



GOOD HEALTH

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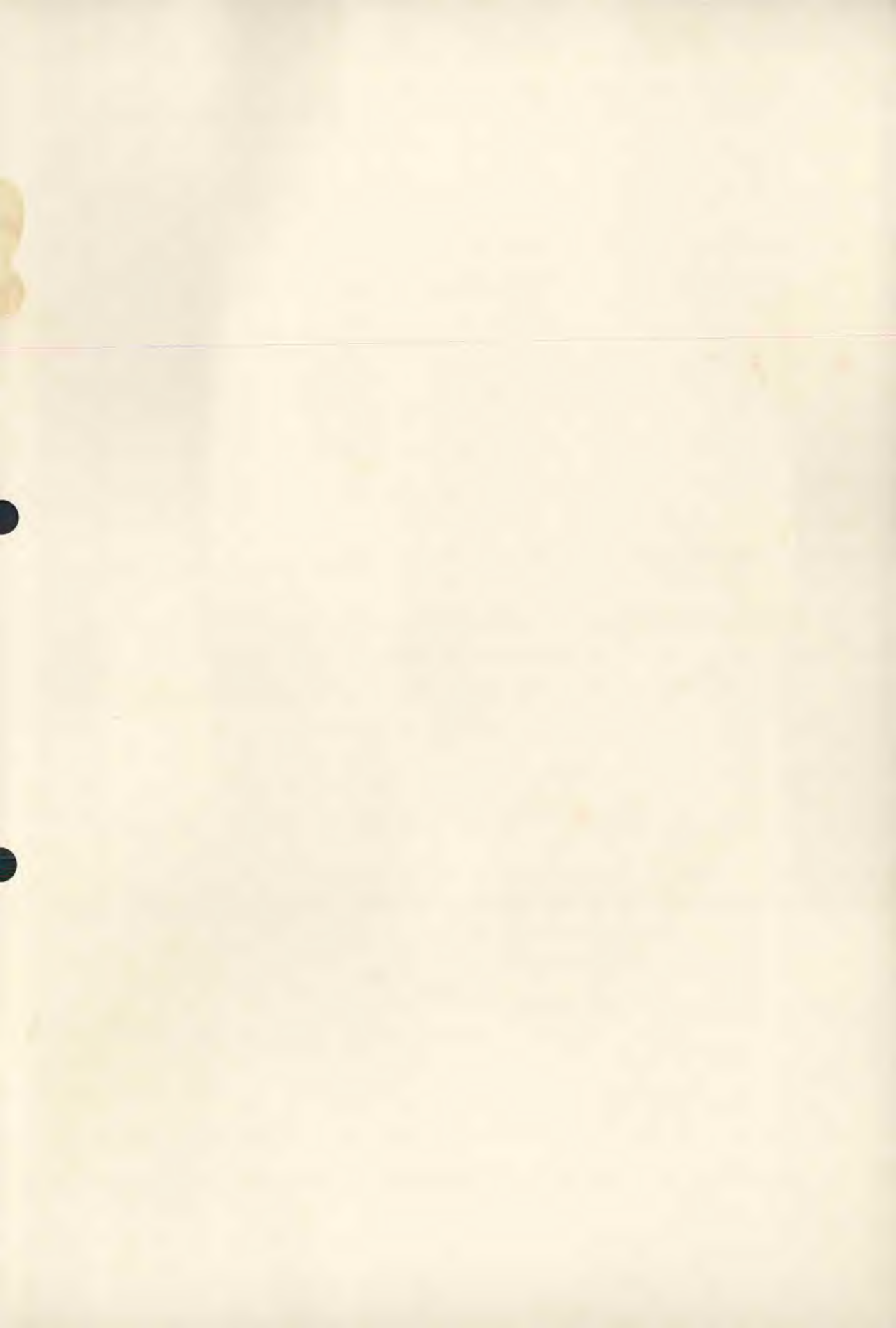
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IN MIDSUMMER.



BATTLE CREEK MICHIGAN.

JULY, 1888.

CAUSES OF NASAL CATARRH.

THIS increasingly common malady is usually attributed to taking cold; but a more careful study of the subject clearly shows that catarrh owes its origin to a variety of causes, and that, in many cases at least, "taking cold" is only the exciting, not the real or chief cause of the malady. Before we undertake to classify or to definitely state the causes of this disorder, let us briefly consider the intimate nature of this disease. As we have previously learned, in a state of catarrh, there is a relaxed or congested state of the blood-vessels of the affected parts. The small blood-vessels have muscular walls, by which their size is constantly made to vary, according to the requirements of the part as regards blood supply. These delicate muscles operate in obedience to impulses received from certain nerve centers in the brain and the spinal cord, known as vaso-motor centers.

There are two sets of nerves connected with these centers,—one set going from the surface of the body and passing inward to the centers; the other set passing from the centers to the blood-vessels of the internal parts. It thus appears that the outer portion of the body is intimately related to the inward portion, through the nervous mechanism. A relation of the most intimate kind exists between the tissues of the back of the neck and those of

the throat and nose. A more remote relation exists between the soles of the feet and the mucous membrane lining the air-passages. The effect of an irritant of any kind applied to the outside of the body is to cause first a contraction of the blood-vessels in those internal parts to which the portion irritated is related. These internal parts may be immediately beneath the irritated portion, or quite remote. Cold acts as an irritant when, for instance, it is applied to the back of the neck, as in case of exposure to a draft, or to the evaporation of moisture from neglect to dry the hair. The effect is, at first, contraction of the blood-vessels in the mucous membrane lining the nasal cavity or throat, or both. Afterward, however, this contraction is followed by relaxation, and the extent and duration of the relaxation or congestion is usually in proportion to the intensity of the irritation produced; in other words, to the degree or continuance of the exposure to cold. There is thus an apparent and very simple reason for the phenomena which occur in taking cold. The congestion which immediately results, gives to the mucous membrane its red, glossy appearance, and causes it to swell. Irritation is produced, which occasions sneezing. Sneezing is a nervous expression on the part of the nasal cavity which exactly corresponds to pain in some

other part of the body, and is produced in the same way ; namely, by compression of the delicate nerve ends of the swollen blood-vessels.

With this brief explanation of the nature of a cold and the mode of its production, we have a key to the various symptoms attending an acute cold. For example, neuralgia, which may affect any part of the body as the result of a cold, is caused by congestion of the blood-vessels of the sheath which covers the nerve trunk, thus causing compression and likewise pain, which would result from compression in any other way. Sciatic neuralgia, lumbago, facial neuralgia, hemicrania, or migraine, are all occasioned in this way. The same is likewise true of such sensations as soreness and stiffness of the muscles, which are so common in colds. The peculiar sensations of the skin, as numbness, the abnormal irritability or soreness frequently felt in the scalp, stiffness or soreness of the eyes, weakness or loss of voice, profuse secretion of urine,—all these and numerous others of the varied symptoms attending a common cold, are fully explained by the principles above briefly outlined, in the discovery of which, however, the author claims no originality, as it is the result of the exhaustive studies and extensive experiments of the eminent Dr. Woakes, of London.

From the foregoing it is evident that catarrh is a disease intimately connected with the nervous system, and hence, that its production must be to some degree dependent upon conditions which affect the nervous system. It is evident, also, that whatever affects the general system, lowering the vital tone, and hence the nerve tone as well, must be a predisposing cause of this disease. There are, then, predisposing causes of this disease, some of the most important of which we may consider with profit.

1. A gross condition of the body must be regarded eminently active as a predisposing cause of catarrh. By this we mean such a state of the body as is the result of a retention of the worn-out particles which ought to be carried off through the lungs, skin, liver,

kidneys, and other organs of depuration, or purification, of the body.

This state may be produced in several ways. It may be the result of gross eating ; that is, eating foods of a clogging character, as excessive quantities of sweets, fats, and flesh-meats. It may be the result of eating too much in quantity of even the best food. Or it may be the result of inattention to the proper care of the body, so that the excretory organs become more or less disabled, and hence, fail to do their work properly.

(a) How does gross eating cause a predisposition to catarrh?—It is well known that sugar and fats are clogging in their influence. The liver, especially, is literally clogged by the free use of fats and sweets. The liberal use of flesh-meats results in clogging the whole system. The use of condiments,—mustard, pepper, pepper-sauce, and articles of this kind,—acts as an irritant, and injures the stomach and liver, thus producing derangements of the body in general, and a morbid and impoverished condition of the blood.

Chronic indigestion, or dyspepsia, is undoubtedly in many cases productive of chronic nasal catarrh. In indigestion, a considerable part of the food, instead of being converted into healthy blood, undergoes fermentative and putrefactive changes, by means of which various poisonous substances are formed, such as acetic, lactic, butyric, and oxalic acids, and various other poisonous matters known as ptomaines, which, being absorbed into the blood, act as irritants not only to the system in general, but especially to the mucous membranes and other tissues which are liable to congestions from changes of temperature or other exciting causes. Functional disturbances of the liver are almost always associated with chronic disturbances of other digestive organs, as the result of which the liver fails to do its duty in converting and eliminating the waste substances of the body, causing, in the blood and general system, an excessive accumulation of uric acid and allied substances.

(b) Eating too abundantly, even of proper food, especially in persons whose habits are

sedentary, produces a gross state of the body, which in the highest degree favors the development of catarrh. The mucous membrane of the nose comes to be used as a sort of depurating surface, through which the effete matters are drained away. This fact is shown by chemical analysis, by which it appears that the discharges of nasal catarrh contain a large amount of cholesterine, a poisonous excretory product which is usually carried off through the liver, thus showing that the discharges of catarrh are, to some degree at least, excretory in character. Unused material in the body, a surplus resulting from excessive eating, must be treated like so much effete matter,—the result of the natural wear and tear of the body,—and must be eliminated in the same way that waste matters are removed from the body. The clogging of the general system and the overwork of the eliminating organs are unquestionably powerful predisposing causes of catarrhal diseases of all sorts.

(c) Inattention to bathing, thus allowing the skin to become inactive, is unquestionably one of the most common causes of catarrh. A neglected skin not only fails to do its duty as an excretory organ, but is abnormally sensitive to change in temperature, moisture, etc., thus exposing the individual to a doubly increased danger of contracting catarrhal diseases.

Neglect to supply the body with the proper amount of fluid is another predisposing cause of catarrh, as from this cause the system may be enabled to rid itself of accumulating impurities through the excretory organs. Water is a great solvent. It is needed to dissolve the waste matters of the system,—the first essential requisite for their elimination. Tea, coffee, wines, and similar drinks are not substitutes for water. Their use, in fact, creates a demand for an additional quantity of fluid to rid the system of the injurious substances which they introduce. The free use of water is the best means for maintaining a pure state of the blood and of the body in general, and the habit should be cultivated by those who are subject to this disease. We shall dwell

more particularly upon this point in speaking of the proper treatment of catarrh.

2. Living in unventilated rooms, especially stove-heated rooms, which subject the upper part of the body to a high temperature, while the lower portion is exposed to cold, thus producing habitual derangement of the circulation, is a predisposing cause well deserving of mention. Neglect to clothe the body properly is a predisposing, as well as an exciting, cause. Tight-lacing may produce a tendency to this disease in women, by causing congestion of the head.

3. A cause which ought not to be omitted in this enumeration is heredity. It is a common remark by persons suffering from this malady that they have inherited the disease. This is not really the case, although it is frequently observed that the disease appears in infants seemingly too young to have contracted it from ordinary exciting causes. In these cases it is probable that a direct tendency to contract catarrh has been inherited, as is true of most other diseases, but not of the disease itself.

The inheritance is simply a peculiar vulnerability to the causes of disease, or a state of body which invites disease. Thus the children of consumptive, scrofulous, or simply weakly parents are much more liable to this disease than are others, not because they inherit the disease, but because they are less prepared to resist the exciting causes of the malady. It is simply in this way that the children of parents afflicted with catarrh seem to inherit the disease from them. There is no doubt that in the case of this disease, as with others, a tendency to the disease received by heredity may be extinguished by a proper regimen begun early in life.

—*He.* "And so you are really attending a cooking-school, Miss Clara?"

She (brightly). "Yes, and it is such fun!"

He. "I suppose you can make nice bread already?"

She. "No; I have nothing to do with making bread; but I can make lovely angel cake. I am only taking the classical course."

THE GARROWS.

BY COL. G. P. SANDERSON.

THE Garrows, a tribe in the Assam Valley, in India, are accustomed to cook their simple meals of rice and vegetables—together with flesh very occasionally, when they are successful in the chase—by putting the materials into a joint of newly cut bamboo about one foot in length, with an inside diameter of about one inch and a half, and resting this



Garrows Cooking Rice.

joint of bamboo against a log, among the embers of their fires. In cooking rice a banana leaf is first slipped into the bamboo, as a sort of envelope, and the rice, with a small quantity of water, is then poured in. The leaf is for withdrawing the rice when cooked, to avoid the trouble of splitting the bamboo. The bamboo is kept in the embers for some fifteen minutes, being turned occasionally during that time. It is then removed, and left near the fire for the contents to cook for another five minutes or so, when they are withdrawn, cooked in a most perfect manner. The rice comes out in a compact mass, of the

shape of a roly-poly pudding. The bamboo merely becomes charred in this process, not burned through. This is an extremely cleanly and really scientific method of cooking any food. The vessel, fresh from the hands of nature, is absolutely clean and pure, and none of the elements of the food are wasted, as in many more civilized modes of preparation. A comparatively small quantity of rice, cooked in his own way, suffices the Garrow, whereas other natives, who boil it in large quantities of water, obtain less nutriment from the same amount, and consequently eat much more. How much nutritious substance is lost from the rice, when thus boiled, may be understood from the fact that the water in which it is boiled, or *conjee*, as it is termed in India, is in itself a nutritious food.

It is said that in the siege of Arcot in Southern India, toward the end of the last century, the native soldiery, who, with a handful of Europeans, were beleaguered in the fortress, under the gallant Clive (afterward Lord Clive, Governor-General of India), requested that the rice might be given to the Europeans, who were accustomed to eat much solid food, while they would be quite contented with the *conjee*; and in that manner the slender stock

of provisions was eked out, and the defense, which was of the most desperate character, was successfully maintained until relief arrived.

It is possible for a Garrow, with nothing but his little ax in his hand, to start out in the forest and provide himself with an excellent warm meal from jungle products alone. The fire he makes in the following manner:—

A notch is cut in a stick as thick as one's little finger; this is laid on the ground and held down with the toes, the notched side being uppermost. The end of a stick about fifteen inches long, and as thick as an ordi-

nary lead-pencil, held vertically, is now inserted in the notch, the end being first rudely sharpened. This is made to revolve rapidly between the hands under considerable downward pressure. The sticks soon begin to smoke at the point of contact, and brown, charred powder is worked out at the notch. In about a minute the friction kindles a spark in the powder, which is then taken up, placed in a piece of rag, with a handful of dry grass or leaves, and blown into a blaze.

When the bamboos are seeding, which, however, happens only once in a considerable number of years, the Garrow uses the seed as a substitute for rice, from which it can scarcely be distinguished. The bamboo, as aforesaid, serves him for a cooking vessel. He also knows several tuberous roots of the yam description, which are excellent roasted in the ashes, and generally has little difficulty in finding some wild honey. He may be fortunate enough to kill some small animal by flinging his spear or ax at it, or at least to catch some fish in the brooks in a few moments, by making a wicker-work case from split bamboos roughly plaited together, placed as a trap in any narrow, running part. Even should there be no water within miles of him, though this rarely happens in the jungles, there grows in many places a creeper of the most extraordinary character, from which a supply of good drinking-water can be obtained. This creeper is a parasite, generally about as thick as a man's arm, and looks like a dried stick. It hangs from trees, its leaves and young shoots being up among the foliage. If slashed through in one place only, there is no result; but if another slash is given above, thus admitting air, a cupful or so of water gushes from the lower cut.

There are many leaves and stalks of plants which the Garrows use as vegetables. One peculiarity in the Garrow's dietary is his abhorrence of milk. He regards this as an unclean secretion, and will not touch it. He uses neither oil, butter, milk, or any such substance, except such fat as there is in animals which he may (but very occasionally) kill with his rude weapons and traps. His

invariable diet is rice, steamed as described, and vegetables, with the addition generally of a few pinches of dried and powdered fish, often in a very unpleasant state of preservation. He eats three meals a day,—before sunrise, at midday, and after sunset,—if he has time. Otherwise, in traveling or hunting, his midday meal is omitted. The amount taken at each meal is about equal,—if anything, lighter at midday; but the quantity on each occasion is very moderate indeed.

On this meager and simple fare the Garrows are splendid people physically, seldom tall, but very thickset, very muscular, active, and enduring. They are merry and good tempered, and law-abiding, although they have only been subjugated to the British rule for twenty years, before which time they often indulged in raids into the neighboring plains of Bengal and Assam, when they would cut up villages, and carry off as many heads as they could secure. They are now entirely reclaimed into a peaceable people.

MEAT AS A REGULAR ARTICLE OF DIET IN THE NURSERY.

A MEDICAL writer contributes to the *Boston Medical and Surgical Journal* the following interesting article on meat-eating as a diet for children:—

“Meat is usually given to children as a matter of routine, as soon as they are able to eat it without indigestion; and the question whether it is a food suited for childhood has received no very careful consideration. Yet it seems to be generally recognized that meat has peculiar effects on the organism as compared with other kinds of food. The fact that meat has a well-established position in the diet of adults is not alone a convincing argument in favor of giving it to children, since there are other articles, such as tea and coffee, which are generally believed to be good for adults, and yet almost as generally believed to be bad for children.

“Dr. Clouston, of Edinburgh, says: ‘My experience is that children who have the most neurotic temperaments and diathesis, and who

show the greatest tendencies to instability of brain, are, as a rule, flesh-eaters, having a craving for animal food too often and in too great quantities. I have found, also, that a large proportion of the adolescent insane had been flesh-eaters, consuming and having a craving for much animal food. My experience, too, is that it is in such boys that the habit of masturbation is most apt to be acquired, and when acquired, seems to produce such a fascination and a craving that it ruins the bodily and mental powers. I have seen a change of diet to milk, fish, and farinaceous food produce a marked improvement in regard to the nervous irritability of such children. And in regard to such children, I most thoroughly agree with Dr. Keith, who, in Edinburgh, for many years has preached an anti-flesh crusade in the bringing up of all children to the age of eight or ten years. I believe that by a proper diet and regimen, more than in any other way, we can fight against and counteract inherited neurotic tendencies in children, and tide them safely over the periods of puberty and adolescence.'

"My experience has not been drawn from any extended observation of such cases as Dr. Clouston describes, yet I can fully believe that his statement is a fair one. I have become convinced that children fed largely on meat, have a capricious appetite, and suffer from indigestion, constipation, and also from diarrhea; are subject to catarrhs of the mucous membranes, and have an unstable nervous system, and less resistive power in general.

"As a rule, the more children are allowed to take meat, the more they want it, while the appetite for other kinds of food is apt to diminish.

"In families where meat-eating has been put off or given up for any considerable period, I have found the children to have more freedom from little and great ailments, and to be less inclined to colds and diarrhea. In 1884, Dr. D. M. Cammann, of New York, wrote an article on 'Milk Diet in Childhood.' After advocating milk as a food of great value, and quoting the above passage from

Dr. Clouston, he says: 'During the past twenty-five years, in a large institution in this city, meat has been omitted from the dietary of children under eight years of age; and it must be admitted that this has been long enough to test fully the value of the diet adopted.'

"One of the reports of the Board says: 'Past records of the institution furnish such ample proof of the value of milk and vegetable food, and the exclusion of meat from the dietary of children under eight years of age, that the Medical Board sees every reason to adhere for the future to the diet from which such good results have been reached in the past.' He gives the dietary for children under eight years of age, which consists of a great variety of cereals, vegetables, fruits, and milk. Also of the number of deaths by years during the twenty-five years up to 1882, he reports that both the death-rate and the number of illnesses were much greater during the year 1865, when meat was added to the dietary. In a letter which he recently wrote to me, he says:—

"I have no new facts in addition to those mentioned in my article on milk diet, except that in private practice I have seen a number of children brought up on a diet from which meat has been omitted until they were seven or eight years old, and the results have been favorable. I think the facts in that article speak for themselves very strongly. In the Orphan's Home a milk-and-vegetable diet has been tried now for twenty-five years. During all those years the death-rate has been remarkably small; gastro-intestinal troubles during the summer months have been rare. We often go through the summer without a single case of diarrhea. This, in a large city, among one hundred and fifty children, many of whom have inherited feeble constitutions from their parents, is a noteworthy fact. Then, through the winter, we never have many cases of bronchitis or of diseases of the lungs, and those that do have such trouble usually recover rapidly. Another fact well worth noticing is that during the year 1865, in which meat was added to the dietary, the death-rate was larger than in

any previous or subsequent year, and that disturbances of the digestive organs were extremely prevalent.

“The literature of the subject is meager, and I cannot refer you to articles bearing on it, except those referred to in my paper. . . . A look at the rosy cheeks of the children would convince any one that it is possible, at least for them to be healthy, without the use of meat.”

“But few medical writers have thought it worth while to give any argument in favor of meat for children. It is taken for granted that meat is the proper food for every one, and that children are to have it as soon as their digestion will bear it in any form. For example, Starr, in a book lately published on the ‘Diseases of the Digestive Organs in Infants and Children,’ simply says: ‘Children who have got their milk teeth may be fed a twelve-month, namely, up to the age of three and a half years, in the following way: A teacupful of beef-tea at eleven, a slice of underdone roast-beef or mutton, or a bit of roast chicken or turkey, minced as fine as possible, and potato moistened with gravy, at twelve o’clock.’

“In this community the giving of meat seems to be on the increase. Nursing babies, whose age is still counted by months, sometimes receive a regular meal of beef-juice. Some children of two years and upwards, have meat or meat extracts twice and three times a day. Certainly, this is not a universal custom, but it is becoming more and more common. The result seems to be an increasing craving for meats and other stimulating foods, and a dislike of bland foods. In many nurseries bread and milk is a forgotten mixture. Puddings, such as were the main food of children forty years ago, boiled or baked rice and sago, rennet pudding or slip, simple blanc mange, bird’s nest, baked custard puddings, are distasteful to many children of the present day; and often milk will not be taken unless it have a little tea or coffee in it.

“Exactly what place meat holds in the nutrition different from milk, eggs, grains, and vegetables is perhaps not thoroughly under-

stood. Certainly physiologists do not absolutely agree. The best authorities, so far as I know, say that its peculiar effects on the system are due to the abundance of the nitrogenous elements and to the presence of extractive matters, which are not in themselves nutritious, but which may be called relishes, as they make other foods more tasty, and thereby more digestible. Thus Liebig’s beef extract and some others, are made from a liquid out of which all albumen has been precipitated. They are, therefore, not nutritious in the ordinary sense. Still they are valuable under certain circumstances, but might fairly be considered as drugs. Whether this theory satisfactorily accounts for the well-known effects of meat on the dog, or whether it accounts for the condition of excitement which sometimes is observed when infants first get beef juice, and for the craving for meat which is found in older children who have become accustomed to it, I am not prepared to say.

* * * * *

“While the community is putting off the age of learning to read until eight or nine, and deploring the existence of a large and exciting literature, is it not out of place to endeavor to stimulate the children with ‘high feeding’?”

“Roberts himself says, ‘It is important to mark that the main dietetic customs of a country are instituted for the benefit of the robust and healthy, of the sober and temperate, and those of mean or average constitution; in other words, for those who are bearing the burden of the day, and fighting the battles of life. These form the great mass and bulk of the adult population, upon whose bodily and mental efficiency national progress and ascendancy depend. A good many individuals, and even entire families, may not find these customs beneficial to their exceptional tendencies or weaknesses; they may even find them destructive to their health and life. Nevertheless, differences of constitution and personal idiosyncrasies have to be reckoned with; and there are frequently good, indeed paramount, reasons why individuals should in some particular or other, depart from the

general dietetic plan.' I think this applies also to peculiarities of age; and he says, in speaking of the high-fed races and classes as the 'soil or breeding ground out of which eminent men chiefly arise,' 'It is remarkable how often we hear of eminent men being troubled with gout, and gout is usually produced either by personal or ancestral high feeding.'

"A diet which tends to produce literary and scientific predominance, at the cost of gout, hardly commends itself as a diet for children.

"Were it only claimed that meat contains nourishment in a concentrated and easily digestible form, it would still remain to be proved that this is an advantage. On the contrary, we know that for infants (not on the breast) milk combined with some, at their age, innutritive material, such as starch, is often more easily digested than milk alone. Coarse oatmeals and cracked wheat are taken by older children and adults, partly for the very purpose of giving a diluting material together with the digestible.

"Many nations of great physical strength take no meat. We need only look at the Scotch, with their oatmeal; the Egyptian sailors; and the Japanese, with their rice,—the latter of whom perform labors that would be impossible to most meat-eating men. The same may be said of the East Indian runner."

FOODS FOR MAN.

PRIMITIVE man, wherever he was first cast, whether in one center or in more than one, must, of necessity, have found his food in the plant world. We cannot imagine him commencing his career, learned in the arts of hunting, killing, and cooking the lower animals for food. Many infer from this circumstance that the argument in favor of the vegetarian practice is copied direct from nature, signed and delivered by her. Not quite so fast. There is one interposing barrier to the free acceptance of vegetarian deed and act of conveyance of food from nature to man. Nature herself, of her own right royal

will, makes for animals, herbivorous and carnivorous, one distinctive animal food—a secretion from the living animal organism, a fluid which is a standard food—meat and drink in one—the fluid known under the name of milk. Against absolute vegetarianism, then, we may fairly set up one exception derived from nature as the unerring guide.

On observing the habits of animals, we discover another natural fact. We find that animals of quite different natures, in respect to primitive selection of food, possess the power of changing their modes of feeding, and of passing over, as it were, from one class to the other. The change is distinct, but limited; and we must accept it with its extension on the one side, and with all its limitation on the other. The fruit-eating ape can be taught, under privation, to subsist on animal diet; a dog, can, I believe, be taught to subsist on vegetable diet. But it would be as impossible to teach a sheep to eat flesh, as it would be to make a lion feed on grass.

One more exceptional view deserves and requires to be noticed. It is made much of by those who are opposed to the vegetarian movement, and I fear I may have made too strong a use of it in past times. It is called the anatomical argument, and is set forth in the following form: There is, it is argued, a certain specific difference in the constructive characters of the digestive apparatus of the two sets of animals,—herbivorous and carnivorous,—which difference is sufficient to indicate a perfect line of separation between the one type of animal and the other. The statement is one which, under the correction of legitimate restriction, must be admitted. The restriction is this: We have to go to the extremes of the scale on both sides, in order to reach the unchangeable line of distinction. A ruminant animal has an intestinal canal which measures from twenty-eight to forty times the length of its own body. The canal, as a digestive apparatus, is also very complicated; it may have four stomachs, in each of which a special digestion is carried on. But a carnivorous animal, a lion, for example, may have an alimentary canal so short

that it measures not more than three times the length of its body, and a digestive apparatus so simple that food could not digest in it if it had not been already digested in the body of another animal.

Now please observe what this is supposed to teach. It is supposed to teach that certain animals are constructed to become the living laboratories, so to speak, for the preparation of the food of other animals. The argument is specious, and seems to be exceedingly clear. Unfortunately it is not a good argument from a social and economic point of view; for the animals which are the providers and preparers of food by becoming food for others are, of all animals, the most useful and the least harmful. We could very well spare the lion from the face of the earth, but sheep and oxen, and such like useful creatures,—how could we spare them? I think it is quite a fair statement on the vegetarian side to say that if all the animals that cannot be trained into herbivorous habits were to be universally destroyed, the world would lose nothing worse than the beauty of a tiger, a panther, an eagle, and the other animals of prey. I am not advocating the destruction of these beautiful savage animals; there is not, under the severest vegetarian system, the slightest reason that one of them should fall—not a single boa-constrictor, even, need go. But I am showing that they might all go, and no one be one penny the worse, in so far as the social economy of the world is concerned.—*Longman's Magazine.*

Practical Preaching.—There are no sermons so practical and convincing as a good example. An eminent clergyman's son once said to a friend of his father, with whom the son was also on confidential terms, "My father preaches, but he don't practice." The criticism was made just after both had listened to a sermon on the Christian graces.

Physicians are the natural and proper sanitary teachers of the people, but their teaching sometimes has little effect, on account of their own lax practices. For example, here is a report of a dialogue between a physician

and a hotel waiter, reported by the *Omaha World* :—

Hotel Waiter. "You are late for lunch, sir."

Eminent Physician. "Yes, I had to finish my magazine article on 'The Laws of Health,' so as to get it into the next mail. What have you to-day?"

"Hot rolls, clams, plum-pudding, apple dumplings, mince-pie, and fruit cake."

"Bring 'em all."

It is true that the preacher is really under no greater obligations to obey the principles which he proclaims than are his hearers, only as he may be justly supposed to have a better understanding and appreciation of them; but when a man who advocates the observance of certain laws fails himself to observe them, his conduct preaches stronger than his words, and the impression made upon those acquainted with his conduct is that he is not himself convinced of the truth of his theories, or that his advocacy is not sincere. Consistency is a rare jewel.

Lacked Talent.—According to the *Musical Herald*, a lady from the rural districts took her daughter to town, and after consulting a number of professors respecting her musical abilities, returned home very much discouraged, and reported to her husband the result of her expedition, as follows :—

"The first professor said that Almira sings too much with her borax. If she keeps on, she will get digestion on the lungs. He said she ought to try the abominable breathing and practice solfugery. Then the next teacher told me that she ought to sing with her diagram, and not smother her voice in the sarcophagus. Then the next, he poked a looking-glass down her throat, and said that the phalanx was too small, and the typhoid bone and the polyglottis were in a bad way; and I never knew that Almira had so many things down her throat, and I'm afraid to let her sing any more, for fear it'll kill the poor girl."

—Associate with healthy people. Health as well as disease is contagious.



DR. JESSOP ON DRESS.

An eminent English physician read before a late meeting of the British Medical Association a paper on the subject of "Dress in Relation to Disease," from which we quote the following interesting paragraphs:—

"Unknown to the outer world, many ladies, eschewing 'the wasp-like waists of the dames and demoiselles of the period,' in the place of the creasy stuff used by the Greeks next the skin, adopt a merino vest fitting round the neck, with short sleeves. (The working classes, however, by retaining this garment at night, lose its protective day value. If made to open two-thirds of its extent, it could easily be withdrawn.) The *sherte* or *camise*, used by both sexes among the Saxons, is retained, combined with pantaloons confined by hose, in place of being stuffed into shoes. Woolen knickerbockers, thick or thin according to weather or climate, if required, could be attached to the tunic. Over the vest the Greeks wore a tunic; this covered the chest and body, and was used with or without sleeves. It answers to the waistcoat of Henry the Eighth's reign, and may be made of woolen material fitting round the neck, of barrel-shape. The side seams should be cut slightly convex and sewed together, not concave and sewed together, as in the present stays. In the former case, rib-expansion is secured; in the latter, rib-compression. Over all, the British gown or dress, which, if made long to the heels, will not invite cobblers and hosiers to increased improvement in these articles of wear; but, if made short, to the

lower half of the calf, to avoid the dust of the road, would afford the hosier and shoemaker scope for their skill. Such a costume affords complete protection, if suddenly intruded upon, or overtaken by fire, shipwreck, or other disaster; there is nothing to encumber or interfere with preservation of life, whilst modesty is in no way outraged. If ladies who do not have to work for their livelihood would take the trouble to instruct their poorer neighbors in these principles, much disease would be avoided, and decorum would be better observed.

"Head-covering, gloves, socks, and shoes are matters of comfort, and differ in custom in various countries. In the tropics various plans are used, from mud to turbans of straw and felt. The Chinese and Japanese use straw hats in working costume; the better classes, only fans for protection. In temperate climates, head-dress is purely ornamental, answering to the Indian's tuft of feathers. Gloves are used by all but the working classes. Stockings and shoes, in parts of Scotland and Ireland, are not essential among the working classes. A Scotchman a few days ago lamented that this luxury was creeping into his country.

"In the last century, the high heels of ladies' shoes were a great monstrosity. This custom has been somewhat revived within the last few years, and is injurious, because it throws the weight of the body onto the toes. As the center of gravity is altered, increased strain is placed upon those muscles which would, without fatigue, maintain the body erect, as provided by nature. The gorilla,

orang-outang, and other like tailless apes, walk on their toes, so it would seem that a reversion to the ancestral type is aimed at. This attempt, however, to imitate 'the way willow' has been made among the Chinese since the eleventh century, but no hereditary result has thus far been produced, and there are signs that the custom is dying out. The injuriousness of this custom in the case of Europeans is accentuated by weighty petticoats, which must greatly enhance accidents.

* * * * *

"Nations who have not adopted European or American costume retain the freedom of the ancients. An Indian female wears her robe in a manner to expose the right arm and shoulder, while two-thirds of the left lower limb are uncovered, and feet bare. The symmetry of figure is appreciable; the dress, in harmony with a certain exposure, is graceful and modest. The Japanese woman leaves only a V-shaped portion of her breast exposed; the dress descends to the heels, has a sash round the waist; and high-heeled shoes are worn. The Chinese woman has wide trousers reaching to the ankles, a tunic, with wide sleeves, extending to the middle of the calf, white stockings, and thick shoes. These three forms of dress leave the body unfettered, and the limbs free. Of the three, the Chinese is the most perfect.

"The Parisian fashion of accentuating, *more Romanorum*, that portion of the chest which should merge into the waist, is not for the advantage of the *sex*, because it is 'a custom fertile in disease and death.' The back, shoulders, and arms, with half the bosom exposed, is nakedness without modesty. It is not beautiful. . . .

"There is little to be said on the dress of men; it is not easy to make any suggestion worth adopting, for the ancients have settled the fashion. Trousers, trossers, or trews, have been a national costume for over a thousand years, and are of the same advantage to men in hiding spindle-shanks as long skirts are to women content with bare feet or slatternly shoes; yet knickerbockers, with variegated hose, confer a freedom and comfort not

to be compared with the former. The broad-brimmed flat hat, such as Mr. Punch invariably represents John Bull as wearing, might displace the tall chimney-pot hat, and when not in use, be allowed to hang over the shoulders, as a convenient method of carrying. The evening dress-coat, in its present form, should be left for waiters and the like."

WHAT CLOTHES WEIGH.

In a recent number of a fashion magazine, we find an inventory of a lot of spring dresses and bonnets, which includes a statement of their weight *avoirdupois*. One gown weighing forty pounds is thus described:—

"The gown was a reception robe of a thick pale-pink brocade. Its court train was lined with silk velvet, not intended to be seen, but serving merely to insure the proper soft, graceful swing. The skirt was embroidered from near the bottom to the waist-line in gold and silver wheat sheaves, done with metallic threads, and set thickly with pearls. It was bordered about the bottom with gold bullion, and the same material made panels on the sides, formed the girdle, and was lavishly used on the bodice. It was a weariness to lift. It weighed forty pounds. It was magnificent. It was back-breaking. It would set off the glories of an Eastern queen. It would call in a doctor."

Such gowns are continually calling in doctors all over the country. If a man were compelled to wear a suit of clothes weighing forty pounds, including his boots, he would consider himself very much abused. Three bonnets weighed respectively, six, seven, and nine and one-fourth pounds. It makes one's head ache to think of wearing a nine-pound bonnet. This weight for a bonnet seems almost incredible, until we recall the fact that the latest styles of bonnets in New York are half a yard high, and many ladies have found it necessary to have a half story added to the top of their cabs to enable them to go out shopping.

—Do'n't hurry. "Too swift arrives as tardy as too slow."

FASHION IN DEFORMITY.

To alter or disguise the natural contour of the body in imitation of an acquired deformity on the part of some other member of the community, is a propensity seen in the human race in every stage of development. "The savage and the civilized," says Mrs. Linton, "'run curriple' in their devotion to the fetish each creates and worships; and though each ridicules the idol of the other, to the philosopher, judging both impartially, there is not much to choose between them.



Votaries of Fashion.

"While the savage runs a fish-bone or a piece of wood through the under-lip, hanging thereto a huge disk, which enlarges the aperture and pulls down the flesh, the civilized Darwinian bores a hole in the lobe of the ear, to hold a piece of wire, heavily weighted with a stone, which does the same thing.

"While some careful parents, trouserless and tattooed, anxious for the future well-being of their children, dress their heads into an enchanting flatness, others crush their daughters' feet into an amorphous mass of pulp, which then they call 'golden water-lilies;' and still others found their hopes of ulti-

mate good settlements on a waist of which the dimensions impede the circulation of the blood, paralyze the liver, and play mischief generally with all the internal organs alike.

"While the savage anoints himself with rancid oil, or crowns himself with a pat of butter, the French fine lady 'exhibits' cold cream, and abjures water as sedulously as if she were a replica of Lot's wife. While the savage makes himself 'terrible and dear' with blue and red paint, the fine lady injures her eyesight with belladonna and her skin with *rouge* and *blanc de perle*. If the savage twists his elf-locks into a thousand fantastic forms, adding thereto all manner of hideous ornamentations, the civilized lady follows suit, and makes her head the crowning point of her folly."

In the illustration we have represented several leaders of fashionable society criticising each other's garb, as leaders of society are wont to do. The young lady at the left is greatly scandalized by the appearance of the tattooed savage, who on his part seems greatly amused by the insect-like contour of the young lady's waist, and, also, by the deformed and almost useless feet of the Chi-

nese woman, which the young lady's French heels seem designed to imitate.—*Sunbeams of Health and Temperance.*

—Mrs. Langtry, whose opinion ought not to have much weight, but who says some sensible things, nevertheless, recently severely censured the common practice among fashionable women of exposing their finery at church and on the streets. The great coquette insists that in these two places at least, a woman's attire ought to be such as not to attract attention.

SKIRT BANDS.

EXTENSIVE observation has convinced the writer that thousands of women who have abandoned corsets, being frightened by the terrible consequences attributed to this baneful article of dress, are, by means of tight bands worn about the waist or lower abdomen, really doing themselves greater harm than the ordinary corset is capable of doing. When questioned upon the point, women always insist that their bands are not tight. Undoubtedly they are sincere in the belief that their statement is true. Nevertheless, after having investigated this matter in hundreds of cases, the writer has, with but two or three exceptions, never found a single case in which the skirt bands were not so tight as to seriously interfere with respiration, and to affect more or less mischievously the organs of the pelvis. This remark, of course, refers only to civilized women, as the writer found among a large number of Chinese and Yuma Indian women, not a single instance in which the skirt bands were so tight as to interfere in the slightest degree with any normal function.

The mischief done by tight skirt bands worn without corsets is even greater than that of corset or tight skirts worn *with* the corset, for the reason that tight bands without a corset drag down the contents of the abdomen with greater force than when the weight of the skirt is distributed over a larger area, as it is when the corset* is worn. Consequently those who abandon the corset, without making other reforms, may suffer harm rather than receive benefit from the change. The evil is little lessened when the skirts are supported from the shoulders by suspenders, or some other sort of harness.

Skirts with bands can hardly be regarded as healthful garments. It is difficult to make or wear them in such a manner as to avoid ill consequences. But if a garment of this sort must be worn, the length of the band should be determined thus: When the garments are removed, take a full breath, expanding the waist fully. Now have the measurement of the waist taken, and add one inch. This will

secure room to breathe, and is the only safe mode of measurement. A very much better plan is to have the waist and skirt made together in one garment, so that the weight of the skirt will be equally distributed, and suspended from the shoulders.

DRESS IMPROVEMENT.

THE ladies of Battle Creek have recently been favored by a visit from Mrs. Annie Jenness Miller. Mrs. Miller gave two lectures while in the city, one in the large gymnasium of the Sanitarium, the other in the spacious audience room of the Presbyterian church. The speaker, had a crowded house on both occasions.

Mrs. Miller is an enthusiastic advocate of reform in woman's dress. As she stated to the writer, she was driven to reform her own dress by a broken back. She found nothing which gave her the relief which she sought, and at once set her inventive genius to work to produce the requisites of a thoroughly healthful dress. Mrs. Miller's system abolishes corsets of every description, including "health corsets" (so-called), waists, bustles, bands, skirt supporters, and harnesses of all description.

The enthusiasm awakened by Mrs. Miller's visit to this city has led to the taking of steps for the organization of a Dress Improvement Society. Mrs. Prof. I. L. Stone, one of the leading ladies of the city, is especially active in the matter, and will undoubtedly succeed in perfecting an active and useful association.

We do not hesitate to say that we indorse, with very little reservation, Mrs. Miller's entire system. Her patterns are kept for sale by the Sanitary Supply Company, at the Sanitarium, where catalogues and illustrations of patterns may be obtained.

Tight-Lacing in Russia.—Prof. Manassein asserts that in Russia the wearing of corsets by lady teachers is made compulsory by the administrative officers of public schools. He recommended a school teacher who was suffering from consumption to lay aside her stays, on doing which she was severely reprimanded by the principal of the school.



DEVOTED TO TEMPERANCE MENTAL AND MORAL CULTURE
 HOME CULTURE, NATURAL, HISTORY AND
 OTHER INTERESTING TOPICS
 CONDUCTED BY MRS. E. E. KELLOGG A. M.

MIDSUMMER.

(See Frontispiece.)

A POWER is on the earth and in the air,
 From which the vital spirit shrinks afraid,
 And shelters him, in nooks of deepest shade,
 From the hot stream and from the fiery glare.
 Look forth upon the earth—her thousand plants
 Are smitten, even the dark sun-loving maize
 Faints in the field beneath the torrid blaze;
 The herd beside the shaded fountain pants;
 For life is driven from all the landscape brown;
 The bird has sought his tree, the snake his den,
 The trout floats dead in the hot stream, and men
 Drop by the sun-stroke in the populous town;
 As if the Day of Fire had dawned, and sent
 Its deadly breath into the firmament.

—Bryant.

AUNT POLLY'S EXPERIMENT.

BY FANNIE BOLTON.

PART THIRD.

"OH! what shall we do?" sighed Aunt Polly after the boys had gone to bed. Her face was full of anxiety as she examined the papers and the sensational, yellow-covered novels she had found in their pockets. "Poor boys!" The tears were in Aunt Polly's eyes.

"Well, dear, we won't worry," said Uncle. "It will come out all right, though the marks of these miserable books are already traced in the rude ways, sulky looks, and irreverence of our boys. We must show them the corrupt seeds they sow when they read this stuff, and what a terrible harvest they will reap if they continue, for it blights all that is truly manly in a boy. They have active minds, and prob-

ably their parents have not been careful to keep them supplied with good, health-giving literature."

In a few days a bright youth's paper, addressed to John, came to the office. This was followed by several well-illustrated magazines on science, adapted to the use of children, with descriptions of experiments and plans for boxes and houses. Uncle spent much of his time during vacation in telling the children of the habits of birds and beasts. Flowers were sought; and many things learned that started new ideas in the children's minds. The children were not always good, but still Aunt Polly marked with satisfaction the gradual improvement in the manners, minds, and bodies of her charges.

After the boys had become thoroughly interested in the new books, uncle brought out the yellow novels. "Boys," said he, "I am going to make these books the subject of my talk this morning. I want to ask you if you think it profitable to read these cheap ideas?"

"I used to think they were interesting," said John, with a half-shamed face; "but I was always half afraid some one would see me reading them."

"After reading them, do you feel inspired to be more noble, more of a scholar, more polite and manly; or more like being a wild ruffian, dissatisfied with your home, and cross and coarse?"

"They never inspired me to be anything but a cow-boy, with a revolver and a fast horse," said John.

"I want to tell you of a man who was a boy with me at school. He used to bring the *Police Gazette*, the *New York Weekly*, and papers of that stamp to school, and read them instead of studying his lessons. He would cheat the teacher, and laugh at his own wicked wit. He made raids on the neighbors' chicken roosts, learned to smoke and chew, to drink and swear. Finally he ran away from home, and has since been imprisoned three times as a horse thief, and is apparently a poor, sneaking scoundrel.

"Boys, I would as soon have you take slow poison as read these dreadful books. A man becomes what he thinks, and he thinks what he reads. These will fill you with defilement. They have a terrible effect on mind and body. The mind will become weakened, and many have become idiots because of this kind of trash. Then the thoughts gendered by these books lead to corrupt, base acts, that kill the beauty and health and glory of manhood. If you want to be men of worth, never indulge in such reading. What shall I do with them?"

John said, "Give them to me," and walked to the kitchen stove, and put them in.

The children were becoming quite expert in swinging bells and clubs. The boys were proud of their increasing muscle, and Ethel and Millie, also, would compare their round arms. There were picnics, boat-rides, and occasionally rides on horseback.

"Well," said Aunt Polly, "we are going to town to-day. What shall we tell papa and mamma for you?"

"Tell them we never want to go home again," said Ed.

"Ed, you surely don't mean to be so unkind. Don't you want to see your papa and mamma again? You should love and honor them; suppose they would die?"

"Oh! well, I didn't mean that I didn't want ever to see them. Bring them out here to live, and turn them out hygienics, too."

When Aunt Polly came home that night, there were marks of an outbreak on the children. They wore a guilty air, and Ethel's face was smeared with sauce, and John and Ed smelled of tobacco, despite the cloves they

were chewing. Millie crept into Aunt's arms, saying, "Oh Auntie, I'm so sorry; but me and Ethel have been into the preserves in the milk-room, and John said he would kill me if I told you about him and Ed."

Aunt Polly felt like having a good cry; and as she came up to kiss them good-night, Ed and John felt the tears on her face, and knew well why she knelt so long beside their beds. It was long before they could get to sleep, and Ed muttered, "Oh, I wish I had n't. I never, never, will again."

"Hush up," said John, savagely.

Everything passed on as usual until after dinner next day, when Uncle unrolled another set of charts, saying, "Please step up and examine this man's eyes." There was a white streak around the pupil. "He has tobacco blindness. Men go totally blind from the effects of tobacco. I have seen several cases, and it is a pitiable sight to see a man blind from such a cause. Here is a smoker's cancer. This line shows the pulse of a smoker. Tobacco contains a deadly poison called nicotine, which affects even the heart.

"It is a splendid thing for a growing boy to smoke, if he wants to become a stunted and dwarfish man. It will stop growth. I knew two brothers about the same age. When he began smoking, the elder was about half a head taller than the younger; soon his brother was as tall as he, after a little he was taller; and now the one who did not smoke is a large, fine-looking man, while the other is under-sized and thin. It is productive of many diseases, and is a vile and odious habit. What right has a boy or a man to make himself so disagreeable to his friends and neighbors? His smoke pollutes the air others have to breathe. His clothes and his whole being need to be hung out in the air. I have no respect for smokers. They are poor slaves to a pipe. Boys, where did you get your tobacco yesterday?"

"We brought some cigars with us," said Ed. "All the fellows in town smoke. Pa does; but we won't smoke any more, will we, John?" John said nothing, but from that time on there was no more smell of to-

bacco; and the boys seemed humble and will ing to do just as they were bidden.

The days of vacation were rapidly passing, while new ideas of manhood stirred the minds of the boys. Their uncle had become an ideal to them, and it was their highest ambition to be like him, for there was nothing that he could not do or tell them about, from the stars to the flowers. The four gardens were in nice growing order, and the four gardens within had been weeded of some terrible habits, and sown with some thrifty thoughts.

"Well," said Aunt Polly, "it will be no use to send the children back until we get their parents converted. The poor children are not altogether responsible for their ill manners, when they have such unhealthful ways of living."

"True," said Uncle, "let's invite them out, too."

"Children, how would you enjoy having a party?"

"O, can we have molasses candy and ice-cream?" asked Millie.

"No; but you can have pop-corn, and pop it yourselves; and we'll have a regular hygienic dinner and a grand time."

Aunt Polly invited a dozen children, and while they were playing and enjoying the beauties of the four gardens, Maggie set the table under the shade trees on the lawn. There was everything delightful upon it,—cream, berries, buns, fruit bread, pie, corn, potatoes, peas, baked fish, and dufts of white, flaky pop-corn, but not a particle of grease and no condiments. Just before dinner, Mr. and Mrs. Marvin came up from the depot, much to the delight of the four children.

"How well they do look!" exclaimed Mrs. Marvin, as she sat beside proud Aunt Polly.

"Yes, and how well they act!" said Mr. Marvin; "I declare, Polly, I think we'll advertise you as a reformist."

"Do you think you'd starve on hygienic dinner, ma?" asked John, mischievously.

After dinner, Uncle gave the children some experiments, showing what alcohol would do to various substances, and John delivered a poem on the use of tobacco, much to the amusement

of the children. Ed, who had attained the most skill in exercising with dumb-bells, went through a ten-minutes' exercise, to a lively march on the piano. Then the four came out with their clubs, and turned half circles and lefts and rights and cart-wheels and rings, till the delighted audience fairly clapped for enthusiasm. They ended with a grand march, in which all participated.

Mr. and Mrs. Marvin were so well pleased with the improvement in the children that they decided to move to the pretty village.

"I must learn your way of cooking, Polly; and as John is going to quit using tobacco so as to set a right example to the boys, I think I'll give up tea for the sake of the girls, though I know it will be a terrible sacrifice."

"You'll be gainers in health and money, if you do," laughed Aunt Polly.

"I'll have to give up society, if I come out here to live; but then the children are worth the sacrifice."

"I should think they were," said Polly. "John has a noble disposition, and Ed is witty, and the girls will be splendid women, if they are rightly trained. I wish they were mine, but I must not covet my neighbor's goods; yet there is one favor I really must ask, and that is that you'll let them come to our school next year."

"Just the thing," said Mrs. Marvin. "The children will be delighted, for they say they have learned more this summer than they ever knew before; and, Polly, I've come to the conclusion that no woman is fit to look after the world till she can govern her own house, and bring up her own children healthfully, and as Christians should."

"I'm glad you have," said Polly.

The children are growing tall and strong, and Aunt Polly still looks with growing satisfaction on her pets, while every one declares her experiment a complete success.

—A philanthropic lady of Newark, New Jersey has contributed \$12,000 for the purpose of constructing a "play house" for the children of that city who have no place but the street to play in.

DR. TALMAGE ON HIGH LICENSE.

DR. TALMAGE, who says so many excellent and forcible things, recently preached a sermon on "High License," from which we quote the following:—

"Oh," say some people, 'you cannot execute a prohibitory law, and therefore you would better take this high license as a compromise.' And there are people who say, 'Half a loaf of bread is better than no bread at all.' Well, that depends entirely upon whether the half-loaf is poisoned or not. You say half a pound of butter is better than no butter. That depends upon whether it is oleomargarine or not.

"Here is a bridge over a roaring stream. A freshet in the night-time sweeps away half the railroad bridge. The first half of the bridge stands solidly. It is half-past eleven o'clock at night, and the express train is coming. The watchman stands there with a lantern. He sees that the bridge is sound at that end, and waves the lantern, 'All is well,' and at forty miles an hour the midnight express train sweeps on, and having passed the first half of the bridge—crash, crash, crash! Two hundred souls gone into eternity! Better there had been no bridge at all; then the watchman would have swung his lantern of warning. Is half a bridge better than no bridge?

"So they propose to compromise this matter. They say a prohibitory law cannot be executed, and, therefore, we would better not have any such law on the statute book. Will you tell me, my friends, which one of our laws is fully executed? We have laws against blasphemy. Sometimes the air is lurid with imprecation. We have laws against theft; but there are highwaymen and burglars filling the jails and penitentiaries, and thousands of people outside of jail who ought to be inside. We have laws against murder, yet we have three men in our Raymond Street Jail for murder, and there are scores of them in the United States

"Now, why not throw overboard these laws, if they are not executed fully, and give, for a high license, to a few men all the privi-

lege of swearing and stealing and murder? Now, let us have a high license for theft. Get ready your excise commissioners. We will have \$5,000 or \$10,000 high license for theft. We must somehow put down these small criminals, that are stealing door-mats and postage-stamps and chocolate drops. For high license we'll give to a few men all the privilege of running off with \$50,000 of the Newark Bank, of watering the stock in a railroad company, taking \$250,000 at one clip. Now I shall have this license very high, say \$10,000 for theft; and in that way we shall put an end to all these sneak thieves and tuppenny scoundrels and wharf rats, but all hail to the million-dollar rascals. You will never put down theft in this country until you give a few people, for high license, all the privileges of stealing.

"Then there is the evil of blasphemy. Let us, for a high license, say \$10,000, gather a hundred men in our cities, men of the hottest tempers and fiercest tongues,—the most spiteful against God and decency. Having gathered this precious group to do all the blasphemy of the country, at high license, give them full sweep; and then just let us extinguish all these small swearers, who never have any genius at swearing, and who always swear on a small scale. You will never put down blasphemy in this country except by high license.

"And the sin of murder! Why, your law against it is a failure. Murder on Long Island, murder in Illinois, murder in Pennsylvania, murder all over! It is almost impossible to convict one of the desperadoes. He proves an alibi right away; or he did it under emotional insanity. The court-house is full of sympathizers, and when he is cleared, the crowd follow him down the street, thinking he ought to be sent to Congress! Your law against murder is a failure. Now, we have got to stop these clumsy assassins who kill people with car-hooks, Paris-green, and dull knives; and for a high license, say \$10,000 or \$20,000, give to a few men the privilege of genteelly and skillfully and gracefully putting their victims out of their worldly mis-

fortunes. You will never stop murder in this country until you put a high license upon it, and let a few men do all the killing.

"But, my friends, all irony aside, you see that if rum-selling is right, we all ought to have the right; and if it is wrong, five million dollars paid down in hard cash for one license ought to purchase no immunity."

MOTHERS AND DAUGHTERS.

ONE of the saddest of the many sad sights on this broad earth is that of a mother and daughter estranged, meeting only on the low ground of daily questioning, "What shall we eat?" or, "What shall we drink?" or, "Wherewithal shall we be clothed?" That two persons whom God has united by a bond so holy and sacred as that existing between a mother and her woman-child, should recklessly ignore the bond, or fretfully allow it to chafe, is as incomprehensible as it is common. But in spite of all that the one has borne and suffered for the other, in spite of their close relations, we see far too many mothers and daughters who are strangers. There is vain regret on both sides, they would like to be more to each other, they envy mothers and daughters who are friends; but between them stretches the gulf of years of separation, and the place where they might have crossed, lies far back in the days that are gone.

We are too prone to blame the daughters for this separation; for usually it began when the daughters were mere babies, and mother was all their world. Perhaps the first grief came the day the mother was too busy to comfort the baby heart, or too tired to hold the little one; and then, so many of us know too well how the breach widened, how the mother laughed at the little secret told in baby glee, or was indifferent to the childish trouble, or did n't care when the tiny scholar stood at the head of the class, or scolded because the little one fell and tore the new frock. And so, because of the cold indifference, because the mother forgot that baby joys and sorrows are very real

to baby hearts, the child began to feel that "mother didn't care," and went somewhere else for attention and sympathy. Is it strange that, by and by, when the child is herself a woman, she does not seek counsel from her mother, and will tell the secrets and aspirations of her young womanhood to any one rather than to her mother?

O mothers whose children are yet young, can you not see to what you are driving them, by rejecting their little confidences? Are you "too busy to bother with them?" Feed them on bread and milk, and clothe them in gingham pinafores, if necessary, but take time, *make* time, somehow, to comfort and caress the babies, and to make them feel that you are not only mothers, but friends.—

Golden Rule.

NOVEL-READING.

"It may be safely assumed," says W. D. Howells, in a recent number of *Harper's Magazine*, "that most of the novel-reading which people fancy is an intellectual pastime, is the emptiest dissipation, hardly more related to thought, or the wholesome exercise of the mental faculties, than is opium-eating; in either case the brain is drugged, and left weaker and crazier for the debauch. If this may be called the negative result of the fiction habit, the positive injury that most novels work is by no means so easy to be measured.

"If a novel flatters the passions, and exalts them above the principles, it is poisonous; it may not kill, but it will certainly injure; and this test alone will exclude an entire class of fiction, of which eminent examples will occur to all. The whole spawn of so-called immoral romances, which imagine a world where the sins of sense are unvisited by the penalties following, swift or slow, but inexorably sure in the real world, are deadly poison; these do kill. The novels that merely tickle our prejudices and pall our judgment, or coddle our sensibilities, or pamper our gross appetites for the marvelous, are not so fatal, but they are innutritious, and clog the soul with unwholesome vapors of all kinds."

A PLACE OF REST.

"WHERE shall we go this summer, dear?" asks Mrs. Flyaway.

"Well, let's see," replied her husband; "last winter we got malaria in Florida."

"Yes; and the alligators got your pointer dog."

"And the preceding summer we got the rheumatism in the mountains?"

"We did, and the bears got my little Skye terrier."

"And the summer before that, we went to the sea-shore, and got bled by the mosquitoes and the landlord?"

"Yes."

"And the summer before that, we went to the country, and the children were laid up all summer with ivy poison?"

"I remember."

"Well, if I felt as strong as I used to, I'd like first-rate to take a vacation this summer; but I'm feeling rather weak and listless, and I'm afraid I could n't stand it. Let us stay at home and rest this year."—*Exchange.*

SIMPLE LIFE BEST FOR CHILDREN.

HAPPINESS is the natural condition of every normal child; and if the small boy or girl has a peculiar faculty for any one thing, it is for self-entertainment; with certain granted conditions, of course. One of these is physical freedom and a few rude and simple playthings. Agreeable occupation is as great a necessity for children as for adults, and beyond this, scarcely anything can be contributed to the real happiness of a child.

"I try so hard to make my children happy," said a mother, one day, with a sigh, in despair at her efforts.

"Stop trying," exclaimed a practical friend at her elbow, "and do as a neighbor of mine does."

"And how is that?" she asked, dolefully.

"Why, she simply lets her children grow and develop naturally, only directing their growth properly. She has always thrown them, as far as practicable, upon their own resources; taught them to wait upon themselves, no matter how many servants she had,

and to construct their own playthings. When she returns home after an absence, they await but one thing—their mother's kiss. Whatever has been brought for them is bestowed when the proper time comes. Nothing exciting is allowed to them at night, and they go to bed and sleep in a wholesome mental state, that insures restful slumber. They are taught to love nature, and to feel that there is nothing arrayed so finely as the lily of the field, the bees, and the butterflies; that there is nothing so mean as a lie, nor any thing so miserable as disobedience; that it is a disgrace to be sick, and that good health, good teeth, and good temper come from plain food, plenty of sleep, and being good."

In order to thrive, children require a certain amount of "letting alone." Supreme faith in the mother, few toys, no finery, plain food, no drugs, and early to bed, are the best means for making them happy.—*Quiver.*

—It is said that in the southern part of Russia the peasants use a coin of such small value that it would take two hundred and fifty thousand of them to buy an American dollar, and these coins are so scarce that a man who has a hundred is looked upon as rich, and one who has a thousand is considered very wealthy. It is strange to regard a person wealthy who owns two-fifths of a cent, and comfortably well off on one-twenty-fifth of a cent. But the value of money depends, of course, on what it will buy.

—What food the prehistoric people of the Stone Age in Europe ate in their day, has been ascertained in a novel manner. An Englishman took the teeth of a human being of that age, which has been found in recent years, and examined what he found in the dental tartar. After using dilute hydrochloric acid, he examined the sediment, and found portions of the husks of corn, spiral vessels from vegetables, husks of starch, the point of a fish's tooth, a conglomeration of oval cells, probably of fruit, barblets of feathers, epithelial scales, fragments of cartilage, and other organic remains.

Temperance Notes.

—England spends £12,000,000 a year on tobacco alone.

—Eighty W. C. T. Unions were represented by delegates at the Prohibition Convention in Indianapolis.

—An exchange describes moderate drinking as "the vanishing point between a thimbleful and a bucketful."

—More than thirty thousand children of school age in the city of Chicago, are known to be addicted to the use of strong drink.

—At the annual meeting of the British Woman's Temperance Association, held May 16, Miss Frances E. Willard was chosen President of the World's W. C. T. U.

—There is an ancient proverb which says: "You cannot get more out of a bottle than you put into it." A contemporary thinks that is an error, for besides what he puts into it, a man can get a headache, a sick stomach, and ten days in the lock-up.

—The *Journal de Hygiene* says: "A moderate drinker at 20 years of age may expect to live 15.6 years; at 30, 13; at 40, 11.6; at 50, 10.8; at 60, 8.9. The probability for a total abstainer is, at 20 years, 44.2; at 30, 36.5; at 40, 28.8; at 51, 21.25; and at 60, 15.285."

—It is stated that of the whisky sellers in the city of New York, 2,002 have served their time in different State Prisons; nearly twice this number have been confined in county prisons and station houses; leaving only 1,616 out of 8,034 who have thus far escaped the police.

—Dr. B. W. Richardson, the eminent English physician and scientist, says that in a population of 35,000,000, total abstinence would save more than 200,000 lives annually. According to this rate, the use of intoxicating drinks costs the United States 320,000 lives per year, or 876 daily.

—The government of Norway recently increased the import duties on tobacco, since which action the Working-Men's Society, in various parts of that country, have adopted a resolution pledging its members to abstain from the use of tobacco as long as the present rate of duty is maintained. It is to be hoped that the increased duty will continue, and that the good resulting from this action will be permanent.

—Cruikshank, the artist, offered \$500 for proof of a violent crime committed by a total abstainer from intoxicants. The money remains unclaimed to-day. Arch Deacon Farrar, speaking of this fact, says that he will give the same amount for proof of any one case where drunkenness has been cured without total abstinence.

—The Jews, as a people, are remarkably free from inebriety. Dr. Norman Kerr, the well-known writer on physiological aspects of inebriety, says: "The temperance of Jews is proverbial. Extensive as my professional intercourse has been with them I have never been consulted for inebriety in the person of a Jew, while my advice has been sought for this complaint by a very large number of Christians."

—The *Chicago Standard* says: "The man who cleans up after a political convention ought to be a pretty good judge of the moral tone of the assemblage. The janitor who swept Tomlinson's Hall, at Indianapolis, where several thousand people met recently in the session of the Prohibition Convention which nominated Clinton B. Fisk for the Presidency, asked, with surprise, whether or not the meeting that had been held was a political convention. He had never had so little use for soap and scrubbing-brush before."

—In Sweden and Norway no intoxicating drinks are permitted to be kept for sale, except at places where good food and non-alcoholic drinks are also obtainable. On these latter the dealer is allowed to make a profit, but he is stringently prohibited from selling any liquor except at cost. The idea is, that the dealer will thus endeavor to promote the sale of edibles and non-alcoholic drinks, and discourage the sale of liquors, upon which he makes nothing. This system is called the Gothenburg System, from the town in which it was first put in operation.

—So large is the number of persons taken to Bellevue Hospital, New York, who have been made insane through intemperance, that the Insane Pavilion may well be named after this class of patients. From five to ten persons are taken to the hospital every day for examination, and of these the majority are the result of intemperate habits. So far as appears, the insanity so produced is not a form of delirium tremens, which is more or less temporary in its nature, but a loss of reason, which may be as permanent as from any cause whatever. What is still more serious, this class of sufferers has doubled within a year, and is five times as great as it was five years ago. No wonder that one of the officials at the hospital remarked that it was the strongest and most practical kind of temperance lesson of which he knew.—*Ex.*

—A foreign contemporary says that thousands of women in Paris are cutting short their lives by the use of morphine. The vice has become so fashionable that women carry with them, when attending a lecture or the opera, the necessary instruments, ready filled, to inject a dose of morphine underneath their skin whenever they may feel the need of its influence.

Popular Science.

Photography and the Phonograph.—Mr. Edison says that Prof. Muybridge, the instantaneous photographer, visited him lately, and proposed to him a scheme which, if carried to completion, will afford an almost endless field of instruction and amusement. The photographer says that he has been conducting a series of experiments recently, and has almost perfected a photographic appliance by which he will be enabled to accurately reproduce the gestures and the facial expression of, for instance, Mr. Blaine in the act of making a speech.

This is done, he says, by taking some sixty or seventy instantaneous photographs of each position assumed by the speaker, and then throwing them by means of a magic lantern upon a screen. He proposed to Mr. Edison that the phonograph should be used in connection with his invention. Mr. Edison, he said, could produce with his instrument the tones of the voice, while he would furnish the gestures and facial expression. This scheme met with the approval of Mr. Edison, who expects to perfect it at his leisure.—*Exchange.*

The Mission of Microbes.—E. L. Trouessart, in his admirable work on "Microbes, Ferments, and Molds," presents an interesting summary of the varied work of the minute organisms that so widely and irresistibly affect mankind for "better or for worse." "The part played by microbes in nature is an important one. We find them everywhere; every species of plant has its special parasites, and this is also the case with our cultivated plants—with the vine, for example, which is attacked by more than a hundred different kinds. These microscopic fungi have their use in the general economy of nature; they are nourished at the expense of organic substances when in a state of putrefaction, and reduce their complex constituents into those which are simple—into the soluble mineral substances which return to the soil, from which the plants are derived, and thus serve afresh for the nourishment of similar plants. In this way they clear the surface of the earth from dead bodies and fecal matter; from all the dead and useless substances, which are the refuse of life, and thus they unite animals and plants in an endless chain."

Fire Grenades.—The *Fireman's Journal* speaks as follows respecting the hand grenade as a means of extinguishing fire:—

"The hand grenade craze is dying out, and several companies have practically abandoned business. The *Journal* was the first paper in the country to expose the worthlessness of these so-called fire-extinguishers. We did so at the sacrifice of considerable advertising patronage, but we were satisfied that they could not be conscientiously recommended. Persons putting their trust in the efficiency of hand grenades to extinguish fires, we were convinced, would find themselves deceived. Gradually the press and the public came to our way of thinking, and hand grenades lost their popularity. A barrel of them was never worth a bucket or two of water, and one chemical extinguisher would do more real service in putting out fires than a car load of them. Hand grenades have had their day, and the gullible public is now waiting for some other cheap device to waste its money on."

The above paragraph expresses the views we have always held respecting the grenade as a protection from fire. The solution contained in the grenades is usually little else than a strong solution of common salt.

A FLOATING LIGHT.

A VERY pretty effect may be produced by causing a candle to burn while almost immersed in water in a tumbler. The experiment is very simple.



Insert a nail—not too heavy—in the lower end of a short candle, in order to make that end heavier, and place the whole in a glass containing enough water to reach the upper

edge of the candle without wetting the wick.

At first thought, nothing seems stranger than to expect a candle to be entirely consumed in such a situation, but it is simple enough. As the candle burns, it grows lighter and lighter, and rises gradually as it diminishes in length, so that the lighted end always remains above the surface of the water.

Moreover, the outside of the candle, being cooled, will melt much more slowly than usual, and the flame will make a little hollow in the center, as is shown in our design. This hollow place also helps in making the candle float, and preserves the wick from contact with the water. Thus the candle will continue to burn in its strange candlestick until the wick is entirely consumed.—*L'Illustration.*



SOCIAL PURITY

"Blessed are the Pure in Heart."

THE STATE OF SOCIETY.

BY REV. MORGAN DIX, D. D.

WHAT is our own society? It has almost ceased to have a national tone: the old American life and ways are overlaid and hidden; this is the land to which enormous delegations from other lands migrate; it seems a great assemblage, a conglomerate of many and strongly contrasted civilizations. Nowhere has there ever been a better field for the devil's double propaganda; and all about us are the signs of his activity. True, there are checks which still restrain the evil, but each day some barrier gives way. To keep to the straight and narrow path of settled principle, clean living, and purity of heart, is harder now for our young people than it was a quarter of a century ago; because a false sentiment, widely influential, condones their excesses, and even approves of their errors.

Note, first, the execrable quality of much that the people read. To refer to the public journals is but to begin; they feed a taste for what is vulgar, coarse, and low, with copious daily supplies of stuff adapted to that unwholesome appetite. But these annals of degraded life are supplemented by fiction of the same tone, by novels whose heroes and heroines are libertines and light and fallen women, and whose plots are a network of seduction, adultery, divorce, murder, and suicide; by that special kind of poetry justly named "the fleshy," in which this vile body of ours, with its stirring passions and their manifestation, forms the perpetual theme.

Sensational novels, dashed with as much indecency as possible, and sensuous poetry, in which the ideal and the animal are one and the same thing, form a quality of mind and temper which finds further attraction in the drama, as we have it now,—in large measure a repetition of the old, old, story of the working of lust, and garnished with dances which gratify man's sensual appetite, and attest woman's misery and shame. Such minds, such souls as these, may turn to art for a new excitement, and they find it in the imported works of foreign schools, such as we have referred to, and in those of a home school, which follows the lead of dishonor, and devotes itself, mainly, if not exclusively, to the delineation of lascivious and salacious figures.

To these demonstrations of immoral craving and declining taste, response is made by the book-stalls and news-stands on the street, and many a shop window, where vile wood-cuts and engravings meet the eye, and help on the work of corrupting the public mind; and no doubt the thing would be much worse than it is, but for the agency of the police, who, under the indignant protest of decent citizens, compel the dealers in obscene literature to keep within bounds.

It would be painful to inquire what kind of life is developed under the influences thus at work for our ruin; to gauge, with the line and plummet of God's word and law, the demoralization of society. For some of this there may be excuse; for example, think how the lowest classes live, in tenements, crowded to-

gether in such a way that it is impossible to be decent; that children cannot be brought up like Christians; that young men and women can hardly by any chance be kept honest, chaste, and pure. But what shall be said of the higher classes,—for those whose sins are without justification, and denote simply carelessness, irreligion, unbelief?

Look how young girls are trained,—in softness and luxury, with the one idea of making a figure in society and a brilliant marriage; of making the most of their physical advantages, and alluring the other sex by the acts best adapted to that purpose. See them on the drive through the troubled social sea; at their lunch parties, with a dozen courses and half as many kinds of wine; at the opera, immodestly attired; at the ball, giving the whole night to dissipation; at the summer haunts of fashion, without due oversight or sense of responsibility, treated with easy familiarity by careless men, and apparently without a vestige of an idea of what is due to a gentlewoman from a man. Listen to the low gossip among these young women; to the broad speeches and unclean stories, by which they are prepared for the final surrender of the last idea of propriety, and of all faith in the honor and virtue of men.

Then pass on, and let us look at the woman as married,—married, perhaps, for her money, or marrying some man for his money, without love, and often without respect. Married, but with no idea of living thereafter under bonds; resolved to be more free, and to enjoy life more; eager for admiration, athirst for compliments and flattery: so that the husband early drops into a secondary position, and some other man, who does the “madly devoted” for the time, engrosses the larger share of her thoughts. Follow out this subject till you come to the divorce suit and the separation; and thence to the next marriage, when those whom Christ and the gospel forbid to marry, so long as some one else liveth, snap their fingers at the attempted restriction, and commence a second partnership, without fear and without remorse. We all know that these are the commonest things of the day. We

see men freely moving in high places, whom no respectable woman should permit to cross her threshold; notorious immorality condoned for the sake of great wealth; grave social scandals, widely known and openly canvassed, though the actors are received with open hand and made welcome as before; flirtations going on between persons each of whom has plighted troth to some one else, and thus stands perjured before man and God; men languishing after the wives of other men, and married men running after young girls and paying them attention, with the devil’s look in the eyes and the devil’s thoughts in the heart; and women, young and old, permitting these demonstrations, agreeably entertained and flattered by them, glad to find themselves still able to make conquests.

There are, undoubtedly, persons among us who prefer vice to virtue, and the excitement of animal passion to the testimony of a good conscience and a pure heart; who like the stimulus of sin, and would deem it a great misfortune and an unspeakable affliction to be obliged to live soberly and godly in this present world. Our danger is not in the fact that there are such as these in the world, for such have there always been; but the danger here is reached, when no strong public opinion is against them, when a general approval hardens their hearts; when others who would live orderly and honorable lives find it up-hill work to do so; when chastity and modesty are sneered at, and those who will not join hand in hand with these sinners, are bidden to stand off, and keep out of the way, and hold their tongues, nor interfere with this grand business of enjoying the pleasures of this present world.

I have gone as far as I care to go, and yet have done no more than to skim the bubbling caldron, and take off what comes to the top, leaving the black broth below, a thing too foul to be described. But the scum is an index to what is underneath; and if these things whereof we have spoken go on in sight, what think you, goes on out of sight? How appalling must be the record of one night

only, when the shadow lies black on this vast city! What crimes must that deep gloom conceal! What sights to scare good angels away!—*The American Magazine.*

SOME CAUSES OF DIVORCE.

A RECENT writer, who believes that if mothers would do their duty in the training of their children, there would be a great diminution of calls for divorce in after years, mentions among the prominent causes of unhappy domestic life which lie within the province of mothers to prevent: (1) The lack of sympathy between men and women; (2) The lack, in both men and women, of proper respect for womanly employment. He offers the following forcible thoughts, which every parent would do well to read and ponder:—

“In the training of children there is apparent, from the very first, a certain distinction—a difference made between girls and boys—which results in a separation in their sympathies,—a separation which is the parent to one still wider in the lives of men and women. Permanent separation in their interests is impossible, since God has unalterably identified these, but the purposes of Providence may be obscured, and even temporarily baffled, by the stupidity of human educators.

“As a general thing, the pursuits of the girl are of but little consequence to her brother, and he has still less idea of her aims and aspirations. She, too, on her part, is without a complete understanding of that toward which he would work, although her failure toward him in this respect is less marked than his toward her, partly because of her greater tenderness and quicker insight, and partly because the objects of his endeavor are generally more tangible than are her own. A lady once said to my wife, with an earnestness which was really pathetic, ‘Do you suppose we fall as far short of understanding men, as they do of understanding us?’ And then she added, in answer to herself, ‘No; it cannot be that we do, for we are so much more sympathetic than they, and so much more dependent upon their love than they are upon ours, that we are constantly trying to enter into their lives.’

“Whether this very noticeable difference in the power of sympathy possessed by men and women is a thing of nature, or a thing of education, we cannot, at present, determine. It is, however, certain that education does much to foster, if it does not even beget, such difference.

* * * * *

“In the cultivation of that sympathy between men and women which is so essential to a perfect understanding and appreciation of each other, an entire similarity between the training of boys and girls is not necessary; although I am strongly of the opinion that a much greater similarity than at present exists, would result greatly to the advantage of both. I would, however, emphasize the necessity of so educating both the girls and the boys of a family, as to induce each to respect the work and personality of the other. I am confident that a feeling of that kind, inculcated in boys, toward the occupations of the other sex, and toward the sex itself, would result in a very different attitude of mind from that which men now commonly assume toward womanly employments, and toward women themselves. It would also result, if I mistake not, in an increase of dignity in the female character, and would thus aid in abolishing much of that feminine triviality and instability which earnest women, as well as men, now so greatly deplore.

“The importance of womanly occupations and employments cannot too often or too forcibly be set before our youth. In this respect there is an almost universal difference between the education of girls and boys. The latter are, in many ways, given reason to consider their special pursuits more real and more elevated than those of a girl. Even in families where the bond of love between brothers and sisters is strong, this feeling is apparent; and in less affectionate households the boys regard the occupations and amusements of their sisters with a feeling akin to contempt, while the girls either wear an air of annoyance toward their brothers, or else look up to them with an adoration which is weak and unjustified.

“Women, as a rule, have no proper respect for womanly employments,—certainly no proper conception of their value. I was lately struck by a sentence on this subject, in an English publication. It was found in an address by the Princess Christiana, on the occasion of the unveiling of a statue of the Queen, at the Royal Holloway College. She said: ‘I certainly sympathize with the desire for learning and mental culture, but I do feel that sometimes ambition, which urges many to encroach on man’s province, causes them to underrate the importance of the many duties and privileges which are given to women alone.’ This is a golden truth, and it cannot be framed with too precious stones, nor can it be too persistently placed before the eyes of the young.

“Any education which tends to degrade womanly employments,—any education which tends to create a chasm between men and women,—is to be deplored, and few things work with more certainty toward such an end than permitting boys to look slightly upon the toils and sports of their sisters. More than that, upon their mothers also; for their mothers, albeit they are engaged in the noblest work on earth,—a work infinitely above and beyond anything the fathers can hope to perform,—even their mothers are not beyond the reach of this boyish scorn, or, to say the very least, are often without the pale of boyish admiration and sympathy.

“From their very infancy almost, boys are taught, in various subtle ways, that they are members of a superior sex. The father who says to his little son, ‘Don’t cry, leave that to girls,’ or, of a doll, ‘That is not a boy’s toy; boys should have balls, and marbles, and guns; dolls are only fit for girls,—that father is teaching this doctrine, and contributing his mite toward the separation of the sexes.

“In like manner, boys are taught that housework and the cares of motherhood are beneath their sex, but are so naturally fitted for girls and women that but little effort and sacrifice, and perhaps less of brains and skill, are necessary for their proper performance.

They are taught by the same blundering educators that, while freedom is a necessary condition of masculine happiness and dignity, it is of small importance to women.

“Women are often said to err by failing to understand a man’s feelings and cares; and it is claimed that this failure of sympathy leads them to resent an irritation with which they would otherwise bear, and to expect and demand little attentions which they would readily excuse, could they but comprehend the necessary absorption of business life. Undoubtedly all this has often been true, but if the fault still continues, literature cannot be blamed, for certainly it has, for many years, teemed with sermons upon this text.

“My observation, however, has led me to decide that men are far more frequently at fault in failing to appreciate the toils and burdens of their wives, and to make due allowance for the state of nerves which must be the inevitable result of such cares. But be this as it may, whichever side is most at fault, it cannot be denied that an education which would draw brothers and sisters more closely together, by the bonds of respectful sympathy and intelligent appreciation, would later tend toward a better understanding between men and women in married life. Nor will any deny that whoever works toward this end is working for the greatest good of mankind.”

—By act of the Iowa legislature, the “age of protection” has been raised to eighteen years in that great State. A State with prohibition and the splendid law just enacted ought to be a pretty safe State to live in.

—It is probably not known to the general public that a large number of the Intelligence Offices of large cities are simply recruiting stations for houses of ill-repute. Fortunately, these places are undergoing investigation.

—The White Cross Society of the Y. M. C. A., of New York City, recently held its third anniversary. The Society now numbers seven hundred members.

GOOD HEALTH
 J. H. KELLOGG, M. D. EDITOR.
 BATTLE CREEK, MICHIGAN.

HEALTH IN PHILANTHROPIC WORK.

ONE of the most healthful of all employments is "going about doing good." That cheerful mental state which is the result of successful labor for the good of others, is a condition in the highest degree favorable to health. Some of the most remarkable cases of longevity have been among persons noted for their philanthropic work. An interest in the well-being of others has inspired many a bed-ridden invalid with the impulse to effort, which has resulted in the restoration of the sick one to health, as well as in the accomplishment of some unselfish purpose in the interest of others. There are, at this very moment, thousands of invalids, leading aimless, miserable, and wholly useless lives, who would be lifted into the enjoyment of health by some all-absorbing purpose in the direction of doing good to others.

Some philanthropic aim or object, will do vastly more good to a large number of chronic sufferers than will a pill-box, a bath-tub, "rest cure," or any known medicinal means. Nothing is more conducive to disease than idleness, or a self-centering state of mind.

Doing good to others takes one's mind away from self, and affords to mind and body a healthful stimulus to activity which is incomparably more conducive to recovery from disease than any tonic or "brain food," or other medicinal agent. A person whose whole soul is absorbed in some project in the inter-

est of his fellow-men often walks in the face of death without harm; while the selfish individual, fleeing from the pestilence, is stricken down when apparently out of harm's way. So too, the individual who devotes his life to the good of others often successfully defies the disease which has fastened itself upon him, and holds it in check by sheer force of will, and the vital stimulus of a great purpose to be accomplished. Those who are thoroughly busy, who are completely occupied, are far less likely to become diseased, as they are less likely to become vicious, than those who are unemployed; and no employment is more healthful than that of the philanthropist.

UNWISDOM IN REFORM.

MANY years ago an educator of some eminence in an Eastern State, recognizing the harmful effects of the too close confinement of students to their books, and the advantage of combining manual labor with mental training, undertook what he evidently supposed to be a reform, by sending his pupils to spend four or five hours daily on the benches of a neighboring shoe-shop. Thus to the six hours of school-work was added four more of the most sedentary kind of employment, bending over a school-desk shoe-bench. Certainly this was no reform, so far as improvement of the conditions for healthy physical development is concerned, although it is possible that a more healthful mental development may have been

secured, so far as it is possible to secure good mental conditions while abusing the body.

It has occurred to the writer that there is danger of this same mistake being made in some schools which are adopting the manual-training system in connection with literary studies, and that attention should be called to the matter. It should be recognized that the shoe-bench, the tent-loft, the printer's-stand, dress-making, and other sedentary employments, while they give rest and change to the mind, do not stimulate that change of tissue necessary to the securing of good physical development.

Many years ago, something more than a quarter of a century, a good example was set by the managers of a large factory in Central Europe, in setting apart for each hand employed a certain piece of ground, which he was required to work. By this means a definite amount of healthful exercise in the open air was secured, and the health of the operatives was maintained. This was certainly a wise and most beneficial reform. We have not heard that it has ever been imitated by other factory managers, but certainly as much wisdom ought to be shown by the managers of schools which are supposed to offer to young men and women superior advantages for obtaining a symmetrical and practical development of mind and body.

Manual training, as carried on, is seldom a substitute only in a very partial and incomplete manner, for physical exercise. The life of the student while in school and at his studies is of the most sedentary character; and it is important that the deteriorating influence of this sort of life, especially upon the young, should be counteracted by vigorous physical exercise of some sort, preferably in the open air. If most of the student's time outside of school or study hours is spent in what is properly termed manual training, the need for exercise must be supplied by a properly equipped gymnasium, or at least by means of such exercises as are commonly best secured in a gymnasium. Of course it is possible to secure the best of these exercises

without a gymnasium, but an instructor is at least necessary, and time and opportunity must be afforded for the necessary work. No great expense need be incurred in providing the necessary means of exercise, which will secure opportunity for the thorough development of the whole body. This is the thing to be aimed at, and it should be remembered that this cannot be accomplished unless there is daily use of the entire muscular system.

The muscles must be taxed in such a manner as to stimulate their growth. Nature will not make a muscle stronger, so long as it is already strong enough to do all the work required of it. In other words, it is necessary that the muscles should be made to work to the extent of healthy fatigue in order to secure growth, and this should be done sufficiently often to keep the processes of development active. There ought to be gymnasium exercises connected with every school; and the good results which might be secured by the wise employment of these exercises can hardly be estimated.

PSEUDO HEALTH RULES.

PROBABLY there is more nonsense in circulation respecting the care of the health than on any other subject. Flippant newspaper writers sow broadcast through the medium of the press, particularly the "patent insides," the most glaring foolishness under the heading of "Health Rules." The humorist, Burdette, has been making a collection of rules for the prevention of sleeplessness. The absurd variety of recommendations, all warranted to be efficient, would be found as evident in a similar collection made with reference to any other malady. The following is Burdette's collection of remedies for sleeplessness, with observations:—

"What pleases me, when I am tormented with sleeplessness, is a little health book of my own, in which I have jotted down a few, a very few, of the 'infallible remedies' for sleeplessness which have been tried in thousands, or perhaps, millions of cases, most of which were in the prescriber's own immediate

family, or, at the farthest his circle of intimate friends, and have never once failed to affect a permanent cure. All these cases, collectively and individually, were and are exactly like my own in cause, duration, and operation. The simplicity of the combined remedy appeals at once to human confidence :—

“Eat nothing within three hours before retiring.

“Eat a light but substantial luncheon just before going to bed. Nature abhors a vacuum. (This is one of the prescriptions I like.)

“Read light literature before going to bed.

“Read nothing after supper. Walk a mile in the open air just before bed-time.

“Go to your room an hour before retiring, and read until bed-time. Give up smoking altogether.

“If you are a smoker, a cigar just before retiring, will soothe and tranquilize your nerves, until you can't keep awake.

“Do'n't think about sleeping; you scare away slumber by wooing the drowsy god.

“Resolutely resolve, as you lie down, that you will go to sleep, and sleep will come naturally.

“Take a warm bath, and go from the tub into bed.

“Take a cold sponge bath, and jump into bed, and you'll be asleep before your head touches the pillow.

“Walk slowly about your room half an hour.

“Lie on your right side, with your cheek on your hand.

“Lie on your left side, with your head resting on your arm.

“Count up to one thousand. (I tried this inhuman bit of idiocy one night. I came very near falling asleep two or three times, but was startled wide awake by suddenly becoming conscious that I had lost my count, and had to begin over again. This cure kept me awake one whole night, when I was so sleepy that I could scarcely hold my eyes open.)

“Drink milk. (This, according to my experience, is the best prescription in the lot.

It will make you sleep better than all the bromides going, which are snares and delusions. But milk diet not only makes you sleep at night, but you want to sleep all the next day. It makes you intolerably stupid all the time. It is a very pleasant, half-awake feeling, if you have nothing else to do but to enjoy falling asleep at any time, and in all manner of places, like Colville in “Indian Summer,”—the best-told story of these times,—but if you have any work to do, it is embarrassing.)

“So, what is a sleepless man who wants to sleep, going to do? If he eats a light luncheon, smokes a mild cigar, reads Bunner an hour, walks a mile in the air, comes back and walks another mile about his room, takes a sponge bath, cold, followed by a tub bath, warm, drinks a pint of milk, jumps into bed and lies on both sides, with his head on one arm and one hand, and counts a thousand, it will be time to get up, anyhow, and he can have a few nervous fits during the day.

“It is a fact, however, that even men who think they suffer from sleeplessness do not lie awake half so long as they imagine they do. When a man says to me, ‘I did not close my eyes once all night,’ I know he lies.”

DIET IN OLD AGE.

WE are glad to note that Sir Henry Thompson, of London, the eminent authority on diet, has taken the trouble to combat the modern notion that old age requires concentrating and stimulating diet. We clip from a contemporary the following summary of the views of Dr. Thompson on this subject :—

“‘I have come,’ says Sir Henry, ‘to the conclusion that more than one-half of the disease which embitters the middle and latter part of life, among the middle and upper classes of the population, is due to avoidable errors of diet.’ He then proceeds to claim that there is no more seductive idea than that age requires extra support, and insists that in later life concentrated aliments are not advantageous or wholesome, but are generally to be avoided as sources of trouble. It is claimed

that the free living of earlier life is justified and endured, both because there is then more activity and because any increase of storage, even if disposed of by what are called bilious attacks, or by other forms of relief, do not at that time so hazard the future health.

"The rule he advocates is that the amount of food eaten ought to come within certain narrow limits, according to the amount of force employed for the purposes of daily life. He aptly quotes the ancient Cornaro as agreeing with him. At the age of ninety-five he writes thus: 'There are old lovers of feeding who say that it is necessary they should eat and drink a great deal to keep up their natural heat, which is constantly diminishing as they advance in years. . . . To this I answer that our kind mother Nature, in order that the old man may live still to a greater age, has contrived matters so that he should be able to subsist on little, as I do; for large quantities of food cannot be digested in old and feeble stomachs.

"With many, the use of meat is wisely diminished, and lighter foods should come more into use. Digestion of heavy meals is of itself a tax on nerve power, which should be reserved for more delightful pursuits than mere digestion. It is true of many that they diminish the quantity of food, but often only to replace it by concentrated foods and the addition of a little alcohol. All of this tends to produce those very conditions of the internal organs that are certified by increase of fat about them, or by congestion or degeneration of substance. Most of those who die between fifty and seventy-five years of age do not die from insufficient nourishment, but from the exhausted power and incapacity of the vital organs. This often results from feeding in these years out of proportion to activity. 'The typical man of eighty or ninety years, still retaining a respectable amount of energy of body and mind, is lean and spare, and lives on slender rations.'

"We know how unfashionable such views are, in these days when almost every type of ailment after fifty years of age, is pronounced adynamic. But for every fat, sleek, old man

or woman, living mostly on rich meat, soups, beefsteaks, eggs, and wine, we can show a 'bread and butter, vegetable and fruit brigade,' full of years, even if their skins are not rounded by fat, or their cheeks ruby with color."

If the writer of the above would substitute milk for butter, we would fully agree with him. A milk, grain, and fruit diet, in our estimation, constitutes the best diet for the aged. The late Emperor William, contrary to the advice of his physicians, abstained from meat for several years before his death, and as he claimed, with decided advantage.

BATHING IN THE SEVENTEENTH CENTURY.

A HISTORIAN asserts that during the Dark Ages the bath was utterly unknown in Europe. He even goes so far as to say that for a hundred years not a man, woman, or child took a bath in all Europe, except by accident. A French writer asserts that in France at least, the State Church was responsible for this state of affairs, since bathing was considered a pagan practice, and therefore worthy to be very much condemned. St. Benoit was sufficiently liberal minded, however, to conceive that young persons might have a bath occasionally, but very rarely. The inmates of convents were strictly forbidden to bathe, except on rare occasions.

When barber surgeons became fashionable, in the thirteenth and fourteenth centuries, bathing came more into vogue, but it did not become fashionable, and again went into disuse. In the time of Henry IV. the state of things may be judged by the significant remark of Madame Verneuil, who once crushed the emperor with the remark, "Go wash yourself. You stink like a buzzard." At this period cosmetics were very freely employed, and were highly scented, the people often seeking to hide the rankness of their filth under the cover of artificial perfumes.

Just a century ago the first swimming baths and public bath houses were erected in Paris. Private baths are much less frequent in this country, however, than in England.

The Parisian manages to keep himself rea-

sonably clean physically, if not morally, by means of portable baths, which are carried about on wheels. There are small wheelbarrow baths, one-horse baths, and two-horse baths, which go from house to house, with a bath-tub and the necessary supply of hot water, towels, shampooing appliances, etc.

ADULTERATION OF GROCERIES.

THE *American Merchant* quotes the following from the *New York Tribune*, as an illustration of the growing frequency of adulteration in articles commonly used as food. It is worthy of remark, however, that the articles most adulterated are those which are worthless as foods, and in themselves harmful:—

“‘That is not coffee,’ said the reporter.

“‘Who said it was?’ replied the jolly, rosy-cheeked grocer. ‘Are there any marks on it to indicate that it is coffee?’

“‘No, not particularly; but it certainly looks like coffee, and tastes entirely different.’

“‘Ah, you have hit the nail on the head,’ continued the grocer, with a smile. ‘It would not do to let every one know it, as it might shake people’s confidence in their grocery store. The bag, a few beans from which you have just tasted, contains an imitation of coffee. It is nothing more than flour, and poor at that, which has been shaped like the coffee bean and baked brown. If you will take a genuine coffee bean in your hand, putting it by the side of the imitation, you will see there is a difference in the color. The shape is also different, but that is nothing, as the various kinds of coffee vary in shape and size. The flavor, of course, is not there, but the way the imitation is sold does not require its presence.

“‘The grocer is not a foolish man. He does not sell these flour beans for coffee. This would give the business away. But when trade is dull, and the grocer must have something to occupy his mind, it is a pleasant recreation for him to mix a quantity of the flour beans with the genuine coffee. Then it cannot be easily detected. Only just enough of the flavorless bean is used to make a little

profit. This is not quite one-half. When the honest housewife, who buys whole coffee so as to get it pure, grinds up this mixture, and the odor steals out from the mill, her eyes snap, and she laughs at the people who are foolish enough to buy the coffee which is ground at the store, and can be easily adulterated. The taste of this compound is not unpleasant, and it will not injure any one. Even the baby can take it with impunity. If the coffee were drunk plain, its weakness would be noticeable, but being usually taken with milk and sugar, the fraud is not detected. Years ago all the coffee was ground in the grocery, but adulteration was carried on so extensively that the practice of buying the whole bean was established. This led some inventive Yankee humanitarian who believed that too much coffee is bad for the nerves, to bring out the flour bean.

“‘Here is something else interesting. See these beautiful samples of cloves and peppers. Imported?—Well, no; not exactly. They are home-made to suit the trade. They look good, but there is little flavor to them. Some one thought it was a shame to waste the beautiful and nourishing cocoa-nut shell, and conceived the idea of heating it, and then grinding it to a fine powder. This, when artistically mixed with various kinds of oils, makes a good spice for pies and other good things. It is a growing industry, and well patronized. Some of this powdered shell, after being flavored and made into a stiff paste, is pressed through molds into the shape of peppers and cloves. These, mixed with a quantity of the genuine article, give about all the flavor that it is safe for a person to take; and the grocer does not lose anything, but goes on paying his pew rent, and building rows of houses, the same as if there were a little cream in the cheese, a small quantity of sugar in the glucose, and a taint of butter in the oleomargarine.’”

—Prof. Seegen, of Vienna, claims to have discovered that the liver makes sugar out of fat and albumen, instead of out of starch. The results of his researches have not yet been confirmed.

The Bee as a Sanitarian.—It has long been known that the bee gives great attention to sanitary matters, not only keeping the hive clean and sweet (in a sanitary as well as a saccharine sense), but making proper arrangements for ventilation, even going so far as to maintain a regular sanitary police, whose duty it is to see that a constant current of air is maintained through the hive, the bees on duty using their wings as fans for the purpose. But the bee is still more profound as a sanitarian. According to the recent researches of the Physiological Society of Berlin, the bee practices antiseptics, as much as the most careful housekeeper in the putting up of her canned fruit. After the honey has been deposited in the cell, and the cell has been carefully closed up, the bee pierces the cover of the cell, and injects into its contents a small quantity of formic acid from its poison bag. This same formic acid, which causes such an unpleasant irritation when injected under the skin, is a very powerful antiseptic, and thus the honey is preserved from fermentation. The presence of formic acid in honey is also an explanation of the fact that honey so constantly disagrees with some persons who are able to eat other forms of sugar without inconvenience.

New Races of Human Beings.—Mr. Galton, the statistician, has called attention to one of the dangers of civilization, an evil of such magnitude that it should not be ignored. Mr. Galton has found by inquiry that in the United States there are more than thirty thousand deaf mutes, who are gathered together in asylums, in which they live as isolated communities. These defective persons, being cut off from intercourse with others, naturally intermarry. By the well-known laws of heredity, their defect is transmitted to their progeny. By this means, a deaf and dumb variety of the human family may be said to be already established.

This same deteriorating force, while less apparent in its operation, is nevertheless equally active in numerous other directions. For example, the intermarriage of persons with an insane heredity, is rapidly increasing, not only

the number but the proportion, of the insane. The intermarriage of consumptives is likewise increasing the frequency of this disorder. The intermarriage of the criminal classes is producing in all our large cities distinct races of persons who are morally defective. Certainly this is a matter which ought to receive the attention of philanthropists, social reformers, and legislators. Why should there not be laws prohibiting the intermarriage of persons possessing grave physical defects? And why should not some restraint be placed upon the intermarriage and consequent propagation of criminals? This is certainly a matter worthy of attention.

Distilled Water as a Remedy.—Water is the most universal of solvents. This property gives it high value as a remedy for various diseases. Distilled water possesses, of course, the solvent properties of water in the highest possible degree, and hence, possesses some advantages over ordinary water for use in hot-water drinking. This remedy is especially valuable in cases of disease of the kidneys and bladder.

Weather and Weight.—The surgeon of the jail at Wakefield, England, has been studying the effect of weather and season upon bodily weight. He finds that the weight decreases in cold weather, and increases in warm weather, so that there is a general loss of weight from September to March, and an increase from April to August.

—The State of Illinois recently passed a law making the marriage of cousins a penal offense. We do not favor the marriage of cousins, but, nevertheless, think this law an interference with individual rights, very inconsistent in a State which has thus far refused to even submit to the votes of the people the question of the prohibition of the liquor traffic. The marriage of cousins is not always, nor generally, productive of disease, but is usually unwise. Why not have a law to prohibit the marriage of drunkards?

DOMESTIC MEDICINE



Summer Clothing.—In warm weather, as well as at other seasons of the year, the clothing should be adapted to the temperature of the day and the hour. The habit many people have of laying off their under-clothing on a certain date at the beginning of the warm season, and putting it on again at a certain date in the season, is highly unphysiological. The purpose of clothing is to adapt the body to changes of temperature.

The natives of Terra del Fuego, who subsist even in a cold country, without other clothing than a small piece of skin which they throw over one shoulder when exposed to an unusually cold wind, do not suffer severely from the low temperature to which they are habituated, as the climate is almost uniformly cold, and their bodies become accustomed to keeping themselves warm without protection. Also, our own ancestors, the aboriginal inhabitants of Great Britain, led a hardy existence in that comparatively cold climate, with little other clothing than an occasional coat of paint, simply because the constant exposure of the body to the low temperature rendered them comparatively insensible to weather changes, even to the influence of severe cold.

The wearing of clothing renders the body sensitive to temperature changes, and it should be more generally recognized than it is, that the changes in temperature which occur during the summer season are quite as harmful as those which occur in cold weather. A difference of thirty or forty degrees may often be observed between the temperature of morning and evening, in temperate

climates. This change of temperature necessitates a corresponding change of clothing. The clothing worn in the morning may not be at all suitable for afternoon, and *vice versa*. One who would preserve health during this season of the year must give attention to the matter of adjustment of clothing, to avoid excessive heat or chilling of the body.

Summer Food for Babies.—It is important that mothers should know that the disorders of stomach and bowels which prevail so extensively among children during the summer season, belong chiefly to the class known as germ diseases. That is, they are due to the action of certain forms of microscopic plants allied to mold, or fungi, which, finding entrance to the digestive organs, set up changes in the food, causing fermentation, souring, putrefaction, etc. These germs are taken in with food at all times of the year. Ordinarily, their action is prevented by the gastric juice, but when their numbers are greatly increased, as is the case in the summer-time, particularly when the whole system is weakened by excessive heat, and the digestive organs are consequently less vigorous in their action than usual, the germs become active, and disturbing processes are set up, resulting in the various forms of indigestion, catarrh of the stomach and bowels, cholera infantum, cholera morbus, or simply summer diarrhea, or dysentery.

An important practical fact, with which every mother should be acquainted, is that these diseases may be almost certainly pre-

vented by the use of sterilized food. By "sterilized" food we mean food in which the germs referred to have been destroyed. This may be most effectively accomplished by simply boiling the food. To insure safety, it is necessary, of course, that every article of food taken be subjected, but a short time before it is eaten by the child, to a boiling temperature, for at least a few minutes. If several hours elapse after the food is cooked before it is eaten, it is likely to re-absorb germs from the air, unless it be protected in a well-corked bottle or a sealed can, or by other means kept from the air. The best means of keeping milk is in a fruit-jar, which has been first thoroughly scalded. After the milk is poured in, a mass of cotton which has been baked in the oven fifteen or twenty minutes, may be tied over the mouth. This will allow air to circulate out and in the can, but will at the same time prevent germs from entering.

It is equally important that the water taken by the infant be boiled, as this may also be a medium for conveying germs. Remember to boil every particle of food and drink the baby swallows, and it may thereby be carried safely through the months so dangerous to infantile life.

Ice-Water.—The warning against the use of ice-water in hot weather cannot be too frequently uttered. Very cold drinks do not assuage thirst so readily as water of a moderate temperature. One glass of ice-water creates the necessity for another. Those who drink ice-water are, on this account, inclined to drink large quantities, by which the stomach is at first chilled, and its blood-vessels contracted. A re-action follows, which leaves the stomach congested and debilitated. Ice-water is undoubtedly the cause of a large number of the ailments which affect the stomach and bowels during the summer season. Simply cool, or even warm, water will relieve thirst quite as promptly as cold water. There is, of course, no harm in taking cold water or ice-water, provided it is sipped so slowly that it becomes

warm before reaching the stomach. These same observations apply with equal force to iced cream, fruit ices, iced tea, iced milk, and other cold delicacies or drinks.

Summer Diet.—The best diet for hot weather is one composed chiefly of fruits, grains, and milk. An orange or two before breakfast is an excellent means of preparing the stomach for the morning meal, as it cleanses away the mucus with which the mucous membrane lining the stomach becomes covered when it has been empty for some time. Two meals are amply sufficient for the majority of persons, in the summer season. If anything is taken at night, it should be but very little,—a little fruit, a glass of milk, a little rice with milk, or something equally simple,—and that should be eaten early. We should remember that during the summer season less food is required than during the cold weather, when so much food is needed to be used as fuel to maintain the heat of the body.

For Itching Skin Diseases.—According to Prof. Kaposi, of Vienna, successor to the great skin specialist, Hebra, there is no remedy superior to naphthol for relief from all forms of skin disease attended by itching. The remedy is not poisonous, and is odorless. It is efficacious in true "itch," as well as is the various forms of tetter. It is used either as a lotion dissolved in alcohol or as an ointment. The strength of the preparation should be about ten per cent.

—Hydrogen Peroxide is recently much recommended for diphtheria. The solution is used in its ordinary chemical strength, and is applied to the throat with a swab. It is said to destroy the germs of the disease, and to cleanse the throat, without irritating the tender tissues.

—"How can I get rid of this dyspepsia?" said an Austin invalid to his physician.

"Have you tried prepared chalk?"

"Yes; I've been getting my milk from a milk-man for the last six years. The doctor says that's what gave me the dyspepsia."



A "GOOD HEALTH" PICNIC.

ONE of the little readers of GOOD HEALTH bounded into her mamma's sitting-room on a summer day, exclaiming, "O mamma, we're going to have a picnic. Aunt Nan's children are going, and they say we must go, too, and Olive, and Aunt Jenny; 'cause we want to have all the good times we can with Uncle Nat before he goes back to the city. We can go, can't we?"

"Why, probably; where is the picnic to be held?"

"At the lake; and, mamma, may I wear my white dress? Lenny is going to wear hers, and most likely Olive will wear hers, too."

"You would be in danger of ruining it at the lake."

"Oh, but I'll be careful."

"Would you rather wear your white dress, and have to be careful of it all the time, or wear the seersucker, and be at liberty to ramble through the woods and brush, as you will want to, after flowers and ferns, and ride in the row-boat, and hunt stones and shells, and climb the banks, without being afraid of injuring your clothes? The seersucker will not tear as easily as the white, and it is much more easily laundered."

Nina hesitatingly consented to her mother's plan. She wanted to look as nice as the other girls, but still she was an observing little person, and had discovered that her mother's way always proved the best way in the end.

How many of our little readers have been acute enough to find out that their mothers know best? We know some dull children who seem not to have learned that yet, and sometimes they appear to very poor advantage, on account of thinking that they know better than their mamma does.

Soon Nina asked, "May I go and tell Olive and Aunt Jenny about the picnic?"

Permission obtained, she sped away, but within an hour she returned, exclaiming: "They're going, and they intend to take lots of things. What are we going to take? And Olive expects to wear her white dress," this last being added in a half-regretful tone.

"What shall we take?" repeated her mamma.

"Oh, we will take a hammock, and bathing-suits, and—"

"But I mean to eat!"

"Do they propose to go before dinner? Then we will take some nice light buns for hungry folks, and some lemons, and fruit in abundance."

But here Nina interrupted, "Aunt Jenny's going to take lemon pie, and orange cake, and banana cake, and pickles, and—there come Glen and Lenny!"

They were Aunt Nan's children. Their arrival was immediately followed by the declaration from Glen, "We're going to fish out there! and papa's going to teach us to swim, too. He would n't let us learn of the boys, 'cause I might take a cramp and get drowned."

"O Glen Olney," exclaimed his sister, "did n't papa tell you there was n't any such word as 'drowned'?"

"Well, I mean might drowned."

"No; might drown, or get drowned. Aunt Delphia, what are you going to take? Mamma says she's going to take old-fashioned things,—such as any one else won't be likely to take,—sandwiches, and Yankee cheese, and catchup, and—"

But Glen again began: "And papa is going to fix a pole to practice gymnastics on; and we're going to have lots of fun."

The day appointed for the picnic arrived, the party reached the lake, and the good time began, though Nina's pleasure was marred a little by the contrast between her dress and her cousins'; and Olive's brother Bert annoyed them by teasing to have dinner the first thing, and Aunt Jenny had a headache because she had worked so hard making preparations for the picnic.

Nina confessed to her mamma, privately, that she would rather go without cakes than have her get nervous and "fidgety" baking them.

Soon some of the children began running races along the shore, then hunted ferns and flowers, found fungus brackets on old dead trees, gathered wild

berries, waded after water-lilies, tried their skill at climbing, etc.

When they got hungry and, as the old people thought, tired,—though the children declared they were not tired,—Uncle Nat told them stories about the city, while they rested on the grass and in the hammocks.

through the ordeal of washing-day and ironing-day a few times."

Nina gave her mother a wise look, and said, privately, "I'm so glad I wore my seersucker."

"I'm afraid some of these little folks will spoil their appetites for everything, at the rate at which they are eating," remarked Uncle Nat, as they sat at



When they came to dinner, Aunt Jenny exclaimed: "O Bert, how you are soiling your clothes romping about so! I do wish you would be more careful."

"I have been careful; have n't I, mamma?" asked Olive.

"I should think you had," volunteered Aunt Nan, "you have scarcely been out of the hammock all day."

"Well, for my part," added Uncle Nat, "I would rather see the children enjoy themselves, even if they do n't keep quite so clean."

"You might think differently, if you had to pass

lunch under the trees. "I must tell you about a little boy that the superintendent of a Sunday-school found crying at a picnic, because he had n't had all he wanted to eat. The superintendent proposed to find some one to wait on the little fellow, so he could finish his dinner; but the boy explained, 'Oh, no, there's enough here to eat, but I ha'n't got room for any more!' And sure enough, his stomach was full, and his pockets were full, and his hands were full; but he was n't satisfied."

"Wish you had kept the bananas separate from this cake, Aunt Jenny; then I could have eaten them," suggested Nina.

"Can't you eat them as they are?"

"Yes, I could; but I'm afraid if I eat too many kinds of victuals, they might get into a quarrel down there."

When the day began to grow cooler, a boat-ride was proposed; but who was going? Linny had a headache; her mamma guessed she had eaten too much cake. Bert was whining dolefully; Nina suggested that his pickles and cheese were probably having a confab, and he was suffering the consequences. Linny was mourning over a fruit-stain on her dress, drabbed skirts, and water in the bottom of the boat, which hindered her going.

Uncle Nat exclaimed, "Nina and Glen seem to be my only stand-by's;" to which Aunt Nan replied: "We'll hear from Glen hereafter, though; he's always cross for several days after eating such a big dinner."

"How is it with Nina? She did n't eat very much, did she? Saving your appetite for future usefulness, Nina? Thought you would n't spoil your day's pleasure for the sake of a big dinner, eh?" said Uncle Nat.

"It was rather hard to go without some of the things, and I did want some more fruit; but I knew I was n't hungry any more, so I quit, and I'm glad now. Come on; I'm ready for a boat-ride."

"But where are the others?"

"Oh, Aunt Nan has a sick headache, because she did n't have any tea. Mamma does n't drink tea at all, and she never has sick headache."

"Come on, Glen! Where is your pole? I thought you were going fishing."

"Oh, I don't feel like fishing, or anything else, this afternoon."

"Ah! paying for that big piece of lemon pie you ate?"

Then Nina remarked, "I guess, Uncle Nat, that you and mamma and I had a good health picnic to-day; and that's the best kind, after all."

THE LITTLE GIRL TO LOVE.

ACTIVE as a lambkin,
 Busy as a bee,
 That's the kind of little girl
 That people like to see.

Modest as a violet,
 As a rosebud, sweet,
 That's the kind of little girl
 That people like to meet.

Bright as a diamond,
 Pure as any pearl,
 Every one rejoices
 In such a little girl.

Happy as a robin,
 Gentle as the doves,
 That's the kind of little girl
 That everybody loves. —*Selected.*

Question Box.

[] All questions must be accompanied by the full name and address of the writer, as it is often necessary to address by letter, the person asking the question.

Medicines to Purify the Blood—Enlarged Veins—Headache.—Mrs. G. H. H., Colorado, inquires:—

"1. Does a person need to take medicine to purify the blood at any time?"

"2. Is there any treatment that will prevent the bursting of the veins of the legs?"

"3. What will cure headache? I eat but twice a day, take plenty of exercise and sleep, yet have almost constantly a dull, heavy pain in my head."

Ans. 1. No.

2. Yes; the wearing of Canton flannel or rubber bandages, applied from the toes upward.

3. This sort of headache is generally relieved by bathing or sponging the affected part with hot water. The cause may be catarrh, stomach disturbance, or some other functional disorder. The cause should be sought and removed.

Congestion—Substitute for Tea—Remedies for Inhalation.—W. H., Massachusetts, inquires:—

"1. What is the nature, cause, and cure of congestion?"

"2. What is a good substitute for tea for breakfast and supper? How is the best way to cook cracked cocoa?"

"3. What are some of the volatile remedies which may be inhaled to relieve congestion of the lungs?"

Ans. 1. Congestion is a condition of the blood-vessels in which there is too much blood in the part affected. The causes of congestion are exceedingly numerous. Anything which disturbs the circulation may cause congestion. No one remedy can be named which will be applicable to all cases.

2. There are numerous substitutes offered for tea and coffee, such as roasted wheat or barley, burned bread, etc. We recommend none of them. Hot milk may be taken as a food in place of tea or coffee. We do not recommend cocoa.

3. Tincture of benzoin, compound tincture of benzoin, tincture Peru, tincture Tolu, turpentine, tinctures cubeb, and copaiba, and oil of eucalyptus.

Indian Meal.—W. A. R. asks, "Is Indian meal a healthful and proper food for a dyspeptic?"

Ans. There is no one article of diet that is good for all dyspeptics. Indian meal, simply cooked, without fats, sugar, or baking-powders, as in the old-fashioned hoe-cake of the South, is a very wholesome and digestible article of food, which can be eaten without difficulty by most dyspeptics.

Catarrh.—C. B. R., Connecticut, asks for a remedy for catarrh.

Ans. There is no panacea for catarrh. For some useful remedies, see the April number of this journal.

Bad Effects of Vinegar.—R. W. C. complains of having an attack of dropsy after using vinegar very freely. The dropsy disappears after discontinuing the use of vinegar, and taking a few wet sheet packs, and rubbing with oil.

Ans. We have no doubt the free use of vinegar might result in dropsy. Whether or not this is the cause in the above case, we cannot determine without further information.

Literary Notices.

The Century for June opens with a most interesting illustrated article on "Plains and Prisons of Western Siberia," "The Ranchman's Rifle on Crag and Prairie," "A Printer's Paradise," "Mathew Arnold's Criticism," "The Graysons," and a very instructive article by Prof. Atwater: "What We Should Eat." These, together with timely topics and poems, make the current issue one of especial value to the reading public.

The Woman's World for July, besides a large amount of other excellent reading matter, contains a most interesting paper by Amy Levy, on the "Women's Clubs of London;" an account of "Marie Bashkuteff," a young Russian Painter; and "Women and Democracy," by Julia Wedgewood. CASSELL & Co., New York, Publishers.

The following is the table of contents of the July number of *The Chautauquan*: "Thackeray," by William H. Rideing; "Mars vs. Apollo," by Hjalmar Hjorth Boyesen; "Our Musical Insects," by Mary Treat; "Sunday's Readings;" "Italy's Women Writers," by Luigi D. Ventura; "A day in the Arctic," by Lieut. Fredrick Schwatka; "The Canadian House of Commons," by Eva H. Brodlique; "Chautauqua in History," by Francis Newton Thorpe, Ph. D.; "Historic Tarrytown," by Edith Sessions Tupper; "Clifton Springs," by J. Hendrickson McCarty, D. D.; "The Situation in Europe," by President C. K. Adams, LL. D.; "Mind-Cure," by Titus Munson Coan, M. D.; "The Military Forces of the German Empire," by Charles Grad, Deputy to the Reichstag; "The Agricultural Department at Washington," by Ida M. Tarbell; besides the usual editorials and the departments of special interest to students of the Chautauqua Literary and Scientific Circle.

THE high literary quality of the *Atlantic Monthly* is well maintained in the July number. In its table of contents we find "The Telephone Cases," by H. C. Merwin; William H. Downes begins a series of papers on "Boston Painters and Paintings;" Bradford Torrey describes "A Green Mountain Corn-Field;" and Lillie B. Chace Wyman contributes some thoughtful "Studies of Factory Life," which are most excellent reading. Several stories intersperse the more weighty matter, and help to make a most interesting number. HOUGHTON, MIFFLIN, Publishers, Boston.

THE approaching "heated term" renders an article on "Summer Indigestion and Diarrhea," in the current number of *Babyhood*, particularly seasonable. Its writer, Dr. H. D. Chapin, gives mothers much excellent advice and information on the subject. A novel feature is "The Fathers' Parliament," a department opened for the purpose of enabling the mothers' husbands to express their opinions, and air their grievances, on a great variety of subjects, such as "Walled-in Mothers," "Weighing the Baby," "Shunning Maternity," "A Plea for Fewer Playthings," etc. Other interesting topics, discussed under "Nursery Problems," are, "Care of an Excitable and Nervous Child," "Help in Delayed Teething," "The Cause of Bow Legs," "Sea-Bathing for Young Children," etc. 15 cents a number; \$1.50 a year. BABYHOOD PUBLISHING Co., 5 Beekman Street, New York.

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SEASONABLE BILLS OF FARE.

BREAKFAST NO. 1.

Farinose with Cream,	Strawberries,
Dry Toast,	Wheatena,
Beaten Biscuit,	Corn Puffs,
Poached Eggs,	Browned Potato.

BREAKFAST NO. 2.

Cherries,	
Graham Grits with Cream,	
Toasted Crackers,	Cream Rolls,
Strawberry Toast,	
Breakfast Potato.	

DINNER NO. 1.

Lima Bean Soup,	
Green Peas,	Potato Puff,
Wheat Crumbs,	
Currant Muffins,	Whole Wheat Bread,
Jam Pudding,	
Cherries.	

DINNER NO. 2.

Green Pea Soup,	
Baked Potato,	Stewed Asparagus,
Graham Mush,	Raspberries and Cream,
Buns,	Whole-Wheat Puffs,
Rice Snow,	Caramel Custard.

Browned Potatoes.—Slice cold potatoes evenly, and place them on an oiled tin, and brown in a very quick oven; or, slice lengthwise, and lay on a wire broiler or bread toaster, and brown over hot coals. Sprinkle a little salt over them, if desired, and serve hot with a little sweet cream as dressing.

Strawberry Toast.—Brown nicely some slices of graham bread. Turn a can of well-kept or some fresh

stewed strawberries into a colander over an earthen dish, to separate the juice and berries. Place the juice in a porcelain vessel on the stove, and heat to boiling. When boiling, thicken to the consistency of cream with flour rubbed smooth in a little water. A teaspoonful of flour to a pint of juice will be about the right proportion. Add the berries, and boil up once or twice, just sufficiently to cook the flour and heat the berries; then dish over the slices of hot toast. If the toast is very dry, a little of the juice may be reserved without thickening, and heated in another dish to first moisten the toast.

Breakfast Potatoes.—Slice cold boiled or baked potatoes evenly, cutting off all discolored or hardened spots. Turn a pint of rich milk, part cream if preferred, into a sauce-pan; let it come to a boil, and stir in a level tablespoonful of flour, rubbed smooth with a little milk. Add salt, if desired, and when the sauce has thickened, turn in a pint of potatoes, boil up together for a few minutes, and serve.

Potato Puff.—Mix a pint of mashed potato, (cold is just as good if free from lumps) with a half-cup of cream and the well beaten yolk of an egg, salt to taste, and beat till smooth; lastly, mix lightly with the potato the white of the egg beaten to a stiff froth. Pile up in a rocky form, on a bright tin dish, and bake fifteen or twenty minutes. Serve at once.

Lima Bean Soup.—Simmer a pint of Lima beans gently in sufficient water to cook and not scorch, until they have fallen to pieces. As the water evaporates, add more, of boiling temperature, as needed. When the beans are done, rub them through a colander, add rich milk to make of the proper consistency; reheat and serve. White beans may be used in place of lima beans, but they require previous soaking and more prolonged cooking.

Green Pea Soup.—Gently simmer two quarts of shelled peas in sufficient water to cook well, leaving almost no juice when tender. Rub the peas through a colander, moistening them, if necessary, with a little

cold milk. Add to the sifted peas an equal proportion of new milk. Cut a small onion in halves and put in the soup. Boil all together five or ten minutes, until the soup is delicately flavored with onion, then remove the pieces with a skimmer, add salt, if desired, and serve. If preferred, a half-cup of sweet cream may be added just before serving.

Jam Pudding.—Make a jam by mashing well some fresh raspberries or blue-berries and sweetening to taste. Spread it over slices of fresh light bread or rusks, and pile in layers one above another in a pudding-dish. Pour over the layers a cupful, or enough to moisten the whole, of rich milk or thin cream heated to scalding. Turn a plate over the pudding, place a weight upon it, and press lightly till cold. Cut in slices, and serve with or without a cream dressing.

Caramel Custard.—Turn one-fourth of a cup of sugar into a stew-pan, and stir it over the fire until it becomes liquid and brown. Scald a cup and a half of milk, and add the browned sugar. Beat two eggs thoroughly, add to them one-half cup of cold milk, and turn the mixture slowly, stirring constantly that no lumps form, into the scalding milk. Continue to stir until the custard thickens. Set away to cool, and serve in glasses.

Currant Muffins.—Prepare the muffins in accordance with the recipe given in the May number; and when well risen, add with the eggs two tablespoonfuls of sugar and a handful of zante currants. Turn into the irons to rise, and when light, bake in a quick oven.

Rice Snow.—Into a quart of milk heated to boiling, stir five tablespoonfuls of rice flour previously braided with a very little cold milk. Add one-half cup of sugar. Let the whole boil up together till well cooked and thickened, then remove from the stove, and stir in lightly the beaten whites of four eggs. Mold, and serve cold with foam sauce.

Foam Sauce.—Beat one egg very thoroughly with one-third cup of sugar. Turn on this very slowly a cup of boiling milk (part cream makes it richer), beating thoroughly till all of a foam.

—The *Scientific American* is authority for the following method for the preservation of eggs: "With a soft brush, carefully oil the eggs all over, and pack in jars, with plenty of bran between each layer. A thick brown paper should be tied over the mouth of the jar when it is full. Eggs, thus preserved, it is said, cannot be distinguished from fresh eggs, when eaten at three months old."

—Ink may be removed from paper by dropping a solution of chloride of lime combined with two drops of acetic acid. No rubbing or scratching of paper is required.

Economical Breakfasts.—A writer on "Comparative Housekeeping," in *Demorest's Magazine*, computes that twenty cents a day for each person ought to be sufficient to furnish an ample food supply, in families of limited means. After stating that this amount cannot by any possibility cover the extravagance of meat of any kind for each meal, she says:—

"There is an absurd prejudice in this country, found nowhere else so prevalent, in favor of hot meat, in some form or other, for breakfast. Without, in the smallest degree, assuming the part of a special pleader for vegetable diet, I can certainly say that if families on small incomes would only realize it, they would find that far more nourishment lies in a perfectly simple breakfast, properly prepared, than in the stereotyped steak or chop swallowed hastily before husband or brother rushes out to catch the train."

As substitutes of equal value as nourishing mediums, the writer mentions wheatlets, oat flakes, wheatena, and other grain preparations, varying in cost from twelve to sixteen cents for a packet containing sufficient for at least twenty persons or four breakfasts for a family of five persons. She says again: "A good nourishing breakfast can, even in the most expensive winter months, be provided at the cost of a few cents, if it take some simple form like muffins, with baked apples and cream. This last item we at once hear challenged. 'Cream! the idea of such a luxury on a limit of twenty cents a day for each person.' Yet, why not? Half a pint of cream costs, at the most, ten cents, and is more than sufficient accompaniment for breakfast for a small family. The very persons who consider it a tremendous sign of extravagance to dream of such a thing, think nothing of paying twenty cents a pound for mutton cutlets,—and any experienced housekeeper knows how far ten cents' worth of cutlets or steak will go!" Not only because the simpler breakfasts suggested cost less money, but likewise from a health standpoint, are they the most economical.

Bread among the Chinese.—"Wheat, in ordinary years in northern China," says Wong Chin Foo, "is worth about one dollar per American bushel. The milling process is a very ancient one, being performed by two large round stone wheels, with grooves cut neatly in the faces on one side. The upper stone is made to revolve by horse or mule power, and, among the poor, by man power. Three distinct grades of flour are made; the lowest grade makes a very rough bread, and is usually the food of the poorest families, who buy it for twenty cents a bushel. The bread of the Chinese is fermented, and then steamed. Only a very small quantity is baked in ovens. The staple articles of food in northern China are corn, millet, and sweet potatoes. Wheat and rice are the food of the rich and middle classes, and in the southern provinces the entire breadstuff is rice."—*Good Housekeeping*.

Publisher's Page.

☞ We learn from our London office that an edition of "Wine and the Bible" has been published in English, and that the work is being translated for a Holland edition.

☞ The Sanitarium is enjoying an unprecedented patronage for this season of the year. Though the "season" has as yet scarcely begun, it has already been necessary to hire a large number of outside rooms to accommodate the rapidly increasing family, which now numbers more than four hundred and fifty persons. The eight physicians of the institution are kept busy, day and night, caring for old patients and new arrivals, yet so thoroughly systematized is their work, all receive proper attention and care, without disorder or confusion.

☞ The Training-School for Nurses, with its sixty pupils, and the School of Domestic Economy, with two-thirds as many, the managers find at the present time an inestimable blessing to the institution, as they provide a corps of workers who are ready to carry out orders with dispatch and courtesy, thus making it possible to care for the great number of persons in a manner more perfectly than could be accomplished, even with a smaller number, where the benefits of thorough system and careful training are not enjoyed. Notwithstanding the large number of daily arrivals, there is still room for more; and it is hoped that the new building, which is now nearly ready for the plasterers, and which will accommodate two hundred persons when finished, will be completed in time to be used during the latter part of the season.

☞ Battle Creek College, at its recent Commencement, graduated thirteen students in advanced courses of study. The Commencement exercises were of unusual interest, the leading feature being an able address by the President, Prof. W. W. Prescott, which evinced much careful thought and scholarly preparation. This school, in our estimation, stands pre-eminent in this country as an institution where young men and women may obtain a practical education which will render them useful men and women in the every-day walks of life, as well as in the higher spheres to which duty may call them.

☞ June 9, the editor had the pleasure of meeting a large number of friends, old and new, at Minnehaha Falls, where several meetings in the interest of the Health and Temperance Society of Minnesota were held, and a number of lectures given in the interest of sanitary reform. Between four and five hundred members of the Health and Temperance Society were present. The president, G. C. Tenny, having gone to Australia as a missionary, the society has been without a president for some months; but through the efficient labors of the secretary, H. F. Phelps, who has traveled from place to place, lecturing in the interest of the society, much good has been accomplished. Six hundred names have been added to the list of members during the past year. This lively interest speaks well for the success of the society during the year to come. We know of no State in which a larger amount of successful work in the interest of this organization has been carried on during the past year, than in Minnesota.

☞ Our readers will be interested in the sketch of a peculiar tribe inhabiting the interior of India, known as the Garrows, from the pen of Captain G. P. Sanderson, of the British Army in India. Capt. Sanderson has for many years had

charge of the elephant service of the British Army. His duty is to go into the interior each year and capture one or two hundred elephants, and train them for service. Captain Sanderson is a vegetarian, and is interested in all that pertains to sanitary reform. He has had his eyes open while traveling through the jungles of India, and has gathered many interesting facts. We hope to have another contribution from his pen sometime in the future.

☞ The Sanitarium managers are making numerous improvements upon the old main building, putting in fine stone steps at the main entrance, a tile floor in the porch, and are contemplating broadening the porches upon the front side of the building to twice their present width. Among the recently added attractions, at the rear of the building, is a little park, consisting of about half an acre of the lawn, which has been inclosed with a tall wire fence. In this park is a beautiful deer, sent as a present to Dr. Kellogg by a physician in the Indian Territory, together with a number of other animals, including a full grown and very docile black bear, which enjoys wrestling with the boys as much as any professional, and is almost as expert in the use of his limbs as a man. When Bruin walks up on his hind legs, as erect as a judge, with his arms extended, to give the visiting young man a friendly hug, the stranger is very much inclined to retire promptly; but a better acquaintance convinces him that no harm is intended, but that he is simply in for a little sport, and only wants a little good-natured management to bring out his most amiable qualities. A full list of all the natives of the forest gathered in the Sanitarium menagerie would include several species of rabbits, guinea pigs, squirrels, foxes, marmosets, etc., besides a pet Java monkey, and a huge white cockatoo from Australia,—all of which make fun for the youngsters, and attract no little attention from the older ones, as well.

☞ The Sanitarium patients enjoyed a pleasant picnic at Gognac Lake a short time since. It has been the custom of the managers of the Sanitarium to treat the patients to an excursion of this sort every two or three weeks during the summer season. Now that the Sanitarium controls spacious grounds at the lake, these excursions will be more frequent. The managers are at the present time constructing a spacious wharf, which will be covered with a pretty building, as a landing for the steamers which ply upon the lake.

Several Sanitarium tents are already pitched at the lake, and are occupied by the families of the managers and by others. Patients who desire are furnished with camping-out equipments, so that they can enjoy the advantages of a rural life in the woods, beside a beautiful lake and surrounded by lovely natural scenery, with opportunities for fishing, boating, and etc., at the same time they are receiving the benefits of hygienic diet and medical treatment at the Sanitarium. This plan is entirely feasible, and easily accomplished by means of a street railway which runs from the door of the Sanitarium to the lake, a distance of one mile and one-half, making regular trips every half-hour.

FOURTH OF JULY EXCURSION RATES.

The Chicago & Grand Trunk Railway, Detroit, Grand Haven & Milwaukee Railway, and the Michigan Air Line, and Detroit and Port Huron Divisions of the Grand Trunk Railway, have arranged to sell special Excursion Tickets at single fare for the round trip between all stations on their lines, on July 3d and 4th; tickets good to return up to and including July 5th.

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Plain Oatmeal Crackers,	10	Gluten Wafers,	30	Granola,	12
No. 1 Graham Crackers,	10	Rye Wafers,	12	Gluten Food,	40
No. 2 Graham Crackers,	10	Fruit Crackers,	20	Infant's Food,	40
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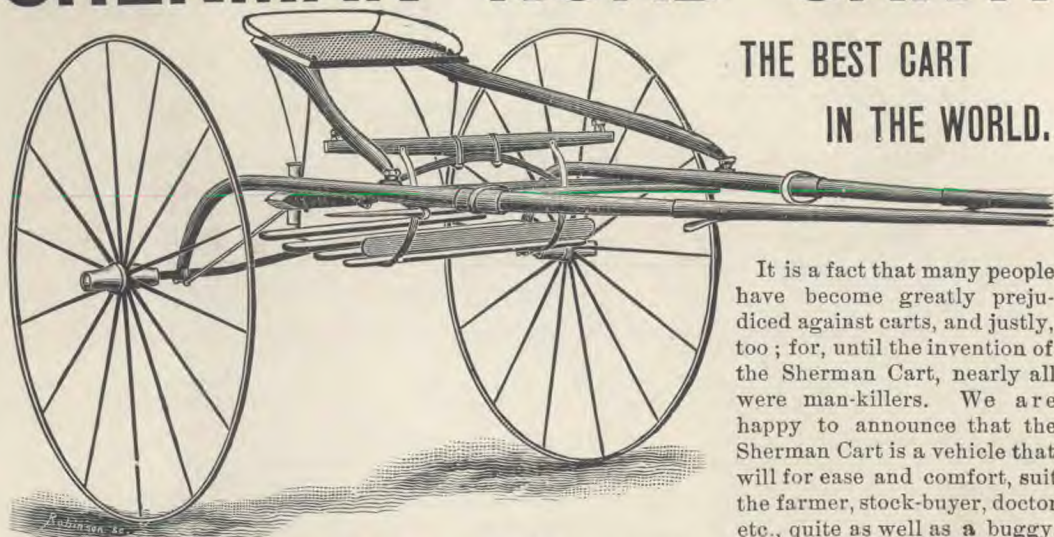
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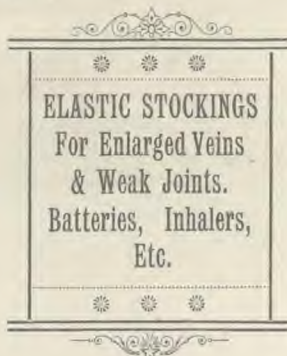
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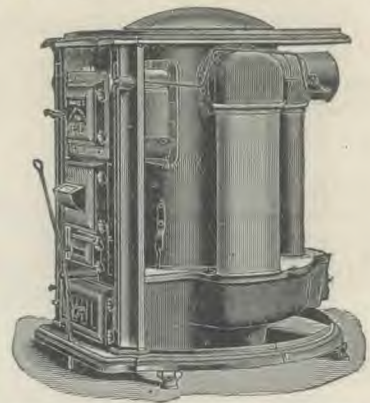
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.....	am	am	pm	pm	pm	am	am	am
.....	5.55	7.15	8.05	4.10	Port Huron	10.20	1.15	7.35	10.50
.....	7.28	8.31	9.34	5.40	Lapeer	8.42	11.57	6.17	9.17
.....	8.05	9.10	10.15	6.20	.....	Flint	7.55	11.27	5.40	.....	8.40
.....	8.48	9.35	10.58	7.25	.....	Durand	7.05	10.58	5.03	.....	8.05
.....	10.00	11.30	11.53	8.25	.....	Lansing	6.20	10.07	4.00	.....	6.45
.....	10.37	11.00	12.25	9.03	.....	Charlotte	4.42	9.35	3.25	.....	6.15
am	11.30	11.45	1.15	10.05	A	BATTLE CREEK	3.45	8.55	2.35	.....	6.30
6.30	am	12.05	1.20	pm	D	BATTLE CREEK	3.40	8.50	2.30	.....	am
7.15	.....	12.50	2.21	.....	.....	Vicksburg	2.52	8.11	1.44	.....	.....
7.25	.....	1.00	2.32	VAL.	.....	Schoolcraft	2.40	.....	1.33	.....	VAL.
8.13	.....	1.50	3.19	Acc.	.....	Cassopolis	1.50	7.26	12.45	.....	Acc.
8.55	.....	2.30	4.07	.....	.....	South Bend	1.05	6.50	12.00	.....	.....
10.05	am	3.43	5.30	am	.....	Haskell's	11.54	.....	.....	pm	pm
10.20	7.20	4.00	5.50	6.55	.....	Valparaiso	11.40	5.30	10.30	3.40	7.00
12.40	10.00	6.25	9.10	9.45	Chicago	9.05	3.25	8.15	1.15	4.25
pm	am	pm	am	am	Arr.	Dep.	am	pm	pm	pm	pm

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