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Entered at the Post Office in Battle Creek, Mich., as Second-class Matter.

# GOOD HEALTH

JULY, 1902.



MENS·SANA·IN·CORPORE·SANO·

VOL. XXXVII. Edited by J. H. KELLOGG, M. D. NO. 7.

UP FROM THE MISTY MARSHLANDS.

# GOOD HEALTH

*A Journal of Hygiene*

VOL. XXXVII. JULY, 1902. NO. 7.

## SLEEP PRODUCERS.

BY J. H. KELLOGG, M. D.

### HYDRIATIC MEASURES.

THERE are many people who do not compose themselves for sleep. They do not exercise the will power necessary to keep the restless mind and body quiet long enough for sleep to come. Not long ago a lady said to me, "Doctor, I didn't sleep a wink last night, — I never closed my eyes all night long." I said, "How do you expect to sleep, if you don't close your eyes? You don't deserve to sleep, if you won't take the trouble to shut your eyes."

Many such people have gotten so in the habit of being restless and sleepless that something must be done to help them to compose themselves.

One of the best means to this end is the wet-sheet pack. Wrap the patient up in it so tightly that he cannot wriggle around. He will complain a little at first, but he will soon grow accustomed to the situation and become reconciled to it, his nerves become less sensitive, his eyes will close, and he will soon be sleeping quietly.

It is not always necessary to put the wet-sheet pack on the entire body. For ordinary purposes, it is only necessary to put it around the trunk, and when so used is termed the moist abdominal bandage.

This consists of a linen band about eight or nine inches wide, and long enough to pass three times around the body; usually about two and one-half or three yards in length. This is wrung out of water at about 60° or 70° F., and wound about the trunk, the lower edge coming below the hips, and the upper one nearly to the armpits. Outside this is wrapped a dry flannel bandage about three inches wider than the linen one, and outside this is a waterproof covering of oil silk or mackintosh. This last covering is to protect the clothing from the moisture, and to keep the pack from cooling by evaporation.

The effect is to draw the blood from the brain into the large abdominal veins. Blood is to the brain what water is to the mill wheel. It keeps the wheels of thought grinding, and as long as one is thinking, he cannot sleep. If the water is shut off from the mill wheel, the machinery stops; so, if the blood is drawn away from the brain, and the large vessels of the abdomen are by these applications dilated to receive it, thought must stop, and one can sleep.

This is the reason many people can sleep better after eating. As soon as food enters the stomach, it causes the blood vessels of the abdomen to fill with blood, thus relieving the brain in the same way that the wet girdle does. But this method of sleep producing has a great disadvantage, for when one undertakes to draw the blood away from his

brain by filling his stomach with food, he imposes a task upon the stomach which will take it a large portion of his sleeping hours to accomplish. So that while the rest of the body is having its much-needed rest, the stomach is obliged to keep on working, and the man who ate a heavy supper to make him sleep will be pretty likely to waken in the morning feeling dizzy and with a disagreeable taste in his mouth, to say nothing of the more lasting ill effects resulting from the undue work imposed upon the stomach; for though the stomach is a long-suffering member, there is an end to its endurance.

Another especially valuable, though simple and natural, sleep producer is the neutral bath, the administration and therapeutic value of which were very fully explained in these columns only a few months ago.

## GERMS IN THE KITCHEN.

BY F. J. OTIS, M. D.

FEW people realize the important part played by germs in the kitchen. They have not learned that the success of the culinary department, the quality of the food, the temper of the family, and even the lives of its members depend, to a large extent, upon the germs that may be present there.

The kind of germs in the kitchen depends upon what is included in the term kitchen. Of course, we include the pantry; but if we take in the cellar, then the germs will include some larger forms of life. In fact, all that grows in some cellars could not come under this heading; they more properly belong in the garden.

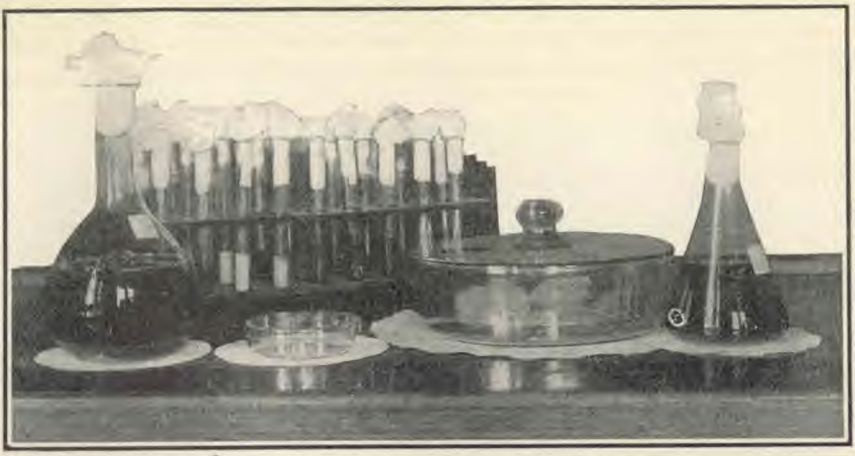
Germs, as we shall consider them, consist mostly of molds, yeast, and bacteria. They may be beneficial to the kitchen processes, detrimental to them, or may directly or indirectly endanger the health of the family.

While such processes as souring and decaying are germ manifestations, yet germs are not essential to the success of the kitchen. The only beneficial processes produced by germs in the kitchen are the rising of bread, the production of vinegar, and the flavoring of some of the dairy products. These are of questionable benefit, and certainly are not essential. The molds are decidedly detrimental in their work. They consist of little threads growing out in all directions from one focus, and while still very small, even under the microscope, look like little stars.

The molds grow best in materials containing a little acid. They produce large numbers of spores which soon become scattered, and float about in the dust. These grow readily wherever there is a surface which remains moist for a time.

Undoubtedly the saprophytic bacteria, or the bacteria of fermentation and decomposition, play a more important part in destroying and hindering the processes of the kitchen.

Molds are small plants consisting of several cells, while bacteria are single-celled, microscopical plants. Saprophytic bacteria are those that grow upon any dead matter. They sour the milk, spoil the bread, and decompose the meat. These bacteria produce sufficient physical changes in the materials in which they grow, to cause them to be quite readily detected when present in large quantities. As a rule these germs are not so dangerous in themselves, but they produce poisons which are quite injurious and



METHODS USED IN THE LABORATORY, REPRESENTING TWO SCIENTIFIC METHODS — COTTON FILTER AND DISH WITH OVER-FITTING LID.

frequently very deadly. We have a good example of these poisonous effects in the sickness and death that occasionally follow an oyster supper.

Among the germs we find in the kitchen, there are none so important as those that endanger the lives of the inmates of the home. The most common among these are the germs of pus, typhoid fever, and diphtheria, and less frequently there may be the germs of consumption, scarlet fever, acute dysentery, influenza, pneumonia, tetanus, or the germ of lockjaw, anthrax, cholera, glanders, and others. Contrary to the saprophytic bacteria, few of these produce any changes whatever in the materials in which they grow. It, therefore, becomes an exceedingly important matter to know from whence these germs come, their channel of entry, and how they may be recognized; also how to prevent their entrance, destroy them, or evade their injurious effects when they have entered.

A few words about their nature will help us to understand them better. Bacteria are plants, and are influenced by the laws of gravity. A person crossing a room may produce a current of air sufficient to cause them to rise into the air, but they slowly settle again. Once in a solution, they cannot leave it except by a spray or other division of the fluid, or by the fluid drying, permitting the suspended particles to again become dust. They exist in the form of little rods or spheres, and when in solution, some, as the typhoid-fever germs, are supplied with long, wavy whips which they use in moving about, very much as a tadpole does. Some are very rapid in their motion, going one hundred times their length in a second. Consequently they are soon diffused through the entire contents of a vessel. They also travel on surfaces, in wind, or in water.

The kitchen is the terminus of many bacterial avenues. Much of the material of commerce is destined for the kitchen. The kitchen is really the focal point of a vast expanse of territory. The incoming of this material from so many different sources must be recognized as a source of danger, and guarded against.

Many times the mother in a household is cook and nurse too. It has often happened that she took a few germs from the sick room back to the kitchen,

and there left them, by contact, in the milk pan. Next day could a microscope have been brought to bear upon that milk, it would have revealed millions of bacteria swimming about, but not a change could be detected by the most expert eye. The cream, if typhoid-fever germs were present, would contain the most bacteria: yet, it would be served to the other members of the family as of extra quality, but with certain direful results. Can we wonder that whole families have suffered before such a plague could be eradicated? Yet it need not have been a plague had there been science in the kitchen.

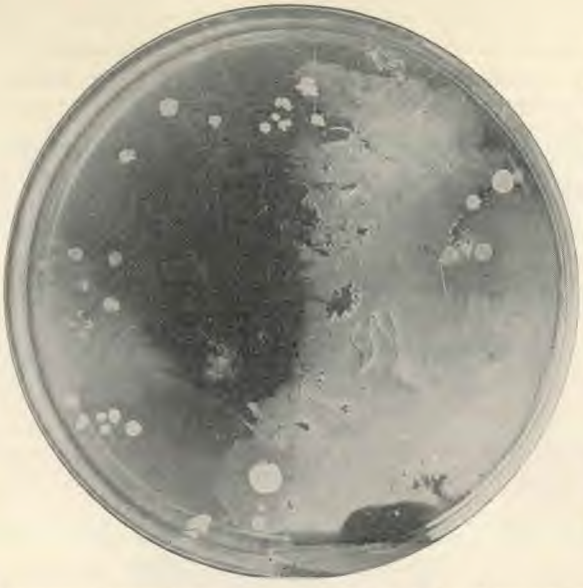
Another important conveyor of germs to the kitchen is the house fly. On account of the discoveries in regard to yellow fever, the Spanish-American war has led to a more thorough investigation of insects as carriers of disease. An investigator sprinkled lime of lime adhering to their legs. He caught some of them and permitted them to walk across some culture media. The next day he found typhoid-fever germs growing in the flies' tracks. Undoubtedly the most dangerous avenues by which germs enter the kitchen are through the flies, the water, and the milk. The latter is of such importance that some health boards inquire the source of the milk supply when a case of typhoid fever or diphtheria is reported.

Science has shown us not only how the germs may be prevented and eradicated, but how we may successfully and safely conduct a kitchen in the presence of deadly germs, as is occasionally necessary in some homes where sickness has entered. While we note the methods now in use, it is interesting to recall the similarity of the methods established for ancient Israel in the wilderness.

SCIENTIFIC METHODS APPLIED IN THE KITCHEN TO PRESERVE FOODS FROM GERM CONTAMINATION AFTER STEAMING.

about a cesspool in which typhoid-fever dejecta had been permitted to pass, and where numerous flies had collected. In a couple of hours he met those very flies walking about the table with particles

In the consideration of the entrance of germs, it is only lamentable that our kitchen supplies could not have been rained down from Heaven. Flies can be kept out, Pasteurized milk may be had,



COLONIES OF GERMS DEVELOPING IN TRACKS OF A FLY, TWENTY-FOUR HOURS AFTER THE LATTER HAD MADE AN AMBULATORY JOURNEY ACROSS NUTRIENT MEDIA.

the water from an artesian well may be used, and the vegetables from a pure source, yet a few germs will still enter.

It requires a certain number of bacteria to produce an infection, in some instances several millions. It is therefore very important to prevent their mutiplication. No general procedure is more important than thorough cleanliness. There should be no particles of food left about in which bacteria may multiply; nothing to attract flies to the kitchen windows, where they may drop the germs to be blown in. Water in the process of cleanliness is like mercury in collecting gold: it gathers them in where the majority may be removed, and becomes doubly effectual when hot. Soap destroys many varieties of germs, particularly those capable of producing disease. Dust is largely made up of germs, and should not be tolerated in the kitchen.

The refrigerator should be the object of a most scrupulous daily cleansing, because the germs, once lodged in it, maintain their vitality almost indefinitely, so that months afterward a few may be transferred by contact to a pan of milk, with serious and ofttimes fatal results.

Germs, to multiply, require four conditions: Moisture, more or less darkness, food, and a temperature of from 45° to 100° F. This suggests the importance of a well-lighted and clean kitchen from which the steam may be removed at once after rising.

We cannot be absolutely free from germs that threaten the health, even though every detail of prevention were faithfully carried out, yet we can greatly lessen the danger, and even make it possible to conduct the affairs of the kitchen with safety in the presence of disease-producing germs. It is quite simple.

COLONIES OF SIMILAR GERMS, HAVING GROWN TWENTY-FOUR HOURS ON NUTRIENT MEDIA; OBTAINED FROM STOMACH OF A DYSPEPTIC.

To facilitate a conception of the method we introduce an illustration showing a few simple methods of keeping the materials where they cannot be contaminated by germs; also an illustration showing the practical application of the same methods in the kitchen.

The principles upon which the methods depend are: That germs are subject to the laws of gravity, so that which sheds water sheds germs; and that germs cannot work their way through a thick plug of dry cotton. It is important to have the lid or plug in position when sterilized, and it should not be removed until ready for use, as opening the vessel will permit germs to fall in from the atmosphere.

Quantities of food left over after a meal could be turned into a deep dish, and after turning another over it so it will shed water, it should be steamed for twenty or thirty minutes, when it would keep without necessitating its being placed in the refrigerator.

Canning is a difficult and laborious task. We have feared allowing a little air to remain in the can. It does no harm, however; it is the germs that enter the can through a leaky top that do the mischief. A large quantity of food may be cooked at once, then subdivided into smaller dishes, a basin turned over them, and, after steaming, the food will keep until needed. The baby's milk may be prepared with one feeding in a bottle; then steamed after plugging with cotton.

One slight difficulty will arise when it is desired to keep food so prepared, for some time. There are germs whose spores cannot be killed by boiling. They may be destroyed by keeping the steamed food in a warm place, when the spore will become a germ, and start growing by the next day. It is only necessary to steam the dishes on three successive days, when they can be guaranteed to keep indefinitely.

Thus it is possible to so prepare and serve a meal that there will not be the least danger from an infectious disease in the house. When this can be done understandingly, there will be fewer "mysterious dispensations of Providence;" many families will not know the decimating ravages of disease, and many a youth, who under ordinary conditions would go to his grave, will grow up to fill a useful place in the world.

## LIFE.

For weeks denied the very light of day,
Under the open sky again I stood;
I breathed the freshness in; I felt how good
Were Life and Nature and the breath of May.
The earth which last I saw in Winter's sway,
O'erswept by winds, and clothed in robes of white,
Now one expanse of verdure and of light,
In silence and in grandeur outstretched lay.
I sank upon the green and wavy grass;
I lay and drank the beauty of the scene;
I watched the clouds like freighted frigates pass;
I heard the blackbird's whistle shrill and keen,
I heard, I saw, I felt, as ne'er before,
That peace divine which hovers all things o'er.

— *Good Housekeeping.*

# WHAT THE SETTLEMENT DOES FOR WOMEN AND CHILDREN IN HOT WEATHER.

BY EMMA WINNER ROGERS.

RED tape and iron-clad rules of procedure lessen the value of many institutions, especially charitable ones. We hear with dismay of dying patients being moved from hospitals, because it is against the rules to receive such cases; and of time and effort spent in vain to secure aid from so-called aid societies for desperate need because the rules forbid helping women who have husbands or where thriftlessness is evident. As if certain husbands were not an added reason for granting immediate relief, and thriftlessness, the nearly omnipresent accompaniment of need! The Settlement fervently disclaims being either an "institution" or a "charity." It works in personal ways and in the spirit of brotherhood, that the good and beautiful things of life may be more equally shared. It has no hard and fast rules, as to who shall or shall not be helped to the better life, but an ever-growing faith that there are ways and words of reaching every human soul to its betterment, and in harmony with the general good. Wisely directed, personal service and cooperation for social progress, in accordance with fundamental principles of human society, is the general basis upon which its work is planned and carried out.

When the winter season, with its more systematic and educational lines of work is over; when the club programs and class work of hand and brain, and the libraries, lectures, and entertainments grow a trifle irksome, with the coming of balmy May days, the whole Settlement constituency turns its thought to play, and rest, and outdoor life. The blessedness of human nature in its patience and ever-vivid hope of rest and happiness, amid staggering difficulties in the way of these, strike one pathetically in a Settlement neighborhood. Summer does not bring to these dwellers in the city's desert a long or short vacation, freedom from work for a few weeks, and journeys to mountains, seaside, lakeside, or the piney forests of the north. For working men and factory girls, there are no vacations, as a rule, only enforced rests when they are "laid off" on account of slackness of work, and without pay, of course. Day after day the long summer through, the toilers of the city go to and fro through dust and heat to their work in foundries, factories, shops, steaming bakeries, laundries, and restaurants, or in the thousand other fields of work which create and keep in motion the vast industrial machinery of the city's life.

But there is Sunday, and the long summer evenings, and Memorial day, the Fourth of July, and Labor day, in which to enjoy the parks and the near-by country.

In a few shops and factories perchance a week or two of vacation is given the employees, but this is not common. As for the tenement mothers, their household cares and children, and the working days out or garment finishing at home keep them close to the tenement home, and their recreation is to sit in or beside the general doorway after the day's work is done, and watch the street panorama, keeping an eye on

their small children who play or lie around on the pavements until late in the warm summer evenings.

The Settlement helps the working people to help themselves to a share of country life, fresh air, green fields, and flowers. It works with them rather than for them. In fact, the people *are* the Settlement, and with the inspiration and help of the residents of the Settlement house, they plan the summer of delight. How to have a happy time themselves, and how to have as many as possible share in it, is the underlying thought. Association in clubs makes it comparatively easy to reach and plan for a large number, and the enthusiasm of numbers and of people hungry for a little pleasure and freedom, makes the simplest opportunities appreciated.

For three summers or more the Home Culture Club of Northwestern University Settlement, in Chicago, has provided in a delightful way for their own brief vacations, and to give a country visit to many women and children. This is a club of young working women, nearly all of them employed in factories, shops, and offices. They have met weekly for years at the Settlement, and from simply accepting and enjoying the mutual help and companionship of their club, and sharing in the social and material benefits of the House, they have grown to a realization of their own responsibility for the good and happiness of others less fortunate than themselves.

Each summer they rent a cottage at Fox Lake, within a hundred miles of Chicago, or on the Michigan shore across Lake Michigan. Equipping and furnishing the cottage in the simplest fashion from their treasury, and with articles given by members and friends; hanging hammocks with bright cushions under the trees, and filling the little porch with benches and chairs, their summer home is quickly ready.

Their housekeeping is committed to women from the Settlement Woman's Club, who, their children with them, in turn attend to the kitchen and the food, assisted by the girls. All of the housekeeping arrangements are as simple as possible, and the work itself is a real recreation to these girls who spend so much of their time seated at desks or behind counters, often shut away from home life.

The girls have rarely more than one week's vacation, and many of them secure this by doing without pay on leave of absence. From the middle of July to the middle of August the house is running over with girls. The club numbers about seventy members, and less than twenty can crowd into the cottage at once. But great joy, unbounded freedom, hours on the lake, hours lying under the trees and breathing in health and peace from sky and earth, make it for all of them a time of never-to-be-forgotten pleasure. The simple fare, the narrow cot beds, the bare floors, and wooden chairs cannot lessen the delight of a free life amid Nature's loveliness. In the house simple curtains at the windows, a few prints about the white walls, some bright cushions, and stoneware jars of wild flowers about the rooms and in the fireplace, give a touch of grace and refinement to this summer home, and all day long and into the starlit night, the girls walk, or sail, or bathe in the lake, or hunt wild flowers in the near-by woods, coming home wreathed in green leaves pinned together with woodsy needles, wild flowers in their belts and filling their hands, or great dripping bunches of water lilies and lotus flowers from an early morning on the lake.

They go back to Chicago after the long, bright seven days, with new hearts and new faith in the beauty of life, and with love stirring for their less fortunate neighbors and associates.

For the rest of the season and during the early summer also, the girls send to their vacation home groups of small boys for certain weeks, in charge of an older leader, and groups of women with their little children for other weeks, so that, for the entire summer the cottage is filled with joyful life, and women and children who would otherwise spend it all in the hot and noisy city, share in the happy and healthy country life.

The Forward Movement Settlement of Chicago has a farm on the Michigan shore, and provides a delightful outing of two weeks or more for several hundred boys, and for many families, the selection being made from the Settlement neighborhoods by the various Settlements.

Hull House conducts an interesting summer school at Rockford, Ill., which is attended by many young working women and teachers, for a part or the whole of their vacations. Nature study, physical culture, and social life make up very wisely a large part of this summer-school program. Hull House and the University of Chicago Settlement maintain playgrounds, in addition to sending many women and children for day and week outings to the country.

The full list would be too long to enumerate here; for every Settlement in every city arranges for vacations and outings for its constituency. This is the chief work of the Settlements in the summer, together with earnest efforts to bring as much of the country as possible to the city. This last is done by promoting the opening of playgrounds and small parks, by encouraging window gardening, and the planting of little plots in city door-yards, and by the distribution of flowers and plants regularly, not only to the sick in the neighborhood, but to the well. One valuable means of co-operating with the Settlements during the summer, is by sending flowers regularly to them for distribution. On application they send trunks for the free carriage of the flowers, through the courtesy of the railroad officials. No heart but would be touched by the joy that the flowers give to those who receive them. They are literally begged for and treasured with tender care by old and young. The flowers sent ought to be selected ones, arranged if possible in small or large bunches, tied securely, and guarded with tissue paper, and carefully packed in large baskets. They will then keep fresh, and repay the trouble of sending and distribution. In addition to this, flowers in proper condition and arranged with taste have an educational value that huge baskets of unassorted and wilted flowers lack. A Settlement endeavors in all its work to set an example of the right way to do things, and the contagion of order, taste, and beauty, as well as of kindness, is the fundamental principle of its faith.

The Settlements all encourage the use of the large parks by the poorest people, and make possible, by their help and direction, many visits to these breathing spots of tired mothers or little children. Their kindergartners take the children to the parks two or three mornings of each week for their usual session, and every boys' and girls' club has at least one grand outing to the parks or to the country for a day's recreation.

The Settlement co-operates with other agencies in sending children to the country for one or two weeks' outings, and selections are largely left to them in

making up the parties to go. The mothers have to be seen, the fare arranged for, clothing sometimes provided, and the children taken to the train, and put in charge of the person who is to accompany them to the country. In a month's summer residence at a Settlement, one among my many satisfactory memories is of a woman and children helped to two weeks in the country, and this family will illustrate what the very poor have to contend with in getting needed relief from the stifling heat and villainous odors of the tenement regions. A neighbor of this particular woman came to tell me she was sick, and had no one to do for her except very poor neighbors. We found her on the second floor of a small rear frame tenement, in two little rooms, in one of which only the bedstead could stand, leaving the narrowest passageway beside it. The family consisted of the woman, her husband, and two little girls. The husband, a barber of unsteady habits, was away weeks at a time, practically deserting his wife, while she earned what she could in odd jobs to piece out a living. A doctor and a visiting nurse were sent at once, with proper food from the Settlement to give her strength. Just then a letter came to me from some generous woman in the country saying she would care for a woman and children for two weeks if we knew of those needing to come. The sick woman improved, and eagerly welcomed an opportunity to go to the country when it was proposed, and the little girls were full of joyful expectation. But they had almost no clothes, and of course no money. Neither the woman nor children had nightgowns, and not much else for either day or night. Everything was worn out, and the shiftless husband and her own frequent illness made it impossible for the woman to keep them decently clothed. Clothing and money were provided, and the family put on the train for the short trip, at the end of which they would be met. Two weeks of rest, freedom, and kindness, with country air and good food gave the mother new courage and strength to renew her struggle with poverty and misery. This kind of circumstance, sometimes more urgent, occasionally less so, but always precluding the very poor from getting out of their environment unaided even for a week or a day, emphasizes the need of Settlements in the very midst of the tenements, and having the knowledge and influence to do neighborhood work for the most helpless. The getting of the very poor into the country and contact with cheerful and hard-working people there, with warm hearts and good homes, is doing much to help physically the neediest people and to give an outlook for their thoughts and hope for the future. There is room in the country, and all Nature is smiling welcome and cheer to heal and encourage tired and hopeless toilers of the city, and give health and joy to their children. There are warm hearts and helpful hands too, if busy ones, in the country, ready to share their simple comforts and beautiful environment with the shut-in multitudes, to make pos-

sible occasionally a permanent return to the country, of some weary son or daughter of vine-clad Italy, or peasant children from Poland, Hungary, Bohemia, or Russia, to sow the seeds that may bear fruitage in the breaking up of the slums and the building up of the country.

Between the country people and the city's poor, the Settlement stands a collective personality, wise, willing, and active to bring the most good, the greatest happiness, into the neighborhood life; to find out what these are and make them possible. Above all, the Settlement recognizes the valuable ministry of the poor to the people with plenty, in helping on that better day of brotherly love, mutual understanding, and universal peace and plenty.

## DISINFECTANTS IN THE SICK ROOM.

BY NEWTON EVANS, M. D.

THE day is long past when any question arises in the minds of scientific men as to the fact that certain vegetable organisms, called bacteria or germs, are the direct cause of many acute and chronic diseases.

There are so many diseases in which the germ has been discovered, and in which measures for destroying the germs have been so effective in preventing the spread of disease, that this fact is proved beyond doubt.

A most curious and interesting example of a disease of this kind is seen in yellow fever. Up to the time of the occupation of Havana, by the United States military forces, that city had been constantly afflicted by yellow fever for over a century. Since some time last year, there has not been a single case of the disease in that city. The reason for this is that the germs of the disease have been destroyed and rendered inoperative by sanitary measures.

It has been demonstrated that the active agent in producing this disease is carried from one person to another by a certain variety of mosquito. If a person suffering from yellow fever is bitten by a mosquito, the parasite is taken into the body of the mosquito, and is afterward injected into the blood of another person who may be bitten by the same insect. This is practically the only way in which the disease is transmitted from one person to another, consequently the principal means of preventing the spread of the disease is by destroying the mosquitoes or preventing their growth.

By disinfectants, we mean agents which are used to destroy the germs of disease, or to render them inoperative. Heat, when applied properly, is one of the most effective agencies for this purpose. The most useful chemicals are carbolic acid, chloride of lime, bichloride of mercury (corrosive sublimate), and certain preparations of crude carbolic acid, such as lysol, cresol, and others.

### Typhoid Fever.

In this disease especial attention must be given to the excreta, as they contain many bacteria, and are the principal source of infection. All passages from the bowels and bladder must be carefully disinfected; also all vomited material. The best method is to add to the material an equal quantity of either five-per-cent carbolic-acid solution or chloride of lime solution, made by adding six ounces of chloride of lime to a gallon of soft water. The solution must be thoroughly mixed with the material, and allowed to stand at least one-half hour.

Especial care must also be given to the patient's hands and person, and to those of the nurse. We could cite many instances in which nurses and others caring for cases of typhoid fever, have contracted the disease. This can be prevented if the nurse is always careful to disinfect her hands after coming in contact with the body or any of the excreta of the patient. She should also be especially careful not to eat while in the sick room, nor to eat without disinfecting her hands. This should be done by washing them thoroughly with soap and water, and then immersing them in a solution of bichloride of mercury, 1 : 1000. The bichloride solution should always be colored with some coloring matter to distinguish it, as it is very poisonous, and when not colored may be mistaken for pure water.

The body of the patient, especially if evacuations are frequent, should be washed often, and disinfected with a 1 : 4000 solution of bichloride. As soon as any clothing of the patient or bed clothing is soiled, it must be immediately removed and disinfected. This is done by allowing it to soak for two hours or more in a solution of chloride of lime: six ounces to ten gallons of soft water. After this the clothing should be thoroughly boiled.

After recovery, before the patient leaves the sick room, he should have a full bath with soap and water. After he leaves the room, it should be completely disinfected. All the bedding should be disinfected as described above, or sent to a public disinfecting station, after being moistened with a one-per-cent solution of carbolic acid. The dishes and vessels in the room must be washed in a five-per-cent carbolic-acid solution, and allowed to stand full of the same solution for twenty-four hours. The furniture, floor, walls, and ceiling should be washed with a 1 : 1000 bichloride of mercury solution or a five-per-cent carbolic-acid solution (there should be no draperies, curtains, or carpets in the room).

After this the room must be closed tightly, just as nearly air tight as possible, and disinfected with formaldehyde gas or burning sulphur. If sulphur is used, at least three pounds of sulphur is necessary for every one thousand cubic feet of space. To facilitate the burning, it is well to mix the sulphur with charcoal. Precautions must be taken to prevent fire, by setting the receptacle containing the sulphur in a large pan of water.

All of these points apply to cases of cholera and epidemic dysentery, as well as to typhoid fever.

### Scarlet Fever.

In this disease particular attention must be given to the patient's skin; for it is from it that the infectious material comes which carries the disease. The body should be anointed all over every day with oil or vaseline. The patient must be as completely quarantined as possible in a room isolated from the rest of the house.

All the clothing and bed linen must be cared for as described under typhoid fever. The furniture, walls, and floor must be wiped every day with a cloth dampened with a two-per-cent solution of carbolic acid.

After recovery, the patient must not be allowed to leave the room until the scaling of the skin has entirely ceased; and then a very thorough soap-and-water bath must be given, followed by a rub, with a 1 : 2000 bichloride solution, and an oil rub.

The room must be disinfected in the same manner as described above.

*Smallpox* and *Measles* require the same precautions as scarlet fever.

**Diphtheria, Pneumonia, and Consumption (Tuberculosis of the Lungs).**

In these diseases the greatest care must be given to the expectorated material and the nasal secretions. The sputum should be collected in specially prepared vessels, which must be emptied and disinfected with strong disinfectant solution once or twice every day, or it may be collected in receptacles of combustible material which should be immediately burned in a stove.

The hands of both patient and nurse must be disinfected frequently, in the manner described under typhoid fever.

All clothing must be cared for as described, all food sent to the patient and not eaten, should be destroyed, and the dishes disinfected. The room must also be fumigated after the patient leaves it.

## SELF-CONTROL.

BY T. S. WHITELOCK, M. D.

O control one's self means more than many realize. The wise man says, "He that ruleth his spirit is better than he that taketh a city." The task is not so very difficult if one begins right, for like other noble acquirements, control comes by practice. In order to maintain a sweet disposition, which is so admired by all, one must sow the proper seeds. Seeds that produce a sour stomach will never secure a harvest of pleasant thoughts, and an even, amiable temper.

Neither can the one who neglects his body by not keeping it thoroughly clean expect to have pure, noble thoughts. Where the skin is not kept in a healthy condition, poisons are retained in the system which should be thrown off through this channel. Foul excreta, when retained, is carried to every part of the body, and poisons the brain.

A marked example of brain poisoning may be seen in the cross, crying baby. The indulgent mother forgets that her infant's digestive organs are not capable of caring for solid food. Up to about one and one-half years of age, milk, or its equivalent, is the diet prescribed by the Great Physician; but many times the writer has seen babies, who were yet unable to walk, with their hands full of sour, soggy bread, or perhaps cooing over a stick of painted candy. The child becomes cross and peevish, and the fond mother wonders what is the matter, never thinking of what has been done to derange the delicate digestive organs.

Another example is seen in the drunkard. When the poison is taken into the system, it soon reaches the brain; then come quarreling, fighting, and bruises, and often the gallows. The only explanation is the poisoned condition of the brain which controls every act of the body. Every one knows how often blows and even murder come out of a drunken debauch. These outward manifestations of brain poisoning should teach us to study ourselves, and avoid things which disturb the delicate adjustment of the nervous mechanism.

One might compare the mind to a train passing through the mountain defiles. Should the engineer lose control of the engine, the train would no doubt land in the bottom of the cañon below, a complete wreck, and the cause of many deaths. The mind has been placed at the

head of the body for the purpose of controlling its functions and actions; but if partially paralyzed and benumbed by poisons, it cannot be expected to control the body when it reaches the danger point.

How often we have noticed the trembling condition of one who gives way to passion. This is caused by the nerve forces becoming unbalanced, and often days, and sometimes a lifetime, is not long enough to overcome the result. Outbursts of passion are dangerous in the extreme. Who has not noticed the appearance of an animal with its combative nature aroused, and the marked change that comes over it? The sporting, playful dog becomes a snapping, snarling creature, and often after an exhibition of passion will seek a place where it can hide and not be seen by any one. The trembling hand and voice of one that gives way to anger should serve as a warning of the seriousness of the condition. At such a time the higher organism of man is straining every faculty to maintain an equilibrium. We are all more or less familiar with the demonstrations which are likely to follow if this effort results in failure. How often has a burst of passion proved the road to the gallows or lifelong imprisonment.

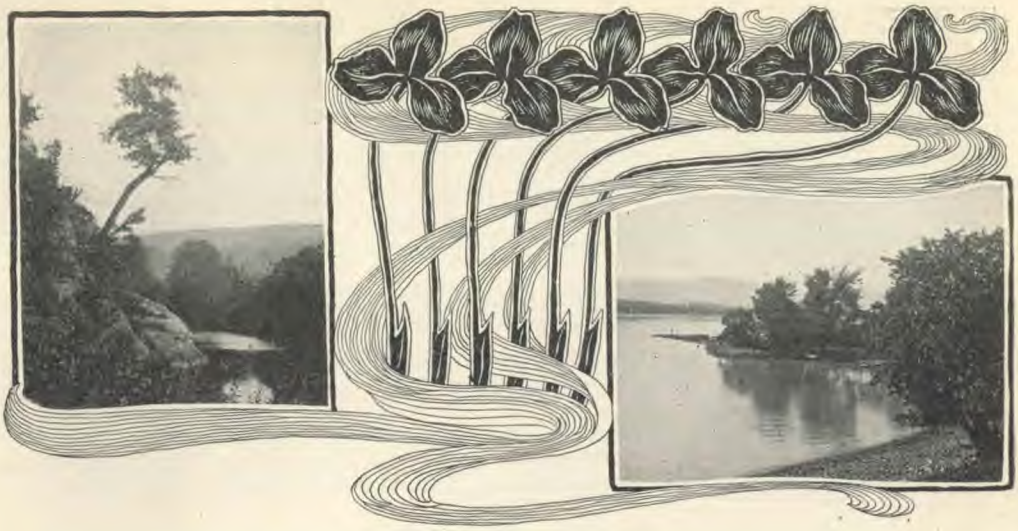
To control self means severe discipline on our part. One must recognize Nature's laws, and adhere strictly to her principles. He must study the proper foods and elements required to build up a strong, healthy mind; for the brain, like the rest of the body, is made up of what we eat, and if we impose on it that which weakens instead of builds up, we should not expect anything but a poorly balanced mind. Power has been placed in man by the divine hand, and if properly used, will enable one to overcome every defect. In many cases when the weights that hold down the mainspring of life are removed, Nature will arouse with all her recuperative power, and snatch a soul from the very brink of wreck and ruin. Study to give Nature the opportunity she needs, and she will give an abundant reward.

## THAT'S THE WAY.

Just a little every day,
That's the way
Seeds in darkness swell and grow,
Tiny blades push through the snow.
Never any flower of May
Leaps to blossom in a burst.
Slowly — slowly — at the first.
That's the way!
Just a little every day.

Just a little every day,
That's the way
Children learn to read and write,
Bit by bit, and mite by mite.
Never any one I say,
Leaps to knowledge and its power.
Slowly — slowly — hour by hour.
That's the way!
Just a little every day.

— *Ella Wheeler Wilcox.*



# SWIMMING AS AN EXERCISE.

BY H. B. FARNSWORTH, M. D.

SWIMMING is generally looked upon as a mere pastime, a sport, at best an accomplishment which is useful only on very rare occasions. It is only recently that it has come to be looked upon as having any real therapeutic value. But it is to be doubted whether there is any other single exercise which tends more to develop the body and reenforce the vital functions than swimming, when it is judiciously and systematically pursued.

The body is brought into a correct attitude, and while it is in this correct position, all the muscles are brought into vigorous action. The movements give both sides of the body the same kind and amount of exercise, thus making the development symmetrical, which is not the case with any exercise which requires more vigorous use of one side of the body than the other.

By no means the least important benefit to be derived from the swimming bath is the tonic effect of the cold water. It tones up the nervous system, and sets the vital currents going at a new pace. All the vital organs are called upon simultaneously to do an extra amount of work; and in the performance of this work for a sufficient length of time, which can be determined only by each individual, lies the value of the exercise in strengthening the muscles, and in increasing the working capacity and the activity of all the vital organs, especially the heart, lungs, and kidneys.

The increased activity of the heart insures an increased blood current, which in its turn carries new life and energy to every cell of the body, and washes away the waste matter which interferes with the free and healthful interchange of food substances. The innermost fiber feels a new stimulus, and takes on a new capacity for work. The capricious appetite gives way before the new order of things, and calls loudly for food with which to supply the energy for this new activity.

The use of the arms, with the increased respiratory activity which the

First Position in Swimming.

exercise necessitates, broadens and deepens the chest. The muscles which have been allowed to relax and grow soft through inactivity, the improper carriage of the body, or the sitting-lying position assumed in most office and schoolroom chairs, are brought into play. In time, the round shoulders, the spinal curvature (which is so common), the undeveloped chest, and the weak heart are corrected and overcome, the body is educated to assume the correct poise, and the muscles are increased in size, so that they give the body its natural, beautiful contour. The individual unconsciously begins to assume that dignified and upright position which should characterize the carriage of every man. The deeper chest and broad shoulders speak of hope, strength, courage, and innate vitality; the countenance, of health and energy. The eyes grow brighter and keener, and the whole nature assumes the lively expression which it had lost and long forgotten through an indoor and inactive life. The whole system is rejuvenated and inoculated with a good cheer which helps one to meet the duties of life in a new and wholesome manner, to the benefit of himself as well as those with whom he comes in daily contact.

Second Position in Swimming.

The time one should spend in the water varies according to the strength and vital resistance of the individual and the temperature of the water. No one should stay in until the body becomes fatigued or chilled, and the beginner should be especially careful. Active exercise at swimming, if continued for twelve to fifteen minutes, is usually sufficient for the average individual. One should always react

Third Position in Swimming.

promptly to a brisk rubbing with a Turkish towel. The professional swimmer has learned the art of conserving his strength, so that he can remain in the water for hours with no seeming ill effects. Such examples are numerous. However, the beginner who bathes for health, should make no attempt to imitate the example of the professional.

Swimming is one of the ways in which we may come into close and individual contact with Nature. After communion with her, we always come back ready to take up our responsibilities with a clearer mind and renewed energies. She steals from us our cares, and we soon learn to dispense with the fretfulness and impatience which comes into our lives. She soothes and encourages as no other can, and we should cultivate a greater intimacy with her. When it is seasonable, every one should make it an imperative duty to enjoy that buoyancy of spirit and renewal of energy which comes through a daily plunge in one of Nature's cool lakes or streams: or in the absence of such, to take a morning cold spray or shower, a dip in the bath tub, or in the absence of these facilities, even a cool sponge. These simple procedures of themselves, when persistently employed, fortify the system against the invasion of disease in both summer and winter.

Should we spend more time in Nature's large gymnasium, in the woods, among the hills, both on and in the streams and lakes, enjoying the sunshine and rain, the wind and weather, under conditions by which we are shielded from storms or too marked changes of temperature, we would be more than compensated by an invigorated organism to carry forward the "unnatural duties" which civilization forces upon those who dwell in cities amid the bustle and rush of business life, and who spend much time in shops, stores, and offices.

## HOW TO KEEP COOL WHEN THE WEATHER IS HOT.

BY DAVID PAULSON, . D.

LIKE the health resorts, each season of the year has its particular advantages and disadvantages. Winter affords a favorable opportunity to tone up the system and to develop physical stamina, and at the same time, owing to its chilly rains and more or less sudden changes of temperature, the chances to contract acute colds, influenza, pleurisy, pneumonia, and tuberculosis are increased tenfold.

The summer time is Nature's opportunity to burn up the various cinders and clinkers, and other waste products that are lodged in the system, and to inaugurate a general cleansing and renovation of all the tissues. At the same time the debilitating effect of the heat often lays the foundation for nervous prostration, and tempts many a weak mortal to resort to various artificial stimulants, which soon prove to be both a snare and a delusion to him.

During one week last season there were more people perished from heat in one of our large cities than the nation sacrificed in its entire war with Spain. In view of this appalling death rate, it is certainly important for all to learn the best way in which to keep cool when the weather is not cool.

The temperature created within by the food we eat, has more to do with our bodily comfort or discomfort than has

the surrounding atmosphere. On a cold winter night a street vender in the city of Chicago was shouting at the top of his voice, "Hot tomalies! You don't need to wear an overcoat if you buy these tomalies," and those who purchased them were willing to certify to their fiery properties. A dietary that will make a man feverish in January, would certainly almost set him ablaze in July.

Careful observations have shown that nine tenths of the prostrations from heat are among those who are trying to subsist upon an unnatural and an unwholesome dietary, and who are indulging in liquor and tobacco; while those who are eating thoroughly dextrinized grain preparations, luscious fruits, and the nourishing nut preparations, are discovering that such food is conducive, not only to coolness of blood, but also to calmness of spirit.

Another means of being comfortable when others are uncomfortable is to take liberal installments of winter during the summer. This can easily be done by frequent cool bathing. It is impossible to conceive of a person being overcome by heat while camping in a tub of cold water, or even while wrapped snugly in a sheet which had been wrung out of cool water.

On the hottest day of last summer, a patient in our Chicago Branch Sanitarium began to have symptoms which indicated that she was being prostrated by heat. She was immediately placed in a bath at a temperature a few degrees below that of the body, and cloths wrung out of ice-cold water were put around her neck and upon her head; in a few minutes she was perfectly comfortable. Her dinner was served to her under these unique circumstances. She remained in the bath several hours, and by that time the cool evening breezes had made the atmosphere so comfortable that she returned to her room. While others had been sweltering from the extreme heat, she had been enjoying the equivalent of a spring climate; as a result, she felt refreshed and invigorated.

During the hot season all should, as far as possible, take some form of cold bath in the morning and evening; if the heat is very oppressive and prostration is threatened, one or more may be taken during the day. It is a little inconvenient to carry out this suggestion, but it is more inconvenient to have thousands of funerals in summer which never would have taken place if those whose lives were thus uselessly sacrificed had only been willing to use the same amount of good sense and judgment in reference to caring for themselves that they exercised in the management of even their ordinary business affairs.

## THE SONG OF THE SKIRT.

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

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

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

— *Sel.*

# IN VACATION TIME.

BY MRS. E. E. KELLOGG.

MOST children hail vacation time with rejoicing. Quite as many mothers look forward to it with "fear and trembling." To the childish mind vacation means change and freedom from irksome restraint; to the mother it means additional care, less of leisure, and oftentimes annoyances and perplexities from which tired human nature shrinks in dread. The lengthened days present more time for which occupation must be provided. The warmer weather is demoralizing, and, left without the balance wheel of regular tasks and duties, it is hardly to be wondered that the children in their new independence become devisers of mischief. She is a wise parent who foresees the result, and seeks to prevent trouble by recognizing and making some provision for the needs of the child under the changed environment. Children interestedly occupied are not likely to get into mischief. The so-called troublesome child is most frequently one who has been turned out to seek employment for himself.

The wise mother keeps vacation time in mind, and makes plans for it months ahead, just as she would were she to take a trip across the continent or the ocean, also providing clothing comfortable and suited to the purpose. The extra work incident to the season, the house cleaning and spring sewing, she endeavors to get completed before the schools close, so that there may be fewer demands upon her own time and she may be able to devote herself more largely to her children. She arranges for something interesting and all-absorbing which shall come as a regular feature of each day's program. If she lives in or near the country, it may be some line of nature study: for example, the collecting of stones, which involves pleasurable rambles and delightful talks. There are many localities where several hundred different varieties of stones and pebbles may be found by one who searches with a purpose, and fine collections may thus be made to be studied later when school opens. The hunt for new specimens is as fascinating to the child as a game, and the out-of-door exercise, the walking, running, and skipping as the search goes on, is an excellent promoter of health for the children and likewise for the mother, who for her own recreation as well as for the benefit of the children should aim to be a member of the party. It must certainly have been intended that out-of-door life should predominate during the warm season, and that one should seek companionship with Nature, else why does she at this time put forth so many and varied attractions. The wise mother aims to work in harmony with Nature, and to store up health and vigor for her children, as well as to gain information and pleasure for them in the long vacation days. If stones are not plentiful, a collection of wild flowers may be gathered and pressed. Butterflies and insects, various kinds of wood, and the leaves of all the different trees in the neighboring forest or park make fine collections. The latter may be made interesting for very small children by pressing the leaves nicely, and on rainy days tracing them on paper. Then either paint or cut out with scissors, or prick and sew with kindergarten floss.

One family of children found one vacation all too short to complete their leaf collections, there were so many curious things that could be made with leaves

and so many interesting facts to be learned about them. There are few children, except in the crowded cities, but have access to these beautiful and bountiful treasures of Nature, which can serve them in so many ways as playthings, besides being an object lesson of the great Creator's wisdom and goodness. If one lives near the sea or lake shore, shells afford much provision for

Gardening is an excellent occupation for children during vacation days. Dwellers in the country and in villages may generally spare enough land somewhere about their premises for a children's garden. Those living in cities may be able to arrange a frame similar to the sand frame, in the back yard or upon the roof. Even a box or two on the back porch will serve a good purpose. It is

A Pleasing Substitute for the Seashore.

entertainment, as does also the sand, which can be used in many ways for diversion and profit. If one does not live near the beach, a very pleasing substitute may be arranged in the back yard, by filling a wooden frame (larger or smaller according to available space) with sand in which the children can play while the mother sits by with her work, which for her own health's sake will be far better done out of doors whenever the season will permit.

true that many vegetables and flowers require earlier planting, but this is planned for by the wise mother. The planting may either be done on the weekly holiday or after school hours before the vacation begins, or seeds may be started in boxes ready for transplanting later. There are also some plants and flowers that do well sown late in the season. The prime purpose anyway, should be to provide occupation for the active bodies and open up a field of new

knowledge for the inquiring minds of the children, rather than the attainment of financial profit; though of course it is well if there be money in it also.

Provision for a diversity of occupation will be needed, since a whole day cannot well be devoted to any one thing. An excellent arrangement is to give the morning hours before the midday heat to out-of-door work and walks, making the middle portion of the day the time to be used in pleasurable indoor pursuits, or in rest in some place of shelter from the scorching rays of the sun.

In some neighborhoods, several families with children of similar ages can join together and secure a suitable instructor to conduct them in their rambles or to help them with their out-of-door pursuits. In other localities a half-dozen mothers, interested in the best welfare of the children, may co-operate to help one another, each mother taking the charge of her own and the children of the other five mothers one forenoon or one full day each week, by which plan each mother secures five whole or half days of comparative rest for herself, and thus can well afford to devote her entire time and energy for one day to the children.

Courses in hygienic cookery, in healthful dressmaking, or other sewing, may well form a part of the vacation program for children from twelve to sixteen. Instruction in practical hydrotherapy and home nursing may also be adapted for vacation work; indeed, a children's "School of Health" for the study of the principles which underlie its maintenance, and carried on as much as possible in the open air for its promulgation, in conjunction with recreative and healthful exercises, would form an ideal plan for vacation time, in no wise unattainable in these days of progress.

## THE LONG DAYS OF THE YEAR.

THE long days of the year,
How sweet they are to the ear!
The happy birds begin them before I awake from sleep,
And tenderly they are ended by the voices of the sheep,
Coming home in the twilight. Oh, happy child that I am,
Roused by a bird in the morning and lulled at night by a lamb.

The long days of the year,
How fair to the eye and dear!
The grass is thick in the meadows, the branches heavy with leaves,
And gayly the roses are running up to the cottage eaves,
Steeping the porch in perfume. Oh, loving child should I be,
When thick and rosy and fragrant my joys are coming to me.

— *Ethelwyn Wetherald in Good Housekeeping.*

# THE HOME TABLE.

BY LULU TEACHOUT BURDEN.

THE best guide for table service of any kind is the use of good common sense. First of all, the home table is the one which should receive the most attention, for it is here that lifelong impressions are made. If the table is set in a slack, careless manner, one is likely to feel that everything about the household is managed in the same way.

A hurried meal is often the result of a poorly set table, because the disorder is no incentive for lingering at the daily board. Only a few extra touches are required to set things in order, and the easiest and quickest way to accomplish good results is to do things well if they are done at all.

If the linen is clean, and the glass and china is shining, even though it be simple, it carries a charm. An attractive, well-ordered table is an incentive to good manners, and no opportunity should be lost by the mother of a family to instill lessons of good behavior and reverence for the home.

In many homes there is no waitress, hence the serving of the meals falls to some member of the family. This can be easily managed by having everything in readiness and some things on the table.

If desired, the dishes may be removed after the soup course and after the vegetable course, and the crumbs brushed each time. This will take but a few moments, and it keeps the table looking neat.

*Raspberry Dessert.*— Mix three tablespoonfuls of farina with one-half cupful of milk, and a pinch of salt. (Nut milk may be used.) Heat three fourths of a pint of milk with a pint of water; when boiling, add the farina; cook half an hour. Turn into molds which have been rinsed in cold water or buttered; chill; remove from the mold, and surround with raspberries. The farina may be molded in one large dish, and a portion scooped out of the top, in which may be placed a few raspberries.

A Filled Banana.

*Filled Bananas.*— Remove a section of peel from large, ripe bananas; then cut out the pulp, so as to leave the shell. Crush raspberries slightly, and sweeten to taste; add a few drops of lemon juice. Fill the shells, and serve on a dish garnished with any appropriate leaves, such as lettuce, grape leaves, or pineapple tops.

Pineapple and Cherries.

*Cherries and Pineapple.*— Slice pineapple, and cut the edge in scallops after the outer peel is removed. Around a mold of cooked rice arrange the pineapple, and heap cherries in the center, scattering a few about the base. The pineapple spines may also be used for decorating. Farina may be used in place of rice.

*Currant Salad.* — Make a sweet salad dressing from two egg yolks, two tablespoonfuls of lemon juice, two tablespoonfuls of olive oil or melted butter, one fourth of a teaspoonful of salt, and two tablespoonfuls of sugar. Cook until slightly thick in a double boiler. Serve over stemmed currants, which may be placed on a nice, crisp lettuce leaf. Garnish with the unstemmed currants.

*Fruit Meringues.*— Remove the soft part of freshly made meringues, and fill the cavities with malt honey, which has been beaten until a creamy white. Place in the center one large raspberry or a cherry which has been pitted.

# A NEW SANITARY STREET CLEANER.

THOSE of our readers who have had the misfortune to walk to or from their daily work abreast of one of our ordinary street cleaners, breathing in the germ-laden dust which it raised, will be glad to know that some one has devised a new sanitary street cleaner, an illustration and description of which we are able to give through the courtesy of the *Scientific American*.

"A clear understanding of the machine can be quickly had by a glance at the diagrammatic view shown herewith.

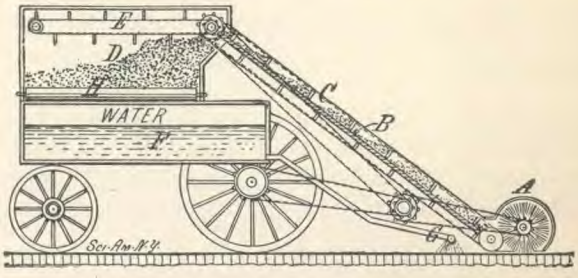
The rotary sweeper, *A*, at the rear of the machine, is operated by chains and sprockets from the hubs of the rear wheels, and serves to gather up and throw the dirt onto a slide, *B*. Moving over this platform is an endless belt, *C*, on which are a series of scrapers that carry the rubbish upward and forward until from the top of the slide it drops into the dust-proof box, *D*. In order to prevent the rubbish from accumulating at the rear end of this box and choking up the mouth of the elevator, a conveyer, *E*, is provided, which moves the dirt toward the front of the box as soon as it has piled up within reach of the paddles on this belt. Both the elevator and the conveyer belts are driven by chain gearing from the rear wheels. A large water tank, *F*, is situated below the rubbish box, and under the control of the driver, feeds the sprinkler, *G*, placed directly in front of the sweeper.

"The advantages of this machine are evident. It does its work thoroughly and quickly without raising any dust, for the matter is first sprinkled and then raised through a covered elevator to a dust-proof receptacle. The whole operation is therefore under cover — a point which cannot be too strongly emphasized in any work which stirs up the heterogeneous filth of a city street. The ma-

chine holds two cubic yards of dirt, and the whole process of sprinkling, gathering, and dumping can be controlled by a single man. The method of dumping the dirt is an interesting one. Referring again to the diagram, we notice that the bottom of the rubbish box is an endless sheet of iron which passes around rollers, *H*, placed along each side of the machine. These rollers are rotated by operating a lever at the driver's seat. Our engraving shows the door of the rubbish box let down to form a chute for the dirt, and the driver may be seen operating the dumping lever.

"By rotating the pulleys, the floor is fed forward, forcing the rubbish out on to the chute, whence it slides into a dumpcart or any receptable placed underneath the chute.

"This machine should work a revolution in the present antiquated methods of street cleaning. The slow, cumbersome operation of sweeping cobblestones by hand, aside from being expensive, is at the same time most unsanitary; for the




rubbish is continually being stirred up and laid open to the air, giving off bad odors. This machine, however, seems to fill all requirements; it sweeps, on an average, seventy thousand square yards of street per day at half the cost of hand labor, and does the work without spreading any dust, odor, or disease."

## A BIRD'S ELEGY.

He was the first to welcome Spring;
Adventurous, he came
To wake the dreaming buds and sing
The crocus into flame.

He loved the morning and the dew;
He loved the sun and rain;
He fashioned lyrics as he flew,
With love for their refrain.

Poet of vines and blossoms, he;
Beloved of them all;
The timid leaves upon the tree
Grew bold at his glad call.

He sang the rapture of the hills,
And from the starry height
He brought the melody that fills
The meadows with delight.

And now, behold him dead, alas!
Where he made joy so long:
A bit of blue amid the grass,—
A tiny, broken song.

—*Frank Dempster Sherman, in Scribner's.*

# STREET CARS AS DISTRIBUTERS OF DISEASE.

IN the larger cities of this country the street car is as potent a factor in the dissemination of communicable diseases as many of those usually catalogued in the standard works of hygiene. In these larger centers of population the condition is one of an excessive number of passengers crowded into a limited number of cars. In some cities this continues throughout the entire day, and in all of them during the morning and evening hours. During the period of congested traffic, the cars are crowded to the limit, every seat being occupied, and the aisles and rear platforms literally packed with all classes of our variegated population.

The ventilation of these cars is inferior, both on account of inattention to this important matter on the part of the builders of this class of rolling stock, and also because the passengers differ so widely as to the proper temperature and circulation of air necessary to their comfort.

Tuberculosis is undoubtedly propagated through the medium of these cars, which become infected by the promiscuous expectoration indulged in by consumptives, notwithstanding notices of warning. Hannum, of Cleveland, recently examined twenty-five specimens of sputum found in street cars (fifteen from the interiors and ten from the rear platforms): the tubercle bacillus was present in three instances. Other specimens showed the pneumococcus and the bacillus influenzæ.

These conditions, the person-to-person contact, and the breathing of vitiated air frequently laden with contagious exhalations and with dust from dried sputum, are most favorable to the distribution of contagious diseases. Of course, it is only problematical as to the number of smallpox cases which were infected through these conditions during the recent epidemic, but it is certain that but few better opportunities of infection are offered than through the street-car contact of all classes. Other transmissible diseases can very easily be, and no doubt are, communicated in the same way.

The solution of this problem is not easy. Street-railway companies are not inclined to relieve the present situation without compulsion. Health officers, however, have authority over the sanitation of these public conveyances. This authority in most municipalities gives sufficient power to prevent undue overcrowding of cars when such prevention would be for the protection of public health. When necessary, as in times of a general epidemic, such authority should be exercised. Under all circumstances regular disinfection of street cars should be practiced in an efficient manner. In this way the cars can be made biologically clean, and the health of the community better protected. There is just as much occasion for this procedure as there is for the disinfection of Pullman cars, now energetically practiced at different points. Investigation has developed the fact that there is but one city in the country, Philadelphia, where any pretense is made of disinfection of street cars. The Union Traction Company of that city disinfects its cars with carbolic acid. This possibly answers for the killing of bacterial life on the floors and walls of the cars, but does no good for the contaminated places where dust has settled, and which nothing but a gaseous agent would reach. — *Interstate Medical Journal.*

# GENERAL TOPICS.

## Lazy Lungs.

So much stress is laid in these days upon the value of fresh air that it is impossible for any one to miss the lesson. Good ventilation is taught in all our schools, if it is not always practiced; and treatment by the open-air method is becoming more and more advocated for certain diseases, especially tuberculosis.

In all this spread of knowledge and good sense it is unfortunately very possible to lose sight of the real issue. It is no exaggeration to say that many a one who can glibly patter off the number of cubic feet of air necessary for each one to breathe, rarely draws a full breath. Fresh air is a free gift, but it is like most of the gifts of Heaven, in that we must do our share of work to benefit by it. No one would expect to have a good fire just because a pair of bellows hung on a nail by the chimney, but this is exactly what many people expect of their lungs, which are really only the bellows given us by which to keep the fire of life burning bright and clear within us.

It is not too much to assert that lungs properly used in a comparatively close room will do more good than lazy lungs in an open field. This trick of lazy lungs is a habit, and, like any other, may be overcome by persistent effort. Many persons, for example, are afflicted with a nervous habit of holding the breath unconsciously. These are the people who, in spite of plenty of time spent out of doors, catch cold easily, digest poorly, and are always more or less "under the weather" physically. They are often much benefited by a course of active exercise, because it is impossible to exercise vigorously without drawing some good deep breaths.

Many other persons — and they constitute the great majority of mankind — breathe only with the upper part of the lungs, and although they may breathe regularly, do not draw in sufficient air at a breath to fill all the lung cells.

When the pernicious habit of poor, shallow breathing has been broken up, the health undergoes such marked improvement, there is such brightening of the spirits and improvement of the looks, that the luxury of deep breathing is not likely to be readily foregone.

A good way to start the new habit is to take deliberately a few minutes at stated intervals and devote them to proper breathing. If this is done systematically, the reformer will find himself unconsciously breathing more and more, until very soon he is obeying nature and really breathing to live. In this way we must all work for a living if we wish to live well.

Besides the gain to the general health which comes from the habit of deep breathing, there is created a reserve strength and preparedness which is often of great service in warding off acute pulmonary diseases.— *Youth's Companion.*

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## Use Fresh Fruits.

The greatly increasing use of canned fruits, preserved fruits, and various jellies, is, from one standpoint, an excellent thing, because pure fruit products are undoubtedly healthful, and promote the physical well-being of those who use them; but a very large proportion of these products, as on sale at ordinary groceries, is not only fraudulent as to its composition, but positively injurious to health.

Congress has recently been investi-

gating the wisdom of enacting more stringent pure-food legislation, and committee rooms have been crowded by representatives of these manufacturers of bogus fruit products, complaining bitterly because of the interference of certain proposed legislation with their business interests. For instance, one manufacturer stated that a law of a certain State had required him to label as imitation, composition "jellies" prepared by him.

He stated that his sales had fallen in respect to these jellies from one thousand buckets a day to twenty buckets a day as a result of this legislation.

He admitted, on further inquiry, that his "currant jelly" was made from apple cores and parings, or other fruit refuse, boiled to a pulp, stiffened with starch, sweetened with glucose, colored with an aniline dye, and artificially flavored. He did not say, however, and which is probably the case, that his delectable article of food had been kept from putrefactive changes by chemical food preservatives, such as salicylic acid or the sulphites. He could see no objection to labeling his preparations as pure currant jelly and putting it on the market to compete with a pure article of the latter.

The safest way for the ordinary consumer is to let these cheap products alone. Lay in plenty of apples and other fruits when they are cheap, "can" them at home after the old-fashioned processes, and await the time when honest manufacturers may once more have control of the market.— *The Healthy Home.*

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BEWARE of the "spring medicine" that "braces you up" with the first dose. Such a medicine can only be a narcotic, or a stimulant.— *Selected.*

**Dangerous Beauty Treatments.**

Women who attempt to get themselves made over by artificial methods should be careful as to the system which they employ. The *Cincinnati Enquirer* recently reported the case of a woman in that city, who is lying critically ill from the effects of treatment adopted by the "restorer of beauty," to whom she paid $50 in advance for her treatment. A sharp needle and a wax solution were used in the operation, and after much pain the victim was assured that the result was more than satisfactory. However, a few days later, septicemia set in, producing huge boils that puffed out all over the victim's head and face, swelling and suppurating, and imparting to her a most hideous appearance. The treatment also affected the brain, and she was attacked by frightful spells of delirium. Should she recover, it is probable that disfiguring scars and skin discoloration will remain for a long time, if not permanently.

So, girls, when you want to become beautiful, it would be better for you to depend upon a frugal diet, omitting pastry, cake, and candy, taking plenty of exercise on the golf links,— or even at the washtub,— and frequently bathing the face with distilled or rain water.— *California Miner.*

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**The Smoke Nuisance.**

Boston has finally awakened to the necessity of a public protest against the smoke nuisance in and about the city. A hearing on a bill which provides for the abatement of the smoke nuisance in the city of Boston and the vicinity, was held before the Committee on Cities, on April 10. This bill provides for the suppression of the smoke nuisance over the metropolitan area, including all cities and towns situated within a radius of ten

miles of the State House, and also that the boards of health of the respective cities and towns shall be charged with the enforcement of the law. The hope is that through moral suasion and education, the intelligent portion of the community will gradually recognize the necessity of a cleanly and economical use of fuel and a proper method of firing furnaces.

The promoters of the bill maintain that the reform may be acomplished, not only without danger, but with positive benefit to the commercial interests of the city. Just how this is to be brought about must be learned from personal experience, and from a study of the experience of other cities. — *The Boston Medical and Surgical Journal.*

**A Strong Combination.**

I overheard a rather good story the other day, in which Bishop Doane figures. The bishop was standing in front of a drug store on Washington Avenue, nearly opposite the capitol, talking to a well-known surgeon of this city and the proprietor of the drug store. Nearly in front of the drug store was an undertaker's wagon, which the owner had left there for a few moments while he went into a store to make a purchase. At this juncture, as the novelists say, along came a prominent Albanian, who was well acquainted with the bishop, the surgeon, and the druggist. He was about to stop and pass the time of day with the group, when he happened to be struck with the peculiar combination. Turning to the bishop, he said: "Doctor, druggist, priest, and undertaker's wagon — that combination is a little too suggestive to suit me. I'll pass." And he passed along on his way, followed by the hearty laughter of the bishop and his friends.— *Albany Press.*

**Shut Your Mouth.**

Shut your mouth. Breathe through your nose. Never allow yourself, unless positively necessary, to breathe through your mouth. The nose is made to breathe through. It is provided with hairs to sift the dust out of the air. It is provided with warming plates to temper the air (turbinated bones). It is provided with apparatus for furnishing moisture to the air. All of this is quite essential before the air is drawn into the lungs.

Breathe through the nose. Shut your mouth. Man is a talking animal. He talks so much he forgets how to breathe through his nose. In singing, also, it is impossible not to breathe through the mouth.

A good, brisk walk in the morning, compelling yourself to breathe through the nose, is an excellent hygienic practice. At first it will be difficult to do so. Persist in doing it, however. Think of it all day, whatever you are doing — shut your mouth. Breathe through your nose. Keep thinking about it until you have formed the habit. It requires quite an effort at first. Lazy people had better not try it. Some people are too lazy to breathe anyhow. They go around with their mouth open like a fish. Keep your mouth shut. Breathe through your nose. — *Medical Talk.*

**Rickets.**

Rickets is a disease of childhood, due to defective nutrition, involving all the tissues of the body, but most evident in the bones, which become soft and misshapen.

The early signs of this disease are of great importance, as it is in the early stages that its progrses may be arrested, and the child thus saved from deformity, which otherwise would in all probability

embitter all its subsequent life. That forewarned is forearmed is nowhere more true than in this disease.

Among the early signs of rickets is enlargement of the child's abdomen, not by fat, but by swelling of the intestines. The teeth are usually bad. The muscles are all weak. There is a constant tendency to catarrh, as shown by running at the nose, earache, cough, and the like, and the child often suffers from profuse sweating.

Wakefulness is an early, often the earliest, symptom of this trouble, and the child, if a baby, will sometimes sleep well when held in its mother's arms, but will lie and scream for hours if laid in the crib. Another early sign of rickets is a boring with the back of the head into the pillow.

When these signs appear in a child, the advice of a physician should be sought.— *The Medical Summary.*

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**For a Weak Ankle**

And a flabby calf, nothing can be more beneficial than the heel-and-toe movements. First don low, soft, flexible shoes, without heels. Take correct standing position, only in this case the heels must be together. Rise slowly on the toes as far as possible, and keep the position for a second; then lower yourself slowly. Holding the heels together helps to keep the balance. Unless very careful, one is apt to turn on the sides of the feet, which must not be allowed for a moment. Try this movement for ten or fifteen minutes. The following day there will probably be a distinct feeling of soreness; then you will know that you are really doing something. In rising on the heels, start with the heels together; then rise first on one heel and then on the other. The movements are made with some force or impetus, and not so slowly as those in which both heels are raised at once. The former strengthen the muscles of the front of the leg, while the latter movements strengthen those of the back of the leg; both should be practiced daily.— *Health.*

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**Why?**

Some say alcohol gives strength. If so, why do athletes abstain while training for a race or other contests requiring strength?

Some say alcohol gives endurance. If so, why do great employers of labor cut off the supply of drink when work of an especially arduous or lengthened nature is required?

Some say alcohol gives heat. If so, why do travelers in the Arctic regions, who take drink, succumb to the cold, while total abstainers remain unharmed?

Some say alcohol is good in hot countries. If so, why did Stanley refuse it to his men during his forced march across Africa in search of Emin Pasha?

Some say alcohol steadies the nerves. If so, why do surgeons abstain before performing a delicate operation?

Some say alcohol sustains the health. If so, why do insurance companies take total abstainers at a lower premium than others?

Some say it is dangerous to give up the use of alcohol suddenly. If so, why do prisoners, most of whom are obliged to abstain suddenly, improve in health? —*American Issue.*

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WHEN you go away from home, don't dread lest the house get afire, the baby get burned, and the best cow get choked while you are gone. If anything happens, it will be the thing you didn't expect and couldn't help.— *Selected.*

### Foods of the Nations.

It is always interesting to know something of the amounts of different classes of foods consumed by the inhabitants of a country, and from data taken from an article in *Food and Cookery,* we gather material for the following table: —

| | Pounds per person per year. | | | | | | |
|---|---|---|---|---|---|---|---|
| | Wheat. | Rice. | Oats. | Rye. | Potatoes. | Sugar. | Meat. |
| United States | 240 | 4 | 77 | 22 | 200 | 73 | 147 |
| Great Britain. | 250 | 9 | ... | ... | 238 | 80 | 100 |
| Ireland ..... | ... | ... | ... | ... | 1467 | ... | 56 |
| Germany .... | 180 | ... | 7 | 26 | 1300 | 18 | 64 |
| France..... | 467 | ... | ... | 53 | 700 | 25 | 77 |
| Canada ..... | 360 | ... | 51 | ... | 560 | ... | ... |
| Japan ..... | 22 | 300 | ... | ... | ... | ... | ... |
| Sweden..... | ... | ... | 96 | 314 | ... | 20 | 62 |
| Russia..... | 93 | ... | 90 | 307 | 461 | ... | 50 |
| Italy..... | 307 | 14 | 46 | 29 | ... | ... | 54 |

The blank space does not mean that no food of that particular product is consumed by the inhabitants of a country, but rather that the data is wanting.

### The House Fly as a Disseminator of Disease.

Heretofore the house fly has been regarded as a quite harmless, though somewhat annoying, insect. The importance of the mosquito in disseminating malaria and yellow fever serves anew to call attention to the importance of insects in the spread of disease. The house fly has been investigated, and it is thought that his rôle in this respect is largely mechanical. That it is important in disseminating typhoid fever, and possibly tuberculosis, is shown by the fact that his legs easily become infected, and thus might convey the germs directly to food. That the house fly might possibly act as a host for some parasite has not been demonstrated, but it is strongly suggested by D'Arcy Power in a discussion on cancer before the Chelsea Clinical Society. He said that the microscopic investigation of malignant growths has not solved the etiology of cancer. It would be well to ascertain whether there is an immediate host to convey the cancer germ. There are some things in the distribution of cancer that lend weight to this view. In reference to this matter, he has been studying the London house fly in autumn. The ordinary house fly cannot inoculate directly, for its mouth parts are only capable of sipping; yet it is a common experience that flies do bite, and that they bite more in the late summer than in the spring, and that the fly which bites looks like the house fly. The bite is a true one, for it raises a small papule, though in healthy persons it usually causes no reaction. During the last year Mr. Power has treated three patients for carbuncle, who attributed their condition to the bite of a house fly. There are two kinds of house fly: one the ordinary sort, and the other the stomoxys, the latter being armed with two complete sets of lancets. The house fly is a little larger, and holds its head outward when it rests. The stomoxys has three interrupted whitish stripes on its back, and its head is held erect.

This observation of Power is certainly very interesting, and opens up possibilities in the study of dissemination of disease by the house fly which have not heretofore been appreciated.— *Medicine.*

### Care of the Hair.

In the treatment of the hair, good judgment and common sense are necessary; and, furthermore, what agrees with one is not always beneficial to another.

The best way to keep the scalp healthy is to preserve its elasticity. To do this, daily massage is necessary. If the scalp is dry and covered with dandruff, or the hair thin, a little oil of sesami, rubbed in with the tips of the fingers once or twice a week, will in almost every case restore the hair to its normal condition.

There are some that would have us

believe that washing the hair injures it in some peculiar way. In what manner soap and water can injure the hair, we fancy it would be difficult to explain.

Ceanliness is aways healthful, and this applies to the head, as well as to other parts of the body.

In ordinary cases, the hair should be washed at least once a month, taking care that it is thoroughly dried afterward. If the scalp is massaged for a few minutes, there is no possibility of catching cold, and at the same time it starts the circulation of the blood, and gives tone to the scalp.

When the hair is excessively oily, a trouble that affects certain people, and amounts to disease with others, it should be treated most judiciously; and when it is being treated for dandruff or any other scalp trouble, it is necessary to wash it as often as every ten days or two weeks.

Before washing the hair, always rub a little oil of sesami in the scalp at the temples, or parting, or where the hair is thin, also oil the free ends if very dry; then after massaging, brush the hair thoroughly, up to the top of the head, for as the hair goes into the water, so it will come out. If treated in this manner, no amount of rubbing will tangle it. Wash in at least two waters (rain water is preferable); put in enough borax to soften the water, and use a good medicated soap. If the hair is oily, put a teaspoonful of cider vinegar in the first rinse water.

A few drops of any good toilet water in the last rinse water has a softening effect, and gives a faint suggestion of perfume. To dry the hair, rub with warm towels, fanning and massaging alternately.

The hair should be brushed out while damp, as it is easier to straighten out than when dry.

The ends of the hair should be trimmed every two or three months, especially if split.

Wear the hair down as often as possible, as the sunlight and air stimulate it wonderfully, increasing the healthy action of the scalp.

Never confine the hair at night, brush it thoroughly, and let it hang loose in braids.

If these instructions are followed, a healthy, luxuriant growth of the hair will be the result.— *Food.*

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**Sunshine and Health.**

A merchant noticed, in the progress of years, that each successive bookkeeper gradually lost his health, and finally died of consumption, however vigorous and robust he was on entering his service. At length it occurred to him that the little rear room where the books were kept, opened on a back yard so surrounded by high walls that no sunshine came into it from one year's end to another.

An upper room, well lighted, was immediately prepared, and his clerks had uniform good health ever after.

A familiar case to general readers is derived from medical works, where an entire English family became ill, and all remedies seemed to fail of their usual results, when accidentally a window glass of the family room was broken in cold weather. It was not repaired, and forthwith there was a marked improvement in the health of the inmates. The physician at once traced the connection, discontinued his medicines, and ordered that the window pane should not be replaced.

A French lady became ill. The most eminent physicians of her time were called in, but failed to restore her. At length Dupuytren, the Napoleon of

physic, was consulted. He noticed that she lived in a dim room, into which the sun never shone, the house being situated in one of the narrow streets, or, rather lanes, of Paris. He at once ordered more airy and cheerful apartments, and "all her complaints vanished."

The lungs of a dog become tuberculated (consumptive) in a few weeks, if the animal is kept confined in a dark cellar. The most common plant grows spindly, pale, and scraggling if no sunlight falls upon it. The greatest medical names in France, of the last century, regarded sunshine and pure air as equal agents in restoring and maintaining health.

From these facts, which cannot be disputed, the most common mind should conclude that cellars and rooms on the northern side of buildings, or apartments into which the sun does not immediately shine, should never be occupied as family rooms or chambers, or as libraries or studies. Such apartments are fit only for purposes which never require persons to remain in them over a few minutes at a time. And every intelligent and humane parent will arrange that the living room and the bedrooms shall be the most commodious, lightest, and brightest apartments in his dwelling.—*The Dietetic and Hygienic Gazette.*

### A Sound and Sober Life.

President David Starr Jordan, of Stanford University, in a recent address on "A Sound and Sober Life" and "Short Cuts to Happiness," said: "Having been asked to make a plea for a sound and sober life, I have three points to make. The first and highest duty of a man is toward his future self, toward the man he is going to be. This is greater than his duty to his family, his country, or his State. The second point is, that to be clean is to be strong. We are weak because we have been morally, mentally, or physically unclean. Thirdly, there is no such thing as unearned happiness. Whatever we have must be earned by sacrifice. The pursuit of happiness is not always the finding of happiness. Happiness is often sought by the short crosscuts. Adversity is generally looked upon as bad luck, but it is really good luck, for its value lies in the courage that is developed in trying to overcome it. A man may be innocent who has never met temptation, but a man is never truly good until he has met temptation and overcome it. The great merit of football is that found in being able to be thrown down and rolled over by a violent shock, and, at the same time, keep the temper, and take it like a gentleman. There is a distinction between happiness and pleasure. Happiness is the result of a sound condition of the health and the nervous system. Pleasure is a deception, a temporary glow of happiness that has no sound basis. Pleasures do not last. They have a different taste in the morning.—*Pacific Medical Journal.*

### Ice Cream and Its Poison.

At this season it is not uncommon to read accounts of families, and even of whole picnic parties, being poisoned by ice cream, sometimes fatally. It is generally supposed that the trouble comes from carelessness, which has introduced some outside poison into the cream, and thus made it dangerous.

On the contrary, the poison develops in the cream itself. The same thing also occurs in cheese. The conditions which favor the development of this poison are not very well understood. The

things which seem to favor the production of the poison are the use of old milk and cream, the keeping of the ice cream for a long time after it is frozen, and the use of close metal cans of doubtful composition and cleanliness.

Whatever the cause, the troubles are very real and dangerous. *The Youth's Companion* gives this excellent summary of the facts: —

"Poisoning by ice cream is of not uncommon occurrence during the summer months, but one hears of it in the papers only in cases of wholesale poisoning, as of a party of picnickers, the guests at a wedding or an evening assembly, and the like. The cause of the poisoning is a change in the milk induced by the accidental presence of a microbe. This microbe, the poisonous product of which, by the way, is called 'tyrotoxicon,' may also be found in other foods which have milk as their basis, such as cheese, custard, cream cakes, and so forth.

"The symptoms of poisoning usually appear within from two to four hours after the ice cream or other dish has been partaken of, and their severity varies with the quantity of poison taken. There is first dryness of the mouth, followed by parching and seeming closure of the throat, and then nausea, vomiting, and purging. The vomited matter at first consists of the food taken; later it becomes watery, and may be stained with blood.

"The heart beat grows weak and irregular, and in severe cases the face becomes livid. Sometimes the pupil of the eye is seen to be dilated, even in a bright light, but this is not a constant symptom.

"The vomiting and purging may be followed by great nervous prostration, from which recovery follows slowly. In very dangerous cases, those which are likely to prove fatal, these two symptoms are very slight at first, and may soon cease altogether. Such cases call for the most prompt and energetic treatment, for the condition is often one of great gravity.

"In all cases the treatment aims at two results: First, to get rid as soon as possible of the poison which has been swallowed, and so prevent further absorption; and second, to keep up the action of the heart until the effects of the poison already absorbed have passed away.

"The necessity of the immediate removal of the poison from the stomach and bowels is shown by the fact that the fatal cases are precisely those in which vomiting and purging are slight, or cease too soon.

"After the vomiting has ceased and the stomach is evidently emptied of the poisonous food, the elimination of the tyrotoxicon from the system will be hastened by copious draughts of cool water. The flagging heart may be helped to stronger action by warm applications to the chest."

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**Sugar Affects the Eyes.**

Of late there has been an attempt to popularize sugar as a food for soldiers and others. As *The Times* has pointed out in this department, sugar, in its refined state, is an undesirable and dangerous article of diet, to be taken in large quantities. Undoubtedly, the immense consumption of sugar nowadays is the cause of many diseases. It also affects the eyes, and is said to have caused cataract. A writer in the *London Mail* says:—

"Consumption of sugar in large quantities very often causes cataract. This seems improbable, but it is easily demonstrated. The lens of the eye is a

little bag of perfectly clear and transparent fluid. Sometimes the fluid becomes gradually thick and opaque, with the natural consequence of destroying vision — and this condition is called cataract. Now, when the blood is overloaded with sugar, there is a strong tendency to its deposit in the lens of the eye. Hence, those who indulge in confectionery, jams, sweet puddings, and the like, are almost sure to suffer more or less dimness of vision, which may develop into cataract in old age. By injecting sugar into the eyes of animals, and by covering them for some hours with a solution of sugar, doctors have actually produced cataract."

This applies to sugar in its concentrated and oxidized form, after it has gone through the refinery. It is then no longer a natural, but an artificial, product. The raw sugar, as we find it in the cane or in the ripe fruit, is a wholesome and welcome addition to the dietary, where the kidneys are in a normal condition.— *California Miner.*

### Heat as a Menace to Baby Health.

Heat is a formidable foe to baby health, and often to baby life; yet much can be done toward modifying the discomfort attendant on the long torrid days and the frequently sweltering nights.

Prickly heat, while never a serious condition, is at the same time distressing. After the bath the tender skin should be dried by patting — not rubbing — with an old, soft linen towel; then dust with talcum powder. For aggravated cases, one doctor recommends anointing the body night and morning with a mixture composed of eight parts of almond oil to one part of lanolin.

The suffering of many a little one is augmented by overhandling. If babies were less fussed over, they would give much less trouble. They should be held upon the lap and in the arms as seldom as possible, especially when the weather is oppressive; and if accustomed early to being let alone, excepting when requiring attention, they will not fret to be picked up and carried about every little while. Even when the toilet demands attention, the baby need not be subjected to lying upon the warm lap of the mother or nurse; instead, place him upon the bed, or better still, a padded table, and prove the superiority of this method to all concerned.

When ready for a nap, the room which has been kept darkened will be found the most comfortable, because the coolest. But see to it, by all means, that the apartment has been thoroughly aired before closing it to the sun's rays. Air, whether cool or warm, if breathed over and over again, is so loaded with impurities as to be totally unfit for the lungs of any adult, much less a baby's. The other extreme — that of encouraging draughts — is likewise to be avoided, being ever a menace to health at any season of the year.

Those children are indeed fortunate who can escape the heat of the city, to enjoy the health-conferring air of green fields or the bracing atmosphere of the seashore. But when a protracted absence cannot be indulged in, trips on the river do much good.

# EDITORIAL.

## THE CAUSE OF CHRONIC RHEUMATISM.

ACCORDING to Bouchard, Roger, and other leading French pathologists, chronic rheumatism must be looked upon as one phase of the uric-acid poisoning which presents itself in a greater variety of forms than any other of the autointoxications. Without entering further into the discussion of the etiology of this disease, and considering it simply as an autointoxication in which uric acid and other imperfectly organized proteid wastes constitute the poisonous element, let us consider briefly what causes tend to the development of this condition.

The sufferer from any chronic disease has been a long time ill before his symptoms become sufficiently prominent to arrest his attention. The sufferer from chronic rheumatism has been for a long time in training for this disease. His eating, drinking, and possibly also his occupation, his habits as regards exercise, sleep, and numerous other conditions which influence his vital functions, have been sowing and cultivating a pathological crop, of which the symptomatic phenomena to which the term "rheumatism" is commonly applied, are simply the fruit. The man who suffers from chronic rheumatism following one or more acute attacks of the disease, was unquestionably in training for chronic rheumatism before the acute attack occurred, so that the chronic affection is not really the result of the acute attack, but was only hastened by it.

What are the conditions or habits of life which lead to the development of uric acid or rheumatic disposition, and hence to the production of rheumatism and the other disorders with which it is associated? The elaborate studies of Haig have shown beyond a question that the free use of flesh foods, and an excess even of vegetable proteids, may give rise to uric-acid accumulation and an increase of the morbid symptoms due to this poison. More than half a century ago, Lehmann, the great German physiological chemist, pointed out the fact that the caffein of tea and coffee is so closely allied to creatin in its composition, that it must be classed with it as a poisonous substance; and Haig has shown that tea and coffee develop the same symptoms of poisoning as those which have been traced to uric acid.

Dr. Haig has taken pains to prepare a table, part of which is given herewith showing the exact amount of uric acid per pound in various articles of animal food.

URIC ACIDS AND XANTHINES.

| Substance. | Per Cent. | Gr. per lb. |
|---|---|---|
| Lamb (cold roast, leg) | .050 | 3.5 |
| Hospital beef tea | .0980 | 7.0 |
| Veal (cutlet) | .049 | 3.5 |
| Kidney of sheep | .049 | 3.5 |
| Liver of sheep | .091 | 6.5 |
| Herring | .0900 | 6.4 |
| Meat juice | .697 | 49.0 |
| Meat extract | .883 | 63.0 |
| Tea (caffein) | 2.5 | 175.0 |
| Coffee (caffein) | 1.0 | 70.0 |
| Cocoa (theobromin) | .84 | 59.0 |

That uric acid taken in food actually increases the amount of uric acid in the blood and in the urine, Haig and others have positively determined; for example, Haig says, "I found that a single supper or dinner of soup, fish, and meat appears to increase the urate excretion of the following three or four days, by four to six grains." Estimating the amount of meat taken at such a meal, Haig found that the extra amount of uric acid appearing in the urine was practically the same as that which chemical analysis shows to be contained in the given quantity of animal food of the sort taken.

There are countries in which meat is almost never eaten by the common people, and which afford an opportunity for inter-

esting observation upon this point. The physician to the Shah of Persia remarked in the discussion of the subject before the Royal Medical and Chirurgical Society that in Persia "gout has come to be known as the rich man's disease," a circumstance due to the fact that in that country only the rich men eat meat.

The idea has quite generally prevailed that while tea and coffee are unwholesome beverages, their ill effects are chiefly due to the irritating effects of the tannin upon the mucous membrane of the stomach, and its interference with the action of the saliva and the pepsin; but it requires only a simple calculation to show that tea, used in the ordinary way, is capable of introducing, in the course of years, a very large amount of uric acid into the system; for example, a single pound of tea containing three per cent of caffein, would present to the system more than two hundred grains of caffein, which is the equivalent of uric acid. A moderate tea drinker, taking not more than four cups of tea daily, might thus absorb in the form of tea about six grains of uric acid every day, or the entire amount contained in a pound of tea in a month's time.

The addition of this amount to that which is normally formed in the body, will easily result in the storage of this substance. If, in addition to the tea, meats of various sorts are freely taken, the quantity of surplus uric acid daily absorbed from all dietetic sources might considerably more than equal the amount normally eliminated, thus imposing upon the system the task of dealing with more than double the amount of this toxic substance which is produced under physiological conditions.

But it is not simply the amount of uric acid present in meat or in tea or coffee taken in connection with meals which must be considered. Meat eaters almost invariably absorb an excess of proteid material. When the sugar, starch, and dextrin are taken in excess of immediate needs, they may be stored either in the form of glycogen in the liver, muscles, and other tissues, or in the form of fat. Fats, if taken in excess of the body requirements, may likewise be stored for future use. But no method is provided for the storage of an excess of the proteid elements. The amount of proteids required daily is small, amounting to only three ounces out of a total of twenty-one ounces of water-free substance, while we daily absorb sixteen ounces of hydrocarbons in the form of starch and sugar, and nearly an ounce and a half of fat. The amount of fats is small, because this element is difficult of digestion and absorption, while starch is quickly digested and readily absorbed, and is later converted into fat in the body.

Any surplus of proteid material digested and absorbed beyond the immediate needs of the body must be treated like so much waste matter; in other words, it must be converted into urea and uric acid.

Here are, then, several important sources of uric-acid accumulation within the body, which are found active in a large proportion of civilized countries: (1) The uric acid present in all flesh foods; (2) the caffein, equivalent to uric acid, present in tea and coffee; (3) the excess of proteid elements taken into the system through the consumption of flesh foods. Urea and uric acid may also be increased by an excessive absorption of vegetable proteids in the form of nuts, also in beans, peas, and other legumes. But the uric-acid accumulation is far less likely to be produced by vegetable proteids, for the reason that meats of all sorts present proteids in a highly concentrated form, which is not true of any vegetable product. It is also worth while to bear in mind the important fact that vegetable proteids do not contain even the smallest trace of uric acid, and hence, if taken in reasonable quantity, will not contribute to the formation, in excess, of this highly active disease-producing poison.

But errors in diet are not alone responsible for uric-acid accumulations. The observant Cullen remarked more than a century ago that "gout seldom attacks persons employed in constant bodily labor, or those who live much upon a vegetarian diet." Persons engaged in active outdoor employment absorb more than double the

amount of oxygen taken in by those who live sedentary lives. The movement of the blood is much more rapid, and all the vital functions are carried on at a higher rate of activity. Bouchard has shown that the urine excreted during active muscular exercise in the open air is far less toxic than that formed during rest. Legrange, several years ago, called attention to the fact that uric acid is diminished by exercise, doubtless the result of a more perfect oxidation induced by absorption of an increased quantity of oxygen. The Indians of the South American pampas manage to live vigorous, though short, lives on a diet almost wholly composed of flesh. The woodchoppers of Maine enjoy good health on a diet of pork and beans; but the sedentary man who undertakes to subsist upon a diet largely composed of flesh foods, perhaps adding tea and coffee, and possibly wine and beer, must sooner or later pay the penalty for his unnatural life. Experience unquestionably confirms the physiological wisdom of the command to man recorded in Holy Writ, "In the sweat of thy face shalt thou eat bread." The man who eats without sweating, without taking sufficient exercise to develop vigorous activity of the skin and to fan the fires of life by providing an abundance of oxygen to support active metabolism, is laying up for himself a store of dire punishments in which stiffened joints, rheumatic pangs, and deformed limbs may play a prominent part. Every chronic rheumatic is simply reaping a harvest which he has sown, either in errors in diet, in deficient exercise, or in both forms of physical transgression, and is simply illustrating the inexorable law, "Whatsoever a man soweth, that shall he also reap."

## THE FASTING FAD.

We are living in an age of fads, and what we might call "health fads" are by no means the least prevalent. Among others of this class is the fasting fad. We have frequently been asked for our opinion upon this particular plan for health getting.

We believe that people should not fast for any considerable length of time except when they are obliged to. There is no particular advantage to be gained from going hungry. Hunger is the voice of Nature telling us that the system needs food, and, like all of Nature's warnings, should be heeded.

To be sure, a great many, we might say the majority of people, eat too much as well as too often; but the entire abstinence from food is an exceptional remedy, if it is used at all.

In cases where one's stomach is filled with germs it is far better to fast than to go on eating in the usual way, but even then it is not necessary, for one can get all the benefits of fasting and more, without the discomfiture, by subsisting, for a time, upon a fruit diet. In this way the germs are starved out, the fruit juice acting as a disinfectant.

Usually one or two days of this kind of fasting is all that is needed, and it is not always necessary to use the fruit entirely alone even then. Some dry sterilized bread, such as zwieback or granose, may be taken with it without interfering with the purpose of the fast. It is really wonderful what can be accomplished by the use of fruit in ridding the digestive tract of germs.

## Squint in Infants.

Probably few parents are aware of the fact that squint is often due to some condition of the eyes which may be remedied by properly adjusted glasses. It is not possible, of course, to have your children wear glasses. The important thing is to keep the eyes in such a condition that, when older, glasses may be so adjusted as to effect a cure of the difficulty. In cases of bad squint, one eye usually loses its power of acute vision. The cause of this is the same as that of an arm carried in a sling; namely, disuse. If the eye turn in or out positively, only the other eye is employed in looking at objects, and as a result, the affected eye deteriorates, and after a while loses the power of clear vision altogether. It is generally found, when squint has existed for many years, that vision is not improved by an operation, for the reason that the affected eye has been so long at rest that it has become incapacitated for practical use.

The following important suggestion, with which every mother should be acquainted, is applicable to these cases. In cases in which the squint is not constant, apparently affecting sometimes one eye and sometimes the other, the trouble is due to a want of balance between the muscles of the eyes. Both eyes may be kept in health by simply taking the precaution to bandage first one eye and then the other, thus using the eyes in alternation. This should be done daily so as to keep the eyes active, wearing the bandage over one eye on one day and over the other the next. By this means both eyes can be kept in health till the child reaches an age when glasses may be worn, and the difficulty corrected.

The correction of this fault by wearing glasses is likely to be more permanent in its results than by an operation. Properly adjusted glasses relieve the difficulty by removing the cause. The advice has been given in cases of this sort to leave the matter till the child is older, then have an operation. This course works great mischief, often resulting in the complete disablement of one eye.

## Alcohol and Mortality.

Insurance people are taking more and more notice of alcohol as a feature of mortality. In the following extracts we see its influence upon the growing generation, possible candidates for insurances: —

"A distinguished specialist in children's diseases has carefully noticed the difference between twelve families of drinkers and twelve families of temperate men during a period of twelve years, with the result that he found that the twelve drinking families produced in those years fifty-seven children, while the temperates were accountable for sixty-one. Of the drinkers, twenty-five children died in the first week of life, as against six on the other side. The latter deaths were from weakness, while the former were attributable to weakness, convulsive attacks, or edema of the brain and membranes. To this cheerful record is added five who were idiots; five so stunted in growth as to be really dwarfs; five, when older, became epileptics; one, a boy, had grave chorea ending in idiocy; five more were diseased and deformed; and two of the epileptics became, by inheritance, drinkers. Ten only, therefore, of this fifty-seven showed normal disposition and development of mind and body during life. On the part of the temperates, as before stated, five died in the first week, of weakness; four, in later years of childhood, had curable nervous diseases; two only showed inherited nervous defects. Thus fifty were normal, in every way sound in body and mind."

## Correct Breathing for Consumption.

It is a curious fact that consumption, the scourge of civilization, is not found within the Arctic and Antartic circles. It is probable, however, that this immunity from consumption is in large part due to the fact that the clothing is so constructed that it does not restrict the movements of the body in the slightest degree, and gives an opportunity for the freest activity of the chest in breathing.

# ANSWERS TO CORRESPONDENCE.

**Grape Sugar.**— W. G., Florida, asks (1) if one who cannot use ordinary sugar can take grape sugar; (2) where it can be obtained.

*Ans.*— 1. Yes, provided the grape sugar is obtained from fruits in the condition in which it is found in grapes and other sweet fruits, but commercial grape sugar, or glucose, is unfit for food.

2. Maltose is a natural sugar which is equally as wholesome as grape sugar. It can be obtained in the form of meltose, or malt honey, from the Sanitas Nut Food Company, Battle Creek, Mich.

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**Inflamed Eyes.**— A. B., Ohio: "What treatment will help inflamed eyes, the inflammation being caused by chronic catarrhal trouble?"

*Ans.*— Bathe the eyes in hot water two or three times a day for five minutes. Apply a solution of boracic acid — fifteen to twenty grains to the ounce — every three or four hours. Consult an oculist.

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**Antipyrin.**— X. Y. Z., Colorado: "1. What is antipyrin? 2. What injurious effects, if any, will ensue from its use if taken for nervous headache? 3. What would you recommend in its place?"

*Ans.*—1. It is a poisonous product from coal tar. It produces great depression of the heart, and relaxation of the blood vessels in consequence.

2. It is exceedingly poisonous, and when used continuously, produces degeneration of the kidneys, liver, and other organs.

3. Migraine ceases when the causes are removed. It is a sympathetic-nerve disease growing out of indigestion or the accumulation of uric acid in the system. Thorough gastric lavage, or washing of the stomach, administered as soon as the first symptoms are experienced, is generally effective in preventing the complete development of an attack. Fomentation over the stomach, the wet girdle at night, daily cold bathing, cold mitten friction or cold towel rub, wet-sheet pack, etc., are means by which the system can be so fortified as to prevent the recurrence of an attack.

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**Acidity of the Stomach.**—F. A. R., Ontario: "1. What do you recommend for acidity of the stomach? 2. Do you advise milk for a dyspeptic?"

*Ans.*—1. The remedy must be suited to the particular case. Cases in which the acidity is due to fermentation require lavage and careful dietary. Cases in which the acidity results from excessive secretion of hydrochloric acid require special treatment to prevent the formation of excessive acid. Such cases should be treated at a well-regulated sanitarium.

2. Most dyspeptics may profitably avoid the use of milk.

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**Dandruff.**— J. A. R., Nebraska: "What is the cause and cure of dandruff?"

*Ans.*— Dandruff is due to a parasitic disease of the scalp, and the best remedy is to apply some simple parasitic remedy. Fifteen grains of resorcin to an ounce of alcohol, ten minims each of glycerin and castor oil, will be found useful.

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**Hay Fever.**— L. F., Montana: "1. What is the cause of hay fever? 2. Is there any cure for it?"

*Ans.*— Hay fever is due to an irritation set up in the nasal cavity and the pulmonary or air passages.

There are three things which cause this trouble: (1) a peculiar condition of the nervous system, called a neurotic state; (2) a chronic congestion of the pulmonary passages; and (3) an irritation of the mucous membrane of the nose. All three of these things must come together in order to produce hay fever.

2. The cure consists in curing the pulmonary congestion which exists. The inhalation of steam is useful to afford temporary relief.

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**Bath Cabinet.**— L. P. B., Iowa: "Can you recommend the use of the bath cabinet for catarrh, colds, rheumatism, etc.?"

*Ans.*— Yes, but the applications should be short, only long enough to produce free perspiration, and should be followed by a cold shower bath, continued for a sufficient time to remove from the skin all the artificial heat communicated to it, and to produce a strongly tonic effect. The electric-light bath is far preferable to other forms of the hot bath, as it is both tonic and eliminative, and more easily controlled.

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**Test for Consumption.**— A subscriber asks: "1. Is it a sure sign of consumption for the sputum to sink to the bottom in water? 2. Would a cold on the lungs have the same effect on the sputum?"

*Ans.*— 1. No.

2. Sputum which results from violent efforts to cough when there is an irritable condition of the mucous membrane of the lungs, is a light secretion, generally frothy in character. It contains a considerable amount of air, and when dropped into

water, floats. This is true whether the coughing be the result of an irritation arising from consumption or from a hard cold.

**Sneezing in the Morning.**— J. W. M., Virginia: "What causes one to sneeze and cough on rising in the morning? The throat and chest are sore."

*Ans.*— It is probable that the skin is relaxed and very sensitive, so that when cool air strikes the body on arising in the morning, an impression is made which excites the cough and sneezing centers, by reflex action.

**Enemata.**— W. S., Michigan: "1. Is the frequent use of hot-water enemata injurious? 2. What is the best instrument to use for this purpose?"

*Ans.*— 1. No, if not too long continued. The remedy is very valuable as a paliative, but if repeated too frequently, the bowels become inactive, the normal reflexes are disturbed, and a very unfortunate condition results. When by the continued use of the enema, a person has reached this state, the enema should be dispensed with as soon as possible. The best way to get rid of it is gradually to diminish the quantity of water, each time lowering the temperature also, until a very small quantity of cold water is used instead of a large quantity of hot water.

2. The siphon or fountain syringe, which may be obtained of the Sanitary Supply Co., Battle Creek, Mich.

**Dizziness — Pimples.**— L. P. S., New York: "1. Is dizziness when walking caused by stomach disorder? 2. What causes pimples to appear on the face of a boy of sixteen years?"

*Ans.*— 1. Yes, in many cases.

2. Probably disordered digestion. The use of fats and flesh foods is especially productive of pimples.

**Thin and Falling Hair.**— F. S., Illinois: "Please tell me what is good for thin and falling hair."

*Ans.*— Cut the hair short, and shampoo the scalp every morning with cold water, rubbing vigorously until the scalp is well reddened.

**Varicose Veins.**— C. E. B., Iowa, wishes the cause and cure of varicose veins.

*Ans.*— The cause of varicose veins is excessive dilatation of the veins from long standing or violent exercise, especially while heated. The only method of cure is obliteration of the veins by means of a simple operation.

**The Cause and Cure of Boils.**— A correspondent reports an epidemic of boils in the community where he lives, and asks for an outline of treatment.

*Ans.*— Boils are directly due to infection of the tissues with germs. There are always found upon the skin, germs capable of producing boils and other forms of suppurative processes if introduced into the system. Ordinarily, however, the body does not suffer from the close proximity of these noxious elements, for the reason that the tissues are able to destroy, in various ways, the small number of bacteria which penetrate the skin. When, however, by any means the vitality of the system becomes lowered to a sufficient degree, invasion by these parasitic microbes through a scratch, a pin prick, or any other abrasion of the skin, may give rise to the multiplication of germs and the production of pus, with the accompanying swelling, pain, and suppuration.

Some of the most common causes of the tissue degeneration which renders the production of boils possible are flesh eating, the free use of fats, constipation, and indigestion. Repeated attacks of boils can be averted only by removing the cause, whatever it may be. A nonflesh dietary is in the highest degree important in cases of this sort. The use of antiseptic tablets is a valuable means of destroying the germs that are present in the stomach and bowels, or of preventing their further development. An almost exclusive fruit diet should be adopted for a few days, and the plan of making one meal of the day entirely of fruit should be followed for a few weeks at least. A daily warm bath, followed by a short cold bath, plenty of out-of-door exercise, and care to secure prompt, regular, daily movement of the bowels, are other measures of importance. A boil may generally be avoided by injecting into it a few drops of a twenty-per-cent solution of carbolic acid. Hot applications are useful in relieving pain.

**"Shortening" in Bread.**— L. H., California, asks if there is any physiological objection to "shortening" in bread, and if so, what.

*Ans.*— Free, or separated fats, unemulsified fats in any form, all butter, lard, or any other form of grease should not be used for shortening bread. Any sort of fat mixed with starchy substances renders them indigestible. Bread shortened with butter, etc., is far less digestible than bread prepared

simply of flour and water. The reason for this is that the saliva acts upon the starch only, and cannot act upon fat. When the starch particles are permeated or covered with fat, the saliva cannot digest them. The same is equally true of the particles of gluten in the bread, which are digested by the gastric juices.

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**Itching — Cold Limbs.** — M. W. D. A., Illinois: "1. What is the cause and cure for an intense itching, at night, of the skin near the ankles? There is no eruption, and the person is in apparent health, though nervous. 2. What causes cold lower limbs, numb feeling of the eyelids, stiff fingers; also often mental depression on waking in the morning?"

*Ans.*— 1. This is doubtless a nervous condition of the skin. Try an application of talcum powder, or a mixture containing one part oxide of zinc with three parts of talcum powder. A neutral bath taken half an hour before retiring, at a temperature of from 92° to 95° is usually beneficial. The talcum powder should be applied directly after the bath.

2. Irritation of the abdominal sympathetic nerve, due to disordered digestion, associated most probably with dilatation of the stomach, is undoubtedly the cause of the symptoms noted. Either hypopepsia or hyperpepsia may be present. An examination of the stomach contents is necessary to determine this. The patient should spend a few months at a properly equipped sanitarium.

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**Granulated Eyelids — Sweet Corn and Fruit — Butter.** — F. C., Wisconsin: "1. What treatment will cure granulated eyelids? 2. Are hot and cold applications beneficial? 3. Should glasses be worn? 4. Is sweet corn, cooked without milk or cream, and fruit a good combination? 5. Is butter made from roasted peanuts less injurious than dairy butter? 6. Is it better to make butter from raw peanuts? 7. If not, how can they be prepared to keep sweet?"

*Ans.*— 1. Bathe the eyes with very hot water for five or ten minutes twice daily; consult an oculist.

2. Yes, a short cold application should be made at the end of the hot application.

3. Glasses are often needed in such cases.

4. Yes.

5. Butter sometimes contains disease germs, such as the tubercle bacillus. In this respect it is inferior to peanut butter. On the other hand, peanuts are rendered difficult of digestion by the roasting process. This difficulty may be very largely obviated by putting a large pan of water in the oven with the peanuts when roasting, so as to prevent roasting and burning of the smaller particles.

6. No.

7. The nuts can be steamed or boiled, then thoroughly dried, and afterward ground into butter. Made in this way the butter will keep for any length of time.

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**Ruptures.** — J. F., Connecticut, desires information as to the treatment and cure of ruptures, and as to whether they are cured by surgical operations.

*Ans.*— A surgical operation is necessary for a radical cure.

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**Peanuts — Dried Pears — Dates.** — O. S. J., Illinois: "1. Are ordinary roasted peanuts, as obtained from a street vender, digestible and nutritious as an article of diet? 2. If not, what simple method will render them so? 3. Are ordinary roasted chestnuts wholesome? 4. Are the dried pears found in groceries digestible if well chewed? 5. Are they not simply ripe pears in a dried condition? 6. Has the common preserved date any value as a food?

*Ans.*— 1. No, they are very objectionable.

2. Roasted peanuts cannot be rendered easily digestible. They partake of the nature of fried foods. For methods of preparing peanuts to render them digestible, we would refer to "Every-day Dishes," and also to the little booklet, "One Hundred and Twenty Ways of Preparing Nuts for Use as Food," by the Good Health Pub. Co.

3. Yes.

4. Dried pears are wholesome, but should be well cooked.

5. Yes; bleached pears have been subjected to the action of burning sulphur, and are on this account less wholesome than those which have not been subjected to this process.

6. Yes, it is a wholesome food.

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**Teeth.** — Mrs. M. L. H., New York, asks why a child of three and a half years, who has lived principally on fruits and graham wafers, should lose her teeth. A black substance near the gums seems to eat them off. She does not chew her crackers, but holds them in her mouth until they are dissolved.

*Ans.*— The loss of the teeth in such cases is an evidence of constitutional weakness. The mouth is thoroughly infected with germs, and should be examined by a dentist, disinfected, and treated thoroughly until the ulcers have healed.

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**Drinking Water.** — Mrs. H. McL., New York, asks if there is any simple test by which objectionable animal or vegetable matter may be detected in drinking water.

*Ans.*— No; such water may be sent to the Laboratory of Hygiene at the Battle Creek Sanitarium for examination. One gallon should be put into a

clean, new jug, with a clean, new cork, and sent by express. A letter should be sent at the same time, calling attention to the shipment and giving all particulars concerning it. Rinse the jug thoroughly with the same kind of water which is to be examined, before the water is put into it. Be sure the jug has never been used for any other purpose, and is thoroughly clean.

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**Goiter.**— Mrs. J. C. B., Michigan, would like to know how long and how often the ice bag should be used for goiter.

*Ans.*— It is a good plan to wear an ice bag over night, covering the skin with one thickness of flannel to prevent excessive chilling.

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**Sweating Feet.**— H. F. W., Canada, desires a remedy for sweating feet.

*Ans.*—Packer's Tar Soap will be found one of the most soothing agents for this complaint. Bathe daily in tepid water, and give a good shampoo often with the Tar Soap. Dry thoroughly and dust with talcum powder.

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**Cottage Cheese.**— W. W., New York, asks: "What do you think of cream cheese made by pouring sour milk into a perforated mold and allowing it to stand until the whey drains off and the curd hardens? Is this what you call cottage cheese?"

*Ans.*— Sour milk should be sterilized by boiling before it is fit for use. Thus treated, it is more wholesome than in the form of raw milk. It may then be taken in the form of cottage cheese without the removal of the whey, if desired.

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**Itching of the Body.**— S. M. H., Pennsylvania, asks the cause and cure of an itching of the entire body, which comes on periodically.

*Ans.*— If the itching occurs without eruption, it is probably a nervous disorder. Take a neutral bath for half an hour, at a temperature of from 92° to 96°; afterward apply talcum powder, or talcum powder and oxide of zinc in equal parts.

# LITERARY NOTICES.

THE "hard lot of the farmer" is one of the commonplaces of political discussion; but few people realize the extent to which the farmer has been aided by science within the last decade. In **Scribner's Magazine** for June the remarkable results of the Agricultural Experiment Station work is described for the first time in a popular manner by W. S. Harwood. He shows that a revolution in methods has been accomplished through the researches of one thousand trained scientific men, and that whole regions of the United States have turned to raising new products through the lessons taught by these stations. The article, which is fully illustrated, is a glimpse into "a book of practical magic."

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At the beginning of the American occupation there was not to be found in the entire island of Cuba a single public building which had been constructed for, or was being devoted to, public-school purposes, says Matthew E. Hanna in the June **Atlantic.** Every town of any importance contained a church and a jail, and hospitals and barracks were plentifully scattered all over the island. Public funds had been lavishly expended for this purpose, but not a penny had been devoted to the construction of public-school buildings.

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There comes to our desk the announcement that, beginning with the June number, **The Forum** will be published quarterly instead of monthly as heretofore. The general character of the magazine will be the same, and its high standard will be maintained, but its purposes will be more specifically those of a review and outlook. It is believed that by publishing quarterly a review of the world's events in every field, as well as to some extent an outlook based on the conditions presented, the essential features can be fully covered.

In order that the material may present the proper perspective, the magazine will be conducted in departments, each of which will be in charge of one who is eminently qualified by his training and connections to take charge of it. In addition to the general reviews, each issue will contain a number of special articles on subjects of paramount interest.

As at present outlined, the following departments will be represented:—

American Politics; Foreign Affairs; Finance and Economics; Science, Invention, and Engineering; Literature; Music and the Drama; Art; Educational Events; Educational Research.

"Gypsy Smith: His Life and His Work," with ntroductions by Rev. Dr. Alexander Mc Laren and G. Campbell Morgan, is a new biographical volume issued by Revell & Co., of Chicago. It is the life of one of the foremost and most successful of English evangelists.

Gypsy Smith is a veritable child of Nature, born in a gypsy encampment, reared amid its varied environments, yet withal developing into one of the most powerful religious speakers England has ever known.

The book is written by Smith himself, and is rich in illustrations, attractive in style, and full of interest to all classes of readers. It is the story of a *man.* Our readers will do well to study it.

Price, $1.50. Revell & Co., Chicago.

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"A Public School Garden," by Henry Lincoln Clapp, in the **New England Magazine** for June, describes the kitchen garden on the grounds of the George Putnam Grammar School in Boston, which is the only one in New England directly connected with a public school. The usefulness of the garden, and the pleasure it gives to the children, brought thus in their most impressionable years into close contact with "Mother Nature," are fully set forth in the article; and the unprofessional reader will gain from it a new insight into the progressiveness of modern school methods.

"An Early Coronation Sermon," by George H. Davenport, is a sermon that was delivered by the Reverend Benjamin Colman, of the Brattle Street Church, Boston, on the coronation of George II. It was preceded by a quaintly worded introduction addressed "To The Loyal Protestant Reader," which the article gives in full, together with some account of the preacher and of the old historic church in which the sermon was delivered.

"Famous Farm Houses in the Narragansett Country" is the title of an attractive article by Harry Knowles. It is pleasant to follow the author in his rambles through the "storied halls" of "King Tom Mansion," the home of a famous chief of the Narragansett Indians, the house of Dr. James Mc Sparran, the first rector of the first Episcopal church in New England, and of the birthplaces of Gilbert Stuart and the two Commodores who have immortalized the name of Perry in American naval annals. The romance which he weaves about the home of "unfortunate Hannah Robinson" is full of interest for the reader.

Hon. Alfred S. Roe, contributes an article, whose title, "Creating Character at the Lyman

School for Boys, Westborough, Massachusetts," marks it as a notable contribution to the educational history of New England. The illustrations are especially complete and satisfactory.

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The June number of the **Homiletic Review** completes volume forty-three of that standard publication. It is full of interesting material, from the opening article by Professor Sayce to the ample index of the volume at the close. The Oxford professor brings "Freshest Light from Egypt;" Dr. D. J. Burrell treats appreciatingly of "Talmage the Preacher," and Doctor Meredith, of Boston, of "John Wesley as a Preacher for the Present Time;" Professor Wilkinson tells of "Our Continuing Need of Paul," and Dr. Pick completes "Life-of-Jesus Literature in the Nineteenth Century." Eminently practical and searching in character will be found the article, by Dr. D. S. Gregory, entitled, "'Popular' Preachers, Yet Failures — Why?"

Among the preachers who furnish representative sermons are Dr. Alexander McLaren, Dr. P. S. Henson, and Dr. G. Campbell Morgan. The contributions of the experts, Homiletic, Pastoral, and Social, will all be found in their places and up to date. The symposium on "The Indifference of Men to Religion," will be found suggestive.

Miss Stone's second paper on her experiences, in the June **McClure's,** is fully as interesting as the first, though perhaps in a different way. The first was full of action, excitement, and suspense — the capture, the flight, the threats of the brigands, the disclosure of the plot, etc. The second installment settles down to more matter-of-fact, but none the less unique, chronicling, as Miss Stone attempts to describe what life among brigands really is.

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There comes to us this month a copy of the first edition of the **Medical Educator.** This little journal is published in Trinidad, Colo., and promises to be, "to the best of its skill and ability, a medical educator of all the people, with no Chinese wall, no, not in so much as a cambric thread, to disbar the layman from the knowledge of how to obtain and maintain that which is of more importance to him than all else — his health." We consider this a most laudable purpose.

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Charles Morris has given in a paper called "The New Atmosphere," which appears in the June **Lippincott,** all there is for the layman to know about the newest discoveries concerning the air we breathe. He speaks with knowledge, but speaks simply and directly.

# GOOD HEALTH

**A JOURNAL OF HYGIENE**
**J. H. KELLOGG, M. D., Editor**

**Subscription Price, $1.00 a year**
**Single Copies, 10 cents**

**Published Monthly by**

**GOOD HEALTH PUB. CO.**
**303 West Main Street**
**Battle Creek - - Michigan**


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THIS is a live little work. Just as valuable now as ever. Presents in a concise and condensed form the writings of Mrs. E. G. White upon health reform. Some of the chapter headings are: Our Bodies the Temple of the Holy Ghost, Duty to Study the Laws of Life, Natural Law, How Violated, Disease and Providence, Causes of Disease, Flesh Foods, Dress, Manual Training, Moral Maladies, Prayer for the Sick, Drugs, etc. 336 pages. 50 cents postpaid. Order from the Good Health Pub. Co., Battle Creek, Mich.

### LIFE OF MRS. S. M. I. HENRY.

"MY Mother's Life" is the life of Mrs. S. M. I. Henry, who was widely known, loved, and honored. Every one, without exception, who has purchased this book has been made better for having read it. It has made the burdens of many an anxious mother lighter, and impelled her to have faith in God for the accomplishment of the work God has given her to do. Her history is carefully traced under the following chapter headings: Childhood, Girlhood, School Days, The Young Woman, A Wife, Motherhood, First Public Work, A Widening Field, Evangelist, Shut-in, and Reaping the Harvest. 353 pages. Reduced from $1.50 to $1.00. Order from the Good Health Pub. Co., Battle Creek, Mich.

## A HEALTH REFLECTION.

ORDINARY cooking does not properly prepare cereal foods for digestion and assimilation in human beings. Fruits and grains being the natural dietary of man, the nutritive elements of the grains must be brought as nearly as possible to the same state as that in which they are found in fruits. This change takes place in fruit during the ripening process. Grains require subjection to a temperature of three or four hundred degrees to accomplish this.

The Battle Creek (Mich.) Sanitarium Health Food Co. has for many years been supplying the patients of the Battle Creek Sanitarium and its score of branches in various parts of the world, with the most perfect health foods ever produced. The great success of these institutions is doubtless due, in large part, to the wonderful nutritive properties of these foods, which are now offered through the leading grocers to all who desire them.

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## SEVEN PRINCIPAL ROUTES.

IT is a well-known fact that the C. M. & St. P. Ry. system offers a great many different routes between Chicago and St. Paul and Minneapolis. Its main line between those points is especially well known as the route over which runs the famous "Pioneer Limited" and the Government Fast Mail Train.

There are six or seven other routes, over a number of which are run through coaches and sleeping cars, which are almost as direct as the principal main line.

These various routes traverse the most interesting and attractive sections of Illinois, Wisconsin, Iowa, and Minnesota, including the celebrated Lake Region of Wisconsin, and cross the Wisconsin River at the famous "Dells," where is the most picturesque scenery in the Northwest.

The main line and several others include from 150 to 300 miles of romantic and picturesque scenery along the Mississippi River. On these various lines are located the most important towns and cities in the Northwest.

Both one-way and special-excursion tickets between Chicago, St. Paul, and Minneapolis are honored via any one of these direct lines.

The teachers attending the National Educational Convention at Minneapolis will appreciate and take advantage of this fact, as they can have a choice of routes going and returning.

C. N. Southern, Gen. Pass. Agt., 95 Adams St., Chicago.

### THE GOOD HEALTH ADJUSTABLE WAIST.

THE women who are looking for a solution of the corset problem will be interested in the following testimonial :—

"The Good Health Adjustable Waist is the most successful attempt the undersigned has seen, to supply a garment which women will readily accept as a substitute for a corset, presenting as it doer what few advantages the corset possesses, while at the same time avoiding its objectionable features."

J. H. KELLOGG, M. D.

### THE SIGNS OF THE TIMES.

THE *Signs of the Times* is now printing a series of ten articles on "The Child," by Mary Wood-Allen, M. D. The subject is treated under the following headings :—

The Child : What it is; Its purpose; Health of the Child; Temperance; Trustworthiness; Justice; Perseverance; Orderliness; Obedience; Purity; The Adolescent.

*The Signs* is clubbed with GOOD HEALTH for only $1.75. Send your subscription at once. Address Good Health Pub. Co., Battle Creek, Mich.

### THE LIFE BOAT.

THE June number of the **Life Boat** is a special Anti-Cigarette and Tobacco number. This mattes is presented from various standpoints so as to interest both old and young and all classes of society. It contains a helpful article from Lucy Page Gaston, also one from Dr. J. H. Kellogg. Professor Ogg, superintendent of Public Instruction in Kokomo, Ind., describes how he and his associates practically swept the cigarette curse from the city schools. Professor Blanchard, the well-known president of Wheaton College, also furnishes a stirring article for this number. Other writers outline the cause and cure of the tobacco habit. In addition, this number contains a score of most appreciative letters received from prison officials all over the land, and a number of very touching letters from prisoners.

Every lover of humanity should be interested in this matter, and it is with this thought in mind that the editors have prepared this issue of the *Life Boat*.

Extra copies can be had for 1½ cents per copy. Address Dr. David Paulson, 28 Thirty-Third Place, Chicago, Ill.

### MICHIGAN STATE REPORT.

MICHIGAN is now a full-fledged registration State, as shown by the evidence presented in the last Michigan Report on Vital Statistics just received. Any reader can secure a copy by addressing Fred M. Warner, Secretary of State, Lansing, Mich. The facts presented in regard to the movement of population, and the statistics of births and deaths, marriages and divorces, are of great importance.

### SUMMER ASSEMBLY AT BERRIEN SPRINGS.

THE announcement is at hand of a Summer Assembly to be held from June 12 to August 20, at Berrien Springs, Mich., under the management of the Emmanuel Missionary College.

The course of study and lectures outlined are especially strong and interesting to teachers and Christian workers.

For particulars address E. A. Sutherland, Berrien Springs, Mich.

# GOOD HEALTH

Is published on the twenty-fifth of each month preceding the date of issue by the

GOOD HEALTH PUBLISHING CO., Battle Creek, Mich.

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Subscriptions may begin at any time, but names are not entered until the amount is received.

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Sample copies will be sent to any address on receipt of 10 cents. The publishers will be pleased to receive from each reader of GOOD HEALTH a list of names of persons likely to be interested in the magazine.

# The GOOD HEALTH Adjustable Waist

THE LONG WAIST.

## A Special, Health Garment,

devised at the Battle Creek Sanitarium. Made to fit the natural form. Affords ease, comfort, and health. Supports all garments without harmful pressure.

**It is adjustable.** Can be made larger or smaller at the waist, according to expansion. Can also be adjusted at shoulder to realize proper length of clothing. Full directions accompany each waist.

THE SHORT WAIST.

### The GOOD HEALTH ADJUSTABLE WAIST

allows the weight of clothing to be adjusted about the shoulders, chest, and back, thus distributing it evenly. This is a desirable and comfortable feature.

**Two Styles.**—The LONG WAIST ends five inches below the waist line. The SHORT WAIST ends at waist line. Please mention style desired.

**Material.**—The waists are made in two kinds of material: a good grade of sateen, and jean, a lighter weight twilled goods. Each quality is supplied in either white or drab. The black only in sateen.

**Measurements.**—The bust, waist, and hip measurements (carefully taken) must be sent with order.

**Sizes.**—The regular sizes are from 30 to 42, bust measure (even sizes only, 30, 32, 34, etc.)

**Prices.**—The waists will be sent, postpaid, at the following prices:—

White and drab Sateen, size, 30 to 38 bust measure, **$1.75**
Size 40 . . **2.00**
Size 42 . . **2.25**

Black Sateen, size, 30 to 38, . **$2.00**
Size 40 . . **2.25**
Size 42 . . **2.50**

Jean, 30 to 38 bust measure, (not made in large sizes) **$1.50**

**Write for circular with full information.**

*Agents Wanted.*

Dress Department

## GOOD HEALTH PUB. CO.,

**Battle Creek, Michigan.**

# MICHIGAN CENTRAL

*"The Niagara Falls Route."*

Corrected Nov. 3, 1901.

| EAST | 8 *Night Express | 12 †Detr'it Accom. | 6 †Mail & Express | 10 *N.Y. & Bos. Sp. | 14 *East'n Express | 4 *N.Y. St.Sp. | 36 *Atl'tic Express |
|---|---|---|---|---|---|---|---|
| Chicago | pm 9.35 | | am 6.45 | am10.30 | pm 3.00 | pm5.30 | pm11.30 |
| Michigan City | 11.25 | | 8.43 | pm12.08 | 4.39 | 7.00 | am 1.20 |
| Niles | am12.40 | | 10.15 | 1.00 | 5.35 | 7.55 | 2.30 |
| Kalamazoo | 2.10 | am 7.30 | pm12.10 | 2.08 | 6.45 | 9.03 | 4.10 |
| Battle Creek | 3.00 | 8.10 | 1.00 | 2.42 | 7.17 | 9.37 | 5.00 |
| Marshall | 3.33 | 8.38 | 1.30 | 3.09 | 7.43 | | 5.30 |
| Albion | 3.55 | 9.06 | 1.50 | 3.30 | 8.03 | | 5.52 |
| Jackson | 4.50 | 10.05 | 2.35 | 4.05 | 8.40 | 10.50 | 6.40 |
| Ann Arbor | 5.55 | 11.10 | 3.47 | 4.58 | 9.30 | 11.40 | 7.45 |
| Detroit | 7.15 | pm12.25 | 5.30 | 6.00 | 10.00 | am1240 | 9.15 |
| Falls View | | | | | | | pm 5.09 |
| Suspension Bridge | | | | | | | 5.32 |
| Niagara Falls | | | | | | | 5.40 |
| Buffalo | | | | am12.20 | am 7.00 | 7.50 | 6.30 |
| Rochester | | | | 3.13 | 9.00 | 10.00 | 8.40 |
| Syracuse | | | | 5.15 | 10.55 | pm1215 | 10.45 |
| Albany | | | | 9.05 | pm 2.30 | 4.50 | am 2.50 |
| New York | | | | pm 1.30 | 6.00 | 8.45 | 7.00 |
| Springfield | | | | 12.16 | 6.10 | 8.32 | 6.05 |
| Boston | | | | 3.00 | 9.00 | 11.30 | 8.46 |

| WEST | 7 *Night Express | 17-21 *NY Bo. & Ch.Sp | 5 †Mail & Express | 3 *Fast Mail. | 23 *W'st'n Express | 13 †Kal. Ac'm. | 37 *Pacific Express |
|---|---|---|---|---|---|---|---|
| Boston | | pm 2.00 | | | pm 4.15 | | pm 6.00 |
| New York | | 4.00 | | am 8.45 | 6.00 | | am 3.15 |
| Syracuse | | 11.30 | | | am 2.00 | | 10.20 |
| Rochester | | am 1.20 | | | 4.05 | | pm12.10 |
| Buffalo | | 3.20 | | pm 6.25 | 5.20 | | 3.50 |
| Niagara Falls | | | | | 6.02 | | 4.32 |
| Suspension Bridge | | | | | | | |
| Falls View | | | | | 6.31 | pm | 5.07 |
| Detroit | pm 8.20 | 8.25 | am 7.15 | am12.30 | pm12.40 | 4.35 | 11.15 |
| Ann Arbor | 9.38 | 9.23 | 8.40 | 1.20 | 1.38 | 5.45 | am12.20 |
| Jackson | 11.20 | 10.20 | 11.05 | 2.20 | 2.40 | 7.25 | 1.35 |
| Battle Creek | am12.40 | 11.34 | pm 12.25 | 3.30 | 3.50 | 9.00 | 3.00 |
| Kalamazoo | 1.40 | pm12.10 | 1.20 | 4.05 | 4.28 | 10.00 | 3.40 |
| Niles | 3.25 | 1.22 | 3.25 | 5.28 | 6.05 | | 5.08 |
| Michigan City | 4.47 | 2.20 | 4.45 | 6.22 | 7.05 | | 6.06 |
| Chicago | 6.55 | 4.00 | 6.40 | 7.55 | 8.55 | | 7.50 |

* Daily. † Daily except Sunday.

Trains on Battle Creek Division depart at 7.45 a. m. and 4.00 p. m., and arrive at 12.40 p. m. and 6.10 p. m. Daily except Sunday.

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"Permit me to congratulate the company upon the marvelous transformation of Grand Central Station. I did not suppose there was any wand that had sufficient magic to bring out of the old station anything of such perfect adaptability and beauty."

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# GRAND TRUNK R'Y SYSTEM.

| EAST | 8 | 4 | 6 | 2 | 10 | 76 |
|---|---|---|---|---|---|---|
| Chicago | AM11.05 | PM 3.02 | PM 8.15 | | AM 7.32 | |
| Valparaiso | PM12.49 | 4.53 | 10.25 | | 10.05 | |
| South Bend | 2.08 | 6.15 | 11.52 | | 11.35 | AM 7.10 |
| Battle Creek | 4.14 | 8.15 | AM 3.00 | AM 7.00 | PMA2.00 1.3.45 | PM 5.00 |
| Lansing | 5.20 | 9.28 | 3.28 | 8.30 | 5.25 | |
| Durand | 6.00 | 10.15 | 4.25 | 9.30 | 6.30 | |
| Saginaw | 8.10 | | | 11.05 | 8.10 | |
| Bay City | 8.45 | | | 11.40 | 8.45 | |
| Detroit | 8.00 | | 7.30 | 11.50 | 9.20 | |
| Flint | | 10.40 | 4.54 | 10.21 | 7.28 | |
| Port Huron | 9.40 | AM12.30 | 7.00 | PM12.20 | 9.30 | |
| London | AM12.32 | 3.27 | 10.10 | | | |
| Hamilton | 2.10 | 5.24 | PM12.25 | | | |
| Suspension Bridge | 3.40 | 7.05 | 1.55 | 8.50 | AM 3.40 | |
| Buffalo | | 8.20 | 3.05 | 10.00 | 6.15 | |
| Philadelphia | PM 3.47 | PM 7.20 | AM 6.55 | AM 8.56 | PM 3.47 | |
| New York | 4.33 | 8.23 | 8.23 | 9.33 | 4.33 | |
| Toronto | | AM 7.40 | PM 1.30 | PM 7.40 | | |
| Montreal | | PM 7.00 | | AM 7.30 | | |
| Boston | | AM 8.15 | | PM 7.05 | | |
| Portland | | 8.00 | | 6.30 | | |

| WEST | 3 | 5 | 7 | 9 | 11 | 75 |
|---|---|---|---|---|---|---|
| Portland | AM 8.15 | PM 6.00 | AM10.30 | | | |
| Boston | 11.30 | 7.30 | | | | |
| Montreal | PM10.30 | AM 9.00 | | | | |
| Toronto | AM 7.40 | PM 1.00 | PM 5.25 | | AM 8.30 | |
| New York | PM 6.10 | 8.00 | AM10.00 | | | |
| Philadelphia | 7.00 | 8.45 | | | | |
| Buffalo | AM 6.15 | AM 8.00 | PM 9.30 | | | |
| Suspension Bridge | 7.00 | PM 2.00 | 11.15 | | | |
| Hamilton | 8.45 | | | | | |
| London | 11.05 | | | | | |
| Port Huron | M 12.00 | 9.00 | AM 3.20 | AM 6.50 | PM 3.50 | |
| Flint | PM 1.35 | 11.07 | 4.54 | 8.45 | 5.54 | |
| Bay City | | | | 7.35 | 4.00 | |
| Saginaw | | | | 8.00 | 4.25 | |
| Detroit | AM11.30 | 10.00 | | 7.00 | 4.10 | |
| Durand | PM 2.02 | AM12.06 | 5.22 | 9.30 | 6.30 | |
| Lansing | 2.45 | 12.57 | 6.05 | 10.50 | 7.50 | |
| Battle Creek | 3.50 | 2.17 | 7.10 | PM12.15 | 9.10 | AM 7.30 |
| South Bend | 5.35 | 4.08 | 8.55 | 2.39 | | PM 5.20 |
| Valparaiso | 6.51 | 5.25 | 10.05 | 3.57 | | |
| Chicago | 8.45 | 7.20 | 11.55 | 6.18 | | |

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# BATTLE CREEK SANITARIUM

EAST HALL.

WEST HALL.

ALTHOUGH two of the main buildings of the Battle Creek Sanitarium were recently destroyed by fire, four large buildings (here shown) and more than twenty small cottages still remain. These have been fitted up for emergency work, and all of the skilled and faithful physicians and nurses, who have heretofore made the work of the institution so effectual, are still at their posts of duty, making it possible for the sick to avail themselves of the advantages that the institution offers, among which are Swedish movements, massage, and special dietaries, bacteriological and chemical laboratories for special research. Incurable and offensive patients not received. For circulars, address —

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Twenty-nine miles northwest of the city of Denver is a well-equipped and well-regulated institution for the treatment of all chronic disorders. Buildings with all modern conveniences, including steam-heating, electric lights, elevators, gymnasium.