for the doctor and the undertaker, and annually slaughter more human beings than war, pestilence, and famine. We may well spare the pie from our national bill of fare. A bit of bread and a saucer of well-cooked fruit afford us all the wholesome ingredients of the "pie," without its unwholesomeness. As a substitute, we may choose among a large number of wholesome and palatable preparations of grains and fruits; but let us abolish also the reprehensible custom of tempting ourselves and our friends by serving "deserts" at the end of the meal, when an abundant amount of food has already been taken.

"BANGS" AND OTHER ANTIQUITIES.

It is surprising how slow civilized people are to adopt novel ideas and customs. For example, it was half a century after tea was brought to England from China before it came into common use; and tobacco, which the "noble red men of the forest" had chewed and smoked from time immemorial, was almost a century working its way into popular favor. We have been just as slow to adopt other of the habits and manners of those who have gone before Indeed, it seems that we have only very recently begun to appreciate the beauties of the antique. We have lately learned that the old bronzes, long ago buried in the earth, corroded by time, and green with verdigris, are far more beautiful than the brightly polished brasses of our grandmother's time, and so demand that modern andirons and chandeliers and imitation candlesticks shall be thickly smeared over with imitation verdigris.

So, too, we are just finding out that the dis-

torted and grotesque figures of Japanese art are far more beautiful than the graceful patterns to which we have been so long accustomed.

So, also, in matters of dress. How long it has taken our ladies to discover the esthetic advantages of wearing the hair in the form known as bangs! The dusky belles of South Africa and of the South-Sea Islands, and the wild Indians of South America, have from remote ages worn their hair in this manner; but it was not until a French woman whose



SOUTH AMERICAN INDIAN WITH "BANGS."

morals were not above suspicion, and whose forehead was disfigured by an unsightly scar, adopted this style of dressing the hair to cover a deformity, and the fashion-makers of the wicked capital decreed in favor of this most absurd fashion, that the women of the civilized world really brought themselves to think that an intellectual forehead, so much admired in man, is a blemish in a woman, and to be disguised as far as possible by wearing the front hair in the eyes like a poodle or a mustang. Those who imagine that in following this silly custom they are in the height of fashion ought to know that they are a long way behind their humble sisters of Africa and the islands of the Pacific, Indeed, the fashion of banging the hair is even more ancient. According to Herodotus, the Arabians of his day acknowledged no other gods than Bacchus and Urania, and they ascribed to Bacchus the peculiar fashion of dressing their hair, which they wore "in a circular form, banged round the temples."

Probably the next fashion which becomes really popular will be some absurdity copied from an Egyptian mummy of the time of the pyramid-building. Verily, "the world moves," but backward in the matter of fashions.

Cold Tea.—Cold tea is not quite so deadly as cold steel, but it seems to be almost as efficient as a means of upsetting one's nerves as cold whisky. Here is an account of an accident which recently occurred to a great actor, as related by the Baltimore American:—

"The unfortunate fall of Mr. Edwin Booth on the stage in New York, the other night, has been much talked about; and many have declared that it was due to intoxication. This conclusion, however, was only an inference. The popular estimate of Mr. Booth is that of a dignified, accomplished, and high-minded gentleman; and there are few, if any, persons who would want to believe the rumors that liquor was the cause of his unsteadiness on the evening in question. The statement of Mr. Booth himself clears away all these suspicions and innuendoes. He said to a correspondent of the Chicago Tribune, the next day after the occurrence:—

stance, and I am sure you will admit that I am to be pitied for my sudden illness, and not branded as a votary of Bacchus. I drank some very strong tea for supper; that was all—strong, black, English breakfast tea, iced, and several cups of it. I have not been feeling particularly well of late, and that cold, strong tea, instead of calming my nerves, went straight to my head and made me intensely nervous.'"

And yet people will continue to quote the poetic fable about "the cups that cheer, and not inebriate," and indulge without stint in the use of tea and coffee under the delusion that they are harmless beverages.

A Pleasant Sort of Medicine.—The native doctors of Paraguay have a very agreeable way of desing their patients. According to Dr. Memersay, the payes, or native doctors of the Leuguas, administer to their patients nothing but water and fruit. The only other remedies employed are various superstitious rites, and the shaking of a gourd filled with stones in the ears of the patient. The result of this variety of "mind-cure" is not given; but the water-drinking and fruit diet must exercise a salutary influence upon the class of maladies most prevalent among these people.

Cod-Fish—A correspondent asks whether the editor thinks it is healthful to eat half-decomposed cod-fish. A German sitting beside a Spanish officer on board a steamer, was munching limburger with evident satisfaction, when it occurred to him that he ought to offer some to his neighbor, who very coolly declined. "What!" said the German, "do you think it unhealthy to eat limburger?" "Unhealthy," said the officer, "I think it an unnatural crime."

And so say we about rotten cod-fish and all other partially decomposed food.

A Famous Glutton.—It is an apparently inconsistent fact that some of our greatest writers have been as noted for their gormandizing as for their literary productions. Dr. Johnson was well known to his contemporaries as being much given to the pleasures of the table, which was the occasion of the following from one of his detractors; unfortunately the verse contains quite as much truth as poetry:—

"Dear Doctor Johnson loved a leg of pork,
And hearty on it would his grinders work:
And veal pie, too, with sugar crammed and plums,
Was very grateful to the doctor's gums;
And though from morn till night on fruit he'd stuff,
He vowed his belly never had enough."

—A lady at Saratoga last summer paid \$300 in doctors' bills for the treatment of a pet dog which was sick from "high living" and too much coddling.

Drug Symptoms .- Every experienced physician has encountered cases in which most distressing symptoms were evidently the result of the continued use of some drug which had long since ceased to exercise any good effeet, if any ever had been produced, and which speedily disappeared when the drug was withdrawn. There are thousands of persons who are constantly suffering with symptoms which they attribute to disease, but which are really the result of some patent medicine which some neighbor has prescribed. Some time ago we were consulted by a gentleman who was suffering from disturbed digestion, heaviness, skin eruptions, pallor, foul breath, giddiness, staggering gait, weakness in limbs, diarrhea, drowsiness, loss of memory, and also of mental vigor and will-power. On investigation it appeared that the symptoms were wholly the result of a medicine containing bromide of potash, which the patient had been taking for several months.

The lesson to be drawn from these facts is, that drugs should be used as infrequently as possible, and that their use should be discontinued as soon as possible. It is a very imprudent thing to take any drug without knowing something of its character and the symptoms to which it may give rise, at least unless it is given by a physician in whom the utmost confidence can be reposed.

Not Called For .- One and a half years ago, an apostle of metaphysics called at the office of the writer, and after expatiating upon the marvelous feats accomplished by his new method of healing the sick, mentioned the case of a man who had once been under our care for complete paralysis of the lower limbs—the result of a broken back, caused by a blow from a falling tree. We sent the man home as a hopeless case, though slightly improved. Our mind-cure doctor asserted that he was treating this case personally, or through a pupil, and that in a few weeks the patient would certainly be on his feet walking. reply, we signified our willingness to recognize in this case a fair test of the virtues of the mindcure method, and offered to donate to the poor man one hundred dollars to start him out in business, on being assured of his ability to walk four rods without assistance. We have not been called upon for the money, but have it ready. Does anybody know why?

Winter Suffocation .- " Barricaded against fresh air " is the condition of nine-tenths of all the houses in civilized lands at the present moment. Every crack and cranny, every knothole, and even the key-hole of the door, is stopped effectually against the entrance of God's life-giving oxygen. Is it any wonder that so many faces come out pale and sallow in the spring, and that early summer flowers blossom over so many newly-made graves? Starved to death for want of pure air, suffo-CATED, might be truthfully written on thousands of tombstones erected within the last three months, but most of which bear, instead, some pious cant about a "mysterious dispensation of Providence which has removed this loved one from our midst," when it is a suicide or a homicide.—a dispensation of ignorance and bad air.

Mineral Waters.—Somebody has defined mineral water as "bad water with a taste of the sea, and a smell of perdition; which makes cattle sick, and cures hypochondriacs."

Certain it is, that most of the famous mineral waters will answer the definition well enough; yet there are thousands of people who guzzle these sulphurous or saline and nauseous compounds as old topers do their beer. It does not seem to occur to many that a mineral water is simply a drug in solution; and that the same ill-effects will follow the prolonged use of these diluted mineral medicines that are known to follow their abuse in any other form. It is about time that some attempt was made to antidote the mineral-water craze by a few doses of facts.

[—]It is reported that a dog bitten by a rattlesnake out West had the hydrophobia, and gave the disease to fourteen cattle,

A Word from Egypt.—A correspondent who has tramped all over the northern hemisphere, writing us from the plains of Mongolia, next from India, from Jerusalem, and lastly from Egypt, tells us many interesting things about the climate and the health habits of the people among whom he has traveled. On account of poor health, he tried rusticating in Palestine for a few weeks. Our friend is specially interested in the establishment of a Sanitarium at Jerusalem. He writes:—

"Having just come from Jerusalem, where two months were spent most delightfully, my mind is full of its memories. In former letters, various subjects were touched upon connected with the prosperity of the city. You will be pleased to learn that rain began to fall upon the twenty-eighth of October, and continued to fall until at least November third. (No rain usually falls in Palestine during the summer and fall.) This good gift comes a month and twenty days earlier than last year. How the people rejoice! I was glad, indeed, although it drove me from my leaky lodge in the vineyard, and gave me mud and rain in which to walk to Jaffa on the second of November.

"The experiment of living in a vineyard, with a little work, sun-baths, rain-water, grapes, figs, and Arabic bread, has been a success in regard to health. Surely, we must not keep the good news hid, that for lung diseases the mountains of Jerusalem present great hopes of relief and full recovery.

"Will not your readers labor and pray for the establishment of a Sanitarium at Jerusalem? The great army of invalids must include many who love the Holy City enough to make strenuous efforts to reach it, if they could find a home there.

"There is, in a fine locality, a half-finished building of great size, begun by a Dutch lady for the poor of Europe, or for some kindred object. Her money has failed; but why may not some one complete it? It is called the 'mysterious institution,' as conjecture never was uniform as to its design. Let it be made a noble Sanitarium.

J. Crosset.

Christian Science and Corns.—A "mindcure" doctor called upon a lady suffering with a severe nervous disorder, and solicited her patronage. When seated, the doctor begged to be excused for loosening her shoe and slipping it partly off, as she was suffering much from a troublesome corn.

As would naturally be expected, the sick lady said, "Certainly, pull off your shoe, if you like; but if you can't cure your own corn, how do you expect me to believe you able to cure so intricate and obstinate a malady as mine?"

The "doctor" thoughtfully wended her way to another part of the city.

Useful Germs.—According to the American Architect, the discovery has been made that the purification of water in passing through the soil, is due to the action of a peculiar species of germ similar to the yeast plant. So it seems that germs are useful as well as destructive.

—Here is a fresh instance of the influence of the imagination;—

"A physician prescribed beef-tea for a patient, giving the following directions: 'Inclose the finely-chopped meat in a glass bottle, then boil by placing the whole in a pot of water.'

"The directions were carried out as far as the boiling of the bottle of meat in the pot of water was concerned; but instead of then mixing the finely-chopped boiled meat with the water, and giving it to the patient, the lady gave the sick person the hot water in which the bottle was boiled. The patient said she hadn't tasted anything so good in a long time."

—A Frenchman claims to have found a means of so "attenuating" or modifying the virus of consumption, by the use of carbolic acid, that persons inoculated with it become proof against the disease.

[&]quot;Port Said, Egypt, Nov. 7, 1886."

[—]A medical writer remarks that "galloping consumption at the dinner table is one of the national disorders."



What to Do for the Baby's Earache.—" What makes the baby so cross to-night?" says Jones.

"Oh! he has taken cold, and got the earache. I guess he will be all right as soon as

ache. I guess he will be all right as soon as Mary Ann gets back from the drug store with the laudanum," says Mrs. Jones.

And so when Mary Ann gets back, a good dose of laudanum is poured into baby's ear, and very likely a few drops get into his stomach too, if he don't get quiet without. Perhaps some old lady in the neighborhood will drop in, and insist that he must have an onion poultice on the outside of his ear, or chloroform inside of it, or a mustard plaster to the back of his head, or a dose of Mrs. Winslow's Soothing Sirup, or something else equally inefficient.

Here is the proper thing to do. Pour a little warm water into baby's ear. Now wet a soft sponge or folded flannel in hot water, wring dry, and apply to the ear. A hot ear douche, taken with a syphon or fountain syringe, allowing the hot water to run slowly into the ear with little force, is still more efficient. This simple remedy has the advantage that it not only eases the pain, but removes the cause by stopping the inflammation. The applica tion of hot water may be made as often as necessary, or all the time. Keep the ear warmly covered during the intervals. If the baby has really taken a cold, a warm blanket pack, to produce a good sweat, should be used in addition to the applications to the ear.

The significance of earache is generally not understood. Quite a proportion of the cases of deafness occurring in adults without immediate cause, are justly attributable to the oftrecurring earaches of childhood. Hence the importance of giving to a matter of this sort early and efficient attention. The notion that in cases of severe earache there is nothing to do but to wait for the ear to "break" or discharge, is a mischievous one. When this occurs, it is usually the result of neglect, and the effect is a more or less permanent injury to the ear. This "breaking" should be prevented by prompt treatment. If the earache is not speedily relieved by the hot-water ear douche,—which may be used almost continuously, if necessary,—a skillful physician should be consulted without delay. It is sometimes necessary to lance the drum membrane.

It is always important that an ear which has been subject to severe inflammation should be treated after the inflammation has subsided. The eustachian tube must be inflated by means well known to physicians. This will also drive out of the ear, secretions which, if left for the slow process of absorption, may permanently injure the hearing.

How to Disinfect a Sick-Room.—This is something which every mother and every nurse ought to know, Don't try to do it while the patient is in the room, except by letting in fresh air as freely as is consistent with the safety of the patient. If the patient has suffered from diphtheria, scarlet fever, measles, mumps, small-pox, or any other contagious disease, the room must be disinfected with burning sulphur. The following method we have employed for several years with entire success, and believe it to be wholly reliable. We quote from a circular of the State Board of Health of Michigan:—

"For a room about ten feet square, at least three pounds of sulphur should be used; for larger rooms, proportionately increased quantities, at the rate of three pounds for each 1,000 cubic feet of air-space. "Close all openings to the room, place the sulphur in an iron pan supported upon bricks, set it on fire by hot coals or with the aid of a spoonful of alcohol lighted by a match; be careful not to breathe the fumes of the burning sulphur, and when certain that the sulphur is burning well, leave the room, close the door, and allow the room to be closed for several hours.

"Care should be taken to secure the complete burning of as much of the sulphur as is possible. For this purpose the iron pan or pot in which the sulphur is to be placed, may previously be heated, and may be placed in the room over hot coals in a pan of ashes set upon bricks."

Constipation.—This is an exceedingly common and troublesome ailment, and one out of which grows a variety of disorders, some of which are often very grave. The most frequent causes of chronic constipation, are too little exercise, high living, too much flesh food, fats, sugar, carelessness or irregularlity in heeding the calls of nature, a too concentrated diet, and an insufficient quantity of fluid.

Most cases of this disorder may be relieved by attention to the following simple measures:—

On going to bed at night, wrap about the body a coarse towel moistened with cold water, covering with enough thicknesses of dry flannel to keep warm. On rising in the morning, dip the hands in cold water, rub the body briskly, and dry with a rough towel. Knead the bowels thoroughly for five minutes; eat an orange or an apple before breakfast; make the diet consist chiefly of fruits, grains, vegetables, milk, and cream; take little meat and no butter; avoid condiments; and use but little salt and sugar. Take four to ten glasses of water daily; one or two glasses of hot water before each meal is the best mode of taking. Persons who have good stomach digestion may, instead, take cold water before breakfast. Have a regular hour for relieving the bowels, and religiously attend to this duty at that time. If the stool is not dry and

hard, but the lower bowel seems to be lacking in power or in sensibility, as is often the case when the enema has been long employed, take an enema of cold water, a gill or a half pint at a time, to cause the bowels to act. A little salt or soap, a table-spoonful of glycerine, or a few drops of spirits of camphor may be added, if cold water alone is not sufficient. Discontinue by degrees, as the bowels become more sensitive.

Take abundance of out-of-door exercise, and protect the stomach and bowels by an extra layer of warm flannel, worn around the body. In kneading the bowels it is well to use a little oil to lubricate the surface.

Oxygen in Bright's Disease.—Dr. Semnola, of Naples, has for more than twenty years advocated the use of oxygen gas as a remedy in Bright's Disease, claiming to have demonstrated its value in many cases. There are two ways of employing oxygen: one is the inhalation of the pure gas, made and properly purified for the purpose; another, and simpler method, is by out-of-door exercise and lung gymnastics. By taking into the lungs a larger quantity of air, a larger amount of oxygen will be absorbed, and the same effect, to a degree at least, may be obtained as from the inhalation of pure oxygen gas, or superoxygenated air.

This method is eminently well adapted to home use, and may be safely followed even without the aid of a physician, as it is one of those remedies not likely to be productive of harm. We venture the assertion that two hour's gentle exercise, daily, with deep breathing, will do more good than all the "kidney cures" advertised in the newspapers, and probably more than any medical agent known to science.

To Prevent Scars after Burns.—It very often happens that great disfigurement is occasioned by the contraction of the scars produced by deep burns. To a great degree this may be prevented by daily manipulation of the parts with oil. The scar should be well rubbed, stretched, and pulled, and by this treatment it may be kept soft and flexible.

HYGIENE FOR YOUNG FOLKS.

MABEL'S TEMPERANCE STORY.

"Ir is a lovely book!" exclaimed Mabel, as she took it from the table, and nestled down in an easy chair to have a good time. which took all the odd moments, and left him little time for recreation of any kind.

"I wish it might be different," his mother often sighed; but it was not in her power to alter circumstances. He was the oldest of the family, and as his



"I should think so, judging by the way you devour it," remarked her older brother, glancing up from his history. "I wish I could get as much unbroken time to study, as you seem to get for that story."

But Mabel did not answer. She was already deeply buried in the scenes of which she was reading.

Milton was obliged to work very steadily to prepare his lessons at the academy, while many things were required of him at home. He had to cut the wood for the kitchen fire, and keep the wood-box well filled, carry in coal night and morning for the other stoves, and do a host of little things hardly worth mentioning, but father's business called him away from home much, a great deal of care fell upon Milton.

"It is hardly fair that girls should have everything so easy," he thought, looking over at the cosy figure in the arm-chair. But he said nothing. Milton was not given to idle talking, when things could not be made better.

"Oh, children! you make such a noise!" Mabel cried, Impatiently, as the younger children laughed over their toys. "There isn't any pleasure in trying to read where you are." As she spoke, she arose from her chair, and left the room.

"Where are you going?" asked Milton, looking after her.

"Up to my own room," she answered without looking back. "I like to have things quiet."

In a few moments she was stretched out on her snowy bed, looking as though she had been there an hour.

Milton studied until nearly time for recitation, then took his hat and went out.

The afternoon passed as all afternoons do; it was no longer, no shorter. But when the boy returned from school, and found his sister still reading, he felt that he could be silent no longer.

"What is that book, anyway?" he asked, coming up the steps where she sat. "What kind of story is it?"

"It is a temperance story," she answered, "and it is splendid,"

"That is a grand subject," he said. "It is a very broad one, too. Does it speak of intemperance in anything besides drinking?"

"Why, no," she answered; "isn't that all?"

"I think we can be intemperate about a good many things," he continued. "There is intemperance in eating, intemperance in exercise, and, in fact, in almost everything. I don't think even you are thoroughly temperate."

"Why, Milton ?"

"Well, you have been reading—reading at that book all day. You hardly stopped for dinner. The book may be good enough, but you were reading it when I went out, and mother was toiling hard in the kitchen at work you might have done. Wasn't that being intemperate?"

Mabel blushed, and looked troubled.

"I never thought of anything but the story," she said.

"That shows how you are losing control of yourself," said her brother. "That is the way people grow intemperate in playing games, and in many other things. They forget all their duties. Now we must watch, Mabel, and when anything comes to that point, we must stop it."

"I think I'll go and set the supper-table," said. Mabel, rising and shutting her book. "That will be a good beginning, won't it?"

"Yes, indeed," answered her brother, smiling; "I think it will,"—Careful Builders.

MAPLE SUGAR.

How surprised the little boy looks, doesn't he? He is a city lad just from town on a visit to his uncle who lives in the country, and has gone down to the "sugarbush" to see how the delicious maple sugar is made. He had no knowledge of how the sugar was obtained, but had a sort of idea that the nice, little, round cakes grew on trees or bushes, like apples or ears of corn.

Harry, for that is the little boy's name, has just found a tree that has sprung a leak, and is wonder-

ing where the water comes from. His kind uncle is telling him that in the early spring Nature makes the sugar away down in the roots of the tree, and sends it up in the sap to make for the tree the fresh leaves which grow every spring. The farmer bores a hole in the side of the tree, puts in a spout, and steals away a little of the sweet sap,—not enough to harm the tree, however, as he wants the tree to continue to grow, so he can get sugar from it every year.

The farmer boils the sap down to a thick sirup, and then, after pouring it into molds, lets it get cold. He then has the nice cakes of sugar which you have all seen.



GATHERING THE SAP.

All little girls and boys are very fond of maple sugar, and so was Harry. His uncle meant to be very good to him, and told him he could have all he wanted to eat. So he drank the sweet sap, and ate the sirup and sugar to his heart's content. He thought he was having a very nice time; but the next morning he waked up with a dreadful headache and a bad taste in his mouth and a terrible toothache, and could not bear the sight of food. As soon as he got up, he began to vomit, and was so sick his uncle thought of sending for a doctor; but his aunt said he felt bad enough already, without taking any "doctors' stuff." She said it was only because he had eaten too much maple sugar, which was undoubtedly the case. So she made him drink a lot of hot water, "most a gallon," Harry said, but really not more than three or four pints in the course of the day. Harry thought it something of a hardship to have to take so much of his auntie's medicine, but he managed to get it down, and by night was feeling better. The next day he was able to go down to the "sugar-bush" again; but he had lost his appetite for sugar, and contented himself with watching the men at work gathering and boiling the sap. A little sugar is wholesome enough, but as with many other good things, too much is likely to do no little mischief,

Question Box.

Canned Vegetables—Dandruff.—Mrs. C. B. B., Neb., asks: 1. Will green corn, beans, and other green vegetables, keep when canned without the use of some acid? If not, what acid is used?

2. What causes dry, white scales to appear on an infant's head?

Ans. 1. Yes; if properly canned, there is no reason why vegetables will not keep as well as fruits. No "acid" is required. No preservative can be used without injuring these articles for food.

2. There are various forms of dandruff which affect the scalp of infants as well as those of older persons. The form referred to is probably pityriasis. A mixture of equal parts of lime-water and sweet-oil is a good remedy. Apply daily after carefully cleansing the scalp with castile-soap and water. Equal parts of casfor-oil and alcohol also succeed well in many cases.

Dyspepsia.—A patient who has heart-burn and pain in the bowels asks for a diet prescription.

Ans. It is not possible to give a very intelligent prescription without knowing much more of the case. However, we would suggest that the patient abstain from the use of vegetables. Let him use chiefly hot milk, and well-cooked grains. A little beef cooked rare, will probably agree with his stomach. Take two glasses of hot water, an hour before each meal.

Raw Potatoes as Food.—C. A. M., Mich., asks: Would raw potatoes eaten daily be injurious to the health? and, if so, how? I am acquainted with a young lady who craves raw potatoes, and eats them every day; the same, I think, as others have eaten chalk, slate-stone, etc.

Ans. You are correct in your supposition. The craving for raw potatoes is an abnormal one, and belongs to the same category of perverted appetites as does the appetite for plaster, clay, and other inorganic substances. However, this habit cannot be so harmful as the eating of clay or chalk. Raw starch is digestible, though with difficulty, but not in the stomach. Raw vegetables are good food for herbivorous animals, but not for human beings.

Noises in the Head.—M. T. N., of Indiana, complains of noises in the head, sometimes resembling that of crickets, sometimes the chirping of birds, sometimes that of the hissing of steam from a locomotive; and asks for a remedy.

Ans. Noises of this sort are generally due to diseases of the ear. A good specialist should be consulted. These cases may often be relieved by appropriate treatment. Light-Colored Garments.—An invalid inquires whether there is any advantage in wearing white or light-colored garments, so as to get the benefit of the sunshine.

Ans. It is well known that white fabrics transmit a very much larger proportion of light rays than those of a dark color. On this account, the wearing of white or light-colored garments has been advocated as conducive to health. We are not aware that anything has been demonstrated respecting this matter by actual experiment, which is the only true method of settling questions of this sort.

"Warner's Safe Cure, and Such."—G. W., Ont., says: "I am much plagued with wind in the stom ach, and would like to know your opinion of Warner's Safe Cure and such."

Ans. For wind in the stomach avoid vegetables, and fluids at meals, also raw-fruits; and eat chiefly dry, well-toasted bread that must be well masticated. Rare steak, soft-boiled eggs, and generally hot milk, will also be found to agree well in most such cases. We have no faith in the remedy referred to, nor in any other of the same sort.

Diet for Indigestion.—J. M., of England, asks: 1. Will you kindly suggest a daily diet of three meals for one troubled with indigestion and gouty or rheumatic tendencies?

- What are the most suitable fruits for the above case? I am told that oranges and apples are unsuitable, because they contain too much acid.
- 3. What are the most suitable and efficacious fruits for keeping the blood pure?
- Ans. 1. It is impossible to make a diet prescription without knowing the particular symptoms in the individual case, as what would be appropriate for one case, might be decidedly harmful in another. A person who has a gouty or rheumatic tendency should avoid the use of condiments, animal food, sugar, fats, coarse vegetables, and more than a very small quantity of salt. The diet should consist chiefly of fruits, grains, and milk. These may all be taken at each of the three meals, if desired, but it is best that the third meal should be as light as possible.
- 2. All fruits are beneficial to persons suffering with rheumatic or gouty tendencies. Juicy and subacid fruits are somewhat preferable. Oranges and apples are entirely wholesome, though it is usually better that apples should be roasted or stewed. Nothing is to be feared from the acid of these fruits, as so many suppose.
- 3. There are no fruits which have a specific influence upon the blood; but julcy, acid fruits, which stimulate the action of the liver, kidneys, and bowels, are probably the most useful.

Menorrhagia.—"A subscriber" asks for a remedy for uterine hemorrhage recurring regularly.

Ans. The hot douche, either of water only, or water to which alum has been added, a table-spoonful to a quart of water, is useful in these cases. Rest in bed is also needed. But do not hesitate to consult a reliable physician, one who has made a specialty of this class of diseases.

Milk and Meat—Jewish Hygiene.—Miss B. T., of Canada, inquires:—

- 1. Is it healthful to eat meat, and drink milk at the same meal? If not, why?
- 2. Is there a book written by a Jew, on Jewish hygiene?

Ans. 1. A healthy stomach will digest milk and meat at the same meal without difficulty; but in many cases of weak digestion, it is necessary to avoid the mixture of these two foods. The reason is that meat is digested chiefly in the stomach, while milk is chiefly digested in the small intestine. Consequently, when taken by itself, milk remains but a short time in the stomach, passing into the small intestine about one or one and one-half hours after eating. Meat is retained in the stomach three to four hours. When both are taken together, the milk being retained with the meat, and readily undergoing fermentation, is likely to sour.

2. We know of no such work.

Literary Notices.

The Breeds of Live-Stock: A work of 480 pages. By J. H. Sanders, Chicago, Ill.: J. H. Sanders Publishing Co., 1886.

This admirable work undoubtedly supplies a want which must have been deeply felt by those interested in the subject of heredity, either as practical breeders of live-stock, or as inquirers into this most interesting and important subject. Mr. Sanders's work supplies not only a text-book of great value for breeders, but probably the best popular statement of the laws of heredity which has yet appeared. The following are some of the leading topics considered in the first seventy pages of the work—

General Laws of Heredity; Causes of Variation from Original Types; Modifications from Changed Conditions of Life; Accidental Variations or Sports; Extent of Hereditary Influence; Formation of Breeds; Value of Pedigree; Effect of Imagination on the Color of Progeny; Controlling of Sex.

The balance of the book is made up of very concise descriptions of the various breeds of horses, cattle, heep, and swine; the descriptions being accompanied by full-page engravings of typical representatives of the various breeds described. These illustrations are a credit both to the author and to the artist. They are undoubtedly the finest collection of pictures of domestic animals, if we except dogs, to be found anywhere. Besides describing the several breeds of each class of animals, the author gives a history of the origin of each, so far as anything is known upon the subject.

The author of this work has devoted many years and a vast amount of painstaking study and research to its preparation,—a labor for which his experience for more than a score of years as editor of journals devoted to the breeding of live-stock, has peculiarly fitted him. We doubt if any other writer in this country could have produced a work embodying all the excellencies of this, and feel assured that any of our readers who may possess themselves of this unique and thoroughly scientific treatise on a most fascinating subject, will, with us, congratulate the author for his successful completion of so valuable and laborious a work.

A CHART OF THE WEEK. By Rev. Wm. M. Jones, D. D., London, Eng.

This very remarkable chart is the result of many years' labor on the part of its learned author, whose opportunities for the investigation and research required have been of the most exceptionally favorable character. The chart contains the names of the week and of the seven days of the week, in one hundred and sixty ancient and modern languages. The author of this chart has been for many years pastor of a unique and very remarkable church, which was founded more than two centuries ago, in the heart of London. The congregation, once very large, has of late years dwindled to small numbers. The organization was formerly several hundred strong, and sent to this country a delegation soon after the landing of the Pilgrim Fathers, which has since grown to a prosperous denomination, numbering several thousands, known as Seventh-Day Baptists. In his "Chart of the Week," Eld. Jones emphasizes the fact that the seventh day of the week is called the Sabbath in more than half of the leading ancient. and modern languages.

The author himself speaks of the chart as follows:—
"The Chart is a bird's-eye view of the Language-History of the Seven Days' Week, from the remotest period of antiquity to the present time. It shows the unbroken continuity of our weekly cycle, and the rightful place of the Sabbath, from the beginning of spoken language and of time itself. A few half-hours' study of this work ought to lead the thoughtful reader to the conclusion that the directing hand of God is apparent in preserving intact, from the beginning until now, this simple but important division of time among the nations—at once the monument and memorial of his creative work."



CONDUCTED BY MRS. E. E. KELLOGG.

HOUSE-CLEANING.

The March winds have shaken the clinging dead leaves from the trees, and blown the light, loose rubbish into heaps in the hollows and valleys; and soon will come the April showers to soften and wash away what the winds could not remove, while the warm and purifying sunshine will help to carry forward the thorough renovating process which at this season is going on throughout the entire domain of nature. Indoors, the tidy housewife feels an impulse to follow nature's example, and cleanse her house of the dust and dirt, which, in spite of the weekly cleaning, has accumulated during the long winter season. To bring about this necessary end without an undue taxation of physical strength, should be the first thought in connection with this annual business of house-cleaning.

Do not undertake to accomplish more in one day than can be done with ease and pleasure. It is far better to attempt only as much work as can be finished in the first half of the day, giving the remainder of the day to other, less onerous duties, thus reserving a fund of strength, which must be added to by adequate rest, for the work of the coming day.

Do not make the mistake of upsetting many or all the rooms of a house at once; take only one room at a time, and arrange so that there shall be throughout the entire house-cleaning season, some cosy place where the family may live and rest in comfort.

Get plenty of help for the heavy work. The fashion many women have of themselves attempting to do all the extra work of house-cleaning in addition to the ordinary cares of the family, which are quite enough for them, is the poorest kind of economy; and overwork at this season of the year, when the system is naturally relaxed, is especially hazardous.

Make thorough work of the cleaning process. Remember the closets, cupboards, attic, and cellar. These are just the places where dirt and germs are most apt to accumulate. Purify, and disinfect if necessary, every nook and corner of the house.

Do not rest satisfied until the entire house and all that pertains to it, has been thoroughly renovated; but do not hurry through the work at the expense of health and strength; and, as a recent writer upon the subject aptly remarks: "No woman should indulge the hought that what she is doing is drudgery, but that, like her great exampler, nature, she is performing a refining and elevating process."

HINTS FOR HOUSE-CLEANING.

To polish hard-wood furniture use raw linseed-oil or a mixture of two-thirds turpentine and one-third sweet-oil. Apply with a flannel, and polish with flannel, canton flannel, or chamois-skin.

—Mirrors may be cleaned with cold water and a sponge, or rubbed with a damp cloth dipped into powdered bluing, and then polished.

—A very complete filling for open cracks in floors may be made by thoroughly soaking newspapers in a paste made of one pound of flour, three quarts of water, and a table-spoonful of alum, thoroughly boiled and mixed. Make the final mixture about as thick as putty, and it will harden like papier-mache.

—Clean brass with a solution made by dissolving one tea-spoonful of oxalic acid and two tea-spoonfuls of tripoli in half a pint of soft water. Apply with a woolen rag, and after a few minutes wipe dry, and polish.

—To clean steel, apply with a flannel cloth a paste of emery powder and sweet-oil.

—A correspondent desires information as to how to destroy roaches, moths, and bed-bugs. The following method will generally be found effectual for ridding beds of bugs: Take the bedstead apart, carry out of doors and give it a thorough washing with gasoline. Use plenty of the gasoline, and make sure that every crack and crevice is thoroughly saturated. Kerosene may be used instead of gasoline, but needs to be washed off with soap and water after a few hours, while gasoline is volatile and very soon evaporates. The bedding should be thoroughly and carefully examined, cleaned, aired, and if need be, the seams and corners sponged with gasoline. Care must, fo course, be taken to allow all the gasoline to evaporate before returning the bedding to the house. The beds must be carefully watched, and the process repeated whenever any signs of the pests are discovered. Remember that gasoline and its vapor are as explosive as gunpowder.

Persian insect powder, if carefully and persistently

used, will generally be found efficacious for the extermination of roaches. An exchange says that if powdered borax is plentifully sprinkled around their haunts and occasionally renewed, it will prove an effectual exterminator.

For the destruction of moths, pursue the following plan: Take the tacks from the carpet, fold it back, and wash the floor underneath in strong suds in which a table-spoonful of borax has been dissolved. When dry, sprinkle the carpet and floor with insect powder, and re-tack.

Cleaning Wall-Paper.—An exchange offers the following upon this subject:—

"Cut into eight portions a loaf of bread two days

old; must neither be newer nor staler. With one of these pieces, after having blown off, by means of a good pair of bellows, all the dust from the paper to be cleaned, begin at the top of the room, holding the crust in the hand, and wiping lightly downward with the crumb, about half a yard at each stroke, until the upper part of the paper is completely cleaned all around. Then go around again with a similar sweeping stroke downward, always commencing each successive stroke a little higher than the upper stroke had extended. till the bottom is finished.

This operation, if carefully performed, will frequently make very old paper look almost equal to new. Great caution must be used, not in any way to rub the paper hard, nor to attempt cleaning in the cross or horizontal way. The dirty part of the bread, too, must be continually cut away, and the pieces renewed as may become necessary. To take grease-spots out of wall-paper, mix pipe-clay with water, to the consistency of cream, laying it on the spot, and letting it remain till the following day, when it may be easily removed with a penknife or brush.

To Wash Woolen Blankets.—Select a bright, sunny day, with a brisk breeze, so that they may dry rapidly. Have the water as hot as the hands will bear, and dissolve the soap in the water, avoiding rubbing it on the blanket unless very soiled spots render it imperative. After rubbing through this water, rinse thoroughly through two waters of the same temperature as the rubbing water. Wring as dry as possible; then let some one take hold of each end of the blanket and pull evenly and strong to bring it to its former size before drying. Pin as evenly as possible on the line, and let it become

perfectly dry. Treated in this way, no ironing is necessary. The secret of washing flannels without shrinking, is to have all the waters the same temperature (and after long experience I prefer hot to lukewarm water), and also to rinse thoroughly all soap from the blanket.—Good Housekeeping.

A MOST USEFUL ARTICLE.

Those of our readers who have experienced the tediousness and troublesomeness of



preparing legumes

colander, will, we are sure, be glad to learn that there is manufactured by C. F. Henis of Philadelphia a cheap vegetable press and strainer which obviates all these difficulties. The accompanying cut represents this unique and handy utensil. It is equally useful as a potato and vegetable masher; as a sauce, gruel, and gravy strainer; as a fruit-

press; and, in fact, anything and everything for which a colander or strainer is needed, while it does the work in one-half the time and with one-third the labor.

SOME WAYS FOR COOKING FRUIT.

Baked Apple-Sauce. — Fill an earthen crock or pudding-dish with apples, pared, cored, and quartered. Care must be taken to use apples of the same degree of hardness and pieces of the same size, that there may be no variation in cooking. For two quarts of the fruit thus prepared, add a cup of sugar, if the apples are sour ones, and a cup of water. Cover closely, and bake in a moderate oven several hours, or until of a dark red color. This sauce may be canned while hot, the same as any fruit, and kept for a long time.

Compote of Apples.—Pare, and extract the cores from fine, juicy apples, medium tart. Put them into a deep pudding-dish, with just enough water to cover them. Cover the dish, place in a moderate oven, and stew until they are tender. Remove the apples, and place in a deep dish to keep hot. Turn the juice into a saucepan, adding a cupful of sugar for each cup of juice, season with a few bits of lemon rind, and boil up until thickened almost like a jelly. Pour this, while scalding hot, over the apples, and cover until cold.

Publisher's Page.

Several competitors have already appeared for the prizes offered in our February number. Those who wish to see particulars of these offers will find them in the number named. The offers remain open until August 1, 1887.

The January number is so nearly exhausted that we shall have to request agents to begin new subscriptions with the February or March numbers, if back numbers are desired.

Canvassers for Good Health are wanted in every inhabited township in the United States. The publishers have recently issued a little manual giving instructions how to canvass for the Journal. Any intelligent person can, by the aid of this manual, make a financial success in canvassing for this Journal. A complete outfit sent to any responsible person for 25 cents.

The routine of business in the office of the Health Publishing Co., was never so lively as at present. Instead of employing less than half the time of one clerk, the business now requires three or four, in addition to general manager and editor. The stacks of letters and hundreds of subscriptions which the mails bring, indicate an interest in the work of hygienic reform which we have not seen for many years. We look for most excellent results from the special efforts which our friends are just now making, and trust that the enthusiasm will not soon wane.

We would invite special attention to the frontispiece that appears in this number, which will well repay careful study. The design for a healthy home which is presented, is the result of the combined and painstaking efforts of several experienced builders, house-keepers, and sanitarians, assisted by an able architect and a skillful draughtsman. The object in the preparation of these plans has not been simply to illustrate an article, but to provide a model for those who are contemplating the erection of a moderate-priced dwelling house, and to be able to furnish those who may desire with duplicate plans at a small cost.

The usual charge made by architects for such plans is five per cent of the cost of the building. This would make such a design as shown, cost from \$75 to \$100. We have made arrangements with the architect who made the drawings for the engravings shown, by which we can furnish to subscribers for this journal, for the small sum of \$15.00, which is really less than actual cost to us, complete working plans and specifications, from which any competent builder can construct the building. We do this as a contribution to the cause of sanitary reform, and to encourage the construction of healthy houses.

Our list of subscribers never grew so fast as within the last three months, during which several thousand names have been added to our lists. The publishers have made a very earnest effort to make the Journal worthy of the cordial support of all interested in domestic sanitary reform, and are encouraged by the liberal support they have received that their efforts are appreciated. Each month brings a larger number of new subscribers than the preceding, and gives promise of still greater prosperity for the months to come; thanks to the noble effort of the many earnest friends of hygienic reform.

We have lost a subscriber. Our thousands of readers will be sorry to learn that we have recently lost a subscriber. A lady writes us that after taking Good Harlth for six years, and getting worse all the time, she has adopted the "metaphysical method," and is now well and in no need of the Jour-

nal. Thinks it unhealthy to read such a journal. So we have lost a subscriber. But we don't feel sorry. A person whose imagination is so morbid that the reading of a sanitary journal will make him sick, is not in a fit state of mind to appreciate the value of such mental pabulum as is furnished by Good Health. We recommend all such to try the "Mind-Cure."

Work on the "Heaith and Temperance Sunbeams" is progressing quite satisfactorily, and we hope to be able to announce the book in press at an early date.

Dr. Kellogg is now delivering a course of lectures on health and temperance before a large class at the College. The class numbers nearly two hundred, a large proportion of whom expect to engage in health and temperance missionary work.

The Sanitarium managers had the pleasure of entertaining for dinner, a few days since, a delegation from the State Legislature, who were visiting the city. The honorable gentlemen did ample justice to their hygienic dinner, and afterward spent two hours in looking through the great establishment. They were evidently impressed with the idea that if this were not "the greatest show on earth," it certainly was the largest Sanitarium which they had ever seen, and undoubtedly what it claims to be—the most complete medical establishment in the United States. Mr. Henry George, the leader in the new school of political economy, was one of the party. While heing shaken up by one of the machines in the Swedish-movement department, he inquired what the apparatus was for, and was informed by the attendant that it was a "labor agitator."

The early opening of spring in Michigan gives promise of an early and prosperous season. Already the grass is green, and the earliest spring flowers begin to show signs of life. A few snow-flakes, now and then, serve only as a reminder that winter is gone, though reluctant to release his hold, and the "joyous spring-time" soon smiles out again in the sunniest of sunny weather. Said a lady patient at the Sanitarium, the other day, ",Do you always have such a delightful spring as this?" This lady is from a State in which the traditional idea of Michigan weather is that it is all rain or snow, fog, mist, or clouds. Michigan weather has been much abused. A lady who has just returned from the far West after a three months' sojourn, declares herself very happy to get back to her native State, and quite content with Michigan weather, after an experience with the damp, mold-generating weather of a State much praised for its climate. Michigan doesn't boast any of its climate, but a great many of its citizens who have traveled some, imagine that on the whole it is a pretty comfortable place to live in.

The managers of the Sanitarium farm, desire attention called to their facilities for furnishing, at low rates, superior varieties of eggs for hatching. See advertisement in this number. The Sanitarium poultry farm is one of the largest in the United States. Several thousand chickens, dacks, turkeys, geese, and other fowl are raised on this farm every season by the aid of incubators and artificial brooders. Orders are promptly allied with reliable eggs.

Battle Creek College, the largest and most successful hygienic educational institution in the world, has had such an increase in patronage the past year that the Board of Directors find themselves under the necessity of at once proceeding to erect a dormitory capable of accommodating from one hundred to one hundred and fifty students. The structure will be erected upon the south-western part of the College grounds, and will be a very imposing addition to the College buildings.

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HEALTH PUB. CO.

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GOOD HEALTH.

Other Popular Journals.

The publishers of Good Health have been able to make such arrangements with the publishers of the best periodicals, that they can supply many of them with this journal at the price of one, and thus make a great saving to the subscriber. Those who wish to subscribe for one or two good journals besides Good Health, will find this a very advantageous offer to do so. The following list comprises some of the principal journals, which we are able to furnish thus:—

Popular Science Monthly. 5 00 5	Name of Journal.	Price of Journal Alone.	GOOD HEALTH.	Name of Journal.	Price of Journal Alone,	Price with GOOD HEALTH,
Teacher's Institute and Practical Teacher \$125	Educational.				\$1 00	\$1 65
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Primary Teacher.						2 88
The Teacher		1		New York World (with premium)		1 80
Ohio Educational Monthly 1 50 2 10 Art Amateur. 4 00 4 00 3 00 3 Musical Herald. 1 80 Boston Traveler (weekly) 3 00 3 Agriculturals 1 00 1 80 (semi-weekly) 3 00 3 The Poultry World 1 00 1 75 American Architect 6 00 6 American Poultry Journal 1 00 1 75 American Review 5 00 5 Fanciers' Gazette 1 25 1 75 American Review 5 00 5 5 5 5 00 5 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 0 6 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 </td <td></td> <td>10000</td> <td>110000</td> <td></td> <td></td> <td>1 85</td>		10000	110000			1 85
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The Poultry World				Atlantic Monthly	4 00	4 20
American Poultry Journal	Agricultural,			American Architect	6.00	6.00
American Poultry Journal	The Poultry World	7.00	1 75		1 00	1.85
Western Plowman		17-17-17		Appleton's Journal		8 25
Fanciers' Gazette		10000	1000			5 00
Western Rural				American Naturalist	1.75	2 25
American Agriculturist. 1 50 2 00 Harper's Waekly. 4 00 4 4 4 00 4 4 4 00 4 4 4 00 4 4 4 6 0 4 4 4 6 0 4 4 4 6 0 4 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4 4 6 0 4	Western Rural		1000	Forest and Street	4 00	4 20
The Cultivator and Country Gentleman. 2 00 1	Rural New Yorker	2 00	2 75	Harnar's Musseina	4.00	4 00
The Chilivator and Country Gentleman. 2 00 3 00 Harper's Bazar 4 00		1 50	2 00	Harner's Weekly	400	
Michigan Farmer		2 00	8 00	Harner's Bazar	4 00	4 20
Coman's Rural World		1.50	2 30	Harper's Young People.	2.00	2 50
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