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Alcoholic Medication.—No. 3.

THE MEDICINAL USE OF ALCOHOL LEADS TO DRUNKENNESS.

THOUSANDS of victims of intemperance have acquired their appetite for the fatal drug from a physician's prescription. The doctor prescribed it as a tonic. The patient continued to feel the need of a tonic, and so he continued taking his dram as a medicine, a tonic, until he finally found, when too late, that he had become a confirmed inebriate.

Hundreds of reformed drunkards who had been induced to sign the pledge, and who had kept their resolution for years, have fallen back into the gutter again through the careless administration of alcohol by the family physician, and have thus been hopelessly lost to themselves and to society. We might present the touching details of many such cases; but all have been familiar with instances of the kind, and we will not present them here.

In addition to the alcohol prescribed by regular physicians, there is a still greater quantity sold and used under the name of bitters, which always consist of a filthy mixture of poisonous drugs with poor whisky. Not one of them is free from alcohol. This statement is true, notwithstanding the false asseverations of the manufacturers to the contrary. Even "temperance bitters" are no better than the rest. Some of these "bitters" contain more alcohol than the strongest liquors. By these infernal compounds, thousands of unsuspecting human beings have been lured down to death and ruin. The popular theory that alcohol is a good medicine, helps to inspire confidence in them, and so becomes in a measure responsible for the results.

THE MEDICAL USE OF ALCOHOL AN ALLY OF INTEMPERANCE.

The doctor gives a man alcohol because he is sick or weak. The moderate drinker takes it for the same reason. The drunkard prescribes his own "poison" because he feels uncomfortable, sick. The moderate drinker takes a glass of wine to give a "lively play of the imagination." When its influence is gone, his intellect is dull, his imagination clouded. He takes another glass to "cure" the difficulty, not considering that the remedy is the very thing that is making him ill. The drunkard wakes up after a night's debauch with an aching head, enervated muscles, and trembling nerves. He takes a glass of rum to cure his bad feelings, and at once feels better. Is not rum a good medicine for him? He thinks it is, and he has the doctors on his side, for the principle is the same whether the patient is suffering from fever debility or whisky debility; whisky cures in each case, and in the same way. Why has not the drunkard as good an excuse for curing his weakness and bad feelings by alcohol as any other person?

ALCOHOL IN DELIRIUM TREMENS.

Alcohol is the acknowledged cause of delirium tremens, and yet it has long been considered an essential remedy in the treatment of the very disease it had produced. While this practice would seem to be most ludicrously absurd, it has, nevertheless, been wholly consistent with the theory that alcohol supplies nervous force; for what condition can be found in which the evidences of loss of nerve power and tone are more distinct than in this disease. Practically, however, the use of alcohol in this disease has been a most convincing demonstration of the fact that alcohol does not supply nerve force, for a great proportion of the patients treated with it die.

The most observing physicians have already abandoned the use of alcohol in delirium tremens, as we hope they will soon do in many other diseases. Here are a few testimonies:—

"I have come to the conclusion that the use of spirits in the case of delirium tremens

does nothing but injure the patient, and probably hastens his death. I now, without the slightest hesitation, in every case should immediately stop the spirit, and I find that very few cases of delirium tremens that I have are fatal."—DR. JAMES EDMUNDS.

"If you follow the old treatment, you will lose half your cases. If you follow the treatment I give you, you will save nearly all. In the hospitals of Edinburg, the expectant treatment is found to save nearly all patients. They used to lose nearly all."—PROF. PALMER, of Michigan University.

Dr. Palmer recommended the expectant treatment. He also stated that, in Edinburg, instead of narcotics the patient is given a glass of water with the assurance that it will make him sleep, which it usually does.

ALCOHOL FOR MOTHERS.

It has become a notorious fact that the use of stimulants by women is increasing very rapidly, and the evil has already acquired alarming proportions. It has doubtless very largely arisen from the practice of physicians and nurses of recommending wine and beer to nursing mothers. The habit thus acquired, is continued.

But the mothers are not the only victims. A large share of the alcohol finds its way out of the system in the milk, and in this way delicate babes are kept in a state of semi-intoxication from birth until they are weaned. A mother finds her child nervous and fretful. She takes a glass of ale an hour or two before nursing the infant, and is pleased to find that he becomes quiet. She little dreams that his quietude is only the stupid narcotism of alcohol poisoning; yet such is the truth. Every one knows that a dose of castor-oil given to a nursing mother will affect the child as promptly as the mother. The same is true of alcohol; but the delicate organization of the infant is far more susceptible to its poisonous influence than the mother's system. Dr. James Edmunds says that a large majority of English ladies use stout while nursing, so that their infants "are never sober from the earliest period of their existence until they have been weaned."

Beginning life under such a regimen, is it any wonder that so large a number of young men, and young women also, develop into drunkards? Such a result is only the fruit of the seeds sown in earliest infancy. The ancient Romans were so well aware of this fact that the use of alcoholic drinks was by law prohibited to a Roman mother while an infant was dependent upon her for support.

WHAT DOES EXPERIENCE PROVE?

The testimony of many eminent physicians is that the use of alcohol as a supporter of vitality, a tonic, or a stimulant, is wholly unnecessary.

In London, there is a temperance hospital under the charge of Dr. James Edmunds, who delivered a very interesting series of lectures on this subject in New York City a year or two since. In this hospital, all alcoholic medicines are excluded "without incurring any risk or delay in recovery, and with advantage rather than detriment." The death rate, from the first establishment of the hospital, has been but six per cent., a rate far below that of other hospitals. Of more than three hundred surgical cases, which are generally supposed to especially demand alcohol, not a single one proved fatal without it.

Says Prof. Miller, M. D., of Scotland, "Alcohol cures nothing."

Dr. Higginbottom said before the British Medical Society, "I have never known a disease cured by alcohol."

Dr. Johnson, an English physician, says that alcoholic liquors are, "as medicines, wholly unnecessary."

A few years ago, two thousand English physicians publicly expressed their disapproval of the use of alcohol as a medicine.

In London alone, three hundred physicians signed a petition for the suppression of the liquor traffic, "alcoholic drink being, in their opinion, wholly unnecessary for medical purposes."

Medical testimony against the use of alcohol might be presented at much greater length if it were necessary. We wish it distinctly understood that in disapproving of the use of alcohol as a medicine, we do not advocate the use of poisonous substitutes, though even this course might in many cases be preferable. Most of the arguments which have been adduced against the use of alcohol are equally valid against all poisons. There are numerous other arguments which the present limits forbid us to mention, but which may be found presented in other connections.

We will conclude with a brief summary of the arguments adduced against the employment of alcohol as a medicine.

SUMMARY OF ARGUMENTS AGAINST ALCOHOLIC MEDICATION.

1. Its medical properties are due to the fact that it is expelled from the body, and to the manner in which it is expelled.

2. It is a poison in all doses, and is treated as such by the system.

3. It is in no sense a food.

4. It does not supply force nor support vitality.

5. It wastes force and vitality.

6. It is a poison to the sick as well as to the well.

7. Its effects upon the body are always injurious. It lessens sensibility, and occasions the destruction of the tissues.

8. It neither prevents nor cures disease.

9. Its common use in medicine as a stimulant or supporter of vitality, or nerve force, is entirely unnecessary and unjustifiable, and is productive of a vast amount of harm.

10. The only cases in which its use could possibly be of any benefit are those which require the momentary application of an irritant to prevent death from a suddenly collapse by exciting the vital energies.—*Alcoholic Poison.*

Vegetarianism and the Medical Profession.

BY WM. A. CLARK, C. M.

THE opinions of the medical profession have great weight with the general public, especially if those opinions are on the side of custom; hence, it is often necessary that all who advocate health reform should know well if the medical profession agrees with them in any part of their plans, or, if it disagree, the reason of dissent should be known. The general public do not, as a rule, know much of the professors of the healing art, they do not know that almost invariably reforms are opposed by those to whom they intrust their health. If they know that Harvey discovered the circulation of the blood, they have not learned that his discovery was ridiculed by his contemporaries. If they have heard of Dr. Cheyne and his advocacy of a vegetarian diet, they do not know that his reasons were ridiculed rather than argumentatively opposed. Dr. Lamb, in one of his works, shows that this characteristic of the profession is not to be found in England only. He mentions that in Spain, when one of the kings proposed a sanitary reform, his chief opponents were the doctors. Again, the attitude of medical men toward the temperance cause in its early history is a matter with which every well-read abstainer is familiar. A few acknowledged the physiological truth of total abstinence, many ridiculed, a few examined, many passed it by. Now, let me ask, What is the attitude of medical men toward vegetarianism? I will speak first of our opponents, and how I consider they should be dealt with.

THE MEDICAL OPPONENTS OF VEGETARIANISM.

Dr. F. R. Lees, in his "Inquiry into the Reasons and Results of the Prescription of Intoxicating Liquors in the Practice of Medicine," devotes his first chapter to the consideration of "Doctors and Doctors." Similarly I would speak of opponents and opponents. There are medical opponents of vegetarianism who apparently can only ridicule. The story of Dr. Cheyne may here be told. At one time this gentleman weighed thirty-two stone (four hundred and forty-eight pounds); but by adopting a vegetarian and temperance regimen he reduced himself to proper proportions, improved his health, and published a book recommending his new mode of life. At once many medical gentlemen were offended, and "Dr. Wynter arose to dispose of Cheyne in a summary manner. Wynter had two good reasons for hating Cheyne; Wynter was an Englishman and loved wine, Cheyne was a Scotchman and loved milk." Dr. Wynter thought to silence the redoubtable Dr. Cheyne by the following invective in rhyme:—

"Tell me from whom, fat-headed Scot,
Thou didst thy system learn.
From Hippocrate thou hadst it not,
Nor Celsus, nor Pitcairn.

"Suppose we own that milk is good,
And say the same of grass;
The one for babes is only food,
The other for an ass.

"Doctor, one new prescription try,
(A friend's advice forgive);
Eat grass, reduce thyself, and die,
Thy patients then may live."

To this, Dr. Cheyne well replied:—

"My system, doctor, is my own;
No tutor I pretend;
My blunders hurt myself alone,
But yours, your dearest friend.

"Were you to milk and straw confined,
Thrice happy might you be;
Perhaps you might regain your mind,
And from your wit be free.

"I can't your kind prescription try,
But heartily forgive;
'Tis natural you should wish me die
That you yourself may live."

The "ridicule" opposition is not yet ended, not even from medical men; for only a few weeks since, in a leading temperance paper in which vegetarianism was being discussed, the medical opponent of vegetable diet speaks of an "oven feed of green stuff or beans," while some mention the subject simply to introduce and dismiss "pot-bellied

vegetarians." How shall we meet this opposition? By counter ridicule, and by teaching the public that a man who cannot properly discuss this subject is undeserving the confidence placed in him.

The "unfair" critics need notice. We have among medical men who oppose us those who do so in a deceitful manner. I will mention an instance or two. In an American work upon physiology by Prof. and Dr. Hitchcock (father and son), we have the following deceitful style of opposition :—

"Carnivorous animals have only one motion of the jaw, up and down. Herbivorous animals have the side movement. Man has both movements; therefore he should eat both animal and vegetable food." (I quote from memory.) The facts stated are true; but it is equally true that the herbivora have both motions of the jaw, and not one only, as is *implied*. Another instance of this came to my notice. Looking at a second-hand book on health, I turned to read the author's views on diet. Dr. Lamb is introduced as a vegetarian, and instantly his death is referred to, the writer remarking that he did not die of old age. Is not this really deceit? Any person knowing nothing of Dr. Lamb would consider that his diet had injured him, whereas, had the writer told the whole truth, that Dr. Lamb was a sufferer almost from infancy, the reader would not expect that even a vegetarian diet would enable him to live to old age. Perhaps Sylvester Graham's death has been similarly recorded, without the fact being stated that his father was over ninety years of age when he was born.

The "uninformed" medical opponents must not be forgotten. These gentlemen are usually unacquainted with the subject, and, to cover their ignorance, are fond of introducing technical words and authority. They dismiss the subject with some of the following sentences :—

"The slightest glance at the human teeth shows that man was intended to live on a mixed diet." This is the style of Dr. Mapother, of Ireland, and others; but this kind of opposition reached its perfection in America, where "Dr. Dickson, the author of Chrono Thermalism, *modestly* observes, 'The most cursory examination of the human teeth, stripped of every other consideration, should convince anybody *with the least pretension to brains*, that the food of man was never intended to be restricted to vegetables exclusively."

Another American doctor, Dunglison, is not satisfied with a mixed diet, but demands one wholly animal. He considers that such a diet would be best both for man's mental and corporeal energies.

It will not be out of place here to try to settle once and forever the opinion of Dr. Dunglison. This living on flesh entirely has failed, as the following extract from the *Dietetic Reformer* will show :—

"Dr. Viettinghoff has been a vegetarian for about thirty years. His attention was first called to the subject by reading Dr. Fletcher's 'Pathology on Aliment,' which stated that all diseases resulted from it. This assertion he (Dr. Viettinghoff) at first thought very strange. Man must take food; therefore, if such a theory were true, the evil must be in the nature of the food. Wishing to prove the thing for himself, he determined to live for three months upon animal food alone. In a short time he became aware that he was becoming *weak* and thoroughly broken down. He could not sleep, think, nor walk properly. In short, he found himself losing both his physical and spiritual power. Still he persevered through the allotted three months, after which he lived wholly upon fruits and farinacea. In about a fortnight he found his health returning. He could read and do any work after meals, sleep well, and could take long walks before breakfast without fatigue, and the result of his experiment was that he found vegetarian diet so far superior to a flesh or mixed one that he has never returned to either. He naturally recommended this system to his patients, and those who took the advice remained well; those who would not listen to it, eventually became diseased. So his experience went to show that vegetarians enjoy life and all its blessings better than do those who subsist on a mixed diet."

I may mention that Dr. Viettinghoff is still alive, that he still takes an interest in vegetarianism, and is a charter member of the first "garden" of the newly established order of Danielites, which, by the way, was instituted by a medical student. Concerning this point of living entirely on animal food, I would also refer to Sir Edward Barry, who, Dr. Lees tells us, "by feeding on partridge for a few days, developed a strong tendency to putrefaction."

How are we to meet this opposition? We must for ourselves, as advocates, master some of the technicalities which these gentlemen introduce, and we must demand that in future, people will examine the question for themselves rather than decide according to the opinion of those who after the most cursory examination conclude that all vegetarians are without brains. But are there no honorable opponents? Undoubtedly. How must we meet them? I think that possibly vegeta

rians are to blame, in some respects, that we have not won more medical men to our side. We have so often met opposition which is unworthy the profession from which it comes, that we have condemned in too wholesale a manner those who differ from us.

OUR MEDICAL SUPPORTERS.

Let us now turn to consider the bright side of the question. Not long ago, I received a letter from one of the members of our Society, asking if there were any medical gentlemen who were vegetarians. Doubtless there are, but in our own country they are few in number. Only last month, Ireland lost one of its most successful practitioners, Dr. Simon Nichols, who was a vegetarian. In January last, I had the pleasure of receiving a letter from him in which he said, "I have not myself used wine or spirits for more than thirty years, nor for the last seven years have I used flesh-meat; and with the exception of influenza, with which I have been troubled for the last two months, I have enjoyed, generally, better health than when I used them." This was written at the age of seventy-three.

The death of Dr. Nichols reminds us of an English medical gentleman, Dr. Henry G. Lyford, who died about two years ago, and who wrote as follows of himself:—

"I have now (1871) been an entire and complete vegetarian and total abstainer for about thirty years, during the whole of which period I have enjoyed the benefit of uninterrupted good health, which has sustained me without a day's cessation in the performance of the duties and toils of a very extended public and private practice."

How old Dr. Lyford was at the time of his death, I cannot say; but the *Medical Temperance Journal* speaks of him as an "aged medical teetotaler." But why do I refer to the dead? Are there no living vegetarian medical practitioners? I have already mentioned the name of one known personally to some of our members, and I might also recall to your mind another who has been at some of our meetings, a countryman of Dr. Viettinghoff's. I refer to Dr. Wielobycki, who commenced the practice of vegetarianism after attaining the age of eighty. A former president of this Society was a physician. I refer to George Sexton, M. A. Again, I remember reading an article on vegetarianism not long since in the *Sanitary Review*, by Dr. Creppi, of London and Birmingham. The writer was not entirely with us then, but he has since joined the Vegetarian Society as an associate; and one of the newly enrolled members is Dr. J. H. Kellogg, editor of the HEALTH REFORMER. "One is as good as a thousand," says Dr. Lees in his vegetarian essay. This is not generally believed, and could we but claim to have among us only one medical gentleman, most people would consider us more foolish than they do at present. Names are effective with some people, so that some would be more influenced by our having several doctors on our roll than by all the facts we could bring before them. For those persons, I might mention two other medical men who have also recently joined the Vegetarian Society as associates, Drs. Burnett and Johnston. In the list of members and associates published at the end of 1875, we have also the names of eight medical men who are members. But how many could we number who, like Dr. Ellis, have not really joined, but who sympathize with us in our efforts, and who, at the least, acknowledge that a perfectly healthy life may be maintained on a purely vegetable diet! Many noted persons have borne testimony in favor of a vegetable diet, among whom are Dr. Cheyne, Sir John Sinclair, Dr. Cullen, Dr. R. Jackson, Dr. Hufeland, Gassendi, Dr. Taylor, Dr. Abernethy, Dr. Muzzey of Cincinnati, Dr. Jennings of Oberlin, Dr. Sewall of Maine, Dr. S. Graham, Dr. Alcott, and many others.

One other class of medical men might here be referred to; those who, though not vegetarians, recommend the system to *some* of their patients. They seem to think that one man's food may be another man's poison, so that while disapproving of vegetarianism as suitable for all, they recommend it as they would some drug. Well, we should be thankful for small mercies. Let us secure their facts; let us by all means keep in mind the good results following from the advice of these practitioners. I do not say, Let us take all we can on our side and throw over the other; but I do urge that we accept their facts. If they find that a diet of some particular vegetable food is good in some particular disease they have treated, we can properly accept the result without attributing it to some peculiar property of the food which in their opinion causes it to "act" on the system in a peculiar way. Perhaps with these might be mentioned some medical gentlemen who, while they approve the use of animal food, yet do something to restrict its consumption. There are plenty of foolish people in the world who give children articles of food which to them are more injurious than to a full-grown person. Such people we can perhaps influence more by the words of a flesh-eater like themselves than by any vegetarian writings. I believe there are

many medical men who, like a former physician to the king of the Belgians, Dr. Clark, do object strongly to children having flesh for food, and could the advice of such be collected and published, it would possibly aid us in our warfare, because it would be introducing the thin end of the wedge.

Hygiene among th Ancients.

(*Continued.*)

BY DR. W. B. SPRAGUE.

THE history of Greece possesses a remarkable degree of interest to those who seek to know the most favorable conditions for the development of the higher faculties of body and mind; for we find her in the most extreme ignorance and rusticity—as evidenced by the fact that she paid Pelasgus divine honors because he first taught her people the use of acorns as food, as being a more delicate and wholesome nourishment than herbs—and from this condition we trace her to the greatest celebrity of all nations of antiquity. No other country has furnished so many valuable monuments and illustrious examples. In view of these facts, we wonder that no more interest is manifested to learn the circumstances that led to such a transformation, and to make practical use of the bright example which she affords us.

As we study the history of the Grecians, we learn that during the period of their rise and progress, as it was with the Persians and other nations, great attention was given to the laws of health and the most favorable conditions for promoting bodily and mental strength and vigor. In speaking of hygiene among the ancients, I do not refer merely to diet, which many seem to think constitutes the sum total of hygiene, but to all their customs that have reference to the preservation of the best condition of health, as the meaning of the term hygiene would indicate.

Rollin says, "The reigning character in all the cities of Greece was a particular affection for poverty, moderation in fortune, simplicity in buildings, dress, equipage, domestics, and table. It is surprising to consider the small retributions with which they were satisfied for their application in public employments and services rendered the State. What might not be expected from a people nurtured and educated in these principles, and endued from their earliest infancy with maxims so proper to exalt the soul, and improve it with great and noble sentiments? The effects exceeded all idea and all hope that could possibly have been conceived of them."

Lycurgus, in his celebrated laws, made especial provision for the diet of the people by instituting public meals and ordaining that all the citizens should eat together of the same common food which the law prescribed, and forbidding them to partake of delicacies at home. He looked upon the education of youth as the greatest and most important object of a legislator's care, and established regulations for disciplining the Spartan youths in correct habits of exercise, diet, etc.

Pythagoras, one of the first among Grecian philosophers, first distinguished himself at the Olympic games in the eighteenth year of his age, by bearing away the prize, which shows how science and gymnastics were combined in the education of the youth of those days. This same philosopher became a leader and teacher, his disciples forming a society known as Pythagoreans, which became justly celebrated throughout the world. "His disciples lived in the most perfect union, all their works tending toward that consummation. Every hour was appropriated, and each duty accurately determined. The whole of their lives was devoted to preserving the forces of the body and soul in a continual state of harmony, and the shunning of the least infraction of the rules of order, and the least error in the moral and physical regimen which their master had prescribed for them. They observed the greatest cleanliness, frequently cut their hair, shaved, and used baths in order to maintain the body as pure as the soul. They accustomed themselves to certain exercises, such as promenading, wrestling, running, and dancing. Sobriety was one of their principal obligations. No example of strictness similar to that of Pythagoras had ever been known as regarded the choice and quantity of food."—*Dunglison's History of Medicine.*

Several articles of food were proscribed, and we are led to conclude that they were vegetarians since it is said that "Pythagoras was ever an enemy to shedding the blood of all animals."—*Lempriere's Classical Dictionary.*

He accustomed his disciples to so much self-denial that when they were tormented with hunger he placed before them the most delicate dishes and immediately removed them without their being permitted to touch a morsel. In order to remove from the young men every voluptuous idea, he wished them to be constantly occupied either mentally or physically. "The tender years of the Pythagoreans were employed in continual labor, in study, in exercise, and repose; and the philosopher maintained his well-known

maxim, that many things, especially love, are best learned late."

"They were warned against giving way to any passion, even of the most innocent nature, such as effusions of joy, for fear of disturbing the harmony between body and soul." —*Dunglison's Hist. of Med.*

Such were the conditions under which the Grecian philosophers, the wonder of all succeeding ages, were developed. And here, as elsewhere, we have abundant proof that there is harmony in all the laws of nature; and that by obeying the laws of our physical being we secure conditions the most favorable for the perfect development of our higher natures. To be sure we find much of error and superstition in the history of even the wisest of Grecian philosophers; but this is not strange, considering the ignorance from which they emerged, and we can only contemplate the high state of enlightenment and culture which might have existed at the present day had not mankind so often degenerated by gratification of lust, and debauchery. Cannot we, by firm adherence to the principles of right and truth, accomplish as much for the enlightenment and progress of *our* age as these ancient sages for the improvement of *barbarians?*

Mineral Springs and Baths.

BY J. H. WAGGONER.

In my travels in California I have had opportunity to visit several "Springs," and to notice the fixtures for bathing, and the habits of the visitors.

Hot springs and mineral springs are only too common on the Pacific Coast. A good cold spring of pure water is a great rarity. The habits of the people are favorable to the support of such places of resort, and the extent to which they are patronized is truly wonderful. My first visit was to the

GILROY HOT SPRINGS.

They are about 1500 feet above the ocean level, in the range of mountains east of Santa Clara Valley. The temperature of water is about 115°. At this place I found the bath-rooms with an intelligent and sensible superintendent. This is worthy of note, for such are seldom found at "Springs." He told me the great difficulty was to keep patients out of the water. They go there to receive the benefits of the mineral water, and they will not be satisfied unless they receive several hot baths a day. Some could not be persuaded to admit any air into the bath-rooms, and they left the bath dripping with perspiration.

The only fault I found there was the scarcity of cool water in the bath-room. People were taking large draughts of water from the large fountain, and I made two efforts to swallow a little, but without success. From the taste, I think I can give a formula by means of which anybody can try the experiment at home:—

Mix a tumbler of soda-water in the usual manner; let the effervescence pass away; add sulphur *q. s.*, bring it to a temperature of 95°, and drink it—if you can. My next call was at the

ST. HELENA SULPHUR SPRINGS.

These are in Napa Co., two miles from St. Helena village, in a narrow canyon between high hills, or more properly, mountains. I procured a ticket for a bath and went to the room. Seeing but one faucet, I asked the attendant if there was no cold water admitted. "The water is just the right temperature," was his reply, as he turned away. Wise man! He knew that all persons and all conditions require water at the same temperature! While the Spring water is uniform in temperature, the air outside is not. But the bather is obliged to leave the warm bath without any cooling of the surface, however cool the atmosphere outside. My bath was near the middle of the day, and as I came out I utilized the warm sunshine; but I had no desire to return there for a bath.

The water is more purely sulphurous than that at Gilroy, and very disagreeable to a well-formed taste. Its strength is such that some silver in my possession was the color of old iron when I came out of the bath-room.

CALISTOGA HOT SPRINGS.

These are about ten miles from the last named, and at the head of Napa Valley. They rise in many fountains in the open plain. The land all around is low, and some of it quite marshy, except "Mount Lincoln," a beautiful mound-like elevation near the main building. The projector of this establishment planned largely, but he failed, and everything was running toward ruin at the time of my visit, or visits, as I was there twice. A large fortune was spent in grading up the ground and setting out shade and ornamental trees. But this was a failure, for as the trees send down their roots into the moist earth, they usually strike hot water, and die. Within the various buildings there was not sufficient light to enable me to ascertain the exact temperature of the water, but it is very high. An open spring from which the water flowed but slowly, stood at 168°. There was a steam bath ever ready, with no scarcity of

steam; also a "mud bath," and, apparently, no scarcity of mud.

The great novelty of this place is a "chicken-soup spring," covered with a small building with the sign of "Nature's Kitchen." A mixture of pepper and salt stood there to enable any one to try the soup seasoned to his taste. Parties bring their crackers and so enjoy *natural soup*, always hot and fresh; and it is averred that its taste is precisely that of well-made chicken soup. As I have never kept up the supposed ministerial fondness for chickens, and have a strong dislike to both pepper and salt, and had some squeamish queries as to how the nauseous compound was concocted in the hot vaults below, I did not taste of it; but I can certify that its odor is exactly that of genuine chicken broth. As the cold-spring pipe was out of order, I was unable to judge of the supply of cold water. But from my observations of the surrounding country I think there is none very cold.

LYTTON SPRINGS.

These are in Sonoma Co., near Healdsburg. They furnish clear, cool Seltzer water, which is much more pleasant to the taste than the water from most of the Springs. The establishment was under a fitting-up process, and I can say nothing of its baths.

THE LARGE GEYSERS.

These, as a curiosity, will never lack for visitors. They did not meet my expectations, and yet they well repay a visit. Sulphur Creek, a beautifully clear mountain stream, runs between the hotel and the springs, and all are in a deep canyon. Pluton canyon is a smaller gorge down which flows Pluton Creek, a small stream nearly at right angles with the larger canyon and creek. The geysers are mostly in Pluton canyon. The wonder is not in the height to which hot water or hot earth is projected, as the stranger is apt to imagine, for that is inconsiderable, but in the number and variety of the springs. In close proximity are found different springs which send forth water, clear, black, sulphur, soda, sweet, acid, etc., and of a temperature from cool to boiling. Some of them sputter the hot water out from the rocks so that it is difficult to dip from them without getting the hands scalded. One steam spring on the higher ground projects a column of hot air with force sufficient to sound a locomotive whistle with great energy.

My visit was too soon after heavy rains. The bath-houses, which stood over Sulphur Creek, were broken by the high water, and large logs had drifted on to the floors. Hot water was brought from springs on the hillside, while cool water was brought from the creek below. This is not so much a place of resort as of transient visiting, yet I think I could spend a few weeks in the quiet of that canyon with its interesting springs, and clear creek which revels over its stony bed, with as great pleasure as in any place I have visited in this State.

HARBIN SPRINGS.

These are hot sulphur, situated in Lake Co. The county papers claim that Lake Co. is "the sanitarium of California," because it is elevated and has a fine climate, but mostly because it is dotted all over with mineral springs. At almost every turn of the road will be seen a sign, such as "Harbin Springs," "Alexander's Springs," "Adam's Springs," "Bartlett Springs," etc., with the distance to each. The last named are the most celebrated of all; but they were some distance from where duty called me. I visited only the first named. It is well fitted up as a place of resort, but my visit was on a very hot day. As we toiled up the grade in the canyon under a burning sun, the high hill-sides shutting out the air, and the heat in the shade nearing 110°, we could not very well appreciate the beauty of the situation. The bath-rooms were furnished with two pipes. The hot water was plentiful, too hot to use without cooling; but the cold water was such in name only, or only so considered by contrast with the other. With all the fresh air I could command, and with the cool water, I could not check the perspiration. In cooler weather it might be more agreeable.

I was requested to visit several other hot springs to which I was near, but I declined, having the greatest desire in that weather to see *a good cold spring*, but I was not gratified with the sight. I must not omit mention of a bath in the open air which I enjoyed in

BORAX LAKE.

This is in Lake Co. It is a body of strong borax water, perhaps one and a half miles long, and half as wide, though its exact dimensions I do not remember. Not a sign of life is seen in it. The oil collected in the hair of our heads made a free lather in it as we washed, and a bath in it was very agreeable. The water is heavy, and swimming in it is easy. Deposits of clear borax are found in the mud at the bottom.

I cannot forbear expressing pity for those who love the water of these mineral springs. Some of them, probably, so seldom taste water elsewhere that they do not know the value nor the luxury of pure water. But bathing, together with rest from overwork or from the hurry and excitement of Califor-

nia life, benefits many of the visitors to the springs in spite of their abuse of the bath. And whether benefited or not, it is fashionable to visit them, and they are liberally patronized.

A good hygienic institute, where baths might be properly administered by intelligent physicians, and proper food be afforded, would be exceedingly useful and well sustained in this State. It seems surprising that no such institution exists in all this country. But I cannot think it will long be thus. Some of the ardent workers in the cause of health reform must improve some of the many openings for such a work on the Pacific Coast. And so may it be.

Erroneous Practice.

BY DR. W. J. FAIRFIELD.

THE advance of health reform has been greatly retarded among the masses by the injudicious course of persons who, claiming to be health reformers, have advanced and practiced many extreme notions.

In the first place, it should be understood by all that there is no specific in the cure of disease; that water is not the only hygienic remedy employed successfully, but that its success depends largely on other hygienic remedies employed in conjunction with it. And the same may be said of all hygienic remedies. None are independent, but all have a dependence on one another to that extent that if one be neglected it may seriously counteract all the good effects of the others.

The hygienic system is gaining popularity every day, and it is nothing strange, in this money-making age, that some unprincipled men—for the sake of replenishing their pockets—start bogus institutes and advertise them as strictly hygienic in treating the sick, when, perhaps, the only approach they make toward a hygienic institute, besides the name, is that water is employed to some degree as a curative agent, other hygienic remedies being neglected, and patients being allowed to continue injurious habits. This mode of decoying patients and flattering them with the belief that they are treated with strictly hygienic remedies when but little is done in that direction, is very abusive and injurious to the patient as well as to the hygienic system.

Persons designing to go to a health institute for the recovery of health should be very particular to go to an institution where all hygienic remedies are employed, where one is not used to the exclusion of another, or all the rest, and where the physician in charge is educated for his responsible position.

It is a false idea that hygienic physicians do not need much knowledge beyond that of giving baths, etc. While it is very important that they know how to give the various baths properly, it is of equal importance, and the very foundation of the whole system, to have a practical knowledge of human physiology, anatomy, chemistry, and kindred branches, and to be thoroughly acquainted with the nature and cause of disease. It is only with such knowledge, combined with sound judgment and skill, that the physician should treat the sick.

I was pained to hear an old reformer remark to two young persons who were just commencing the study of medicine, and were contemplating attending a medical college, "What is the use of your taking a course at college? You discard drugs; you have no need to take a course of study." He conveyed the idea to those students that if they knew the various appliances of water and electricity, as employed in treating disease, they would be fully competent to act as hygienic physicians.

If the physician of any class requires knowledge and skill in his profession, it is the hygienic physician; for the system discards all specifics, and deals wholly in principles which are the laws of nature. This requires something more than the noting of a few symptoms, and writing a prescription upon the principle of "*similia similibus curantur.*"

Tobacco Boys.—Tobacco-boys will make tobacco-men, with tobacco-teeth, tobacco-breath, tobacco-pockets, and a general tobacco-smell; and what is worse, they will have tobacco-appetites, which will crave tobacco enough in their lifetime to feed them, to buy a small farm, and to educate a small family. They will, moreover, spit tobacco all along their way through life, to the annoyance of their neighbors, and the displeasure of their wives and families.—*Ex.*

—"Why, Eliza Mary, I ain't seen ye for I don't know how long!" "No, Mrs. Jenkins, you ain't. I've been that ill I don't seem able to get well at all." "But haven't ye taken any remedy?" "No, indeed, Mrs. Jenkins, but I've taken a power of physic."

—Bishop Ames, of the Methodist Church, declared in a conference held in Alexandria, Va., that "tobacco is doing more harm to the church than whisky."

LITERARY MISCELLANY.

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

THE YEAR.

BY MARY L. CLOUGH.

See, his trembling tears are falling
All along the dusky day,
And his withered form is bowing,—
Ah, the year is old and gray.

E'en his smile is full of sadness,
And his breath, grown damp and cold,
Blights the maple's flaming banner
That his hands had fringed with gold.

Poor old Year, alone and dying
In the night-time cold and drear,
While his summer friends and lovers
Haste to greet the glad New Year!

List! his voice, grown hoarse with sobbing,
At the threshold wails no more.
In the midnight watch we find him,
White and frozen at the door.

Home Thoughts.

BY MRS. E. G. WHITE.

Life is a disappointment and a weariness to many persons because of the unnecessary labor with which they burden themselves in meeting the claims of custom. Their minds are continually harassed with anxiety as to supplying wants which are the offspring of pride and fashion. Jesus, in his sermon on the mount, strikes a direct blow at this engrossing care for the things of this world. He says, "Take no thought, saying, What shall we eat? or, What shall we drink? or, Wherewithal shall we be clothed?" "Consider the lilies of the field, how they grow, they toil not, neither do they spin, and yet I say unto you that Solomon in all his glory was not arrayed like one of these." All the efforts of humanity cannot approach the beauty of Nature. The simple flowers of the field put to shame the robes of royalty. And Fashion, with her endless changes and eccentricities, presents the very opposite of that simple loveliness with which the lilies of the field are clothed, and which Jesus declared exceeds the glory with which Solomon was arrayed.

The expense, the care and labor, lavished on that which, if not positively injurious, is unnecessary, would go far toward advancing the cause of God if applied to a worthier object. People crave what are called the luxuries of life, and sacrifice health, strength, and means to obtain them. A lamentable spirit of rivalry is manifested among persons of the same class as to who shall make the greatest display in matters of dress and of household expenditure. The sweet word, Home, is perverted to mean something with four walls, filled with elegant furniture and adornments, while its inmates are on a continual strain to meet the requirements of custom in the different departments of life.

It is necessary to give due regard to the clothing, to the table, and to the pursuits by which we gain a livelihood; but there is danger of carrying this zeal to an extreme. In the days of Noah they were eating and drinking, marrying and giving in marriage, buying, selling, and building, till the flood came and destroyed the people who had been so overzealous in the things of this world that they forgot God, and became abominable in his eyes. It was lawful for men to eat and drink, plant and build, marry and give in marriage, in the days of Noah; but the sin was in carrying these lawful things to extremes, to utterly fill their minds with them to the exclusion of all noble thoughts. Depravity, violence, and all manner of sin was the result. The great danger of these days is in devoting too much time to merely temporal matters, and making it the great aim of life to provide for the temporal wants, many of which are perverted and unnatural. In order to gratify a weak and sinful pride, people sacrifice comfort, peace, and the love of God.

Happiness is not found in empty show. The more simple the order of a well-regulated household, the happier will that home be. The courtesies of every-day life, and the affection that should exist between members of the same family, do not depend upon outward circumstances. Much of the restless longing and seeking for "that which profiteth not" is due to wrong training in youth. Each child in the family should have a part of the home burden to bear, and should be taught to perform his task faithfully and cheerfully. If the work is portioned out in this way, and the children grow up accustomed to bearing suitable responsibilities, no member of the household will be overburdened, and everything will move off pleasantly and smoothly in the home. A proper

economy will be maintained, for each one will be acquainted with, and interested in, the details of the home.

In some families there is too much done. Neatness and order are essential to comfort, but these virtues should not be carried to such an extreme as to make life a period of unceasing drudgery, and to render the inmates of the home miserable. In the houses of some whom we highly esteem, there is a stiff precision about the arrangement of the furniture and belongings that is quite as disagreeable as a lack of order would be. The painful propriety which invests the whole house makes it impossible to find there that rest which one expects in the true home. It is not pleasant, when making a brief visit to dear friends, to see the broom and the duster in constant requisition, and the time which you had anticipated enjoying with your friends in social converse, spent by them in a general tidying-up, and peering into corners in search of a concealed speck of dust or a cob-web. Although this may be done out of respect to your presence in the house, yet you feel a painful conviction that your company is of less consequence to your friends than their ideas of excessive neatness.

In direct contrast to such homes was one that we visited during the last summer. Here the few hours of our stay were not spent in useless labor, nor in doing that which could be done as well at some other time; but were occupied in a pleasant and profitable manner, restful alike to mind and body. The house was a model of comfort, although not extravagantly furnished. The rooms were all well lighted and ventilated, and every one, including the bed-rooms, was furnished with an open grate that the occupants might enjoy the healthful warmth and glow of an open fire, which is of more real value than the most costly adornments. The parlors were not furnished with that precision which is so tiresome to the eye, but there was a pleasing variety in the articles of furniture. The chairs were mostly rockers or easy-chairs; not all of the same fashion, but adapted to the comfort of the different members of the family. There were low, cushioned rocking-chairs, and high, straight-backed ones; wide, capacious lounging-chairs, and snug little ones; there were also comfortable sofas; and all seemed to say, Try me, Rest in me. There were tables strewn with books and papers. All was neat and attractive, but without that precise arrangement that seems to warn all beholders not to touch anything for fear of getting it out of place.

The proprietors of this pleasant home were in such circumstances that they might have furnished and embellished their residence expensively, but they had wisely chosen comfort rather than display. There was nothing in the house considered too good for general use, and the curtains and blinds were not kept closed to keep the carpets from fading and the furniture from tarnishing. The God-given sunlight and air had free ingress, with the fragrance of the flowers in the garden. The family were, of course, in keeping with the home; they were cheerful and entertaining, doing everything needful for our comfort, without oppressing us with so much attention as to make us fear that we were causing extra trouble. We felt that here was a place of rest. This was a Home in the fullest sense of the word.

The rigid precision which we have mentioned as being a disagreeable feature of so many homes is not in accordance with the great plan of Nature. God has not caused the flowers of the fields to grow in regular beds, with set borders, but he has scattered them like gems over the greensward, and they beautify the earth with their variety of form and color. The trees of the forest are not in regular order. It is restful to eye and mind to range over the scenes of nature, over forest, hill and valley, plain and river, enjoying the endless diversity of form and color, and the beauty with which trees, shrubs, and flowers, are grouped in nature's garden, making it a picture of loveliness. Childhood, youth, and age can alike find rest and gratification there.

This law of variety can be in a measure carried out in the home. There should be a proper harmony of colors, and a general fitness of things in the furnishing of a house; but it is not necessary to good taste that every article of furniture in a room should be of the same pattern in design, material, or upholstery; but, on the contrary, it is more pleasing to the eye that there should be a harmonious variety.

But whether the home be humble or elegant, its appointments costly or the reverse, there will be no happiness within its walls unless the spirit of its inmates is in harmony with the Divine will. Contentment should reign within the household.

The Pyramids.—When we are yet twenty miles from Cairo, there, in the south-west, visible for a moment, then hidden by the trees, and again in sight, faintly and yet clearly outlined against the blue sky, are two forms, the sight of which gives us a thrill. They stand still in that purple distance in which we have seen them all our lives. Beyond these level fields and these trees of sycamore and date-

palm, beyond the Nile, on the desert's edge, with the low Libyan hills falling off behind them, as delicate in form and coloring as clouds, as enduring as the sky they pierce, are the pyramids of Geezeh! I try to shake off the impression of their antiquity, and imagine how they would strike one if all their mystery were removed. But that is impossible. The imagination always prompts the eye. And yet I believe that, standing where they do stand, and in this atmosphere, they are the most impressive of human structures.—*Mummies and Moslems.*

Glances at the Exhibition.

PAPER NUMBER THREE.

THE United States Government Building covers an area of more than two acres. Here the War Department presents a display that records the progress made in the manufacture of arms and the ammunition and accoutrements of war from the days of the Revolution to the present time. Life-size figures in full military dress illustrate, in a striking manner, the contrast between the picturesque costume of the old Continental army and the simple, convenient uniform and equipments of the present day. There are fortification models, torpedoes, artillery of the most improved modern design; and in the Quartermaster's Department the convenient army wagons and the perfection of hospital and ambulance service show what attention has been directed to alleviating the hardships of our army service.

THE NAVY DEPARTMENT

Exhibits models of gun-boats and clean-rigged men-of-war, indicating what improvements have been made in the means of naval warfare since the days of Perry, Porter, and Decatur, and when the gallant Paul swept the seas, the incarnation of victory. One of the handsomest things in this section is a full model of the United States' sloops of war from water-line to rail; length, 41 feet, fully rigged with sails, equipments, and armament of twenty-two broad-side guns.

REVOLUTIONARY RELICS.

Apropos of Revolutionary times, there is grouped, in a conspicuous position in this building, a very interesting collection of the personal effects of General Washington. Among other things is his camp-chest, used while in the field, a quaint, old-fashioned affair, furnished meagerly with a few necessary articles, including a small medicine-chest. There is also a rude camp-table set out with an old pewter service from which the brave Continental heroes ate in those days that tried men's souls. The two-tined forks and coffee-pot with a wooden handle looked very ancient, and one can hardly realize that they are removed from our times less than one little century, a mere paragraph in the history of the world. Washington's escritoire is also displayed, and a chain presented to him by Mr. Fogg, also his vest and trousers of buff twill, moth-eaten and showing wear.

But perhaps the most suggestive relics are the army tent and tent-poles that accompanied the general through the long, bitter struggle for independence. Ah, the weary heads and aching hearts that have been sheltered by that old discolored canvas! And the midnight councils held within its walls, when the dauntless officers planned against defeat and disaster, while a ragged, starving army slept around them, and the red-coats waited to attack them with the morning! Washington's sword is here, battered and tarnished and antiquated, but rich in suggestions of grand charges when that glittering blade waved the gallant Continentals on to victory. The faded signature of Washington appended to a patent granted during the first presidential term was in this collection, also a tea-service of Sevres porcelain, presented to Martha Washington by General La Fayette, and a cane presented to the first president by Benjamin Franklin. Several mementos of other early American heroes and statesmen were exhibited in the same collection, such as the sword of Baron De Kalb, a flint-locked, but highly ornate, musket, presented to Thomas Jefferson by the Emperor of Morocco, and the coat worn by General Jackson at the battle of New Orleans.

Altogether this little group in the midst of modern achievements and inventions, is very attractive, savoring as it does of that heroic past in which we are all so interested, and which seems almost fabulous to-day, even though the old grandfathers' stories are fresh in our ears of how the guns boomed on Bunker Hill that fair June morning long ago, and brave young Warren fell with his face to the foe, and the flames of Charlestown lit by a cruel foe, started the beacon of liberty on the rugged headlands of Boston Harbor.

THE DEPARTMENT OF THE INTERIOR

Exhibits many models from the Patent Office, showing a great variety of useful inventions and improvements.

THE INDIAN BUREAU

Displays many curiosities from the various tribes of aborigines. Among them is a

feather blanket made by California Indians on the north-west coast. The feathers are securely fastened to a woven foundation, and present on both sides a beautiful smooth surface like the breast of a bird. Life-size figures of Captain Jack, Red Cloud, and other famous warriors, are exhibited in all the hideous pomp of war-paint and tattooed buckskin. There are some pencil sketches and specimens of penmanship executed by pupils in the Cherokee mission schools and other institutions for the education of the Indians. There is a singular boat on exhibition made by the Gros Ventre Indians of Dakota Territory. It is a nearly circular frame-work of hickory, with a covering of rawhide fastened tightly over it; a single flat paddle is used as a propeller. Altogether it is a curious and primitive-looking affair.

THE SMITHSONIAN INSTITUTE

Occupies a large space in the Government Building, and furnishes a rare feast to the scientific student. The archæological exhibits of this institution and different societies, cover a wide and varied field. There are many relics of the early inhabitants of this country: vast quanties of flint arrow-heads and knife-shaped tools belonging to the stone age, also fish-hooks manufactured from shells, and showing various stages of advancement from the shell simply perforated, as a commencement of the task of working out the hook, to the completed article. Though wonderful in workmanship, considering the rude means by which they were made, we could not help concluding that the shy denizens of the streams must have been easier to capture in those ante-Walton days to bite at such clumsy affairs, when our enterprising young men spend their vacations sporting patent rods, impossible flies, and bran-new fishing baskets, broiling patiently through the long summer afternoon without a nibble, watching the fish, grown wise in this generation, sheer off with knowing eyes from the false bait and the murderous instrument it conceals.

There are gorgets in shell, pendants and various ornaments, some being specimens of really fine carving. Most of these articles were taken from ancient Indian graves, and though their antiquity is evidently very great, it is impossible to determine definitely in regard to it. There are stone troughs from California, and a huge stone mortar and pestles, some of which have handles; these were used for crushing grain, the same means being still employed for this purpose by the Alaskans. A stone trough two and one-half feet in diameter is from Louisville, Ky., and was used by the early aborigines for the manufacture of salt by evaporation. Some ancient Mexican sculpture is very interesting as presenting specimens of the first rude attempts at creative art. There are four figures, evidently idols, from two and one-half to three feet high, also a bas-relief. They are all in sandstone but one, which is in limestone, and is apparently much more ancient than the others. The faces and figures are all distorted and monstrous, bearing a marked resemblance in the oblique eyes and open mouth to the modern Chinese caricatures; especially is this the case with the one mentioned as being evidently the most ancient. These resemblances which we continually find between the existing customs and works of the East, and the few relics of ancient Western settlements, are very interesting, and furnish ethnological students a chance to speculate upon that fertile topic of the tribes that presumably drifted across Behring's Straits into the howling wilderness of a new world, while their brethren chose to bask under the fervid sun of Southern Asia.

There are many wicked-looking war-clubs with stone balls encased in leather; these are still used by the north-western Indians. Many rude carvings have been brought from Alaska; the best is a design representing Esquimaux in a boat, pushing off with paddles. There are many horn spoons and wooden dishes such as are now used by the Alaskans. There is, in all, rather a full collection of articles made by the Indians of the North-west; and looking through it, one sees the life of these rude, unlettered children of an unfriendly clime, and is pleased to see that the purest natural instincts are not frozen out in the bitterness of that north-western land. Regular bona fide dolls of different sizes, carved from wood and painted, are on exhibition. They are muffled in ugly furs, and have hideous faces, but some little pappoose with the epitome of a woman's heart beating in her bosom has held them in her arms and thought they were models of beauty. After all, human nature is the same whether dressed in a brown skin or a white one, located beyond the 70th degree of latitude, or under the equator. We eat, we drink, we love, we work, and education and climate determine to what degree of excellence we attain.

There are two or three representations in plaster of recently discovered ruins of ancient cave towns in Southern Colorado, and Arizona. These discoveries were made during the late Geological and Geographical survey of the Territories under Prof. Hayden. The most perfect of these towns is on the Rio Mancos in Southern Colorado, and is built upon a shelf of the mountain 600 feet long

and several hundred feet above the bottom of the canyon. It consists of a series of rooms, or houses, with a central three-story tower. The rooms are not more than six or seven feet high, and have small windows. They are built of rock, well-cut and laid up with a cement that, protected by the overhanging cliff, has withstood, no doubt, the storms of ages. In many instances, figures of human beings, goats, lizards, etc., were found upon the walls together with hieroglyphical signs. Narrow steps, partially obliterated, are cut in the rocky wall of the canyon leading to the little town. This is a sample of many ruins found in this vicinity, which would lead to the supposition that a pastoral and agricultural people inhabited the region, cultivating the alluvial lands lying in the canyons, and for security against war-like and marauding tribes, built these eyries in the cliffs. This prehistoric race must have been greatly superior to the Pueblos and Meguis now inhabiting that region, as their style of building is greatly superior. Remains of extensive granaries were found, and corn and beans in a good state of preservation were taken from beneath heaps of ruins. Pottery, a water jar and dippers, also stone arrow-heads and axes taken from these towns, are exhibited in connection with the plaster models.

MARINE EXHIBITS.

A large number of boats are exhibited in this building. Most prominent among them is a massive dug-out, 60 feet long by 8 feet beam, and made from a single log. The bow and sides are ornamented with painted designs of an emblematical character. A beautiful birch-bark canoe weighing only 30 pounds, is suggestive of summer vacations wherein one might flit from lake to lake with his boat on his back. A whaling-boat is exhibited with boarding knife and grapnel for towing in whales. Near by is the jaw-bone of a sperm-whale 18 feet long, and a finback whale's skull 11 feet long.

MINERALOGICAL SPECIMENS.

The vast display of mineral and metallurgical specimens indicates the inexhaustible resources of the country. Nevada has a magnificent showing of argentiferous ores, representing the products of the Comstock, Belcher, Emma, and other famous lodes. Colorado and New Mexico make a very good display of both gold and silver bearing ores; and California, with her hands full of dusky gulch gold, among which are sifted nuggets as big as hickory-nuts, leads off with a hundred things that could be produced from no other country under the sun. There are some beautiful collections of precious stones, quartz crystals and virgin gold and silver from the various mining States and Territories.

Wisconsin and Michigan make a fine display of copper ore. Missouri shows rather the best in lead and iron. Altogether, it is exceedingly gratifying to the national pride of an American to pass through the Government Building devoted to the arts, sciences, history, resources, and progress developed in our own country.

MACHINERY HALL.

Perhaps in Machinery Hall the lover of improvement and the student of practical science finds his richest treat and makes his most satisfying researches. From the gigantic Corliss engine, to the little machine that weaves ribbons bearing the *carte-de-vistes* of Washington, Franklin, and other Revolutionary characters, perfect as the best photographs, the delicate strips floating out as rapidly as shavings from a turning-lathe,—all the instruments recording the triumphs of mechanism, and the march of practical science, are represented. In passing down the great central aisle when all the machinery is in motion, and all the manufactures are going on, one beholds a busy scene, the manufactories and trades of the world crowded into a few hundred feet of space. Here the wheels are flying that set the industries of creation going and give work to millions of dextrous hands, and supply the needs and luxuries of Christendom, with half the barbarous world thrown in.

And here we are proud to see that Yankee ingenuity and enterprise lead the van in the most practical and labor-saving inventions. Our achievements are decidedly utilitarian, with only occasionally a dash of the visionary and æsthetic. But we have cause to be proud of our home exhibits—of that which has been accomplished by the brains and energy of a vigorous nation, only come of age a hundred years ago. If we have done so much in so little time, what will the next century bring us? to what pinnacle of achievement shall we not have reached? Or, by that time, will the inevitable decline begin? Can we hope to escape the downfall that has thus far overtaken all nations which attain to sudden and marvelous prosperity? Are we already growing vain-glorious and jubilant, neglectful of our national interests, having but little fostering care for the fine arts, and for cherishing each bud of promise till it bursts into a full bloom of beauty, to be a joy to the world forever? "Was it well for us," as one sarcastic writer puts it, "that we should make a holiday while our real work was undone? that we should devote a summer to the rapt contemplation of our patent

churns and improved reaping machines, while a foreigner made the music, and another foreigner was giving us the only tolerably good account we have of the grandest part of our own history?"

This complaint is but the echo of hundreds who have spent the last six months in decrying home exhibits, condemning especially all American works of art and falling down to worship no better work from some other nation.

But common sense tells us that one of the laws of nature is that we should make useful before beautiful things; and that by so doing we are establishing our national prosperity. Meanwhile, we have a few artists and sculptors and exquisite workers in beautiful things for household adornment and convenience, and the achievements of their genius and patience are being recognized and appreciated—abroad. And for that matter the scornfully-alluded-to reaping machines are themselves beautiful. Bright and glittering, cutting a broad swath through the nodding grain, skimming the unbroken sea of the cultivated prairie, flashing with suggestions of princely farming and plenty—it is a part of the grand Epic of the Age, that poem, the music of which is borne across the shining track that measures a continent, and the path of steam that girdles the world, bringing the jeweled fire of the Orient to flash in the golden diadem of the Occident. The glittering rail-road train, and the palace-steamers on all waters, the templed cities rising from the desert, and the lines of wire that thrill with the hot life of the world, are the picture and the poem, the music and the triumph of the young republic only just out of its long clothes. M. L. C.

How the Africans Make Rubber.—The coast region north and south of the Congo is becoming quite an important source of caoutchouc. It is produced by a giant tree creeper (*landolphia*) which grows principally along the water-courses. It covers the highest trees, and frequently considerable extents of forest are festooned down to the ground, from tree to tree, in all directions, with its thick stems, like great hawsers. Sometimes its stem is as thick as a man's thigh. Above, the trees are nearly hidden with its large glossy leaves of dark green hue, and studded with beautiful bunches of pure white, star-like flowers, most sweetly scented. Its fruit is of the size of a large orange, yellow when ripe, and perfectly round, with a hard, brittle shell; inside it is full of a soft reddish pulp of an agreeable acid flavor, much liked by the natives. It is not easy to obtain ripe seeds, as the creeper is a favorite resort of a villainous, semi-transparent, long-legged red ant—with a stinging bite, like the prick of a red-hot needle—which is very fond of the pulp and the seeds distributed through it.

Every part of the creeper yields a milky juice when wounded; but, unlike the American rubber-tree, this milky sap will not run into a vessel placed to received it. It dries so quickly that a ridge is soon formed over a cut, and the flow arrested. When collecting it, the natives make long cuts in the bark with a knife, and as the sap gushes out they wipe it off continually with their fingers, and smear it on their arms, shoulders, and breasts, until a thick covering is formed. Then they peel it off and cut it into small squares for transportation.—*Sc. Am.*

A Quaint Old Bill.—The following curious account for restoring a chapel was engraved in French on a watch crystal in the Swiss department of the Vienna Exposition. The whole was placed on a scroll less than an inch square. A painter had been employed to repair a number of pictures in a convent; he did it, and presented his bill in full, for 59 francs and 23 centimes, to the curate, who refused to pay it, saying that the committee would require a full detail. The painter produced it as follows:—

"Corrected and revised the Ten Commandments, 5 francs and 12 centimes; embellished and renewed Pontius Pilate, and put a new ribbon in his bonnet, 3 francs 6 centimes; put a new tail on the rooster of St. Peter, and mended his comb, 3 francs 20 centimes; replumed and gilded the left wing of the Guardian Angel, 4 francs 17 centimes; washed the servant of the High Priest, and put carmine on his cheeks, 5 francs 12 centimes; renewed Heaven, adjusted two stars, gilded the Sun and renewed the Moon, 7 francs 14 centimes; reanimated the Flames of Purgatory, and restored some souls, 6 francs 6 centimes; revived the Flames of Hell, put a new tail on the Devil, mended his left hoof, and did several jobs for the Damned, 4 francs 10 centimes; put new spatter dishes on the Son of Tobias, and dressing on his back, 2 francs; cleaned the ears of Balaam's Ass, and shod him, 3 francs 7 centimes; put ear-rings in the ears of Sarah, 2 francs 4 centimes; rebordered the robe of Herod, and re-adjusted his wig, 4 francs 4 centimes; put a new stone in David's Sling, enlarged the head of Goliah, and extended his legs, 3 francs 2 centimes; decorated Noah's ark, 3 francs; mended the shirt of the Prodigal Son, and cleaned the pigs, 4 francs 9 centimes. Total, 59 francs 23 centimes."—*Pen and Plow.*

DIETETICS.

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

"Shortening."

We have never been able to reconcile the etymology of the word, *short*, with its application to the admixture of grease with articles of food, except by the supposition that in this use of the word there is some remote intimation of the "shortening" effect which "shortened" food has upon human life. If abused stomachs were allowed to testify, they would render a fearful account of the abbreviation of the lives of human beings by "shortening."

Lard, suet, butter, and cream are the favorite materials employed for shortening purposes in domestic culinary operations. Lard, frowy butter, and oleo-margarine (artificial butter) are the baker's indispensables for rendering "short" his crackers, cakes, and pie-crusts. Lard is usually so much cheaper than butter—even of an inferior quality—that an almost universal "short"-coming among bakers is the use of lard even in articles in which they profess to employ only butter. One would naturally suppose, from the near relation of bakers to millers, that they ought to share in the reputation for honesty long held by the latter; but, unfortunately, tradition gives no intimation of this kind. Nevertheless, we would not wish to be understood that all bakers are dishonest, by any means; we only wish to suggest to those who seek to avoid lard by exchanging ordinary or lard crackers for "butter crackers" that it is more than doubtful whether they are making any improvement.

The chief objections to the use of fats are these:—

1. *Fats are the most difficultly digestible of any articles of food.* Indeed, fat never undergoes any change which answers to the digestion of other elements of food, while in the alimentary canal. The gastric juice has no effect upon it, and its presence interferes with the process of gastric digestion. When present in any considerable quantity, it forms a thin pellicle upon the surface of the mass undergoing digestion, rendering it in some degree impenetrable by the gastric juice. If the fat has been added to the food in cooking, the difficulty is greatly increased; for not only will the outer portion of the food be coated with an oily covering, but the whole interior will be so impregnated by it as to almost entirely prevent the action of the gastric juice. In consequence, digestion progresses very slowly, if at all; and the delay occasions fermentative and putrefactive changes which render the food still more unfit for nourishment.

2. The addition of fats to food renders the supply of carbonaceous elements too abundant. Carbonaceous elements are necessary for the proper nourishment of the body; but they are supplied in abundance in the form of starch, sugar, and the oleaginous and saccharine elements of food, elements which are easy of digestion. Fat can be used in but very small quantity. When taken in the form in which it is found in fruits and grains, it is readily digested, and is absorbed into the blood in the form of minute globules. In the passage of the blood through the lungs, a further change occurs which causes the disappearance of these particles. If fat is added in the manner usual in seasoning food, the case is quite different. Digestion is difficult; and if a considerable portion of fat finally gets into the blood, it is found that the fat globules do not disappear in the lungs as before. In consequence, they are left in the blood, and occasion no small degree of mischief in obstructing the capillary circulation in certain parts.

The liver is the organ upon which devolves the task of removing waste matters of a carbonaceous character. This organ very naturally suffers most from the ingestion of too much of this class of food. It is overworked, becomes congested, and finally inactive. The patient is "bilious," and wonders why. Is it any wonder? Biliary matters are left to accumulate in the blood; the blood becomes dark and impure. The same deleterious elements are deposited in the skin, giving it a

dead, sallow appearance, and interfering with its function. They also penetrate the brain and nerves, together with the muscles and other tissues, making the patient melancholy, nervous, and generally uncomfortable.

All these evils can be very easily avoided by the simple disuse of artificial "shortening." Nature has mingled the elements of food in just the right proportions in the various fruits, grains, and other vegetable productions. If any element is deficient in one article, it may readily be secured by the addition of another aliment to the dietary. Saccharine elements are abundant in dates, figs, raisins, sweet apples, prunes, and other fruits. An abundance of the oleaginous element may be obtained from various kinds of nuts, as well as from oatmeal, corn meal, peas, and beans; and when taken in this form, no harm is likely to result.

Eating Between Meals.

No man would be so unreasonable as to compel his horse or ox to toil incessantly, day and night, without intermission. Such a course would be considered the height of cruelty; and if the offender were within the precincts of Mr. Bergh's jurisdiction, he would surely be visited by swift retribution for his wanton abuse of a poor brute. But thousands of men are daily inflicting upon their own stomachs abuse of the very same character. Thousands of mothers daily encourage in their children habits which impose upon their stomachs burdens more onerous than the tasks demanded by the Egyptians of their Hebrew servitors.

The stomach needs rest as well as other organs of the body. Anatomically considered, it is chiefly a muscle. All muscles require rest after short periods of activity. The stomach also performs a glandular office in the secretion of gastric juice, an essential element in the process of digestion. The action of secretory glands is also intermittent, a period of rest succeeding one of activity. This is the case with the salivary glands, which accounts for the fact that herbivorous animals chew their food first upon one side of the mouth and then upon the other, changing at short intervals.

If food is eaten between meals, no rest is allowed the stomach. The glands which secrete gastric juice are kept in incessant action, so that they become unable to furnish a good quality of digestive fluid. The muscular tissues of the organ are kept constantly at work, until they finally become unable to perform their part properly. The inevitable result of this abuse is dyspepsia. Multitudes of children under ten years of age have become confirmed dyspeptics by the pernicious habit of eating between meals. Regularity in eating is one of the first lessons that should be taught children; and the course of instruction should be begun in early infancy.

Mexican Diet.—A correspondent of the Louisville *Courier Journal* gives the following description of a Mexican dish which might excite the salivary apparatus of a bushman, but certainly would have no such effect upon a hygienist:—

"You never ate enchilada, did you? I hope you never will. An enchilada looks not unlike an ordinary flannel cake rolled on itself and covered with molasses. The ingredients which go to make it up are pepper, lye, hominy, pepper, onions chopped fine, pepper, grated cheese, and pepper. The hominy is first beaten into a paste or dough, and this is flattened to about the thickness of an ordinary batter cake, and then turned several times upon itself, the pepper, onions, pepper, cheese, and pepper being placed between the folds, and over all is poured a sauce or gravy of pepper. In point of looks, the enchilada is, as I have intimated, not uninviting; in point of taste, it is a cross between bicarbonate of soda and capsicum

"The three staples in Mexican cookery, as I observed it, are pepper, corn, and pepper; the corn is sandwiched between the pepper. The corn is first husked by being soaked in lye or lime-water, and then briskly rubbed and beaten on a flat stone, a process which produces a paste or dough, or meal, meaner than any lye hominy in Indianapolis."

Vegetable Diet a Cure for Gout.—Dr. John Malcolm writes to the *British Medical Journal*:—

"My attention has been given, for many years, to the cause and cure of gout, to which I have a hereditary tendency, my father and grandfather having suffered greatly from this disorder. I soon ascertained that by attention to diet alone I could prevent the disease, and for more than thirty years I have steadily adhered to a diet of farinaceous food and fruit, with milk and cream, by which means I have escaped an illness. Among my patients I have found that (when I could not induce them to give up animal food), by partaking only of fish, fowl, and rabbit—white meats—their attacks of gout have been of a milder and less frequent character; but in no case have I been able to cure the disease unless I could induce a total abstinence from all flesh food."

THE

HEALTH REFORMER.

BATTLE CREEK, MICH., DECEMBER, 1876.

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

Retrospective.

THIS number concludes the eleventh annual volume of this journal. Since its establishment, thousands have learned through its pages the healing truths of health reform. Hundreds have testified that they owe their lives to the timely information received by the perusal of its columns; and its practical lessons have made it indispensable in thousands of households. When its publication was begun, the cause of hygiene was in little repute. Hygienists were ridiculed and persecuted. The extreme notions of certain leading spirits had brought disgrace upon the whole cause, the uninformed public regarding health reform, hygiene, starvation diet, and cold-water cure as syonymns.

At the present time, we see quite a different state of things. Hygiene is in good repute. Indeed, it seems that there is some danger that it may become popular—the only serious evil which now threatens. Instead of being wholly ignored, hygiene is now taught in many of our schools and colleges. Nearly every first-class magazine has a department devoted to health or hygiene; and even the newspapers recognize the popular demand for this kind of literature. Ten years ago the scarcity of graham bread, and the universal presence of swine's fat, made it impossible to obtain a meal of even passable food at ninety-nine in a hundred of the hotels of the country. Now an approximately hygienic meal can be obtained at any first-class hotel.

All who are interested in the cause of health reform have abundant reason for encouragement from the evident tokens of progress in this direction. Popular prejudices against reform are rapidly lessening. People are becoming more ready to investigate new truths, and are less attached to old ones.

What Killed George Washington.

THE *Kennebec Intelligencer* of Jan. 11, 1800, contained the following "Particular Account of the Illness and Death of Gen. Washington":—

"Some time in the night of Friday, the 10th ult., having been exposed to a rain on the preceding day, Gen. Washington was attacked with an inflammatory affection of the upper part of the windpipe, called, in technical language, *cynache trachealis*. The disease commenced with a violent ague, accompanied with some pain in the upper and fore part of the throat, a sense of stricture in the same part, a cough, and a difficult, rather than a painful, deglutition, which were soon succeeded by fever and a quick and laborious respiration. The necessity of blood-letting suggesting itself to the general, he procured a bleeder in the neighborhood, who took from his arm, in the night, twelve or fourteen ounces of blood. He could not by any means be prevailed on by the family to send for the attending physician till the following morning, who arrived at Mount Vernon about eleven o'clock on Saturday. Discovering the case to be highly alarming, and foreseeing the fatal tendency of the disease, two consulting physicians were immediately sent for, who arrived, one at half after three, and the other at four o'clock in the afternoon; in the meantime were employed two pretty copious bleedings; a blister was applied to the part affected, two moderate doses of calomel were given, and an injection was administered, which operated on the lower intestines, but all without any perceptible advantage, the respiration becoming still more difficult and distressing. Upon the arrival of the first of the consulting physicians it was agreed, as there were yet no signs of accumulation in the bronchial vessels of the lungs, to try the result of another bleeding, when about thirty-two ounces of blood were drawn without the smallest apparent alleviation of the disease. Vapors of vinegar and water were frequently inhaled, ten grains of calomel were given, succeeded

by repeated doses of emetic tartar, amounting in all to five or six grains, with no other effect than a copious discharge from the bowels. The power of life seemed now manifestly yielding to the force of the disorder; blisters were applied to the extremities, together with a cataplasm of bran and vinegar to the throat. Speaking, which was painful from the beginning, now became almost impracticable; respiration grew more and more contracted and imperfect, till half past eleven on Saturday night, when, retaining the full possession of his intellect, he expired without a struggle.

"He was fully impressed at the beginning of his complaint, as well as through every succeeding stage of it, that its conclusion would be mortal, submitting to the several exertions made for his recovery rather as a duty than from any expectation of their efficacy. He considered the operations of death upon his system as coeval with his disease, and several hours before his death, after repeated efforts to be understood, succeeded in expressing a desire that he might be permitted to die without further interruption. During the short period of his illness he economized his time in the arrangement of such few concerns as required his attention, with the utmost serenity, and anticipated his approaching dissolution with every demonstration of that equanimity for which his whole life has been so uniformly and singularly conspicuous."

The New York *Witness* remarks as follows upon the above account:—

"We suppose most of the faculty now would, after reading the above medical report, regard the Father of his Country as having been killed by the lancet. And it is well worth while to consider whether there is not some equally great mistake in the medical treatment of diseases now as there was in 1799. It is our belief that much more harm is done by alcoholic medication than ever was done by bleeding, and that the more scientific and enlightened class of practitioners of some future day will look back on the alcoholic prescription of 1876 with pity and disgust."

Already there are not a few enlightened physicians who heartily agree with the sentiment last expressed by the writer in the *Witness*, and who would not hesitate a moment in deciding that the death of Gen. Washington was clearly one of cure-killing. It does seem a terrible shame that the hero of a score of battles should have escaped the murderous bullet and the cruel bayonet only to perish by the doctor's lancet. It is somewhat encouraging to mark the difference between the regular practice of the early portion of the present century and that now in vogue, yet we cannot but believe that *drugged to death* might with entire propriety be written upon the tombstones of thousands who are deposited in our cemeteries at the present day.

Hygienic Temporizing.

It may be questioned whether the above heading is not in some degree incongruous. Nevertheless we employ it for want of a more appropriate one to designate an inconsistent course of action on the part of many who term themselves hygienists. Ever since attention was first called to the evils resulting from the use of certain articles commonly employed as food or condiments, there has been quite a large class, who have employed no inconsiderable amount of time, and have expended a very great amount of brain power that might have been put to some better use, in the attempt to discover substitutes for various unwholesome articles which an intelligent understanding of hygiene requires to be discarded.

Thus, one attempts to find a substitute for meat in a fungus of a fleshy flavor but very questionable qualities as an aliment.

Another, who totally discards sugar as an article of diet—supposing it to be "inorganic," and no more capable of assimilation than salt, sand, or powdered glass—seeks to supply the demand of his appetite for saccharine matter by various preparations of the juices of sweet apples, water-melons, pumpkins, grapes, and other sweet fruits and vegetables, seemingly lacking the wit to discover that the process of evaporation, by which he supposes sugar to have been rendered inorganic in its manufacture from the juice of the sugar-cane or the maple-tree, would produce an identical effect upon other sweet juices.

But the greatest amount of temporizing is shown in the search for a substitute for animal fats. Cocoa-nut oil, pea-nut oil, olive-oil, sunflower-seed oil, palm-oil, and cacao butter have all been proposed as articles which might supply the place of lard, butter, suet

and other animal fats. Various serious objections might readily be raised against each of the articles named, as the difficulty or impossibility of obtaining them pure, to say nothing of the expensiveness of those which might be obtained comparatively pure; but there is one great objection which applies with equal force to all, viz., they are open to the chief objections which are urged against animal fats. The principal objection to the use of butter, lard, and similar articles, is not that they are of animal origin, but that they are concentrated fats, and, in consequence, interfere with digestion. It needs no demonstration to show that this is as true of vegetable oils as of those of animal origin, when they are employed in any other than the form in which nature furnishes them in fruits and grains.

It is needless to specify other modes of temporizing which are displayed on occasion by reformers of a certain class. The principle which actuates them is a wrong one, and the influence which attends a constant effort to find substitutes for the various abominations of an unhygienic diet, is decidedly prejudicial to progress.

Reform in England.

WE have for several years been much interested in the progress of reform in the "mother country," and have been pleased to see the evidences of progress, especially of late. Our readers will be interested in the following letters from the secretary of the London Dietetic Reform Society, Mr. W. H. Clark :—

I am sorry to send bad news in my second letter. Dr. Simon Nichols of Longford is dead. He was one of our hygienists, a vegetarian of seven years' standing, a teetotaler of over thirty years. Why do hygienists die? Dr. Nichols departed this life suddenly (only the day before his death he attended two patients); but he had attained the age of seventy-three. We have not many medical vegetarians here, but some of them can count over eighty years. Dr. Nichols was not only a vegetarian and a teetotaler, he was a mild practitioner; he had not received the hygienic truth in its entirety, but in treating patients he trusted much to nature, and little to drugs, avoiding "heroic treatment."

This month (October) three companies of reformers hold their annual meetings in Manchester: The United Kingdom Alliance, the Vegetarian Society, and the Anti-Tobacco Society. The past year has been a very busy one with all. The Vegetarians have enrolled more numbers and associates during this year than they have for some time previously.

A new "order" may be reported; The "Danielites'" first garden has been instituted. The pledge demands abstinence from flesh, alcoholic drink, and tobacco.

The winter work has commenced in our country. Audiences cannot well be had in summer, but now that the long evenings are coming on, people will come to listen to lectures.

Last month the courses of lectures began in the hospitals for the benefit of medical students. The professors are telling their students of the uncertainty of medical science, yet they continue to practice drugging. Although the doctors are continually confessing their errors, they do not seem to repent and abandon them. I had the pleasure of showing a health reform publication (not from Battle Creek) to one of our "allopaths." Of course the theory of disease was the hygienic, and drugs were condemned. The book was accordingly objected to, and the allopath declared it was trash, underlining the last word seven times! This will illustrate the opposition of the faculty in this country to the doctrine of vitality taught at Battle Creek.

On the fourth day of this month I was present at a debate on vegetarianism at the Berkbeck Institute, one of the leading literary and scientific institutions in London. Mr. I. Burns opened the subject, which was well discussed. One lady on the vegetarian side spoke on the true relation of disease to the individual, and put the hygienic view before some who had perhaps not before heard of it. When the vote was taken, the supporters of vegetarianism had a majority of fifteen over the advocates of flesh-eating.

In Manchester the annual meeting of the Alliance was a grand success. We have not yet heard the report of the other reformers. A bazaar has been held in aid of the London Temperance Hospital, but as I write, the amount received has not been announced. The temperance cause is attracting much notice now, and nearly every Christian church has connected with it a temperance society.

Holiday Feasting.

THE day after Christmas will be a busy one for the doctors. There are plenty of indiscreet people in the world who will recklessly gorge themselves with unwholesome viands at a holiday dinner, with the certain

prospect of submitting to a purgation at the hands of the doctor the next day. If there is any appropriate use for purgative pills and pellets, it is certainly in such cases; but it is passing strange that people will not learn by experience. Why not celebrate Thanksgiving and Christmas and New Year's in a manner worthy of reasonable beings,—by a feast of the mind, rather than an abuse of the stomach? by interchange of thought, rather than a ministration to the grosser senses? by the cultivation and encouragement of lofty aspirations, instead of pampering a perverted appetite?

The gratification of the appetite, though to a certain extent wholly natural and legitimate, is a very gross form of enjoyment in comparison with intellectual pleasures. The savage may well indulge in feasting, for he may be unable to appreciate any higher enjoyment. The bloated debauchee may find in bacchanalian revels the highest pleasures possible for his blunted senses; but human beings who desire to attain the ends of which they are capable, and to rise to the position in the scale of being evidently designed for them to occupy, will find more appropriate means for celebrating holiday occasions than the gratification of perverted instincts.

Medical Testimony against Alcohol.—An International Medical Congress was recently held in Philadelphia, at which the medical talent of the world was represented. In response to a memorial presented by the National Temperance Society requesting some action upon the question of the use of alcohol, a paper was adopted which embodies the assertion that "chemical analysis or physiological investigation has not discovered any definite food-value in alcohol."

Though admitting that alcohol is not a food element, physicians will continue to use it as a stimulant under the false idea that stimulation is really an increase of strength. Nevertheless, such a testimony is valuable as an argument against the habitual use of alcoholic drinks, and we are glad to note even so much evidence of progress.

A Fashionable Suicide.—Some time since, the London *Daily Telegraph* related an account of the sudden death of a fashionable lady who was found dead in her bedroom, dressed for church. A post-mortem examination revealed the fact that the immediate cause of her death was the bursting of an aneurism, which had been produced by tight-lacing. The ribs had been crowded in upon the internal organs for years, displacing them and almost totally depriving them of action. Another warning to those foolish creatures who aspire to look slim.

PEOPLE'S DEPARTMENT

Devoted to Brief Discussions of Health Topics, Individual Experiences, and Answers to Correspondents.

A Whole Family Murdered!

TERRIBLE! How such news shocks a person! One feels horrified at such a deed. But when we learn that it was the husband and father who was the guilty one, how much more terrible it seems! Now read the following:—

"FIVE CHILDREN LOST WITHIN A WEEK.

"A Massachusetts paper says that a fatality almost unprecedented in the history of a single household occurred last week in the family of Mr. Reeves, North Andover. One of his children died Monday of diphtheria; a second died Tuesday; Friday two others died; and, on Saturday, while the four who previously died were lying unburied in the receiving tomb or at the house, the death of the fifth child occurred. The funeral service over the remains of all five of the children was held at the same time, and they were buried together at the cemetery. A sixth child, the only remaining one of the family, and the father and mother, are now ill with the disease. The cause is believed to be defective drainage."

Five children all dead, in one family, in

one short week, and the last one just alive! Yes; but these died a natural death. The father did not kill them. He did everything he could to save them. He sent for the doctor; he watched night and day; he wept over them; his heart was nearly broken at their death; and then, he himself is suffering with the same disease. Very true; but yet there was some cause for this terrible calamity. Something brought it about. Somebody was to blame for it. It was not a mere happen-so. What was the trouble? The last line tells the sad story. "The cause is believed to be defective drainage." Yes; here it is, the old story again.

When it is too late, after the family are sick, after the doctor's skill has failed, after the children are dead, then the cause is discovered; somebody neglected to have proper drainage. Foul, putrescent matter collects, and the vapor from this sends death to the whole family. Probably a few hours' labor would have prevented all this, would have saved the doctor's bill, saved the anguish of heart, saved the lives of those precious children. But, probably, this dear man did not have his attention called to the subject. He was busy about other matters, and this harvest of death was allowed to ripen unobserved.

This case illustrates the great need of a good health journal in every family. Once a month it comes fresh to our table; once a month it points again and again to this danger which otherwise would be forgotten. You may have heard lectures about it; you may have read good books concerning it; you may be well posted in the philosophy of the thing; but it is so easy to forget. We need a monthly monitor, just such a journal as we have in the HEALTH REFORMER, to keep us awake to these very dangers. After we have made some such fatal blunder as the above, how common to hear the remark, "I never thought." Oh! but there is the trouble. We ought to have thought; and sometimes a little aid to help us to think is worth many a dollar.

The other day, a large, fat Dutchman had an apple-tree to trim. After trimming all he could from the ground with his saw, there was one large, high limb out of his reach. To get at this, he had to climb the tree; and venturing out upon the limb to trim it, down went the limb, fat Dutchman and all. Just as he had recovered from the fall, and was lamenting the loss of so fine a limb, a neighbor came along and asked him why he did not tie his saw upon a pole, and thus reach the limb from the ground! "Well, there," said he, "I never thought." That suggestion ten minutes earlier would have been worth several dollars to him.

This is frequently the case on many points of every-day life. I often see men who say they cannot afford to take the REFORMER, that they are not able to pay a dollar for it. And yet I know that if they would read it a year it would actually save them many a dollar, not simply in their living and doctor's bills, but in the common business of life. The old proverb is true in their case, "Penny wise and pound foolish."

D. M. CANRIGHT.

Reform in Tennessee.—There is a family residing upon the Cumberland Mountains in Tennessee, who for many years have practiced eating but two meals a day. They were never instructed regarding that system either by word or epistle. Their minds were called to it on this wise: When their first children were young, they noticed that when they allowed them to eat heartily and go directly to bed, they were sure to be restless, tossing and throwing themselves about, frequently groaning, and waking frightened nearly into fits. This set the parents to studying; and, by careful observations, they discovered that these results were produced by the last meal; whereupon they entirely abandoned the third meal, preferring good health and quiet rest to an overloaded stomach and little or no rest. They have raised a large family of children, all of whom are industrious and intelligent, possessing strong physical constitutions, and, consequently, clear minds.

ORLANDO SOULE.

Reports from Canvassers tell of success in almost every case. Notwithstanding the hard times of which everybody complains, enough are found who can see that true economy demands that special attention should be paid to the health, to make the business fairly remunerative to an industrious canvasser.

A lady writes as follows: "When I first started to canvass, thinking of the hard times I made up my mind to go just among my friends. I succeeded in getting fourteen names. This encouraged me, and I still continued until I got twenty-eight more names. I have persevered until I have now obtained over one hundred names."

This is only a specimen of scores of letters which we receive. All can do something in the noble work of reform. All that is required is a desire to do good and a firm determination to persevere.

Questions and Answers.

Drowsiness.—J. D. B., Mo., asks, What is the cause of drowsiness when one has neither fatigued himself by overwork nor been deprived of his usual amount of sleep? When I go to a lecture, or to church, I invariably get drowsy, nod, and not infrequently fall asleep right in the midst of the most interesting part of the exercise.

Ans. Abnormal drowsiness may result from any one of several causes. Overeating is a very common cause of drowsiness. Most of the drowsiness in church comes from loading the stomach too heavily with food. People who are engaged in active duties during the week, eat heartily without suffering any great inconvenience; but when confined in church, inactive, and perhaps in a heated atmosphere, they find the mental faculties so depressed that it is next to impossible to keep awake. The obvious remedy for drowsiness produced by this cause is to abstain partially or wholly from food the meal previous to attendance at church or any similar place.

Another cause of drowsiness is dyspepsia. One of the most common symptoms of dyspepsia is drowsiness soon after eating. This symptom may be present when there are no other unpleasant signs of indigestion.

Feet-Warmers.—A subscriber inquires, Is it a good practice to use hot bricks, jugs of hot water, or other artificial means for keeping the feet warm in bed at night?

Ans. As a constant habit, the practice is a bad one. If the feet are kept warm by artificial means, they seem to lose the power to keep themselves warm, so that they become unusually sensitive to cold, and will suffer more when deprived of the artificial aid than if the latter had not been employed. If there is difficulty in keeping the feet warm while asleep, try the following plan: Just before retiring, take an alternate hot and cold foot bath, ending by dipping the feet in cold water and then wiping dry and rubbing vigorously. Then retire at once, wrapping the feet in a warm woolen blanket upon getting into bed. This will encourage a healthy circulation in the feet, and will thus secure warm feet at all times.

Rubber Shoes and Boots.—J. H., Mich., inquires, Is it injurious to wear rubber boots or shoes?

Ans. Rubber is not a good material for clothing the feet, as it is impervious to either air or moisture. This quality induces an increase of sensible perspiration of the feet, while it at the same time confines the excretions instead of allowing the larger portion to escape. The skin of the feet becomes relaxed, and thus renders the individual unusually susceptible to colds from chilling the extremities. When rubbers or overshoes are worn, they should be removed several times a day for the purpose of drying the feet and their coverings. With this precaution, the wearing of rubber upon the feet is not especially injurious.

Woolen Under-garments. — A subscriber wishes to know which is preferable for under-clothing, woolen or canton flannel.

Ans. For most persons, woolen is much superior to cotton fabrics. The skin is far less likely to become chilled when woolen garments are worn in contact with it than when linen or cotton is employed. In exceptional cases, the skin is so unusually sensitive that it is irritated by contact with woolen; in such cases, thin muslin under-garments may be worn beneath the woolen under-suits.

Consumption.—Many correspondents ask, Can consumption be cured?

Ans. Yes; provided treatment is begun at a sufficiently early stage in the disease. This disease is so insidious in its approach that many persons are hopelessly diseased before they become aware of their condition. In the first stages of the malady, it may be treated with a good degree of success; but little hope is afforded by any system of treatment when a large portion of the lung tissue has become affected by the disease.

A. P. B.: Your difficulty probably arises from nervous weakness. A course of treatment to improve the general tone of your system will prove an efficient remedy.

Stimulants.—M. E. M., Mich., inquires if we would advise the use of wine or egg-nog in a case of great debility from an exhausting disease.

Ans. Stimulants have no curative influence; the injuries resulting from their use we have dwelt upon quite at length elsewhere. Nevertheless, there are circumstances under which the use of a little wine in some form may be advisable; as for the purpose of satisfying the mind of the patient, or of inducing him to take a little nourishment, when the same ends cannot be attained otherwise. In such cases the benefit received is greater than the injury done, so that the condition of the patient is improved.

FARM AND HOUSEHOLD.

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

Home Cheer.—No one should consider it in the least degree undignified to bestow attention upon the little trifles which serve to make home the most attractive of all places on earth—trifles which seem insignificant in themselves, and yet, without them, home is as barren and cheerless, and devoid of sunshine as a Fifth Avenue boarding-house. Don't forget the little ones' stockings on Christmas Eve. Their philosophical young minds very soon fathom the shallowness of the mythical "Santa Claus," and it will be of no use to charge him with neglect. Make the little ones happy.

How to Treat a Bruise.—The usual applications employed for a bruise of any kind are arnica, camphor, alcohol, pain-killer, or some kind of liniment or patent compound. Any one of these, or all together, is not one-half so efficient as a very simple remedy which may be very promptly applied in almost all cases. A hot fomentation will do more to relieve the pain, tenderness, and swelling of a bruise than any other means. If applied immediately after the injury occurs, it will very often prevent swelling altogether, entirely relieve the pain, and prevent discoloration. Contusions of the head and face are very successfully treated by the fomentation. If the application is made with sufficient promptness after the injury, very little discoloration will occur, even in contusions of the eye.

Dry Beds and Damp Beds.—It is not sufficiently known that almost all substances have the property of absorbing moisture from the atmosphere. Linen is remarkable for this property; the same may be said of feathers, and in less degree of wool; hence the difficulty of keeping a bed dry, unless it is constantly used or exposed to warmth from a fire. Merely covering a bed up with blankets and counterpane will no more keep it dry than a pane of glass will keep out light: the atmospheric moisture will pass through every woven fabric. Damp beds, unfortunately, are generally found in the spare or visitor's room; hence the persons often most welcome in a house suffer from this terrible evil. Spare beds should never have anything but a slight coverlet to keep them clean, and it should be put upon them when not in actual use. People often fancy that damp is only in the sheets, but it is in all the other clothes. A bed will be much drier by itself than with blankets and counterpane upon it. Every spare room that is at all likely to be used by visitors, should have a good fire in it at least every third or fourth day during the winter, and the bed should be well turned in the interval. Blankets and counterpane should be dried and folded up hot, and put away till wanted; if they are left open upon a bed they quickly absorb damp, which cannot be quickly dried out. It is cruel and ungenerous to put a visitor friend to sleep in a fireless, cold room, with damp clothes to cover him, when a little coal would have made all healthy and comfortable.—*Sel.*

Portland Cement on Wood-work.—Portland cement has many uses in the garden and elsewhere, not generally apparent. Some of them are enumerated by the *Garden* as follows: When made into a thin solution like whitewash, this cement gives wood-work all the appearance of having been painted and sanded. Piles of stone may be set together with common mortar, and then the whole washed over with this cement, making it look like one immense block of gray sandstone. For temporary use, a flour barrel may have the hoops nailed, so as not to fly apart, and the inside washed with a thin paste of Portland cement, and it will serve for a year or more to hold water. Boards nailed together and washed with it make good hot-water tanks; and it is of use in so many ways that it may be regarded as one of those peculiar things in a garden which it is always good to have at hand.

Putty.—Glaziers' putty is made by working ordinary whiting into a paste with drying oil. Common putty becomes exceedingly hard with age, a circumstance which renders the removal of glass from sashes peculiarly difficult. Old putty may be softened by using a paste of caustic potash, easily prepared by mixing carbonate of potash or soda with equal parts of freshly burned quicklime, which has previously been sprinkled with water, so as to cause it to fall into powder. This should be mixed with water to a paste, and spread on the putty to be softened. Where one application is not sufficient, it is repeated.

In order to prevent the paste from drying too quickly, it is well to mix it with less water, adding some soft soap instead.

By the application of a hot iron, the putty becomes so soft that the glass can be removed by the fingers, and the putty easily scraped away. All that is required is a block of iron about 2½ inches long by 1½ inches square, flat at the bottom, and drawn out for a handle, with a wooden end like a soldering-iron. When hot (not red-hot) place this iron against the putty or flat on the glass, and pass it slowly round the sides of the square. The heat will so soften the putty that it will come away from the wood without difficulty. Some of it may be so hard as to require a second application of the hot iron, but one experiment will give sufficient instruction to meet all difficulties.—*Boston Jour. of Chem.*

Agricultural Notice.—According to the Boston *Journal of Chemistry*, the French Minister has had the following notice posted in the agricultural districts:—

"Ministry of Agriculture.—This placard is placed under the protection of good sense and public decency.

"Hedgehog.—Lives on mice, small rodents, slugs and grubs, animals hurtful to agriculture.—Do n't kill the hedgehog.

"Toad.—Farm assistant; destroys from 20 to 30 insects an hour.—Do n't kill the toad.

"Mole.—Is continually destroying grubs, larvæ, palmer-worms, and insects injurious to agriculture. No trace of vegetation is ever found in its stomach. Does more good than harm.—Do n't kill the mole.

"May-bug and its larvæ or grub.—Mortal enemy of agriculture; lays from 70 to 80 eggs.—Kill the May-bug.

"Birds.—Each department loses several millions annually through insects. Birds are the only enemies able to contend against them victoriously. They are great caterpillar killers and agricultural assistants.—Children, do n't disturb their nests."

The Importance of Educating Horses.—Notwithstanding much has been said and written on the subject of breaking colts and handling vicious horses, and such men as Rarey, Williams, Magner, and others, have been all over the country and demonstrated to all the superiority of science and skill in handling horses over the old method of pounding and whipping them,—still there are a great many who yet stick to the old custom of forcing them into submission by kicks and blows, and who think that all that is necessary to enable a man to break a colt well is to have plenty of courage, strength, and a loud voice; and when they commence to break a colt hitch him up and try to drive him before he is accustomed to the feeling of the harness or knows anything about the use of the bit or rein; and if he does not move right off before he has been taught to go, he is whipped; if he does not mind the rein, the lash is laid on; if he stumbles on rough ground, he is "whaled;" if he whoas too soon when told to whoa, he is kicked; and if he resents this cruel treatment, the above is repeated. The consequence of such improper management is frequently some kind of a scrape, in which the colt is taught his first lesson in kicking or balking, or perhaps he runs away and receives a scare which it will take years to get over.

On the other hand, should the colt, as is sometimes the case, prove to be very tractable and not make any resistance, his owner, after driving him a few times and getting him so he can drive him and not get upset, will call him "broke," when he is, in reality not half drivable, and so, not being taught, he never learns anything more, only what he learns from ordinary driving. This manner of handling colts accounts for the many badly kicking and restive horses we have, and also for the vast number of awkward, unhandy, and stupid brutes which we see driven every day. Now, although almost any man can break a colt after a fashion, there are but few competent to educate a colt as he should be. A man to successfully handle and educate horses and colts, should in the first place be a natural horseman, and be possessed of that peculiar knack without which no one can be a first-class trainer. In the second place, he should have an unlimited stock of patience, and be able to control himself on all occasions; for a man that cannot control himself cannot control a horse. Besides, a man should be posted in his business, and be familiar with all the different systems of horse-training, as taught by the most successful horse-trainers. He should also be a man possessed of a kind heart, capable of inspiring confidence in the animal he is handling. —*Maine Farmer.*

A Useful Hint.—The farmer should look ahead and make calculations for rainy weather and for accidents, so that if anything should happen to stop the progress of some particular job he can immediately turn his attention to something that is necessary to be done. It should be his motto to push things, and never be afraid of getting a piece of work completed too soon if it is the proper season for it.

POPULAR SCIENCE.

In this Department Will Be Noted the Progress of Science, New Discoveries and Inventions.

A CUBIC inch of charcoal has not less than 100 square feet of surface in its pores.

A Remarkable Fish.—A gentleman has recently imported from Japan a species of fish which is distinguished by several very curious features. It is said to possess seven different colors and three distinct tails. A specimen is now in the New York Aquarium. The Japanese claim that these peculiarities are the result of many years' breeding. An effort is to be made to introduce the fish into American waters.

The New Element.—The new element, Gallium, is creating a great amount of interest among scientists from the fact that its discovery was predicted by a Russian chemist, Mendeleef. This scientist not only predicted the discovery of the element, but described its properties and those of its compounds. He also predicted the discovery of several other elements which he conceived to be necessary to complete the series of elementary bodies.

Electric Lights for Utility.—The professor of physics in Cornell University has been making some experiments to determine the relative cheapness of the electric light as compared with oil lamps. The light was produced by an electro-magnetic machine which was run by a petroleum-oil engine of five horse power. The light produced was equal to two hundred and thirty-four lamps each burning a wick an inch wide, and together burning sixteen pounds of oil per hour. The oil consumed in running the engine for the same time was six and three-fourths pounds, which shows a saving of more than one-half in favor of the electric light.

Aerial Navigation.—Experiments with balloons for many years, at an enormous expense of money and of human life, have finally demonstrated to all but a few enthusiasts that this means of navigating the air is practically a failure. At the best, the balloon is at the mercy of the wind, and the disposition of this powerful element is quite uncertain. Many scientists are quite sanguine, however, that human ingenuity will at last so far conquer the difficulties attending aerial navigation as to produce an air-ship that will be serviceable for the purpose, and will be entirely controllable by ready means. The effort is to produce a mechanism which will imitate, as nearly as possible, the flying apparatus of birds. Recent experiments have shown that steam engines may be made of sufficient strength and lightness to enable them to lift a considerable more than their own weight by propelling a fan blast. A three horse power engine will lift 100 lbs. A one horse power engine has been constructed which weighs but 13 lbs. Surprising developments may be looked for in this direction.

The Height of the Aurora Borealis.—Prof. Lemstrom, who observed the aurora while accompanying the Swedish polar expedition in 1868, concludes from his observations that the phenomena often occurs in the region of the clouds and even below them. "We know by numerous observations that the number of thunder and lightning storms diminishes considerably as we approach the polar regions, so that they no longer occur in the latitude of 70°. Must we then conclude that in these regions the clouds are completely deprived of electricity? Certainly not; but only that the electrical discharges are made in some other way. In those high latitudes, electricity is discharged not only by clouds, but also directly by damp air, as takes place in the winter in the temperate zones. A great many direct observations prove the existence of slow discharges of this nature; and a very remarkable confirmation is given by Augstrom, who on one occasion proved the presence in the spectrum of the yellow or auroral ray over almost the entire sky."

Size and Weight of Atoms and Molecules.—When a compound body has been divided and subdivided until it is no longer possible to divide it again without splitting it up into its constituent parts, this extremely small particle of matter is called a molecule. A molecule is defined to be the smallest particle of matter that can exist alone by itself. Physicists have also learned that all molecules are of the same size. This law as laid down by Avogadro in 1811, and by Ampère in 1814, is that "equal volumes of all substances, when in the state of gas, and under like conditions, contain the same number of mole-

cules." These molecules are each made up of one or more atoms, an atom being the smallest particle of matter that can exist in a compound. The molecules of most elementary bodies are made up of two atoms, a few of four atoms, and a few of one atom. As all molecules are of equal size, it is easy to determine their relative weight, provided only that we can convert the substance into a vapor; for its vapor density, or specific gravity as gas, referred to that of hydrogen as unit, gives us the weight of the atom in terms of the hydrogen unit. Thus it happened that we have long known the relative weight of the atoms of nearly all simple bodies, and the weight of the molecules of many compound substances.

To determine the actual absolute size or weight of an atom or of a molecule was, not long since, considered impossible, but careful physicists have succeeded, using as their foot rule the length of a wave of light, in measuring with an approach to accuracy the size of these infinitesimal objects. Sir William Thomsom fixes their size between the $\frac{1}{250000000}$ and the $\frac{1}{500000000}$ of an inch, probably the $\frac{1}{500000000}$ of an inch, or the $\frac{1}{20000000}$ of a millimeter in diameter; and the weight of a molecule of hydrogen, he places at the fifteen million, million, million millionth of a milligramme (or 0.000-000000000000000000015 milligramme), and the weight of an atom of hydrogen is just half that.—*Scientific American.*

Chinese Suspension Bridges.—The most remarkable evidence of the mechanical science and skill of the Chinese more than 1600 years ago, is to be found in their suspended bridges, the invention of which is assigned to the Han dynasty. According to the concurrent testimony of all their historical and geographical writers, Shang-leang, the commander-in-chief of the army under Kaou-tsoo, the first of the Hans, undertook and completed the formation of roads through the mountainous province of Shen-se to the west of the capital. Hitherto its lofty hills and deep valleys had rendered communication difficult and circuitous. With a body of 100,000 laborers he cut passages over the mountains, throwing the removed soil into the valleys, and where this was not sufficient to raise the road to the required height he constructed bridges, which rested on pillars or abutments. In other places he conceived and accomplished the daring project of suspending a bridge from one mountain to another across a deep chasm. These bridges, which are called by the Chinese writers, very appropriately, "flying bridges," and represented to be numerous at the present day, are sometimes so high that they cannot be traversed without alarm. One still existing in Shen-se stretches four hundred feet from mountain to mountain, over a chasm of five hundred feet. Most of these flying bridges are so wide that four horsemen can ride on them abreast, and balustrades are placed on each side to protect travelers. It is by no means improbable (as M. Pauthier suggests), that, as the missionaries in China made known the fact, more than a century and a half ago, that the Chinese had suspension bridges and that many of them were of iron, the hint may have been taken from thence for similar constructions by European engineers.—*Thornton's History of China.*

News and Miscellany.

—Moulton has withdrawn his suit against Beecher.

—Tweed is once more safely lodged in Ludlow-street jail.

—More Chinamen are now returning to their native land than are coming to this country.

—The trial of Slade, the London impostor, ended in a sentence of three months at hard labor for vagrancy.

—The tallest man is a resident of Alcocer, Spain, by the name of Capill, whose height is nine feet, ten and one-half inches.

—Within the last five years seven hundred Buddist temples in Japan have been given up to other uses.

—A Colorado woman collected fifty bushels of grasshoppers last summer, scalded and dried them, and is now well supplied with chicken food.

—The work of digging the tunnel under the North River, between New York and New Jersey, is now to be pushed rapidly forward, after having suffered many delays.

—The Prince of Wales intends to visit Australia and New Zealand during 1878, probably with a view to becoming better acquainted with his future dominions.

—The population of Peru is decreasing, being less than three millions. The decrease is attributed to earthquakes, diseases, civil war, and brandy, especially the latter.

—A young man living near Villisca, Iowa, died the other day from eating poisoned candy purchased at the town named. A younger brother who ate of the stuff more sparingly was also taken ill, but recovered.

—The Japanese educational commission have finally adopted the system of education employed in the Boston schools. They have formed

their decision after much time spent in investigating the educational systems of other countries.

—An ancient sect has recently been revived in China, the members of which consider it a religious duty to amputate the pig-tails of their celestial brethren. Their operations are causing great consternation among the admirers of long cues.

—Chili has 1,000,000 acres under cultivation by irrigation, it being estimated that one-third of the value of the entire farming land of the republic is expended in the enterprise. Wherever irrigation has been introduced, the land has increased in value threefold.

—An arbitrary decree orders the Cubans to pay 30 per cent. of their income next year to meet the expenses of the fruitless war waged against the insurgents. This must make even the loyalists feel that they are paying a good deal more for Spanish rule than it is worth.

—There is as yet no abatement of the excitement respecting the results of the election, which are still undecided. Affairs in South Carolina are reaching such a pitch that civil interference is necessary. Gen. Wade Hampton's residence was burned by incendiaries a few days ago, his family narrowly escaping death.

—News from the districts of Madras threatened with famine is somewhat better. Rain has come in time to do some good. In Bombay the prospects are still gloomy. Actual famine in two or three districts seems probable, and great distress in four or five more.

—The Arctic expedition has returned, having been unable to penetrate nearer than 465 miles from the north pole. A temperature of 104° below freezing point was experienced. Notwithstanding the disappointment, much valuable information was obtained, sufficient to warrant that the expedition be called a success.

—On the night of Oct. 31, several islands that lie in an arm of the Bay of Bengal, were submerged by an immense wave from the ocean. 250,000 souls, three-fourths of the population, were destroyed, and the survivors are in great distress both for want of provisions and from danger of the cholera pest as the result of the stench arising from the putrefying bodies.

—The remains of Baron de Palm, the deceased theosophist whose funerel obsequies attracted so much attention last spring by the contrast which they presented to Christian services on such occasions, have been lying in a receiving vault for more than six months, having been embalmed. In accordance with his request, they are now to be removed and subjected to the process of cremation at Washington, Pa., on the 6th inst.

—It is estimated that hundreds of those who went to Philadelphia to see the wonders of the Exhibition returned to die as the price of their curiosity, while thousands have suffered and are still suffering from the malarious disorders they contracted there. The New York *Sun* says: "The management of the drainage on the Exhibition grounds was disgraceful to Philadelphia, and that city will be painfully remembered by thousands who went thither to enjoy a great sight, and returned to suffer from disease, or to mourn the loss of friends sent to their graves by a negligence little short of criminal."

—At noon of Friday, Nov. 10, the Centennial Exhibition at Philadelphia was closed. Thus ends what was in some respects the most successful of the series of world's fairs. The receipts for admissions since the Exhibition's opening will foot up to over three and a quarter millions of dollars. The buildings and improvements of the ground cost seven millions, which sum the national, State, municipal, and other appropriations provided all except two and a half millions, which was made up by stock subscriptions. Leaving out the cost of the buildings, the total expenses are likely to be short of the receipts by about two millions. This is a good showing,—a better one than the more prudent expected would be made.

SEASONING.

—Wit is the boomerang that strikes and graciously returns to the hand. Sarcasm is the envenomed shaft that sticks in the victim's gizzard.

—Said a pompous fellow, brow-beating his auditors, "I have traveled round the world." Replied a wit of the Addisonian school, "So has this cane I hold in my hand, but it is only a stick for all that."

—It is said that the Sandwich Islanders believe that Beelzebub walked the earth in the form of a woman. And now and then a man is to be found in this country who believes so, too, and that he has married that woman.

How is that for comfort? The Laplanders take their babies to church, but bury them outside during service. The father digs the hole, the mother wraps the little one in skins and lays it in, when it is covered and the dog set to watch it. They never freeze nor cry; so says the *Wide Awake*.

"Pa, are you in favor of the Bible in public schools?" asked a West Side youngster at the breakfast table the other morning. "Why, of course, I am," responded the father, pleased that such an important subject should engage the attention of his youthful offspring. "What makes you ask such a question, my son?" "Oh, nothing," rejoined young hopeful, "only I thought maybe you wasn't, as you never have had one at home." The urchin dodged, but he wasn't quick enough.

Items for the Month.

☞ A BLUE CROSS by this paragraph signifies that the subscription has expired, and that this number is the last that will be sent till the subscription is renewed. A renewal is earnestly solicited.

☞ We are daily filling a great many orders for *Agents' Outfits* Any one who thinks of engaging in the work of canvassing should send for an outfit at once.

☞ Each subscriber should this month examine the little slip bearing his name, which is pasted upon the outside of the cover of his journal. If he finds the figures 12–1 after his name, he should at once sit down and fill out the blank slip which he will find inside and forward the same to us with the usual subscription price.

☞ We publish, this month, by request, "Vegetarianism and the Medical Profession," a paper read before a recent meeting of the London Dietetic Reform Society by W. A. Clark, C. M. Mr. Clark is our London agent, and keeps on hand a good supply of our works. His address is, 9 Marda Vale, Edgware Road, London, Eng.

☞ For the convenience of our patrons we send with this number to those whose subscriptions expire at the close of the volume, a blank for renewal. Fill out the blank, inclose it with $1,00 in a strong envelope addressed to the HEALTH REFORMER, Battle Creek, Mich., and send it at our risk. It will take but a moment, and with the trifling sum of $1,00 you will have paid your doctor's bill for another year.

☞ The FAMILY HEALTH ALMANAC is having a remarkably rapid sale. Nearly 100,000 have already been sold since Oct. 1. Every one who has examined a copy is delighted with it. The Pacific Press is issuing an edition with some modifications to adapt it to the climate of that coast. A great many persons are making good wages by the sale of this work. Ladies and children engage in it with excellent success. For rates, see advertisement on third page of cover.

RENEW.—With the present number expires the subscriptions of several thousands of our patrons. All will please remember that our terms are $1,00 a year, *in advance*. In accordance with this plan, we are obliged to drop from our lists the names of those who do not renew with promptness at the close of the volume. Most of these we are obliged to replace; for few who have taken the REFORMER a year are willing to do without it afterward. This makes us much extra labor; and it will be a great accommodation to us if our friends will renew at once, so that we need not be under the necessity of striking their names from the list.

☞ The publishers of the HEALTH REFORMER do not forget that times are hard, and are ready to treat all who are in limited circumstances with the greatest consideration. Those who wish to continue taking the journal, but have not the ready means should drop us a card assuring us of their intention to pay as soon as possible, and their names will not be dropped from the list.

A person can earn the subscription price in a few hours in almost any neighborhood, by canvassing. Any one who will send us the names of three new subscribers with $1,00 for each, will receive credit for a year's subscription.

MISTAKEN ECONOMY.—Just at this season of the year, when newspapers are calling for the renewal of subscriptions, and when little ones are demanding shoes and Christmas presents, is the time when the poor man begins to think seriously of economizing, and, strangly enough, the trifle which he pays for his monthly magazine is often the first expense which he thinks of curtailing. He does not stop to compute how many dollars' expense he may have saved during the year by its perusal. He does not consider how much the knowledge he has gained has been worth to him by teaching him to avoid the expense of useless and injurious practices. He fails to appreciate the value of knowing how to keep well; and so he parts with what is, in reality, one of his richest sources of income.

One of the most economical investments any man makes for his family, is the small sum he pays for his family magazine. Especially is this the case if his journal is chiefly devoted to the subject of health; and it is the most unwise and mistaken economy to dispense with so useful an article.

The Health Reformer for 1877.

THE twelve numbers for next year will undoubtedly form the most interesting volume of this journal yet published. As our readers are already aware, we are promised the services of several very talented writers, with whose productions the patrons of the REFORMER are already familiar.

Eld. James White will begin, in the January number, a series of sketches of some of the most prominent hygienists, whose faces will be introduced to our readers by means of fine wood engravings.

Mrs. E. G. White, who has received during the past season, the highest encomiums from the press in nearly all parts of the United States, as a lecturer, will continue her practical articles on home subjects.

Miss M. L. Clough, of whose uncommon versatility and brilliancy as a writer we need not inform the present readers of the journal, will continue to contribute entertaining papers upon popular themes.

Several other able writers have also assured us of efficient assistance, so that we feel confident that every one who subscribes for the REFORMER for 1877 will be more than pleased with the investment.

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OUR BOOK LIST.

THE following books, published at this Office, will be furnished by mail, post-paid, at the prices given. By the quantity, they will be delivered at the express or R. R. freight offices at one-third discount, for cash. SPECIAL TERMS TO AGENTS.

Hygienic Family Physician. "A complete guide for the preservation of health and the treatment of disease without the use of medicine." Bound in cloth, 500 pp. Price, $1.00.

Uses of Water in Health and Disease. This work comprises a sketch of the history of bathing, an explanation of the properties and effects of water, a description of all the different kinds of baths, and directions for applying water as a remedy for disease. Price, 20 cents. Bound, in cloth, 50 cts.

Proper Die for Man. A concise summary of the principal evidences which prove that the natural and proper food for man consists of fruits, grains, and vegetables. Pamphlet. Price, 15 cents.

The Evils of Fashionable Dress, and how to dress healthfully. Price, 10 cents.

Alcoholic Poison, as a beverage and as a medicine. An exposure of the fallacies of alcoholic medication, moderate drinking, and of the pretended Biblical support of the use of wine. 20 cts.

Health and Diseases of Woman. By R. T. TRALL, M. D. Price, 15 cts.

The Hygienic System. By R. T. Trall, M. D. Price, 15 cents.

Tobacco-Using. By R T. Trall, M. D. 15 cts.

Healthful Cookery. A Hand Book of Food and Diet; or What to Eat, How to Eat, When to Eat. The most complete work on Hygienic Cookery published. Price, 25 cents.

Science of Human Life. This is a valuable pamphlet, containing three of the most important of Graham's Lectures on the Science of Human Life. Price, 30 cents.

Health Tracts. The following tracts are put up in a neat package and aggregate, in all, nearly 250 pp.: Dyspepsia; Healthful Clothing; Principles of Health Reform; Startling Facts about Tobacco; Twenty-five Arguments for Tobacco-Using Briefly Answered; Tea and Coffee; Pork; True Temperance; Alcohol: What is it? Alcoholic Poison; Moral and Social Effects of Alcohol; Cause and Cure of Intemperance; The Drunkard's Arguments Answered; Alcoholic Medication; Wine and the Bible. Price, 30 cents per package.

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PROSPECTUS OF

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— FOR 1877. —

A MONTHLY JOURNAL,

DEVOTED TO

PHYSICAL, MENTAL, AND MORAL CULTURE.

THOUSANDS die every year through ignorant neglect of those laws which govern *Physical*, *Mental*, and *Moral* health. Hundreds of thousands suffer weeks and months from sickness, from the same cause. To teach and illustrate these laws, in their various relations and applications, is the mission of the HEALTH REFORMER. The following is a brief summary of the principles advocated:—

OUR CREED.—The laws of life and health are the laws of God. Christianity is practical piety. Do right from love of right and truth. Love God supremely, your neighbor equally "For *forms* of faith, let wrangling bigots fight."

HYGIENE.—Obedience to all the laws of health is necessary to secure a "sound mind in a sound body." Perfect mental and moral health is promoted by physical health.

DISEASE.—Sickness is Nature's punishment for Physical sin, or violation of physical law, as moral depravity is the result of moral sin, or transgression of moral law. Men shorten their own lives, not Providence, by their own reckless or thoughtless disregard of the laws of life and health respecting eating, drinking, breathing, sleeping, and all other acts of life.

DRUGS.—Dr. Oliver Wendell Holmes says it would be "better for mankind if all the medicines of the drug shops were cast into the sea." Drugs and poisons are too often used when they do more harm than good. Nature's remedies are far superior, in most cases.

TRUE TEMPERANCE PLATFORM.—Temperance reform, to be thorough, genuine, and efficient, must begin with reform in diet. *All* stimulants must be discarded—alcohol, opium, hashish, absinthe, tobacco, and the rest.

The Health Reformer for 1877

Will contain a great variety of practical information on general health questions, food and diet, how to recover health, etc. In addition, it will contain more or less of general literature, a Scientific and a News Department. The People's Department, including answers to correspondents, is a valuable feature. Hints for Farm and Household will be found of great practical value to thousands.

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