THE

HEALTH REFORMER.

Nature's Laws, God's Laws; Obey and Live.

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Physical Evils of Intemperance.*

(*Concluded.*)

THE effects of alcohol upon the liver are noteworthy. As soon as alcohol is taken into the stomach, it is absorbed. There are millions of little mouths which suck up whatever liquid is taken into the stomach. The alcohol is carried into the blood, and begins its depredations upon the liver. Providence has so constructed our vital organs that the liver is placed where it can filter the impurities out of the blood, as it passes on its way to the lungs. It tries to get everything impure out of the blood, and the blood being filled with alcohol, the consequence is that it "gets its fingers burned," as we might say. You never saw a drunkard that had not a torpid liver. The alcohol dries up the liver and causes it to contract. The liver of the drunkard looks like the sole of an English cartman's shoe. When it gets into that condition it is completely useless.

Alcohol also has a very powerful effect on the nervous system. It has the property of getting right into the nerve cells. You find that the brain of the drunkard is filled full of it. The brain is naturally soft; but when a person has used whisky many years it becomes quite hard. In medical colleges, students are always glad to get a drunkard's brain to dissect, as it is always more solid, and not liable to break apart under the dissecting knife, being hardened by the alcohol.

Alcohol paralyzes the nerve cells. It is not a stimulant. That is a mistake. A man cannot lift as much after taking a drink of alcohol as before. The reason of this is that the alcohol paralyzes the nerves. That is proven by every drunken man you see. Every man who is drunk has a characteristic gait. He cannot control his muscles. One leg seems to try to go forward, while the other goes backward. The nerve cells which influence these muscles are paralyzed, and the man has lost all control over them. There is a certain disease which makes a man walk in the same way. It occurs when a particular part of his brain is paralyzed. The part of the brain which has control over the muscles acts in the same manner as the boss of a gang of men. When that part of the brain is paralyzed, it is as though the boss were sick, and the workmen were without a leader.

Many of you have probably noticed the peculiar appearance of an old toper's nose. What causes the rum blossom, as it is called? In the body, certain nerve cells have control over the blood-vessels, and by contracting them prevent them from carrying too much blood to the part. If we take a white rabbit and cut the nerve which controls the blood-vessel leading to one of its ears, that ear will at once become red, and will commence to grow much faster than the other. If kept this way for some time, one ear will outgrow the other until it is nearly twice as long. Just so with the drunkard's nose. The nerves are paralyzed which control the blood-vessels leading to the nose. It becomes congested, and grows too fast.

Well, now, consider the effects of alcohol upon the blood and upon the heart. First as to the heart.

The heart is a hollow muscle. Every time your pulse beats there is a contraction of the heart, and each time it has to lift several pounds of blood, and every day it has to do the work of lifting one hundred and twenty tons. Dr. Parkes of India, for the purpose of experiment, took a soldier and set him to work digging a pit, giving him plenty of food and water but no alcohol. He felt his pulse at every hour during the day. This he did for six days. Then, letting him get thoroughly rested, he ordered him to work again, allowing him a moderate quantity of whisky each day. He found that the man got tired a great deal sooner. He could not do so

* A lecture delivered before the Reform Club of Ceresco township by the editor. Phonographically reported by Fred. Scott.

much work in a day, and his heart beat from ninety to one hundred times a minute. The reason why he became tired sooner was that his heart had twenty tons a day more to lift when he drank whisky than when he went without. Hence alcohol weakens a man, instead of making him stronger.

I will now show you the effect of alcohol upon the blood. I draw a drop of blood from my finger and place it upon the slide of the microscope which you see here. The blood, as we see it under the microscope, highly magnified, is filled with beautiful little creatures. These little bodies are called blood corpuscles. When a man takes alcohol, it is absorbed into the blood, and gets among these little creatures and produces changes that I will illustrate to you. I mix a small quantity of alcohol with this blood on the slide of the microscope. On looking in, the corpuscles are seen shooting this way and that, as though they were trying to get away from the alcohol. Now it seems to have torn them all in pieces. The little creatures which were before perfectly round are now ragged and shrunken. (See illustrations.)

to last. It does not strengthen a man, but makes him weaker. It does not make a man warm, but, on the contrary, makes him cold. It does *this* for a man: it makes him feel rested when he is tired; it makes him feel happy when he is desponding. When a person has been at work, his body becomes worn and must be repaired. When he is tired, Nature says, "I want to lay by for repairs;" but alcohol paralyzes the nerves, so that they cannot tell what they want.

The very same thing happens to a man who uses tobacco. If you take a little blood out of the finger of a man who has been smoking all day, the blood corpuscles will look just like those now under the microscope.

Where did this habit of using tobacco come from? Tobacco using is a modern habit. If you look through an old history of America, telling how Columbus made the voyage over to the New World, describing his various misfortunes and triumphant discovery, you will find this record made by Columbus soon after he had landed: "We saw the naked savages twist up large leaves, and smoke like devils." Tobacco was carried back to Spain,

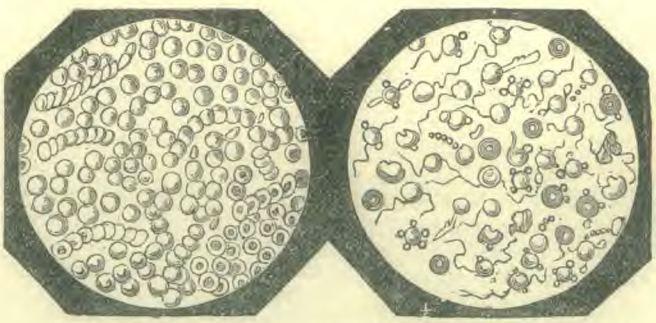

Fig. 1. Healthy blood. *Fig. 2.* Effect of alcohol on the blood.

Thus alcohol destroys the blood. That is what makes a man's face blue when he has used liquor for many years. If you tie a rope around a man's throat, his face will get blue in just the same way. The reason of it is this: these little corpuscles carry oxygen through the body from the lungs, and carry back to the lungs a poisonous substance called carbon-di-oxide, or carbonic acid gas. When carrying the oxygen, they are red; but when carrying the poisonous substance, they are blue. The corpuscles being torn up and destroyed by the deadly influence of the alcohol, they are unable to carry the necessary oxygen to the tissues, and consequently the blood becomes impure and foul. It turns a bluish color. The effect of alcohol is destructive all the way through. It works ruin from first

and though the people at once took up the habit, the rulers found that it was a bad thing, and took measures to prevent its use. The pope excommunicated those who smoked in church. In Spain, any man found using tobacco was executed. In Russia, tobacco-users were banished, and many hid in caves in the mountains that they might enjoy their tobacco. It would be a good thing for the world if all the tobacco-users of the present time would go off in the same manner.

The Sultan of Turkey saw that it was going to be one of the worst things possible for his people, and he made a law that every Turk found smoking should have his nose slit and his pipe stem put through it, and in this condition should be led through the city; and this was actually done. Many of you have

seen or heard of the "blue laws" of Connecticut. Under these no man was allowed to use tobacco in the presence of any other who did not.

Tobacco is a fatal poison. Put a drop of nicotine, or oil of tobacco, on a man's tongue, and it will kill him as quickly as a drop of prussic acid. But you may say, "There is not enough in the little tobacco that I use to hurt any one." On the contrary, there is enough in two cigars to kill a man. It does not all go down your throat, however, but is dispersed through the air for other people to breathe. Dr. Baker, Secretary of the Board of Health of this State, observed, in the examination of a great many young men, many who had a remarkably slow pulse, caused by the use of tobacco. Feel the pulse of an old tobacco-user, and you will find that in every few pulsations it will lose a beat. That is what tobacco does. It causes what is known as fatty degeneration of the heart, which is usually indicated by a white ring around the edge of the cornea, called the *arcus senilis*. You can often see this in old topers and tobacco-users.

Tobacco undoubtedly does almost as much harm in the world as liquor. Tobacco-using is the twin evil of intemperance.

I have not told you one-tenth the injury which alcohol works, but enough, I think, to convince you of its dangerous character.

Old Age: Its Diseases and Its Hygiene.

BY LUNSFORD P. YANDELL, M. D.

[THE following article was written by its distinguished author only a few days before his own death, after a life of very great usefulness in his profession.—ED.]

We are able to ascertain with sufficient precision what is the average duration of human life in any given community; but vital statistics have hitherto failed to determine the natural boundaries of man's earthly existence. They were declared by the patriarch to be three-score years and ten, but the patriarch himself lived to nearly twice that age, and yet then, it was said of him, that his eye was not dim nor his natural force abated. Tables of mortality show that of a hundred persons born in civilized countries, one-half pay the debt of nature before they are ten years old; seventy die before they reach manhood or womanhood; and only six of the whole number are alive at sixty. Still it appears that in seven years, that is from 1838 to 1844, seven hundred and eighty people in England alone lived beyond their hundredth year. And Easton, in 1790, published a list of seventeen hundred and twelve instances of longevity extending beyond a century.

The greatest age attained by any individual in modern times was one hundred and sixty-nine years. More extreme cases have been recorded, but Haller, who investigated them with great care, doubted their authenticity. In not a few of these instances, as has been said of Moses, there was no senile decay exhibited in life, nor was any found in the bodies of the old men after their decease. Thomas Parr, the Shropshire peasant, whose history is rendered doubly interesting by its association with Harvey, affords a striking example. He lived one hundred and fifty-two years and nine months, having enjoyed most perfect health until within a few days of his death, which was attributed to plethora of the lungs brought on by change of air and habits. His viscera were all sound and strong, and his heart was large and fat. The learned court physician could find in his organs no reason why he might not have lived many years longer if he had remained at home in the country.

Parr was a poor farmer's servant, and lived by his daily labor. His second wife, whom he married when over one hundred and twenty, reported of him that he never betrayed any signs of infirmity or age during the twelve years they lived together. Charles I. was curious to see so rare a specimen of manhood, and invited the old peasant to London, where he was treated in so royal a manner at court that a congestion of his lungs was induced, which soon terminated his life.

Henry Jenkins, a fisherman, who reached one hundred and sixty-nine years, was still able to swim across rapid rivers after he had gone beyond a century.

Draakenberg, a Dane, resolved to get married, settle down, and "lead a tranquil life," after having spent one hundred and eleven years of it principally in the army; and outliving one wife, a woman of half his age, he sought, in his one hundred and thirtieth year, the hand of a young country girl, but finally, after several rebuffs, concluded to remain single, and in that state lived to see his one hundred and forty-sixth year. He is described as having been a man of "rather violent temper," and of great bodily strength, many proofs of which he exhibited during the last years of his life.

Effingham, of Cornwall, died in the one hundred and forty-fourth year of his age, having hardly known what sickness was up to his one hundredth year, working to the last as a day laborer, and walking three miles

only eight days before he died. Stender, of the Duchy of Holstein, who reached his one hundred and third year, it is said, "was never sick, and could never be put out of humor."

A remarkable instance of longevity was reported by Dr. Ornstein, surgeon-in-chief of the Greek army, a year ago. Stravarides, a Greek, died toward the close of 1876, at the age of one hundred and thirty-two years. His history was that he had led a rather intemperate life, consuming daily more than one hundred drachms of brandy, and yet, up to the time of his death, he was in possession of all his senses, and still retained his teeth. He was also quite active, dancing when intoxicated. He was born twenty-six years before the great Napoleon, and witnessed the reign of nine sultans.

The natural duration of man is conjectured by Hufeland to be two hundred years, the life of animals being, as a rule, eight times the period of their growth, and man reaching maturity only at twenty-five. But there is the serious difficulty in the way of this hypothesis, that no human being since the age immediately succeeding the flood has attained to two hundred years. Abraham reached only one hundred and seventy-nine, and Jacob, the most aged of the patriarchs, only to one hundred and eighty.

In truth, we have to confess that we know not what is the natural term of human life. We are unable to explain these cases of extreme longevity; nor can we tell why the duration of life varies so much among animals, why the swan and the crow among birds, for example, are "many wintered," while the domestic fowl, which matures at the same age, lives only a few years.

As to the average age of the human race, that depends upon conditions well understood. Climate, personal habits, occupation, and modes of life, are known to be vastly influential; but of these centenarians it appears that one at least was an inhabitant of Jamaica; most of them were peasants, but Hippocrates, a student and philosopher, was of the number; generally they were of peaceful tempers, but one certainly was irascible, and another spent sixty-seven years of his life exposed to all the dangers and excitements of war.

But, though unable to account for longevity, or to recognize the stamina upon which it depends, we know that it is hereditary. Parr had a great-grandson, at Cork, who lived to be one hundred and three years old. Dr. Rush says he never met a person over eighty whose ancestors were not long-lived. Any one who has looked through the inscriptions in ancient churchyards, must have remarked how much long life runs in families. At the same time, there can be no doubt that they are most likely to attain it who observe the laws of health in youth and manhood. Of all Haller's aged men not one, it is affirmed, was an idler. Some were fond of strong drink, but as a rule they did not indulge until they were far advanced in years. The dissipated young man may assuredly know that he is drawing a bill on the future which is sure to mature, and may have to be met before he is old.

The *senectus* of the ancients may be expected, usually from fifty-five to sixty; the *ætas decrepita* is not often delayed beyond eighty, though either may be postponed long beyond their time, as we have seen, and may be brought on prematurely. A number of the old men mentioned were young, as well in feeling as in constitution, at eighty, and some when they had advanced far beyond a hundred; but the large majority of the race grow old before their time. Hufeland reports the case of a man dissected by him, who, at the age of forty, exhibited all the signs of bodily decay. His hair was gray, and even the cartilages of his ribs were ossified, as they are found to be in old subjects. A still more extreme case was that of the young king of Hungary, Louis II., who was crowned in his second year, succeeded to the throne in his tenth, had a beard at fourteen, was married before he reached fifteen, was gray at eighteen, and died worn out before he was twenty years old.

The evidences of decline appear first in the hair, which begins to frost or grow thinner, and to lose something of its luster; at the same time the skin shows a little less of the glow of youth, and the eyesight is not so perfect. The step has become somewhat less elastic, and a little later some waning of the memory is observed, resulting from incipient changes in the structure of the brain. To these indications of decay succeed in most men more or less trouble in the urinary function. Micturition is performed with less ease, owing to enlargement of the prostate gland, and must be repeated oftener. The urine is charged with the lithates, in consequence of imperfect oxidation, and is voided in larger quantities. The enlargement of the prostate may aid in the retention of the urine, and thus, up to a certain point, be a convenience, but when it becomes excessive, terrible suffering results from it.

In this first epoch of declining age, grave changes often occur also in the arteries, the coats of which become atheromatous and brittle. Degeneration in the heart, lungs, and kidneys, is an event to be apprehended;

and diabetes, albuminuria, asthma, angina pectoris, dropsy, and apoplexy are diseases incident to this period of life.

As years accumulate, decrepitude comes on; and though the thoracic and abdominal viscera escape disease, time never fails to exhibit its force in the muscular and nervous systems. The "lean and slippered pantaloon" is associated with a brain in which the cells are no longer connected by a perfect interlacement; but their "spur-like processes are worn through, and the cerebral cell is rounded and club-shaped." The memory decays until it is finally lost. The hand is tremulous, co-ordinated movements are badly executed, and the old man totters as he walks. Portal compares the nerves in aged persons to the branches of a tree covered with moss, and he also held that their brains are contracted and hardened; but oftener, it seems, the change is of the opposite character.

Galen regarded the period of old age as a continued distemper; and it is well for old men, however healthy they may seem, to remember that their systems, as was said by Bacon, are "towers undermined;" for with those latent changes constantly going on in the arteries, heart, and brain, they may be constantly exposed to sudden death. Apoplexy may result from straining, as in the act of defecation, and fatal syncope may be induced by a fit of passion. John Hunter was aware of a disease of his heart by which his life was threatened at all times, and which any violence of feeling might render fatal; and yet he suffered himself to be drawn into an angry dispute, in which he fell down and instantly expired.

Sir A. Cooper refers to a case in which, with ossification of the coronary arteries, the coats of the large arteries were so thin that they were with difficulty removed from their places, and broke with the slightest mechanical pressure. Dr. Mounsay, who died in London, in the ninety-sixth year of his age, toward the close of the last century, was confident, from certain symptoms with which he suffered, that he had ossification of the heart, and left his body by will to be dissected. Ossific patches were found, not only on his heart, but on the aorta and the pulmonary artery; all the valves of the heart were extensively ossified, and the iliac and femoral arteries and their branches, extending down to the toes, were nearly continued tubes of bone.

(To be Continued.)

—Estimating the amount of blood in the human body at twenty-four pounds, twelve pounds pass through the heart every minute.

"Death in the Pot."

We are glad to reproduce the following from the pen of Prof. R. C. Kedzie, M. D., President of the State Board of Health, and Professor of Chemistry at the State Agricultural College; we copy from the Lansing *Republican*:—

"In destroying the Colorado potato bug and other insect foes, farmers have found Paris green such an effectual destroyer, and one so easily applied, that they have become accustomed to use it for destroying most of the injurious insects. It has been used to destroy canker worms on fruit trees, and currant worms on the leaves of this plant. Thousands of persons have applied the poison to potato tops, and hundreds of thousands have eaten the tubers produced by such plants without being in the least injured by such food. Indeed, we have used the poison so freely and with so little injury to life and health that we have become reckless in its use, and seem to forget that Paris green is still a deadly poison. The pure Paris green contains 58.6 per cent. of 'white arsenic.' A teaspoonful of pure Paris green contains enough arsenic to kill thirty men. We cannot be too cautious in the use of so powerful a poison.

"One reason why we have been so free from injury in the use of this poison on potato vines is that the poison has been applied to one part of the plant while a very different part is used for food. If the same part of the plant to which the poison had been applied were used for food, we should have found very different results from the use of Paris green in potato culture. The cattle that have accidentally eaten such poisoned potato tops have been killed in numberless instances.

"The cabbage worm is beginning to make sad havoc with this plant, and many persons seem disposed to try the remedy which they found so effectual on the potato bug. If such persons will consider for a moment that they are applying a most deadly poison directly to that part of the plant which will be used for food, that the green color of the poison will be difficult to distinguish from the natural green of the leaf, that the poison is insoluble, and a little applied during the period of growth will probably remain in the plant at its maturity, and that an almost imperceptible dusting of Paris green on the cabbage plant will be enough to kill any person who eats it, they will begin to realize the criminal carelessness of which they are guilty

when they directly apply this terrible poison to any part of the plant which is to be used for food. The persons who use such poisoned food materials—the poison applied in such form that it is almost impossible to recognize its presence by its physical properties—may well cry out, 'There is death in the pot!'

"One family in Lansing ate some cabbage to which 'the least dust of Paris green had been applied to kill the cabbage worm;' but this 'least dust' was sufficient to poison all three, and they would probably have died if they had not taken so much of the poison as to produce violent vomiting, by which the poison was discharged before fatal effects were produced. It is often the case that when persons take too large a dose of arsenic, it produces violent vomiting, which may save the life; but this is too narrow a basis of safety to be relied on in eating poisoned cabbage.

"The public should be warned to avoid every article of food to which Paris green or any other deadly poison has been directly applied.

"Persons who buy cabbages should carefully inquire whether Paris green has been applied to the plants at any period of their growth, and if it has, they should utterly reject such material as food. Persons who sell such poisoned cabbages should be prosecuted for criminally endangering human life. People cannot be too careful in regard to the use of this deadly poison, Paris green."

Random Thoughts.

BY J. S. GALLOWAY, M. D.

"PEOPLE must eat fat meats, greasy or oily food, if they are required to do hard labor." And why? "That they may be strong and enduring." Is any popular idea more absurd than this? The chemical constituents of fat are such that they cannot be transformed into muscle; and strength depends upon muscle, and not upon fat. It is true that well-developed muscles rarely exist without well-developed fatty tissues also. The Creator has wisely constituted our food so that it contains, in due proportion, all the principles needed for the nourishment of every tissue of the body harmoniously. Neither fat, sugar, starch, nor any other simple constituent principle of food, can sustain life. All of them, and many others, are necessary, and in no other form are they so well adapted to our needs as in the proportions, as well as in the combinations, which divine wisdom has devised. Simplicity and strict conformity to natural laws are wisdom in everything relating to life and health. In the great laboratory of Nature alone can any combination be formed perfectly adapted to our wants. The same principles combined in the laboratory of art are by no means the same thing when tested by the standard of nutritive value.

"A man who has gray hair on his head, rarely builds a good house and lives to see the plastering dry." There may not be much truth in this, yet it has a shadow of truth in it. Old houses generally admit pure air freely. If the cellar is foul, its noxious gases find a more ready outlet—sometimes many of them. Increased wealth, which calls for the new house, calls for more luxurious living in it. All these things are unfavorable to health and longevity. With good, simple habits of living, the new house should be an aid, and not a hindrance, in the contest between the vital and the anti-vital forces. People do not die prematurely because they live in a new house, but because they do not know how to avail themselves of its good and evade its evil influences. Close cellars, dark and badly ventilated living-rooms and bedrooms, over-heated stoves, with parched and gas-charged atmosphere, and sundry like things, are not inseparable from even new and good houses.

"He has a white liver, and no woman can live with him." Only forty years old, and his fourth wife a corpse! What a misfortune to have a white liver!! But may be his liver is not white, after all. There may be other theories, more pertinent than this. Certain it is that no one ever saw his liver. He is a good man and a kind husband. As to his domestic habits and those of the unfortunate women who have joined their fortunes with him, we know very little. But upon general principles we think it quite safe to say that in hereditary influences, or in personal habits, or something else than a "white liver," the cause of this succession of sad experiences is to be found, if ever found at all.

"Doctor, do n't you think night air is bad?" Yes, I do. And in no place is it generally so bad as in the bedrooms of many well-to-do people. While there may be cases of impure or malarial air generated in certain localities at night, and more noxious in effect than the air so often breathed over and over in carefully closed bedrooms, the chances are by great odds in favor of the out-door air. Used with discretion, even the feeblest are much the better for it, and strong persons become stronger and more vigorous for its use. Night air is bad. The very worst night air is to be found in foul, ill-ventilated bedrooms.

Out-door night air is abundantly supplied by the Creator, who so perfectly adapts all things to the objects for which they are designed. If you do n't want to demonstrate the bad effects of night air, then, keep up a constant supply from the great reservoir out-doors, and you will be likely to conclude that however bad it may be it does not hurt you.

Ventilation—much, or little? "If there are two windows in a medium-sized room, how far should they be opened to supply the room with air?" A very indefinite question, truly! When the air is still, and the temperature the same in doors and out, both windows taken out would hardly supply one person liberally. In a gale, when the temperature in doors and out differs 30° or 40°, a small opening in each will change the air rapidly. To secure a good supply of pure air without unnecessary loss of heat in cold weather, is not the easiest thing to do. The problem of living in good houses and getting a liberal supply of pure air without a wasteful expenditure of heat, has not yet been fully solved. But it is wiser to waste some fuel than to waste vital force by breathing confined and vitiated air. A small opening on all sides is better than the same amount all on one side of a room.

The bed in a corner. In a corner it is very apt to be found. The impure air from breathing is thus confined about the head of the sleeper on two sides. Any currents of air passing through the rooms reach every part more readily than these corners where a change of air is most needed. But custom and convenience hold sway, and, without regard to results, the head of the bed, with its one, two, or more sleepers, must occupy the corner of the room. It is worse yet when the room is long, so that head and foot stand near opposite walls, and the only ingress of air is at the opposite end of the room. The best place for a bed is near the middle of a room, with the head as nearly between the ventilators as it can be without exposure to chilling draughts. But if it must be in a corner it is far better to place the foot next the walls and the head outward. "But how it would look!" Well, which is most important—*health, or looks?*

Mortality of Blacks.—A health officer in Nashville, Tenn., has collected some statistics comparing the mortality of the white and black races at the South, which show that the colored people are dying off almost twice as rapidly as the whites. It is thought to be due to their extreme ignorance of the laws of health, inadequate clothing and food, living in unwholesome places and in overcrowded quarters, and intense religious excitements, lasting till late in the night.

Report of Committee on Hygiene to Calhoun County Medical Society.

BY J. H. KELLOGG, M. D.

THE chairman of your committee on hygiene, not having been able to communicate with other members of the committee, would submit the following as a partial report:—

One of the growing tendencies of the age is toward a widening of the physician's sphere of usefulness. The medical man of to-day is not confined within those narrow limits which trammeled the progress and dwarfed the development of his predecessors, a few centuries ago. The physician is no longer looked upon simply as a medicine man, or nurse, to be sent for in times of illness, and quite forgotten at all other times; but, rather, is regarded in a broader and nobler light as the guardian of the people's health.

The prevention of disease is coming to be looked upon as of even far greater importance than the simple cure of disease. The discovery of the material origin of disease, and the resultant discovery of the possibility of removing the material cause of many of the most fatal maladies which afflict the human race, has opened up to medical men a department of medical science of far greater utility and importance than all the knowledge which they had previously possessed.

May we not ask ourselves, with profit, the questions, Are we each keeping pace with the spirit of the age? Surrounded with difficulties, beset with multitudinous cares and responsibilities, harassed with routine duties, and the exigencies of the struggle for existence, which we well know results invariably in the "survival of the fittest"—in some sense fittest, though by no means always the noblest—amid all these distractions, are we not too apt to allow ourselves to fall into the ruts of common practice, and pass along forgetful of the best and noblest aims and privileges of the profession which we all love and desire to honor?

The practicing physician can do more to conserve the health of the community than can all the State boards of health, city boards and health officers combined. He meets the people in their houses, where the evil chiefly lies. He sees in the numerous cases of illness which come under his care the effects of

the violation of Nature's laws. Taking each individual case as a text, he can preach a sermon to the patient and his friends which no amount of learning, of prestige, of eloquence, could make more effective.

Is it not a duty which the physician owes to his fellow-men, as a philanthropist, to take a practical interest in the subject of preventive medicine; to make it a distinct and prominent part of his daily work to teach his patients how to keep well; to make them intelligent on the subjects of disinfection, ventilation, dietetics, clothing, and other matters pertaining to hygiene?

In view of these considerations, we would respectfully offer the following suggestions:—

1. That every medical man ought to make himself thoroughly familiar with every means for the prevention of disease.

2. That all physicians should do all in their power to enlighten their patients on these subjects.

3. If in harmony with the wishes of the Association, we would suggest that a committee be appointed by the president to prepare short articles of a popular and practical character on the subject of hygiene—such subjects being of a character appropriate to the season of the year—and secure the publication of the same in our county papers, so far as may be done without incurring expense to the Society.—*Detroit Lancet.*

For what Do we Live?

BY W. PERKINS.

An eminent preacher lamented that the lives of the masses of our race could be written, in a few words, He was born at such a time, lived so long a time, and then died; to which might it not too often be added, "as the fool dieth"? Surely there can be no more sensible question for each one of us to put to ourselves, than that heading this article. Indeed, however diverse the almost endless creeds of Christian sects, they all agree on the pre-eminent importance of learning, living, and spreading truth. Nor can any ignore the fact that this truth should be of the most practical character. However expanding to the mind speculative science may be, however sublime its facts and theories, the science which directly pertains to our own daily welfare is of the *first* importance. Indeed, our Saviour's question as to the gain of the whole world and the loss of one's soul, demonstrates this beyond all peradventure. The great error to be feared, is the vain attempt to detach the soul from the body. The belief is dangerous and full of evil, that one may pollute and destroy the body, yet save the soul! How can this be? Can a drunkard inherit the kingdom of Heaven? Why not? Because he defiles his body, of which his stupefied brain is chief.

Paul in Corinthians makes this clear, alleging that our bodies are the temples of the Spirit, and that if any man defile the temple of God, *him* shall God *destroy*. "We are fearfully and wonderfully made;" hence, "*Thou shalt not kill.*" To break this command directly or indirectly, at once or by a series of acts, constitutes a high, yea, it would seem, the highest crime.

But as most of the readers of this monthly have thus learned to care for their own health, should we not learn to care more for the health of our fellows? We are—surely ought to be—our brother's keepers. As we have been favored by instruction in the laws of health, it becomes our duty and happy privilege to inform others.

Suppose there had been no hygienic instructors—no Health Reformer, or any other publication on the subject. Where might we have been? Certainly sick, and suffering many things at the hands of druggists, probably in our graves? Then as the labors of good, thinking people have been the means of saving us, the obligation is upon us to go and do likewise in behalf of others. No more than the common principles of justice, certainly no less than those of gratitude, require this at our hands.

For not bestirring ourselves in this most useful direction, there is an excuse involving a false assumption. Too often is it said, "The people will not hear. Ephraim is joined to his idols; let him alone." From the structure of the mind, from the power of truth, and from forty-five years' experience, I say nay. The very history of those making the excuse, says nay, since they have heard; and hundreds, yea, thousands, of others have heard. Though too many may not heed at first, yet patient, wisely directed perseverance will succeed, and gain our brother. Even such as work in error and vice, fail to proselyte in the twinkling of an eye. In plying their evil temptations, they have to persevere, and in fact, do work in season and out of season. Is it not, then, a shame that we, in a good cause, should be less faithful? Will we stand all the day idle, unconcerned, while seeing persons working more persistently for death than we are willing to work for life?

Then I exhort that we all, from this good hour, talk, lecture, and plead with our fellows, to consider the laws of health and

life; that we do all we can to induce them to read, and especially subscribe for, the HEALTH REFORMER, at a cost of but two cents per week. In so doing, we are sure to find that "truth is mighty and will prevail." Any failure in the result is explained by our failure to act wisely, dutifully, faithfully.

A Healthy Pulse.—A physician writes, recommending every one to learn something about the pulse, to ascertain the state of the pulse in health; so that, by comparing it with what it is when he is ailing, he may have some idea of the urgency of his case. Parents should know the healthy pulse of each child—as now and then a person is born with a peculiarly slow or false pulse, and the very case in hand may be one of that peculiarity. An infant's pulse is 140, a child of seven about 80, and from twenty to sixty it is 70 beats a minute, declining to 60 at fourscore. A healthful grown person's pulse beats 70 times in a minute; there may be good health down to 60; but if the pulse always exceeds 70 there is a disease: the machine is working itself out; there is a fever of inflammation somewhere, and the body is feeding on itself, as in consumption, when the pulse is quick—that is, over 70—gradually increasing with decreased chances of cure, until it reaches 110 or 120, when death comes before many days. When the pulse is over 70 for months, and there is a slight cough, the lungs are affected.—*Sel.*

Consultation with an Old-Style Doctor.—At a recent meeting of the Missouri State Medical Association, a physician related his experience in consultation with an old-style doctor, as follows:—

"Of all the things that afflicted me in my early experience as a physician, the idea of a consultation was the worst. I dreaded meeting the old physicians. I thought gray hairs and wisdom were synonymous words. There was a man practicing in that country who had been there,—well, ever since the flood. He had a wonderful reputation. I put the thing off as long as I could, but the inevitable came at last. One of the prominent men in my neighborhood got sick with pneumonia, and when the lung had solidified, and he had passed near unto death, I honestly informed the family of his condition. Of course they wanted Smith. I call him Smith because that was not his name. Smith came, and I met him with fear and trembling. He wore a No. 3 hat and a No. 13 boot. I gave him the history of my case and the treatment, and awaited the coming storm. I expected to be overwhelmed with a flood of technicalities, and with his wonderful knowledge of pathological anatomy. He looked at me through his spectacles with the gravity of an owl, and said, 'Doctor, did you ever try a black cat-skin poultice in these cases?' I admitted that, in my ignorance, I never had. I thought it a good time for me to get out of the case; so I informed the family that, as Dr. Smith had been their family physician before they knew me, he had better take the case. They were only too glad to make the change. That was an awful and calamitous night on cats, especially black cats.

"The man died, and Smith told them that if he had seen the case two hours earlier, and had succeeded in getting a 'leetle' blacker cat, he would have saved him. And the family still think so."

Compression of the Feet.—A practice so common that it may be safely said that there is scarcely a normal-shaped foot to be found among civilized beings. Although this compression is not in Europe and America carried to the extent of stopping all growth of the feet at a very tender age, as among some classes of the Chinese, yet the natural growth is so much impeded by the idiotic fancy of most parents to encase their children's feet in snug boots, that generally before a child is six years old the toes are more or less deformed. Usually the growth of the little toes is entirely suspended as early as twelve or thirteen years of age, while all are pressed together and overlapped, and the great toe, instead of continuing on a line with the side of the foot, turns to the center at an angle of from 30 to 35 degrees. To whatever extent the compression is carried, just to that degree is the circulation interfered with, causing the blood to flow less and less freely, and in decreasing quantity, causing not only discomfort from cold feet, but a strong tendency to consumption. The interference with the capillary circulation of the feet is also one of the most common causes of catarrh,—a fact not generally known.—*Golden Rule.*

—Cheerfulness is most conducive to health and happiness. Luther said that "the devil hates a good laugh."

—Fewer men have gone to destruction over the brink of Niagara, than have been destroyed by the little cask-aids.—*Whitehall Times.*

LITERARY MISCELLANY

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

TIME TO ME.

TIME to me this truth hath taught,
'Tis a truth that's worth revealing:
More offend from want of thought,
Than from any want of feeling.

If advice we would convey,
There's a *time* we should convey it;
If we've but a word to say,
There's a *time* in which to say it!

Many a beauteous flower decays,
Though we tend it e'er so much:
Something secret on it preys,
Which no human aid can touch!

So, in many a loving breast,
Lies some canker-grief concealed,
That, if touched, is more oppressed,
Left unto itself—is healed.

Oft, unknowingly, the tongue
Touches on a chord so aching,
That a word or accent wrong
Pains the heart almost to breaking.

Many a tear of wounded pride,
Many a fault of human blindness,
Had been soothed, or turn'd aside,
By a quiet voice of kindness!

Time to me this truth hath taught,
'Tis a truth that's worth revealing:
More offend from want of thought,
Than from any want of feeling.

—*Charles Mackay.*

A Lesson for the Times.

NUMBER FOUR.

BY MRS. E. G. WHITE.

MAN came from the hand of God complete in every faculty of mind and body; in perfect soundness, therefore in perfect health. It took more than two thousand years of indulgence of appetite and lustful passions to create such a state of things in the human organism as materially lessened his vital force. Through successive generations the tendency was more swiftly downward. Indulgence of appetite and passion combined, led to excess and violence; debauchery and abominations of every kind weakened the energies, and brought upon the race diseases of every type, until the vigor and glory of the first generations passed away, and, in the third generation from Adam, man began to show signs of decay. Successive generations after the flood degenerated more rapidly.

All this woe and suffering may be traced to the indulgence of appetite and passion. Luxurious living and the use of wine corrupt the blood, inflame the passions, and produce diseases of every kind. Parents leave maladies as a legacy to their children. As a rule, every intemperate man who rears children transmits his inclinations and evil tendencies to his offspring; and the evil does not end here: he gives to them disease from his own inflamed and corrupted blood. Licentiousness, disease, and imbecility are transmitted as an inheritance of woe from father to son, and from generation to generation, bringing anguish and suffering into the world, which is no less than a repetition of the fall of man.

The race is groaning under this weight of accumulated woe, because of the sins of former generations. And yet, with scarcely a thought or care, men and women of the present time indulge intemperance by surfeiting and drunkenness, and thereby leave, as a legacy for the next generation, disease, enfeebled intellects, and polluted morals.

The continual transgression of Nature's laws is a continual transgression of the law of God. The present weight of suffering and anguish which we see everywhere, the present deformity, decrepitude, disease, and imbecility now flooding the world, make it, in comparison to what it might be, and what God designed it should be, a lazar-house; and the present generation are feeble in mental, moral, and physical power. All this misery, accumulated from generation to generation, exists because fallen man persists in breaking the law of God.

The effort made to create a taste for the disgusting, filthy poison, tobacco, leads to the desire for stronger stimulants, as liquor, which is taken, on one plea or another, for some imaginary infirmity, or to prevent some possible disease. Thus an unnatural appetite for hurtful and exciting stimulants is created, which strengthens with one's years. The increase of intemperance in this generation is alarming; beverage-loving, liquor-drinking men may be seen everywhere.

Intemperance of any kind is the worst sort of selfishness. Those who truly fear God and keep his commandments look upon these things in the light of reason and religion. How can any man or woman keep the law of God, and at the same time indulge intemperate appetite, which benumbs the brain, weak-

ens the intellect, and fills the body with disease? Intemperance inflames the passions, and gives loose rein to lust. Reason and conscience are then blinded by the lower passions.

It is not an easy matter to overcome established habits of taste and appetite for narcotics and stimulants. In the name of Christ alone can this great victory be gained. He overcame in behalf of man in the wilderness of temptation, in the long fast of nearly six weeks. He sympathizes with the weakness of fallen man. His love for him was so great that he made an infinite sacrifice that he might reach him in his degradation, and through his divine power elevate him finally to his throne. But it rests with man whether Christ shall accomplish for him that which he has undertaken and is fully able to do.

It is a sacred duty that we owe to God to keep the spirit pure, as a temple for the Holy Ghost. If the heart and mind are devoted to the service of God; if we obey all his commandments, loving him with all the heart, might, mind, and strength, and our neighbor as ourselves, we shall be found loyal and true to the requirements of Heaven.

The apostle says, "Let not sin therefore reign in your mortal body, that ye should obey it in the lusts thereof." He also urges his brethren to earnest diligence and steady perseverance in their efforts for purity and holiness of life, in these words: "And every man that striveth for the mastery is temperate in all things. Now they do it to obtain a corruptible crown; but we, an incorruptible."

The Doctor's Word.

THE day had been cold and damp. There was much sickness in the neighborhood, and I had been in my carriage for at least eight hours when the night closed in, and I returned to my office. Three or four calls were on my slate. I had said to myself as I stepped from my carriage,

"It will be a case of life and death that takes me out to-night."

But as I looked at one of the entries, which read,—

"Won't you come round and see my wife this evening? She's had a spell to-day, and I'm dreadfully anxious about her.

"ANDREW KIRK."

I made an exception in favor of Mrs. Kirk. She was the wife of an industrious carpenter who had moved into our neighborhood about six months before. I had employed her husband two or three times to make repairs about my house and stables, and quite fancied the man; he had such a cheery way about him, and was so honest and thorough in his work, and seemed so thrifty.

Mrs. Kirk had a baby about a week old. She was not getting up as well as I could have wished. Her appetite was poor, and her strength came back slowly. She was of a delicate, nervous organization; inclined to self-indulgence and with nothing of the vim and vitality of her husband, who was very fond of her. She was pretty and attractive, with just enough vanity to overcome her natural indolence, and lead her to give due attention to her personal appearance.

"You'll have to go round and see Mrs. Kirk this evening," said my wife, as we sat at tea. "Her husband was here about an hour ago, looking very much troubled. He said that she fainted almost dead away this afternoon."

"That's bad," I returned. "She does not seem to have any recuperative power."

"She's a delicate woman," answered my wife, "and it is just possible that the nurse is not particular enough in consulting her appetite or preparing her food. I'd see about that."

"A little ale, once or twice a day, might be good for her, and I'll tell Kirk to get a few bottles for her. The bitter principle will give tone to her stomach; while its mildly stimulating qualities will have the effect to set all the wheels of life in a quicker motion, and often there is a great deal of nutrition in ale."

My wife answered nothing at the moment; but as I was leaving to go round and see Mrs. Kirk, said, and with some seriousness of manner,

"A little beef tea will be better than ale, I think. I'd try that first. There's more nourishment in a thimbleful of beef tea than in a pint of ale—and ale, you know, is heating."

"Who's the doctor?" I said laughingly, as I held the door in my hand for a moment, and then closing it, went to my office. I found two or three patients waiting for me, and after attending to their cases, went to see Mrs. Kirk. She was weaker and more exhausted than when I saw her on the day before.

"How was her appetite to-day?" I asked of the nurse.

"She does n't eat enough to keep a pigeon alive," was the answer.

"What did she have?"

"I made her toast twice, and boiled her an egg; but she scarcely tasted them. At

dinner-time she would n't eat a mouthful. I do n't know what to do with her."

"Can't you think of anything you would like?" I asked. "You must eat, you know, or you'll never get back your strength."

She only shook her head languidly.

"Have you ever taken ale?" I asked. There was a quick response in her eyes, and a sudden movement on the part of her husband, who bent forward with an evidently newly awakened interest.

"Oh, yes," she replied, speaking with a new life in her manner; "I was just as I am now after Hetty was born; and the doctor said I must have ale. It brought back my appetite and I got up nicely."

"Then you must have ale again," said I. "Get a few bottles of good English ale, Mr. Kirk, and let her have a wine-glassful with each meal. It's an excellent tonic, and gives nourishment at the same time."

It struck me that Kirk did not respond very warmly, and I thought I saw a look of trouble come into his face.

"You'll get the ale?" said I, as I was leaving.

"Yes, sir," he replied; but there was no heartiness in his voice.

"It will do more for her than anything I can give. She must be built up, and she can't be built up without an appetite for food. If ale will restore her appetite, then ale is her medicine. As far as I am able to see, Nature is calling for it; and Nature can almost always be trusted in cases like this. Do you think a little ale would taste good to you, Mrs. Kirk?"

I needed not her oral reply, for I saw the swift pleasure that flashed into her face.

"I would n't put it off until morning," I said to her husband, as we stood at the street door. "Get a bottle to-night and give her a wine-glassful. It won't do to lose any time. We must begin to build her up at once. Some constitutions require tonics and stimulants."

I thought him strangely irresponsive. Still he promised to do as I directed.

When I saw Mrs. Kirk on the next day, I found her greatly improved.

She had taken a biscuit with her ale on the night before, and the nurse informed me that she had slept well. For her breakfast she had eaten a slice of toast and some steak.

"She drank two wine-glassfuls of ale instead of one, this morning," added the nurse; "and they went to the right spot. It's just what she's been wanting."

"Two glasses!" The surprise I felt was in my voice.

"I did n't feel it any more than if it had been so much water," spoke up Mrs. Kirk, a pleasant smile breaking over her face, into which the rosy color had come. Mr. Kirk was at his shop, so I did not see him.

A vague sense of uneasiness came over me as I left the house, and I puzzled myself to know what it meant. Mrs. Kirk was greatly improved. The ale had acted like a charm; there was no doubt of that. I had wondered a little at Mr. Kirk's lack of hearty response to my prescription of ale for his wife; and now as I thought of the two glasses instead of the one I had ordered, and of the flushed cheeks and bright eyes of my patient, and connected them with the husband's manner, some unpleasant questions began to intrude themselves.

I did not call again for two days. Then I found my patient sitting up in bed. As I came in, she said, almost gayly,

"You see how smart I'm getting, doctor?"

She had the flushed cheeks and bright eyes I had noticed at my last visit.

"Getting your appetite again?" I inquired, as I laid my fingers on her pulse. The beat was quick and strong.

"Yes; I did very well this morning. Ate a good slice of toast."

"Anything else?"

"No, doctor," spoke up the nurse; "I had a nice bit of tenderloin, but she only tasted it, and did n't take more than half a cup of tea. But she drank a whole tumblerful of ale. It's meat as well as drink to her."

A whole tumblerful! I was not altogether pleased to hear this. The strokes of the pulse against my fingers, which still lay on Mrs. Kirk's wrist, gave signs of fever, or of some other disturbing agency.

"I am afraid that you are taking too much ale, Mrs. Kirk. I ordered only a wine-glassful at each meal, as a tonic and appetizer. A whole tumblerful is too much, and I find your system verging on to fever in consequence of this excess. I must put you back to a single wine-glassful. Do n't forget that, nurse."

I saw a shade of disappointment in my patient's face, but she said nothing.

"Your wife is coming round handsomely," I said to Mr. Kirk a few days afterward.

There was no warmth in his reply; and I fancied he had a troubled look. Some business perplexity, I thought.

When next I saw Mrs. Kirk she was sitting up. I did not like her appearance; there was too much color in her face. She seemed dull, and complained of headache.

"What about the appetite?" I asked of the nurse.

"Well, doctor," she replied, speaking with

some hesitation of manner. "I can't say that it's just what it should be. She won't eat good nourishing things. I made her some oatmeal porridge this morning, and served it with nice, sweet cream; but she would not taste it. And it was just the same with the tender chop I broiled. I wanted her to try a soft egg, but she said that the very thought of it made her sick. She just drinks the ale, doctor, and it's about all that keeps her up."

"How much ale does she take?" I inquired. I caught a warning glance directed toward the nurse, which the latter did not observe.

"More than I like to tell, doctor; but you ought to know," was answered. "She has two or three bottles every day."

"Why, nurse!" I exclaimed. "Don't you know that you are giving her too much?"

"Yes, sir, I know it. And I've told her so over and over again; but she says she must have it. She has such sinking spells, and it brings her up."

"That's all wrong, Mrs. Kirk." I spoke with great seriousness. "I only ordered a wine-glassful with each meal as a help to your appetite, and as a mild stimulant at the same time. I never meant it as a substitute for food. You are using it entirely too much, and it is destroying instead of restoring your appetite, and bringing your whole system into a feverish condition. I must positively limit you to the small quantity first prescribed."

There was no heartiness in the promise given to follow my directions. I went away feeling anxious about the case, and much regretting that I had ordered ale for my patient. The beef tea, I tacitly admitted to myself, would have been the wiser and certainly the safer prescription.

Two or three days afterward, I passed Mr. Kirk in the street, and was struck with the change in his appearance. He was not walking with his old elastic step; and the glimpse I had of his face revealed a troubled look. I had occasion to visit Mrs. Kirk but twice after this, and then dismissed the case. Both times I had evidence that she was continuing to use ale, and both times I felt it my duty to warn her against taking it too freely.

One day, nearly six months afterward, the carpenter came into my office, looking so changed that I hardly knew him.

"Why, Kirk!" I said, not concealing the surprise caused by his appearance, "what's the matter? Nothing gone wrong with you, I hope."

"My little Hetty is sick," he replied, "and I'd like you to call and see her."

"What's the trouble?" I inquired.

"I don't know exactly. She has fever, and complains of her back and head. I think she took cold on her way to school one of those bitter days last week."

There was a gloomy and depressed air about the man, in striking contrast with his old bright and cheery manners.

"Don't be anxious about her," I said, thinking it might be the child's illness that was troubling him. "I'll see her and bring her all right again. How is Mrs. Kirk? Well as usual?"

I saw a slight start, and a spasm of pain sweep across his face. He turned a little away from me as he answered, in a hoarse, choking voice, speaking convulsively,

"Nothing to speak of, doctor."

"Nothing wrong, I hope!" A sudden suspicion had flashed into my mind. The man turned and looked at me intently for a moment. What a sorrowful look it was! So full of heartache, and a half-dumb despair! Nor was this all I saw; there was accusation as well as suffering in his pale, worn face.—*T. S. Arthur.*

(*To be Continued.*)

Ant Wars in South Africa.—Mr. F. E. Colenso, the eminent English naturalist, writes from Maritzburg, South Africa, to the scientific London journal, *Nature*, as follows:—

"I noticed one morning that along the bottom of the front wall of my house, on the veranda, there lay a quantity of reddish brown powder; there was enough to fill a coffee-cup. On looking closer I saw that it was made up of small and larger fragments which glistened, and on inspecting some they turned out to be the heads, legs, trunks, etc., of countless ants. A number of these animals were still on the wall above, and my attention being now arrested, I watched them, and saw that they were contributing to the carnage beneath. This species of ant is a small, comparatively harmless one, the chief sin of which is that it makes its way to every species of food, and swarms on it. As is usual with ants, the general body of insects is accompanied by larger individuals, which are provided with heads and jaws quite disproportionate to their bodies, and with these jaws they do all the cutting up. Among the ants on the wall was a large sprinkling of these 'soldier ants,' and the whole community seemed bent on destroying them. The proportion of heavy-jawed to ordinary ants was about one to ten. I saw a group of little ones fastening on to

a big ant, which made desperate efforts to release itself. At first the big one bit several little ones in two, and the parts dropped down from the wall; but after a while the little ones severed all the legs of the big one, and finally got on his back and cut him in two. The group then dropped down to swell the mass below.

"Similar scenes were enacted elsewhere on the wall. The commencement of one combat was as follows: A big ant walked along till it met another big one, and the two shook antennæ. Just then a little one seized hold of a hind leg of one of these big ones. Neither took any notice, but continued a rapid conversation. Suddenly other small ones came up, when the big one, whose leg was grabbed, turned furiously on the little one and seized him by the middle. This could not be done until the big one had doubled himself up; as soon as he had hold of his small antagonist he lifted him in the air and snipped him in two. Meanwhile all the big one's legs had been seized by the little ones, and the party seemed to turn over and over, little bits tumbling down, now a leg, now half an ant, till the big one was vanquished. The ant is most assuredly subject to passions. The way in which the big ant turned on the little one was singularly indicative of rage. The determined manner in which he laid hold of the little one was quite human. If I had had a magnifying glass, the scene would have been really exciting."

The Telegraph in the Olden Time.—The electric telegraph is a device of the present generation, but the idea of conveying intelligence to a distance by a system of signals is a very ancient one. Homer refers to the use of fires by night and smoke by day for this purpose, and in the Bible (in Jer. 6 : 1) we find an allusion to setting up "a sign of fire" as a warning of war. An old Greek play begins with a scene in which a watchman descends from a tower in Greece, and announces that Troy is taken. "I have been looking out for years," he says, "and now it is done." Whether the fall of Troy was actually telegraphed in this way to Greece may be questioned, but there can be no doubt that the method had long been familiar and had been employed for sending news to great distances. In China it was known from a remote period, perhaps even before the time of Homer, and the most barbarous nations, at a very early date, seem to have had their signal-fires for giving the alarm of war from hill to hill, as the Scottish Highlanders did until a comparatively recent day. More improved methods of telegraphy, in which letters of the alphabet were displayed on boards fixed to high posts, were devised as early as the time of Aristotle, or nearly five hundred years before the Christian era.—*Sel.*

Dates of Some Important Inventions, Discoveries, etc.—Maps, globes, and dials were first invented by Anaximander, in the sixth century before the Christian era. They were first brought into England by Bartholomew Columbus, in 1489 A. D.

Comedy and tragedy were first exhibited at Athens, 562 B. C.

Plays were first acted at Rome, 239 B. C.

The first public library at Athens was founded 526 B. C.

The first public library at Rome was founded 167 B. C.

The first public library at Alexandria was founded 284 A. D.

Paper was invented in China, 170 B. C.

The calendar was reformed by Julius Cæsar, 45 B. C.

Insurance on ships and merchandise first made in A. D. 43.

Saddles came into use in the fourth century.

Horse-shoes made of iron were first used in A. D. 481.

Stirrups were not made until a century later.

Manufacture of silk brought from India to Europe in 551 A. D.

Stone buildings and glass introduced into England, 674 A. D.

Pens first made of quills, A. D. 635.

Pleadings in courts of judicature introduced, A. D. 788.

The figures of arithmetic brought into Europe by the Saracens, A. D. 991.

Paper of cotton rags invented toward the close of the tenth century.

Paper made of linen, 1300.

The degree of Doctor first conferred in Europe at Bologna, in 1130; in England, 1208.

The first regular bank establishment in Venice in 1156. The bank of Genoa was established in 1407; that of Amsterdam in 1600; England, 1794.

Astronomy and geometry brought into England, 1220.

Linen first made in England, 1253.

Spectacles invented in 1280.

The art of weaving introduced into England, 1330.

Musical notes, as now used, invented in 1380.

Gunpowder invented at the city of Cologne, by Schwartz, 1320–40.

Cannon first used at the siege of Algeziras, 1343.

Musket in use, 1370.

Pistols in use, 1544.

Printing invented at Mentz, by Guttenberg, 1450.

Post-offices established in France, 1464; in England, 1581; in Germany, 1641.

Turkeys and chocolate introduced into England from America in 1529.

Tobacco introduced into France by Nicot, 1560.

First coach made in England, 1564.

Clocks first made in England, 1608.

Potatoes first introduced into Ireland, 1586.

The circulation of the blood discovered by Harvey, 1519.—*Sel.*

The Mission of Birds.—Many people wonder what can be the office of the numerous tribes of humble creatures which help to make up the great family of animated nature. Because they do not readily discover an answer to their query, they are too apt to conclude that the majority of Nature's humble servants exist merely through accident, and are of little consequence. Few stop to consider that every creature, no matter how insignificant, apparently, even the tiniest insect, as well as the hugest animal, has its mission to perform in the great economy of nature, whether we recognize it or not.

A contemporary remarks as follows, under the heading, "Nature's Feathered Police Force:"—

"The swallow, swift, and night-hawk are the guardians of the atmosphere. They check the increase of insects that would overload it. Woodpeckers, creepers, and chickadees are the guardians of the trunks of trees. Warblers and fly-catchers protect the foliage. Blackbirds, crows, thrushes, and larks protect the surface of the soil. Snipe and woodcock protect the soil under the surface. Each tribe has its respective duties to perform in the economy of nature, and it is an undoubted fact that if birds were all swept off the face of the earth, man could not live upon it, vegetation would wither and die, insects would become so numerous that no living being could withstand their attacks. The wholesale destruction occasioned by grasshoppers which have devastated the West is to a great extent, perhaps, caused by the thinning out of the birds, such as the grouse, prairie hens, etc., which feed on them. The great and inestimable service done to the farmer, gardener, and florist, by the birds, is only being known by sad experience. Spare the birds and save the fruit; the little corn and fruit taken by them is more than compensated by the quantities of noxious insects they destroy. The long persecuted crow has been found, by actual experience, to do more good by the quantities of grubs and insects he devours than the harm he does in all the grains of corn he pulls up. He, after all, is rather a friend than an enemy to the farmer."

Home of the Potato.—The locality of the native home of the potato has been the object of much research on the part of scientists, but has never been satisfactorily settled until recently. History seems to show conclusively that the potato was introduced into Europe about 1509, by Spanish adventurers, who found it cultivated in the cold region of the Andes. A French scientist, who has recently traveled in South America, collected specimens of the plant on the summit of some of the peaks of Colombia. In its wild state the tuber is by no means the fine, fleshy vegetable which we are accustomed to see, but very small and insignificant, bitter in taste, and worthless as food. It is cultivation and training under the hand of man that has made the potato what it is.

Old Maids.—A sensible writer expresses his opinion of old maids as follows: "I am inclined to think that many of the satirical aspersions cast upon old maids tell more to their credit than is generally imagined. Is a young woman remarkably neat in her person? 'She will certainly be an old maid.' Is she particularly reserved toward the other sex? 'She has all the squeamishness of an old maid.' Is she frugal in her expenses, and exact in her domestic concerns? 'She is cut out for an old maid.' And if she is kindly humane to the animals about her, nothing can save her from the appellation of an 'old maid.' In short, I have always found that neatness, modesty, economy, and humanity are the never-failing characteristics of that terrible creature—an 'old maid.'"

It is, no doubt, a terrible thing to be an old maid; but so long as men drink rum, chew tobacco, smoke cigars, and act like beasts and fools, it is not the worst thing that can happen to a decent woman. Indeed, we should not have to hunt very far to find plenty of women who are not old maids, but who would give all their old boots and shoes if they were; and who in bitterness and sorrow lament the day when they permitted the yoke to be placed upon their necks, which is grievous and hard to be borne. Marriage is

honorable in all, but if it is honorable it should be honored, and those who make it a burden and curse and calamity, need not wonder that intelligent and considerate women fear to take the risks it involves.—*The Christian.*

"Gettin Eddykashun."—Jake was heard calling across the fence to his neighbor's son, a colored youth who goes to school at the Atlantic Colored University,

"Look hyar, boy, you goes ter school, do n't yer?"

"Yes, sir," replied the boy.

"Gittin eddykashun, ain't yer?"

"Yes, sir."

"Well, it do n't take two whole days to make an hour, do it?"

"Wy, no!" exclaimed the boy.

"You was gwine ter bring dat hatchit back in an hour, warn't yer?"

"Yes, sir."

"An' it's bin two days since yer borrowed it. Now, what good's eddykashun gwine ter do you thick-skulled niggers when yer go ter school a whole year an' den can't tell how long it takes to fetch back a hatchit?"

There are a good many white people whose education does not seem to teach them how to fulfill their promises, bring home borrowed articles, whether they be books or hatchets! A good education should produce good fruits. —*Sel.*

American Arctic Expedition.—There has always been a very great popular interest in voyages of discovery. The proprietor of the N. Y. *Herald*, recognizing this fact, a few years ago fitted out an expedition to Central Africa, the success of which is well known. The same enterprising publisher has now fitted out two vessels to explore the frozen regions of the North. One will attempt to reach the Pole through Behrings Strait, while the other sails by way of Spitzbergen.

Trees that Grow Shirts. — Humboldt says that he saw, on the slope of the Cerra Drida, shirt-trees fifty feet high. The Indians cut off cylindrical pieces two feet in diameter, from which they peel the red and fibrous bark, without making any longitudinal incision. This bark affords them a sort of garment which resembles a sack of very coarse texture, and without a seam. The upper opening serves to admit the head, and two lateral holes are cut for the arms. The natives wear these shirts of Marina in the rainy season; they have the form of the ponchos and manos of cotton which are so common in New Granada, at Quito, and in Peru. As in this climate the riches and beneficence of nature are regarded as the primary causes of the indolence of the inhabitants, the missionaries do not fail to say, in showing the shirts of Marina, "In the forests of Orinoko, garments are found ready made upon the trees."—*Sel.*

—Few attributes of character are more charming than the faculty of acknowledging one's errors. The man who makes a blunder and sticks to it is a person with whom argument or controversy becomes impossible. The trouble and time spent in attempting to convince him of the truth are completely wasted; for he will still believe that what he has advanced must be right, even in the face of actual demonstration that it is wrong. On the other hand, of the action of one who will admit with frank and ready courtesy that he has been mistaken, it may be said that it "blesseth him that gives and him that takes;" it covers his own retreat with gracefulness, and gives his adversary a pleasant memory of an encounter with a generous foe. —*Germantown Telegraph.*

—Always have a book within your reach which you may catch up at your odd minutes. Resolve to edge in a little reading every day, if it is but a single sentence. If you can give fifteen minutes every day it will be felt at the end of the year. Regulate your thoughts when not at study. A man is thinking, even while at work. Let him think well.

—The ancients do not appear to have had any system of punctuation, and doubtless employed arbitrary signs to distinguish the parts of a discourse. Of our points, the period is the most ancient. The colon was introduced about 1485; the comma was first seen in 1521, and the semicolon about 1750.

—Punch, in his dictionary, gives the definition of the word "conscience": "My rule for another man's conduct."

—He who thinks too much of himself will be in danger of being forgotten by the rest of the world.

—The friend who hides from us our faults is of less service to us than the enemy who upbraids us with them.

Popular Science.

—The light of lightning, and its reflections, will penetrate through a distance of from one hundred and fifty to two hundred miles.

—Mr. Edison has been awarded the grand prize of the Paris Exhibition for the most wonderful inventions of the age.

—A French scientist estimates, after a careful study of the subject, that there are 3,000,000 persons in France who are color blind.

—One of the most interesting scientific discoveries of recent date is that of a German chemist who has found a way to make indigo artificially.

—It is stated that the cactus plants which abound on the sides of Mt. Etna perform a very important function in aiding the "weathering" of the volcanic rocks, and so making soil by breaking up the lava.

—Plants, as well as animals, are susceptible to the influence of anæsthetics, such as ether and chloroform. The active process of germination can be suspended for a time by the power of ether.

—A German surgeon reports a case in which he transplanted the cornea of a dog to the eye of a patient and caused it to grow fast, thus restoring sight to an eye which must otherwise have been irrecoverably blind.

The Eclipse.—The different observers who studied the last eclipse of the sun all agree that our luminary presented some features different from those usually observed on such occasions. Mr. Morton, President of the Stevens Institute, thinks that the peculiarities noted confirm the theory of the origin of the sun's heat which accounts for it by the supposition that it is supported by a constant rain of meteoric bodies upon the sun.

Is the Moon Dead?—The question, "Is the moon dead?" is ably, though somewhat elaborately discussed by Mr. Proctor, of the London *Echo*. Although the idea that so vast a surface as that of the moon should remain forever a scene of absolute silence and desolation seems almost beyond belief, Mr. Proctor does not consider that any satisfactory evidence of change (from her original condition) has ever been given, while evidence of such systematic changes as we associate with the evidence of life is wanting altogether. In several regions the crust has been broken, evidently by explosive action. In some places mighty slopes can be seen, as in the Sea of Serenity, which is divided through the center by a sort of ridge line. Some astronomers have contended that the darkening of the floor of the great crater, Plato, (some sixty miles in diameter), proved the existence of vegetation in some form, while others declare that the supposed darkening is only the effect of contrast. The photographs of the moon taken many years ago exhibit the same outward appearance as now.—*Sel.*

The Power of Sound.—There is an anecdote related of Rubini, the great tenor singer, which illustrates the peculiar form of the human voice. In an opera by Pacini, called "Il Talismano," in which Rubini was singing, he had to sing a phrase in which a high B flat occurs, which he was accustomed to attack and hold out with great power, to the delight of his audience. The public flocked to hear this wonderful note, and never missed calling for a repetition of it. Rubini had already sung the note on seven previous occasions, each time twice, and on one evening, when an admiring audience waited for the production of the wonderful note, Rubini was dumb. He opened his mouth, extended his arms and tried to utter the note, which would not come. The audience cheered, applauded, and encouraged him in every way, but the obstinate B-flat refused to be sounded. One more effort, and the force of his powerful lungs overcame the obstacle, and the B-flat rung among the audience with brilliant vigor. But something in the mechanism of his voice had given away, and, though feeling acute pain, he continued the scene, forgetting his suffering in the triumphant conquest he had obtained. When he left the stage he saw the surgeon of the theater, who examined him and found that, in the exertion of producing the obstinate note, he had actually broken his collar bone. Exercising a little caution in his acting, he positively sung through the remainder of the evening with a broken clavicle, very few of the audience discovering that he had suffered any injury in his endeavor to please them.—*Sel.*

THE

HEALTH REFORMER

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J. H. KELLOGG, M. D., EDITOR. TERMS, $1.00 A YEAR.

Malaria.

OF all the causes of disease which are operative independent of human instrumentality, perhaps none is so universal as malaria. The word literally signifies, *bad air;* but its proper application is to a particular sort of bad air. The term "marsh miasm," frequently used for this cause of disease, is not a proper name for it, as it implies the idea that this "bad air" originates only in marshes, which is by no means the case, notwithstanding the popular belief to that effect.

Many people suppose that because they have no marsh, pond, or swamp adjacent to their premises they are exempt from malaria. This is by no means the case. This baleful poison exerts its insidious influence often where its presence has been unsuspected. Even the oases of the sandy desert of Sahara, and the ragged sides of the Rocky Mountains, are not exempt from this pernicious poison.

Says Dr. Dickson, in speaking of malarial fevers, "We find these fevers on the cold fens of Holland and Lincolnshire, as well as on the rich rice-fields of the sunny South; on the smiling hills which overlook the Hudson, as well as among the swamps and marshes; on the lime-rock of Kentucky and Tennessee, the clay of Alabama and South Carolina, the sandy barrens of her Northern sister, and the granite and sienite of the Empire State; on the volcanic tufa of Civita Castellano and the Roman campagna, and in the very crater and on the sides of extinct volcanoes, as at Balsina and Milo."

A writer in Ziemssen's Cyclopedia cites as proof that malarial fevers may originate on a dry soil and in mountainous regions, the fact that malaria is found on the Tuscan Apennines at a height of eleven hundred feet, on the Pyrenees at five thousand feet, on the island of Ceylon at six thousand five hundred feet, and in Peru at an altitude of over ten thousand feet. The same writer also states that malaria may even be developed in mild winters as well as in the summer season. An average temperature of 59° or 60°, which will produce vegetation, will also produce malaria, if other necessary conditions are present. It is well known that malarial poison may arise from lakes as well as stagnant ponds, from sluggish streams, from meadows, from newly cleared land or the turning up of the soil by plowing or ditching, from bilge water, from the water stored on ships for drinking purposes, and from a great variety of other sources. We have seen cases in which we were satisfied that the malarial poison arose from a foul cistern, or from damp, unaired spaces under the house.

With reference to the nature of the poisons, the expressed opinions and suggestions have been very numerous. Sulphurous or saline vapor, sulphuretted, phosphoretted, and carburetted hydrogen gas, carbon di-oxide, ozone, exhalations from volcanic soil, diminished atmospheric pressure, exhalations of living or decaying plants, heat, moisture, electricity, changes of temperature, foreign elements in the soil, lack of taurine in the blood, influence of the dog-star, animalcula, and microscopic vegetable organisms, have each in turn been advocated as the cause of malarial disorders. Exactly what malaria is, cannot at present be affirmed with positiveness; but we strongly incline to the supposition of Dr. Salisbury, of Ohio, that it consists of the germs, or spores, of certain cryptogamic plants, which his observations, published some years ago, would seem to prove.

A fact well worth bearing in mind is that malaria seems to have a particular fondness for people with inactive livers; and doubtless

a torpid state of this important organ is one of the greatest predisposing causes of the disease; consequently there is no better preventive of the disease than a careful dietary—avoidance of fat meats, rich gravies, fried food of all sorts, condiments, excess of sweets, and all kinds of highly seasoned food.

Longevity of the Jews.

THE remarkable tenacity of life manifested by the Jewish nation in all countries and under all circumstances has been the subject of frequent remark by medical writers. There seems to be a general agreement as to the causes of this most valuable characteristic, as clearly set forth by the learned author whom we quote below; but it is rare that the origin of the simple habits and excellent sanitary observances which contribute the most largely to their national vitality is clearly indicated. It is, undoubtedly, in the Mosaic record of this remarkable people that we find the true origin of the wonderful vitality which they have manifested in preserving their nationality during all their wanderings and persecutions, always suffering less from epidemics and plagues than people of other nations, also enjoying, more than any other nation, exemption from serious constitutional diseases, as scrofula, consumption, and malignant diseases.

Jehovah himself gave to the Jews, through Moses, a code of sanitary and hygienic laws, the excellence of which has been admired by the wise of all succeeding generations, and which have been acknowledged to be in most exact harmony with the most recent and refined developments of modern sanitary science. In so far as the Jews have maintained their conformity to these divinely appointed precepts, they have enjoyed the immense advantages arising from their superior physical and mental health. The following remarks by the learned Dr. Richardson are interesting in this connection:—

"Different causes have been assigned for this higher vitality of the Jewish race, and it were indeed wise to seek for the causes, since that race which presents the strongest vitality, the greatest increase of life, and the longest resistance to death, must, in course of time, become, under the influences of civilization, dominant. We see this truth actually exemplified in the Jews; for no other known race has ever endured so much or resisted so much. Persecuted, oppressed by every imaginable form of tyranny, they have held together and lived, carrying on intact their customs, their beliefs, their faith, for centuries, until, set free at last, they flourish as if endowed with new force. They rule more potently than ever, far more potently than when Solomon in all his glory reigned in Jerusalem. They rule, and neither fight nor waste.

"Happily we have not far to go to find many causes for the high vitality of a race which, by comparison with the Saxon and the Celtic, is physically feeble. The causes are simply summed up in the term 'soberness of life.' The Jew drinks less than his 'even Christian;' he takes, as a rule, better food; he rears the children he has brought into the world with greater personal care; he tends the aged more thoughtfully; he takes better care of his poor; and he takes better care of himself. He does not boast of to-morrow, but he provides for it; and he holds tenaciously to all he gets. To our Saxon and Celtic eyes he carries these virtues too far; but thereby he wins, becomes powerful, and, scorning boisterous mirth and passion, is comparatively happy."

Diseased Meats.

THE public cannot be too often warned of the imminent danger of injurious effects from the eating of diseased meats. At the present time the abuses practiced by drovers, cattle-dealers, butchers, and packers, are so numerous and flagrant that one can never be certain, when eating meat purchased at the markets, that he is not exposing himself to consequences of the most serious character. The following editorial from the Detroit *Lancet* calls attention to this evil in a very commendable way:—

"Dr. Sozinskey, of Kansas, Mo., in the *Medical and Surgical Reporter* of August 7, writing on the 'Handling and Use of Meats of Diseased Animals,' makes the following statements: 'Visiting the stock yards during the warm weather, one sees at times dozens

of cattle which are overcome with the heat, which are sinking, or have sunk, from sunstroke. What becomes of these unfortunate animals? If they are able to stand on their feet at all, and sometimes when they are not, they are sold to butchers and packers. . . .

"'When the hog cholera, Texas cattle fever, or any other serious epizootic disease, breaks out in a lot of marketable animals, they are disposed of as soon as possible to butchers and packers, and generally at but a slight sacrifice.'

"Apropos to this subject, we were called upon a few days ago to dress the cut hand of a patient, whose home is in this city, but who for some time past has been pursuing his avocation as a butcher in a large abattoir in Chicago. His statement as to the manner in which his wound was received is, in substance, as follows :—

"'In this abattoir we kill mostly Texas cattle—sometimes as many as six hundred in a day. These cattle, as a rule, are wild and unmanageable, especially when, as is often the case, they have not had food or drink for two days before they come to us. From this cause they are harder to kill, since (as is well known to every experienced butcher), when an animal has no food in its paunch it is much more tenacious of life. We kill in the following manner: The bullock is first lanced—that is, by a blow from a sharp instrument the muscles which erect the head are divided. This drops the head, and the bullock is no longer able to defend itself. A rope is then thrown around its neck, and it is dragged into the butchery room, where its throat is cut and the blood collected. It is no sooner on the floor than six men, each man having his own particular portion of the work to perform, proceed to skin and disembowel it. While skinning an animal I was cut; *the brute kicked*, and drove the knife into my hand. Yes, sir, *it is quite a common thing to begin to skin these beeves before they are dead*, we are so much hurried with work.'

"Cattle which are maltreated, especially when they have been deprived of food and drink for twenty-four hours before they are killed, are, in our opinion, unfit for human food. The meat is fevered, and has a peculiar look and odor, which any man accustomed to handle meat can soon distinguish. The meat turned out at this abattoir, and at some of the others of this city (Chicago), is mostly of this character. *It does not keep well*, and is used mostly for packing purposes.

"It is impossible, of course, to arrive at an estimate of the amount of disease engendered by the use of such meats, as they are scattered far and wide; but it is well known that they are highly dangerous to their consumers, and are the source of much disease and death. The subject of reform in this connection has often been presented to the notice of the public, and some little effort in this direction has been made. Inspectors, for instance, have in some cases been appointed, and have accomplished some good. But the pictures presented by Dr. Sozinskey and my patient are so disgusting to all sense of humanity and decency that further effort in this direction would seem imperative. We would recommend the field as a fruitful one to boards of health and societies for prevention of cruelty to animals—to the latter, especially, as it is truly awful to contemplate the terrible extent of suffering to the poor dumb brutes represented in one day's work in one of these extensive abattoirs."

Yellow Fever.

A NUMBER of correspondents have asked for information with regard to yellow fever, the disease which is devastating the South in so fearful a manner; and we accordingly devote a little space to the subject in this number, which may not be uninteresting to many besides those of our readers who may be in danger of suffering with the disease themselves. The following description of the disease we quote from the *Medical Record*:—

"Premonitory symptoms, when they exist, are headache, pain in the lumbar region, languor, with a furred tongue, loss of appetite, and chilly feelings. These symptoms have always varied with the epidemic. Usually the attack is sudden, often coming on when the patient is at work or asleep. In the majority of cases there is a chill of mild character. In this epidemic we hear that the chill is frequently wanting, the headache slight, and the pain in the lumbar region does not

come on until the fever sets in. After the chill, comes the fever, *the febrile or first stage.* With the rise of the temperature there is also a rise of the pulse, which may reach 110 or 115 on the first day; it is usually compressible. In the early part of the second day the fever is at its height. In sthenic cases it may reach 104° or 108°, but 105° is the average. The urine is first normal and then diminished in amount, and is apt to be albuminous. The tongue is moist and creamy throughout the disease, very rarely or almost never brown; the edges and tip are red. The higher the pulse and the stronger the fever, the redder the edges and tip. There is now intense pain in the head, back, and limbs, redness and suffusion of the eyes, moderate heat, and passive congestion of the surface. The bowels are sometimes constipated and sometimes open. Nausea now frequently occurs, the stomach first emptying its contents and then throwing off bile. There is some tenderness over the epigastrium, but it is not marked. The mind is usually clear.

"Even in this stage the skin may be jaundiced. Hemorrhages may occur from the nose. This first stage may last twelve, forty-eight, and even seventy-two hours. The fever is apt to fall on the second day, and then commences the *second stage,* or stage of remission. The temperature now falls to the normal or even below it, while the pulse will drop to 100. In some cases convalescence sets in at this time, and the disease is at an end. This constitutes a mild case. In most, however, this favorable condition lasts but a short time (from two to twenty-four hours or longer). Patients then are anxious to get up, but there is still vomiting and epigastric pain, and there is apt to be burning thirst.

"Now the temperature again rises. The stomach gets more irritable, which is due to congestion; glairy and very acid matters are constantly ejected; sometimes there is green bile, or there are black particles, precursors of the black vomit. This latter symptom is regarded as pathognomonic in connection with the other symptoms that have been named. The vomit is reddish brown, claret-colored, or blackish, with a sediment like coffee-grounds; occasionally it is bright red; it is acid to the taste, but not bitter. The evacuations are now usually blackish; yellowness of the skin is to be looked for at this stage. The urine is also very commonly suppressed; it may be passed and contain large quantities of blood, or may consist wholly of blood. The pulse falls low, possibly to 40, or even 30.

"To this stage succeeds another, known as the *third stage*—also called, in fatal cases, the period of collapse. There is great prostration and feebleness of the pulse, and, perhaps, coma and convulsions. But few pass through this stage and live.

"There is great variety in the type of the disease in any epidemic. The malignant form is characterized by black vomit, or hemorrhages from internal organs. The sthenic form is marked by high fever. The duration of the disease is from three to nine days. Sometimes bilious remittent runs into yellow fever, and yellow fever runs into remittent, as in this epidemic; and then, of course, the difficulties of the diagnosis are vastly increased."

The fatality of this disease is such as to make it one of the most formidable maladies with which the physician has to contend. The rapidity with which it sweeps away its victims during epidemics reminds one of the fierceness of a tornado or an avalanche in mountainous regions, an earthquake wave or a volcanic eruption. In some epidemics the fatality is as great as three out of four. The average mortality of all observed epidemics is three deaths to every seven cases. In view of this fact the treatment of this disease becomes a matter of the greatest importance.

Upon consulting the various writers upon the nature of this formidable malady and its proper treatment, one is met at the outset by the discouraging statement that no particular method of treatment appears to have a decided influence in controlling the disease. All agree that no specific remedy has been discovered. The plans of treatment employed have been very various indeed, many of them being most absurdly contrary to all the indications of nature. Undoubtedly, some cases are necessarily fatal, all remedies being of no avail from the first, on account of the rapidity with which disorganization of the blood occurs, the patient dying in a few hours from the appearance of the first active symptoms.

The treatment must be varied to meet the different conditions present in different pa-

tients, and in the several stages of the disease.

During the first stage, when the fever is high, the pulse rapid, skin hot and dry, tongue parched, reduce the temperature with cool packs and compresses, the shower-pack, sponging with cool water, cool affusions, or the cool full bath. The temperature of the water must be graduated according to the patient's feelings. The cooling treatment should not be pushed to extremes. If the patient complains much of chilliness, it should be moderated. The application of ice to the spine in the form of the ice-bag or ice-compress is a very excellent refrigerant means applicable to these cases. In cases of a very high temperature with considerable chilliness, the ice-compress may be applied to the spine at the same time that a hot fomentation is applied to the stomach. The head should be cooled by cloths wet in cold or iced water and renewed every ten or fifteen minutes, or by the ice-cap or ice-compress.

At the beginning of the first stage if there is evidence of derangement of the stomach with the presence of undigested food in the organ, the stomach should be cleared by a copious warm-water emetic. The bowels also should be well cleared by a thorough enema. There is usually great tenderness over the stomach, owing to the great irritability of the organ, attended by nausea and vomiting after the first few hours or the first day. This may be relieved by the application of hot fomentations or poultices over the stomach and bowels. The patient should be allowed to take water freely, but in small quantities at a time, sipping a little very frequently. He may even swallow bits of ice, but care should be exercised that too much ice is not taken into the stomach at once, as a depressing effect would be produced.

In the second stage of the disease, when the patient is prostrated, the skin cool and yellow, the pulse feeble and slow, the urine usually scanty, the indications are for tonic and eliminative treatment. The hot air or vapor bath, the hot pack, brisk rubbing of the surface of the body, fomentations to the stomach and bowels and over the liver, and hot foot-baths or other hot applications to the feet, are the remedies to be employed. This stage, though attended by less suffering, is attended by quite as much danger as the first, since the inactivity indicates a weakened condition of the vital powers. A continuance of the fever would usually be more encouraging. Care must be taken that the cooling treatment is not carried too far, as it will increase the depression of this stage.

The third stage, or stage of collapse, is scarcely amenable to treatment, as patients rarely survive it. It is, indeed, but a still further failing of the vital powers. The treatment must, of course, be supporting in character. In case of suppression of urine and a tendency to insensibility following, hot applications to the small of the back, and the hot-air bath, vapor bath, or warm blanket pack, will be found a useful remedy.

It may be found possible to abort the disease at the outset by the vigorous application of the hot-air, vapor, Russian, or Turkish baths, or by the use of the warm wet-sheet pack. The philosophy of this mode of treatment is that it produces powerful eliminative effects, and thus removes from the system the poison which occasions the disease.

Proper food is also an essential feature of the treatment. Great care must be taken to give the patient only the most simple and easily digested articles, such as well boiled and strained oatmeal gruel, barley-water and milk, milk with lime-water, in proportion of one to three parts of milk to one of lime-water. Various kinds of acidulated drinks, as weak lemonade, with little sugar, tamarind water, and the diluted juices of various fruits, will be very gratefully received by the patient.

The most essential thing in treatment is good nursing. Quiet, attentive care, good ventilation, thorough disinfection of the room and bed-clothing daily by proper cleansing, and attention to hygiene generally, will do more for the patient than all else. Stimulants and anti-periodics are much used, but whether they are of much use has not been well demonstrated.

—A physician in charge of an institution for the treatment of opium-takers asserts that at least four-fifths of the cases coming under his observation originate in a doctor's prescription for an opiate.

What Does it Mean?

An esteemed correspondent takes issue with our friend and colleague, Dr. Sprague, in regard to his views of the possible utility of stimulants for a temporary effect in certain cases of collapse. The gentleman speaks very warmly on the subject, evidently feeling that the Doctor has fallen into a most grievous error, and inquires of us with much unction, "What does it mean?"

The readers of the Reformer are well aware that the advocacy of alcohol as a harmless agent has been no part of the work of this journal. Indeed, there is, probably, no journal in the land, outside the ranks of the strictly temperance journals, that has given the subject of temperance so much attention as has the Reformer. The numerous articles which we have given our readers from the pens of such writers as Drs. Edmunds and Richardson, together with numerous original articles, showing the dangers of the careless and indiscriminate use of alcoholics in medicine, are a sufficient indication of the principles held by this journal on the subject of alcoholic medication.

Personally, we have never taken the position that there are no possible circumstances under which the use of alcohol would be admissible as a remedy. Its use as a tonic for a lengthened period, we consider unwise and unphilosophical from a purely medical standpoint, and pernicious in the extreme from a social or temperance standpoint, since we firmly believe that such a practice not only does a patient no good, but is one of the chief supports of intemperance. People very naturally reason that if alcohol will "tone a person up" when he is weak from a fever, it will have a like effect when he is exhausted with labor or languid with want of rest. The reasoning is certainly good, but the result is bad, which shows most conclusively that the premises are false.

In the case of a person suffering with collapse, there may be a sudden cessation of vital action to such a degree as to endanger life and render death certain without speedy relief. Under these circumstances any agent which will rouse the vital powers to action may be the means of saving life. A mustard plaster over the stomach, hot applications to the spine, the use of electricity, and of various other irritating stimulants, have been the means of saving life in numerous instances of sudden collapse. It may also be claimed, with plenty of instances to support the claim, that alcohol in some form has been useful under similar circumstances in the same way. In these cases it is not so much an addition of power that is needed as the ability to utilize the energy possessed by the system. An excitant or irritant effect is required, not a strengthening or tonic effect.

We look upon alcohol as a dangerous remedy to use, as is also opium, on account of its fascinating power over those who become victims to its use; nevertheless there are circumstances under which both these dangerous remedies are needful as temporary palliatives. There are other remedies which will often accomplish the same results, and when possible, we prefer to use them instead; but in their absence we would not hesitate to use what experience teaches would bring relief. And this we think we might do without any violation of the principles upheld by this journal, and without injury to the cause of temperance.

Gaslight and Eyesight.

The flickering of an unprotected gas-light is a source of great injury to the eyes, especially if one attempts to read or do fine work by such a light. Such use of the eyes should be avoided. The heat of even a single gas-light is also a matter of considerable consequence, since it often occasions very serious suffering in sensitive people, on account of heating the head. This fact "renders it necessary that the gas flames be not brought too near the head, because the radiant heat thus sent out may produce headache and congestion of the brain. Experience shows that where several persons are using the same flame, the source of light should be higher up, so that the unpleasant effect of the radiant heat shall disappear—especially if the so-called 'plate' illumination is used, which consists of a large funnel-shaped globe of milk glass closed beneath by a plate, by which arrangement the descending rays suffer a proper diffusion and loss of intensity,

and at the same time the flickering of the flame by breaths of air is avoided and a more quiet and steady source of light is secured. Under special circumstances, where the eyes are particularly sensitive, chimneys of a blackish-blue color may be employed. With such precautions, an injurious effect of gas-light upon the eyes is not to be apprehended."

Hygiene of Cellars.

PERHAPS no class of people live under conditions in some respects more unsanitary than does the farmer. While he has an abundance of fresh, health-giving air all about him, he often, through ignorance or neglect, himself prepares at home the most efficient means possible for making his home a hot-bed of disease. Sometimes in one way, and sometimes in another, the laws of sanitary rectitude are violated; perhaps most often the evil appears under the house, beneath the very foundations of the home, where the malign influence can be applied most thoroughly and most effectively. Dr. R. C. Kedzie, President of the Michigan State Board of Health, and Professor of Chemistry in the State Agricultural College, has contributed to the last Annual Report of the State Board of Health a most admirable paper on "Healthy Homes for Farmers," from which we extract the following; we shall give our readers more extended and equally valuable extracts from the same source at some future time :—

"Go down into the cellar and examine the foundations of life: see whether the cellar is dry and well ventilated, and the air sweet and wholesome; that no vegetables and useless rubbish of any kind are left to rot in your cellar. Or do you find all kinds of things going to decay, the cellar wet, the walls slimy, mold spreading over everything, and a close and stifling odor pervading the air of your cellar? If these inanimate things could give voice to their warning, what a sound would startle our ears in hundreds of cellars in our State. 'Here lie in ambush diphtheria and membranous croup, the destroyers of childhood, and typhoid fever that strikes at all ages: here lurk the seeds of consumption to bring forth the slow but sure harvest of lamentation and woe!' 'For the stone shall cry out of the wall, and the beam out of the timber shall answer it.'

"But though these voiceless things speak no word of warning, they hang out the flag of danger; the spotted mold and fungus attacking the timbers of your cellar show that destructive agencies are at work. Why, man! death is gnawing the very sills of your house, and shall he spare those tender morsels, your children? These damp, musty, moldy cellars are seed-beds of disease. Do not hope to preserve health over such a charnel house. Do not leave vegetables to rot in your cellar to spread rottenness through all your house.

"The wet cellar foretells wet eyes up-stairs! Drain it, and underdrain the surrounding soil so that your cellar shall always be dry. Drive out all mustiness and mold by ventilation and by abundant use of white-wash. Make the air of your cellars at all times sweet and wholesome, because much of this air will find its way into the rooms above. But if you neglect all these things, and the angel of death spreads his dark wings over your household, do not charge the effects of your nastiness and laziness to a very mysterious Providence! 'A prudent man foreseeth the evil and hideth himself; but the simple pass on and are punished.'"

Consumption among Fish.— There has recently been a remarkable disease prevalent among the fish of Lake George. Great numbers of perch and sunfish have died. Mr. Seth Green has been making an investigation of the cause of death, and reports that the disease affects principally the gills, and is of the same character as consumption in other animals. He very prudently warns people against using the flesh of the fish of the lake, as it is now well known that consumption is a contagious disease.

Hiccough.—This very common disorder, though rarely dangerous, is sometimes exceedingly troublesome, so that it is worth while to know how to cure it. Here are several ways :—

1. Drink very cold or very hot water.

2. Press tightly over the region of the stomach.

3. Hold the breath until the paroxysm is interrupted.

Good Advice.—The Chicago *Inter-Ocean* says it is cheaper to pay a good plumber than a good doctor. Typhoid fever, scarlatina, and diphtheria lurk around every bad drain and deficient valve of sink and closet. Do not wait for disease and death to invade the household, because of your negligence in obeying the plainest laws of health. Cool nights will soon necessitate the closing of nice, open windows; if pestilence comes in from defective pipe and decaying vegetation in the basement, do not lay it to Providence, but shoulder it on your own carelessness and reckless disregard of the fixed laws of the earth. Poisoned air kills.

Consumption in Paris. — Dr. Agard, a French physician, by careful study of the statistics of mortality has found that deaths from consumption amount to about one-fifth of the total mortality of that city. He also observes that the disease is most fatal between the ages of twenty-five and thirty.

Cause of Diphtheria.—It was found upon examination of two hundred houses in Boston where there had been cases of diphtheria, that the disease was in every case preceded by derangement of the waste-pipes, so that there was an escape of sewer gas, laden with disease germs.

—The Chinese government is really becoming enthused with the spirit of reform, having issued an edict forbidding the cultivation of opium under severe penalty. All soldiers and government officials are forbidden to smoke the drug, being severely punished for a violation of the order.

—An unthought-of means of contagion has recently come to light. It has been observed that the custom has been prevailing of late of providing convalescent patients with books from circulating libraries. In some cases, patients just recovering from contagious diseases of various sorts have been supplied with reading matter in this way, and thus communicated the disease to others. This reprehensible practice should be speedily stopped by the proper authorities.

—Homeopathy is rapidly waning, and scarcely exists more than in name. There is not one homeopathic physician in a hundred who sticks to his "little pills" and "potentized" water. No one now believes the absurd fantasies of Hahnemann. The president of the Homeopathic Society of New York City recently renounced homeopathy and joined the "regulars."

—It has been ascertained by a Swedish philosopher, experimenting on a healthy man about thirty-five years of age, confined in a small chamber into which air entered by a hole on one side, and was examined after it passed through at the other, that the carbon ejected per hour was 105 grs. fasting; 190 grs. after breakfast; 130 when hungry; 165 two hours after dinner; 160 after tea; and 100 sleeping; making about 7 ozs. daily. As a curious result of the chemical inquiries of the present age, it has also been ascertained that the quantity of solid carbon exhaled in twenty-four hours is 63 ozs. by a cow, and about 70 ozs. by a horse.—*Sel.*

—A London physician reports a case of scarlet fever which was communicated by a letter received from a person whose family were suffering with the disease.

—Dr. Bucke suggests in the *American Journal of Insanity* that the emotional nature has its seat in the sympathetic system.

—The Russians use a certain species of beetle as a remedy in hydrophobia. Two or three constitute a dose.

—People who live in malarious districts will be much more likely to escape "the chills," if they avoid taking cold.

DIETETICS.

"Eat ye that which Is Good." As a Man Eateth, so Is he.

About Children's Diet.

A FRIEND sends us the following, from the *Maine Farmer*. We are glad to see that so many of the people's journals of the day are calling attention to principles of such vital importance; and while there is nothing especially new in the article quoted, we are glad to give our readers an opportunity to see what other people are thinking on this important subject.

"Many mothers pay by far too little attention to the food which their children eat, and it is gratifying to learn, once in a while, of one who thinks the subject should be carefully studied by every mother. I have seen blue-veined children, whose throats were, perhaps, filled with large scrofula bunches, partaking freely of pork fat, or what was still worse (if worse it could be), of the pork itself. Perhaps a cup of tea, and not *weak* tea either, is drank at each meal; and if anything is taken between meals, it is more likely to be sweet cake than anything else. The mother finds her child's health very much impaired, and it is with much concern that she sets herself to thinking what she can prepare, that will tempt the appetite of her darling, and bring back the healthy color to its cheek. Instead of vegetables, fruits, and grains, she perhaps gives highly seasoned meats, tea, coffee, spices, etc., which inflame and irritate the tender linings of the stomach and cause the child to crave something more stimulating still. Can people of candor doubt that many a child is made a drunkard at its father's table? Can we think any person, who had always eaten healthy and unstimulating food, whose stomach was in a healthy and proper condition, would desire the use of the vile weed, tobacco? We all know that it is those who have used this nerve-killing drug that are prepared for the use of still more stimulating liquor. Ah, fatal day, when the first cup is lifted to the lips! It seldom stops here, and he who was once the hope and joy of fond parents is soon sleeping in a drunkard's grave.

"Is this picture too dark to contemplate? And do you choose to close your eyes to these facts (for facts they are), and fondly hope that such a fate may never befall your beloved son? We can only say, how much better it would be to guard against the temptation at first, before the evil days come, while you have your sons and daughters with you and can make them what you please. I intend to make it a rule in life never to require more of children than they see in their parents. Who would not be indignant to see a parent punish a child for swearing, if he was himself profane? It is, no doubt, often the case that the rum-drinking son is only one step in advance of his father, who is every bit the drunkard his son is, the only difference being that tobacco is the intoxicant instead of liquor."

What we Eat.—How much the success or failure of our lives depends upon the food we eat, we little comprehend. No science is so neglected and so little understood. Man would not dare to treat a valuable horse with the same recklessness with which he treats himself. For with care he selects food for his horse, few if any changes being allowed, and he procures a competent groom to look after and care for the animal, that he may be capable of fleetness and endurance; while with himself he sits down to his table groaning under its burden of variety and richness, and, without regard to the requirements of his system or the affinity the food may possess, fills himself to the utmost capacity of his stomach, regardless of consequences. But had he first passed this partaken dinner over to his chemist and allowed him to analyze it and hand it back to him labeled, he would have turned pale and wondered if such was truth. Again, were he to step into a drug store and attempt to promiscuously mix chemicals as he does his food, without regard to chemical laws, he would soon have his head blown from his body. Why not then study and investigate the laws of our own natures, and be as wise as is the ox or the ass that knoweth his master and his master's crib, and accuse not a kind and loving Providence of cursing us with ill health when the curse lies at our own door?—*Sel.*

—Newly made bread is less easily digested than that which has been made twenty-four hours.

FARM AND HOUSEHOLD.

Devoted to Brief Hints for the Management of the Farm and Household.

—To prevent cakes or other delicate articles from burning, put a cup of water into the oven.

—When jellies are put away, care should be taken to cover the top with finely pulverized sugar, which will prevent molding.

—To destroy moths' eggs, saturate the fabric, carpet, or other goods, with warm water, and apply a hot flat-iron for a few minutes.

—Tinned ware which tarnishes very readily is probably inferior in quality, and dangerous to use, being contaminated with lead, which is readily dissolved by weak acids, as those of sour fruits. Such ware is likely to render the food poisonous.

—In the south of Russia, grapes are preserved by the following process: They are gathered before they are quite ripe, put into large air-tight jars, so filled with millet that the grapes are kept separate. They are sent in this way to the markets of St. Petersburg. After remaining thus for a whole year they are still very sweet, all their sugar being developed by the ripening process in the jars.

Burns.—A good way to treat a burn is to cover it with lint or cotton-wool, then keep the lint saturated with a strong solution of soda.

Disinfect.—A dime's worth of copperas will render a foul sink wholesome. Dissolve in two quarts of hot water and pour into the sink. A quantity of this excellent disinfectant should be kept constantly on hand.

Remedy for Ants.—Saturate a sponge with molasses and water. Place it near the place most frequented by the ants. In a short time it will be swarming with the pests. Drop the sponge quickly into boiling water or shake it over a vessel containing turpentine.

Process to Remove Tree-Stumps.—A very simple process is employed for freeing woodland newly brought into cultivation from the stumps of trees. A hole about two inches in diameter and eighteen inches in depth is bored in the stump about autumn, filled with a concentrated solution of saltpetre, and closed with a plug. In the following spring a pint or so of petroleum is poured into the same hole and set on fire. During the course of the winter the saltpetre solution has penetrated every portion of the stump, so that not only this but also the roots are thoroughly burnt out. The ashes are left *in situ*, and form a valuable manure.

Housewife's Table.—The following table will often be found convenient for reference by housekeepers:—

Wheat flour, one pound is one quart.
Indian meal, one pound two ozs. is one quart.
Butter, when soft, one pound is one quart.
Loaf-sugar, broken, one pound is one quart.
White sugar, powdered, one pound one oz. is a quart.
Best brown sugar, one pound one oz. is a quart.
Ten eggs are a pound.
A common tumbler holds half a pint.
A tea-cup is a gill.
240 drops are equal to one tablespoonful.

House Walls.—It is doubtless well known that, in painting, when colors are mixed with size, whites of eggs, or other unctuous or glutinous matter, instead of oil, it is said to be done in "distemper." To have the walls of rooms colored in distemper, instead of being hung with paper, is a practice which now seems to be coming into considerable favor, and, it is believed, with no slight advantages. This is especially true in view of the fact that many paper hangings are at present so charged with arsenic as to be seriously dangerous to health, and that many more are peculiarly adapted, by their rough and flocculent surfaces, to attract dust, and so, possibly, disease germs. Many, too, are so costly that they cannot often be changed. On the other hand, distemper is innocuous, smooth, so cheap that it can be renewed at very small cost every year, and, when the color is well chosen, exceedingly pleasing and effective. Pale blues, pinks, and grays, with darker shades for the moldings, have a very good effect. It is not perhaps generally understood that distemper looks well when applied over papers with stamped or flocky patterns.

News and Miscellany.

—In Cincinnati there are 400 more saloons than groceries.

—There are 67,000 exhibitors at the Paris Exhibition.

—Reports from Cork aver that the potato disease is universal over the south of Ireland.

—Twenty thousand cabin passengers have sailed in the steamers for Europe this summer.

—One hundred and thirty persons were recently lost by the sinking of a ship in the English Channel.

—Of the 5,500 cases of suicide in France during a single year, drunkenness was assigned as a cause in one-fourth of the instances.

—Nearly three hundred miners were recently killed by an explosion of gas in an English coal mine. Nearly all in the mine perished.

—Immense coal deposits have been discovered in China. Over 3,000,000 tons are already produced annually by the few mines which have been opened.

—The medical journals report several cases of murder by somnambulists. Persons who are known to be addicted to sleep-walking should be carefully watched.

—There are said to be upward of twenty-five flashy story papers published for boys and children in New York City, with an aggregate circulation of over 375,000.

—A Texas Pacific Railroad is in contemplation. It is claimed that such a railroad would develop an area of country equal in extent to France and Germany combined.

—It has been proposed to the Khedive of Egypt to convert into paper the cloth of the mummies, of which it is calculated 420,000,000 must be deposited in the pits of Egypt.

—A Wisconsin inventor has made a steam wagon that will draw eight or ten tons, plow, harvest, thresh, and travel at the rate of ten miles an hour over a sandy, hilly road.

—Turkey lost, by the treaty of Berlin, a section of country larger than all New England. This large territory is divided up among various European powers, Austria getting the largest share.

—In a country grave-yard, in New Jersey, there is a plain stone erected over the grave of a beautiful young lady, with only this inscription upon it: "Julia Adams, died of thin shoes, April 17, 1837, aged 18 years."

—The imports of the port of New York during August were $25,542,000, showing a decline of over two millions, compared with the previous August. The exports for August were $31,500,000, exclusive of specie, showing a gain of $9,000,000 on the previous August. These figures are without precedent in the history of trade.

—The Bank of England was started in 1694, with a capital of £1,200,000. A century ago, in 1778, its notes in circulation amounted to £7,000,000; now they exceed £39,000,000—and the bullion has increased from £2,000,000 to £24,000,000, or $120,000,000.

—The Clark County *Press* soliloquizes thus: "Somebody has said, 'Our government lands cost $1 an acre, and good whisky $2 a bottle. How many men die landless, who during their lives have swallowed whole townships—trees and all!' We often see men on our streets who, on that estimate, have more than an ordinary school district concealed about their persons."

—A young Springfield (Mass.) man came near losing one of his eyes recently in a curious way. A friend with whom he was walking one evening, and who was chewing tobacco, spat carelessly across the side-walk, and a stray drop struck this young man's eye. It began to pain him in a day or two, and the pain increased for some time, one doctor telling him that the eye was probably ruined; but another medical examination resulted in the removal of two small particles of tobacco from the eye, and he is now doing well.

—The New York *Times* is of the opinion that no street in the world represents in the short space of two miles and a half anything like the enormous aggregate of wealth represented by Fifth Avenue residents between Washington Square and Central Park. It gives a few names: Dr. Rhinelander, $3,000,000; M. O. Roberts, $5,000,000; Moses Taylor, $5,000,000; Augustus Belmont, $8,000,000; Robert L. and A. Stuart, $5,000,000; Mrs. Paran Stevens, $2,000,000; Amos R. Eno, $5,000,000; John Jacob and William B. Astor, $60,000,000; Mrs. A. T. Stewart, $50,000,000; Pierre Lorillard, $3,000,000; James Kernochan, $2,000,000; William H. Vanderbilt, $75,000,000; Mrs. Calvert Jones, $2,000,000; James Gordon Bennet, $4,000,000; Frederick Stevens, $10,000,000; Lewis Lorillard, $1,000,000. Total, $240,000,000. Here we have 18 families living near each other who derive fixed yearly incomes from a capital which in the aggregate amounts to the prodigious sum of $240,000,000.

Literary Notices.

BEE-KEEPERS' MAGAZINE. New York: A. J. King & Co.

A journal exclusively devoted to the interests of those engaged in rearing bees. It is full of valuable information for such, and ought to be read by every man engaged in the business.

THE NORMAL TEACHER. Danville, Ind.: J. E. Sherrill.

A new journal, devoted, as its name denotes, to educational interests. The first number, which we have before us, indicates that the edi-

tor and publisher, Mr. Sherrill, is aiming at the right thing to advance the interests of education, namely, improvement in the quality of teachers. We wish the new journal success.

THE DISPLAY OF THE UNITED STATES GOVERNMENT AT THE GREAT EXHIBITION. By Augustus C. A. Perkes.

This little pamphlet of 137 pages contains exactly what every interested visitor to the government buildings at the Centennial Exhibition greatly desired, and sought for in vain. Although unpretentious in appearance, it is by far the most interesting publication respecting the Exposition that has yet appeared.

SURGICAL USES OF THE STRONG ELASTIC BANDAGE. Boston: James Campbell.

A paper of 27 pages, by Dr. Henry A. Martin, giving his experience of over twenty years in the use of the elastic bandage. The Doctor shows very clearly that the bandage is the remedy *par excellence* for most cases of varicose ulcer, as well as for a great variety of other cases; and he deserves great credit for doing more than any other man to develop its utility and bring it before the profession.

THE GOSPEL BANNER. Goshen, Ind.

This new journal is the organ of the "United Mennonites" of this country. It is edited by Eld. Daniel Brenneman, with whom we had the pleasure of a brief acquaintance several years ago. We have not forgotten the deep sincerity of purpose and thorough conscientiousness which were well evinced by his manner in every word and act then, and we see by glancing through his paper that its pages are imbued with the same spirit. We wish him success in his new field of usefulness.

THE FAMILY CIRCLE. London, Ont.: J. F. Latimer.

This monthly journal contains quite a liberal amount of good reading matter of general interest, and some good hints on health. Somebody has been criticising the editor a little for printing in his journal recipes for articles of food which he condemns as unhealthy. The editor attempts an apology, but tacitly admits the inconsistency, while making so lame an excuse that the critic is evidently ahead. Consistency is a rare jewel.

TEMPERANCE TRACTS. W. Tweedie & Co: London.

Through the courtesy of Miss Julia Coleman we have received the following excellent temperance tracts, published and circulated by the friends of temperance in England; they speak well for the progress of the cause of temperance in that country: Doctors and Brandy; Alcoholic and Non-Alcoholic Treatment Tested by Results; Fashions in Medicine; The Benefits of Total Abstinence in Health and Disease; Forty Years' Personal and Professional Experience; Total Abstinence a Source of Health; Alcoholic Drinks Medically Considered; Alcoholic Drinks Mischievous as Beverages and Empirical in Medical Prescriptions.

LIFE AND HEALTH is the name of a new health journal edited by Dr. Hicks, and published bi-monthly by the proprietors of The Mountain Home at Wernersville, Pa. The first number indicates that the moral and medical tone of the journal will be such as to render it a reliable and useful journal, which, we are sorry to say, cannot be affirmed of all health journals. Of this, all who are acquainted with the editor will feel assured.

The number of health journals is very few indeed; and, unfortunately, with only two or three exceptions, the few there are seem to be sadly given to hobby-riding. We do not believe that this will be the case with our new contemporary. The field of usefulness for first-class health journals is very broad. There is plenty of room for twenty more. We wish the new journal ample success, and trust the public will give to it the support which its merit deserves.

SEASONING.

A Sign of Indigestion.—"Gone to dinner. Be back in five minutes."

—"Keep your patients alive," said an old doctor to a graduating class of students: "dead men pay no bills."

—A doctor up town gave the following prescription for a sick lady, a few days since: "A new bonnet, a cashmere shawl, and a pair of gaiter boots!" The lady recovered immediately.

—The just published report of an Irish benevolent society says: "Notwithstanding the large amount paid for medicine and medical attendance, very few deaths occurred during the year."

—*First urchin*—"When a doctor gets sick, what makes 'em get another doctor to give 'em medicine?" *Second urchin*—"'Cos they can't take their own medicine—it's too mean. They give it to folks."

—The following memorandum of an outfit for a fishing party is made by an old hand at the business: "Whisky, fish-hooks, whisky, flies, whisky, fish-poles, whisky, bait, whisky, change of clothing, whisky, more whisky."—*Rome Sentinel.*

Items for the Month.

☞ A better opportunity for becoming acquainted with practical chemistry in relation to human life and health is offered in the School of Hygiene than at any other place in America. The school has a very complete laboratory connected with it, and opportunity is given students to do practical work not only in chemistry, but also with the microscope.

☞ We would call attention to the article on yellow fever in this number. Those who have friends in the South, the present scene of suffering, may wish to send copies of this number to them. We are quite confident that a careful and judicious application of the plan of treatment suggested would save hundreds of lives. The plan has been tried many times, and with excellent success.

☞ The eleventh annual meeting of the stockholders of the Medical and Surgical Sanitarium will be held Friday, Oct. 4, 1878, at Battle Creek, Michigan. It is expected that this will be the largest gathering of the friends of hygienic and sanitary reform ever held in this or any other country, and that the meeting will be a very interesting one. Those who come are cordially invited to call at the Sanitarium and see for themselves what is being done in the way of improvements.

☞ The largest and finest tabernacle building in Michigan is now being erected by the S. D. Adventists of this place. The building will be capable of seating 3,000 persons. It is beautifully located in a large area, just opposite the city park. A more fortunate selection of a site could not have been made. The old church, which was located on the same spot, has been moved away. The work on the new building is progressing with great rapidity under the vigorous management of Mr. H. W. Kellogg.

☞ Eld. White has just returned from Colorado, looking as hale and hearty as his friends have seen him for many years. His hosts of friends are highly gratified to see him fully restored to his former capacity for active work in originating and executing broad plans for usefulness. The Elder intimates that he may possibly start an institution similar to the Sanitarium in Colorado next spring, in the beautiful little valley where he has himself found renewed health, and has recently purchased a fine ranche. An institution in this locality would be an admirable place for consumptive patients, together with many other classes of invalids, to spend the summer. We shall be tempted to renew our own visit to that charming locality next summer.

☞ The HEALTH ANNUAL for 1879 is having a rapid sale in all parts of the United States. More than fifty thousand are already sold, and it is yet three months before New Year's. The Pacific Press, of Oakland, Cal., is getting out an edition for California, Oregon, and Washington Territory, as last year. A Swedish edition is also in course of preparation. The popularity of the ANNUAL increases every year. People generally prefer paying a dime for something really valuable and useful, to accepting as a gift any of the worthless trash offered by druggists in the interest of quack-medicine venders.

☞ The School of Hygiene opens this year with a full attendance of intelligent young men and women. The interest shown in the preliminary lectures of the course speaks well for a very successful and useful session. Here is a most magnificent opportunity for capable young men and women to fit themselves for a noble usefulness. The subject itself is exceedingly interesting, even fascinating. The mode of instruction makes the subject very simple and entertaining, hence very easy of acquirement. The opportunities for using the knowledge gained are numberless and unlimited.

The class now numbers about seventy, and will doubtless swell to one hundred or more a few weeks later. It is not yet too late to join the class, as the main subjects of the regular course are just now being entered upon.

☞ This number is a little late on account of an absence from home during the greater portion of the month. Having become somewhat worn with overwork, we improved the opportunity offered by the liberality of the railroad companies to members of the Association, to attend the annual meeting of the American Association for the Advancement of Science, at St. Louis, and enjoy with them an excursion to the Rocky Mountains.

The meeting was largely attended, there being about two hundred scientists present from all parts of the United States, and was full of interest. Mr. Edison was present with his wonderful inventions, which he exhibited, together with the magical "carbon button," which must be considered as a discovery. Prof. Marsh, the President of the Association, gave a very interesting

account of wonderful fossil reptiles, which he has been finding recently in the tertiary rocks of Colorado, illustrating his remarks by life-sized drawings of portions of the skeletons of animals that used to drag about upon the banks of ancient lakes and rivers a gigantic body at least one hundred feet in length and thirty or forty feet in height.

We had the pleasure of forming the acquaintance of Prof. Lakes, of the School of Mines, at Golden, Colorado, who has the honor of being the discoverer of the first of these huge monsters. The Professor is an Episcopal clergyman, and hunts fossils for recreation. He has exhumed several tons of skeletons, most of which are now in Eastern museums.

From St. Louis we accompanied a party of sixty of the members to Denver, Colorado, where we left the party, the majority of whom continued on a flying trip to the principal points of interest in the State, while we embraced the opportunity to call upon the former editor of this journal, Eld. White, whom we found rusticating for his health in a beautiful and romantic little canyon a few miles north of Denver. Here the Elder has several times recruited his worn energies, in the pure, cool, exhilarating atmosphere of the Rockies, and we were delighted to find that the few weeks he had spent here during the present season had wrought wonders for him in the same direction. Though unable to walk more than a few rods when he left Battle Creek a few weeks before, he was now taking almost daily excursions among the crags and peaks in the vicinity, climbing up the mountain steeps on horseback or on foot with almost as much alacrity as the younger members of the party.

After spending a very pleasant week at the Elder's hospitable mountain home, we gladly returned to our post again, refreshed and invigorated for another winter's work.

Perhaps we will in some future number give some further account of our observations in Colorado from a health or medical standpoint.