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Disease from the Influence of the Passions.

BY B. W. RICHARDSON, M. D.

(*Concluded.*)

EFFECTS OF FEAR.

THE effects of fear are all but identical with those of rage, and, like rage, grow in force with repetition. The phenomena are so easily developed in the majority of persons, that they may actually be acquired by imitation, and may be intensified and perhaps induced by listening to the mere narratives of events which act as causes of fear. I am daily more and more convinced that not half the evils resulting from what may be called the promptings of fear in the young and the feeble are duly appreciated, and that fear is the worst weapon of physical torture the thoughtless coward wields. The organs upon which fear exerts its injurious influence are, again, the organic nervous chain, the heart, and the brain.

Permanent intermittency of the heart is one of the leading phenomena incident to sudden and extreme terror. One example, sufficiently characteristic, will illustrate this fact.

A gentleman of middle age was returning home from a long voyage in the most perfect health and spirits, when the vessel in which he was sailing was struck from a collision, and, hopelessly injured, began to sink. With the sensation of the sinking of the ship and the obvious imminence of death—five minutes was the longest expected period of remaining life—this gentleman felt his heart, previously acting vehemently, stop in its beat. He remembered then a confused period of noise and cries and rush, and a return to comparative quiet, during which he discovered himself being conveyed, almost unconsciously, out of the sinking vessel on to the deck of another vessel that had rendered assistance.

When he had gained sufficient calmness, he found that periods of intermittent action of his heart could be counted. They occurred four or five times in the minute for several days, and interfered with his going to sleep for many nights. On reaching land the intermittency decreased, and when the patient came to me, soon afterward, there were not more than two intermittent strokes in the minute, all the intervening strokes being entirely natural, and the action of the heart and the sounds of it being simply perfect. In this gentleman the intermittent pulse became a fixed condition, but so modified in character that it was endurable. At his last visit to me he was not conscious of the symptom unless he took it objectively from himself, by feeling his own pulse or listening to his own heart.

The effect of fear on the brain may be to the extent of that which is produced by extremity of rage, so that even sudden death, from syncope, may ensue. I have known two such instances as these, but the more common effect is an intense irritability, followed by doubt, suspicion, and distrust, leading toward or to insanity. From a sudden terror deeply felt, the young mind rarely recovers, never I believe, if hereditary tendency to insanity be a part of its nature.

A man who is now the inmate of an asylum, owing to fixed delusions that all his best friends are conspiring to injure and kill him, explained to me, before his delusion was established, from what it started. When he was a boy he had a nervous dread of water, and his father for that reason, and with the best of intentions, determined that he should be taught to swim. He was taken by his tutor, in whom he had all confidence, to the side of a river, and when he was undressed he suddenly found himself cast by his instructor, without any warning, into the stream. No actual danger of drowning was implied, for the tutor himself was at once in the water to hold him up or to bring him to land; but the immediate effect, beginning

with the faintness of fear, was followed by vomiting, by a long train of other nervous symptoms, by constant dread that some one was in some way about to repeat the infliction, by frequent dreaming of the event by night, by thinking upon it in the day. At last, all the phenomena culminated in that breach between the instinctive and the reasoning powers which we, for want of a better term, call dangerous and insane delusion.

EFFECTS OF GRIEF.

The effect of grief varies somewhat according to the suddenness or slowness with which it is expressed. Sudden grief tells chiefly upon the heart, leading to irregular action, and to various changes in the extreme parts of the circulation incidental to such irregularity. Under sudden impulse of grief I have known singular local manifestations of disease; as, for instance, the development of a goitre; an hæmoptysis, or loss of blood from the lungs; a local paralysis of the lip and tongue; a failure of sight.

When the grief is less sudden and more prolonged, want of power and intermittency of the circulation are again the most common phenomena. They are most easily developed in women, but I have seen them occur even in men of strong habit but sensitive feeling. Thus a gentleman whom I know well, and who suffers in the way I describe, tells me that he first became conscious of the intermittency in the action of his heart, upon the anxiety he felt from the loss of one of his brothers, to whom he was deeply attached and for whose superior talents he had, as indeed many others had, a profound admiration. The attacks at first were so severe that they created in his mind some alarm; but in course of time he became accustomed to them, and the sense of fear passed away.

The intermittency in this instance alternated with periods in which there was very slight interruption of natural action. During the more natural periods there was, however, an occasional absence of stroke once in two or three hundred beats, but the fact was not evident to the subject himself. When the extreme attacks were present, the intermittency of pulse occurred six or even seven times in a minute, and the fact, which was subjectively felt, was very painful. The stomach at the same time was uneasy, there was flatulency, and a sensation of sinking and exhaustion. In the worst attacks there was also some difficulty in respiration, and a desire for more capacity for air, but unattended by spasm or acute pain. A severe attack was induced readily by any cause of disturbance, such as broken rest or mental excitement; on the other hand, rest and freedom from care seemed to him curative, for a time.

In this gentleman, another symptom was presented for one or two years, which is somewhat novel, and exceedingly striking. The symptom was this: When the intermittent action of the heart was at its worst, there came on in the fingers of one or the other hand a sensation of coldness and numbness, followed instantly by quick blanching of the skin, precisely the same appearance, in fact, as is produced when the surface of the body is frozen. The numbness and temporary death of the parts would often remain for a full hour, during which time the superficial sensibility was altogether lost. When recovery commenced in the fingers it was very rapid, and after recovery no bad results were ever noticeable. I have since seen one similar illustration in another individual, occurring under nearly similar circumstances.

From the irregularity of the circulation of the blood induced by prolonged grief, varied central phenomena in the nervous matter follow, and in persons who have passed middle life these phenomena are usually permanent if not progressive. They consist of organic feebleness extending to all the active organs of the body, and affecting specially the mental organism. A constant desire for rest, for avoidance of cares, for seclusion, mark this stage of disease, if so it may be called. It is not necessarily a stage leading to rapid failure of further physical or mental power, for the mind and body are subdued so equally that there is no galling irritability, no wearing depression from the influence of other passions. The worst that happens ultimately in those instances is the gradual but premature encroachment of dementia previous to death, if life be prolonged to its natural term.

THE REEL OF THE PASSIONS.

Under some circumstances the passions, excited in turn, injure by the combined influence of their action. In games of chance where money is at stake, we see the play of the worst passions in all their mischievous intensity. Fear and anger, hate and grief, hope and exultation, stand forth, one after the other, keeping the trepitant heart in constant excitement and under tremulous strain, until at length its natural steadiness of motion is transformed into unnatural irregularity, which, if it does not remain permanent, is called up by the slightest irritation. The act of playing at whist for high stakes is a frequent source of disease from this cause. I know that professed or habitual card-players declare that, however much may be played for, the losses and winnings of games are

equalized by turn, and that after a year's play the player has, practically, neither won nor lost. I may accept what is declared on this point as true; but the fact, if it be one, does not alter the physical evil that results one iota. The man who, after being engaged in business all day, sits down regularly at night to play his rubbers on rubbers, to stake heavily on his games, to bet on his odd tricks, never, I believe, escapes the effects of organic nervous shocks. Some of the worst forms of such shocks I have seen have sprung from this cause.

Political excitements call forth readily the reel of the passions with dangerous energy. A few specially constructed men, who have no passions, pass through active political excitement and, may be, take part in it without suffering injury; but the majority are injured. As they pour forth their eloquent or rude speeches, as they extol or condemn, as they cheer or hiss, as they threaten or cajole, they are taking out of themselves force they will never regain.

It has been observed since the time of Pinel, that when to political excitement there is added the excitement of war, especially of civil war, the effects on the physical life of the people are at once marked by the disturbance of nervous balance. This fact was forcibly illustrated during and after the last great civil war in America, and it formed the subject of several most able reports by the physicians of that country. One report, by Dr. Stokes, of the Mount Hope Institution of Baltimore, was, I remember, a masterly history which, when the time comes that war shall be no more, will be read with as much wonder as we now read of the witch or dancing mania of the middle ages.

One victim of the war mania is cursed with fear until he fails to sleep; another believes that all his estates are confiscated; a third imagines himself taking part in some bloody fray; a fourth, the subject of aural delusions, no sooner sleeps than he wakes up, roused by what he considers to be awful sounds afar off, but approaching nearer. These are the more visible evidences of the injuries of war beyond those inflicted on the fighting men. They represent much, but they represent little if they be compared with the minor but still formidable physical injuries to the heart and brain which stop short of real insanity, but which reduce life, and which pass in line from the generation that receives them primarily, to the generations that are to come.

The reel of the passions as a cause of diseases of modern life rests not with the excitements of gaming, of political strife, of war. It is stirred up by some fanatical manifestations for the regeneration of the world, which are well meant, but which, missing the mark, plant degeneration instead.

In a sentence, whenever from undue excitement of any kind the passions are permitted to overrule the reason, the result is disease: the heart empties itself into the brain; the brain is stricken, the heart is prostrate, and both are lost.—*Diseases of Modern Life.*

Propagation of Typhoid Fever.

BY PROF. ALONZO CLARK, M. D.

[THE following is an abstract of a portion of a lecture by the distinguished teacher mentioned, recently published in the *Medical Record.*—ED.]

This disease occurs epidemically or sporadically. It is very common to hear that there is an epidemic of typhoid fever prevailing in some town not far away during the autumn or latter part of summer, and the epidemic commonly continues until cold weather arrives, with an occasional case during the winter.

It is certainly communicable, in one way or another, from one person to another. I could give a large number of illustrations of this fact. Typhoid fever was prevailing in the town of Plymouth. A boy came from Plymouth to Mr. B.'s house, fourteen miles distant, and was there taken sick with typhoid fever. The disease ran its course in about four weeks, but before the boy began to recover, Mr. B., Mrs. B., and their children were taken sick with the same disease. There had been no typhoid fever for several years in the locality in which B. lived. In this manner it spread through a school-district. Nearly all the persons who spent much time in this infected house, assisted in washing the clothes and in taking care of the patients, had the disease. Those who visited the sick by day did not contract it so frequently as those who took care of them at night. About twenty-five persons were attacked in this school-district, and then its spread ceased.

Typhoid fever was prevailing in the town of Richmond. A boy who had been living there, and in a house where a family was afflicted with it, went to his father's house in Canaan, New York. He was taken sick in his father's house with a disease that had exactly the same history as that prevailing in the town of Richmond. There had been no typhoid fever in Canaan for several years,

and now a little epidemic spread through the town. I could cite many other instances in which the disease has been carried by a well person from one town to another,—illustrations, not of the contagiousness of the disease, but of its communicability perhaps, by the intestinal discharges.

That typhus fever is communicated by the effluvia arising from the sick person I entertain no doubt; but I do entertain a doubt whether typhoid fever is communicated in the same manner.

I will now call your attention to other modes in which this disease seems to be propagated.

I have here a memorandum with reference to propagation of typhoid fever through the medium of milk.

The Medical Inspector of Leeds, England, traced the cause of an epidemic of typhoid fever that broke out in that city to the milk, which, for a certain locality in the city, was obtained at a country farm-house where a patient was sick with typhoid fever.

Dr. Littlejohn, Medical Inspector of Edinburgh, reports in September, 1877, the occurrence of several cases of typhoid fever in the West End, and believes that they were caused by milk sold from a dairy where a person was sick with the disease.

"At the present time," he says, "over twenty families are suffering severely from the disease, and several cases have terminated fatally."

The next memorandum relates to the clothes of the sick person. Prof. Lebert, of Breslau, reports four cases of typhoid fever occurring among women employed to wash the clothes used by patients sick in the hospital with that disease. He thinks they were probably the victims of carelessness, but I should say really of ignorance. These women lived in different sections of the city.

Here is another memorandum relating to the transmission of the poison by running water: —

A miller in Scotland had typhoid fever; his excreta were thrown into a pond which communicated, by means of a ditch, with a small stream below, the water of which was used for drinking by those living along the border. The discharges from a second patient sick with the same fever were thrown into the same pond. A few days after, four men who obtained water from the stream a mile below were attacked with the same disease. There had been no case of typhoid fever in this region for a long time.

In the town where I have my summer home there was obtained the history of an occurrence which is very striking. Twenty young persons went upon a picnic excursion. They took their refreshments by the side of a clean, bright-looking stream, and drank of its water. In due time eighteen of these persons were attacked with what was called typhoid fever; several died. The question, Where did the poison come from? is one of a good deal of interest. That it did not come from the provision baskets seems certain, because there was no typhoid fever in the town. To my mind, there is but little doubt that it came from the stream; and yet it is not known that a typhoid fever patient lived upon the stream, or that the excreta of a person sick with typhoid fever were emptied into it. It is altogether likely, however, that privy washings in some way had communication with the stream; or it may have been that a case of unrecognized typhoid fever occurred at some point along its course, and that the excretions of the patient were thrown into it.

The question whether the excretions from healthy persons can produce typhoid fever, when thrown into a stream in this manner, is not fully settled. But it seems to be improbable.

At Bellevue Hospital, however, it has been occasionally reported, particularly during the dry weather of summer, that a case of typhoid has occurred in the wards.

I no sooner hear this than I make an inspection of the water-closet, and have not yet failed to find that it was exceedingly foul, and that, because of the exhaustion of the reservoir of water with which it is washed out, the basins have been used without cleaning. Now, whether this is what has been called cess-pool fever, or whether it is typhoid fever, is not, as yet, easy to determine, for observations sufficiently extensive have not been made.

Some years ago a disease broke out in a large school for girls, at Pittsfield, Mass. Dr. Palmer, of Ann Arbor, Mich., and Drs. Ford and Greene, of Pittsfield, after making a pretty thorough examination of the question, reported that they had no doubt that the disease was typhoid fever, and also had no doubt that it arose from foul sewers connected with the building. There was a blind sewer of considerable size, into which the washings of the water-closets were emptied, and the accumulation had become so considerable that it had set back sufficiently to contaminate the entire building with its foul exhalations. No persons sick with typhoid fever had been in the institution previous to this outbreak.

In my own mind the question is a little unsettled, whether the excretions from healthy

persons can produce typhoid fever. My impression, however, is, that when these cases are closely examined in the new light, they will be found to be what is described as cesspool fever.

In the volume of Transactions of the Medical Society of the State of New York, for the year 1877, Dr. Stoddard, of Rochester, makes a report bearing upon the possible diffusion of typhoid fever which is of much importance.

The reporter says that "a certain limited section in the city of Rochester was invaded with typhoid fever, while the other parts of the city were exempt from the disease. Examination limited this area to about five acres. In the center of this district was situated a well, the surroundings of which were exceedingly filthy. About thirty feet distant was a privy, and the drainage of the vault was toward the well. On opening the well, the water was found clear and free from odor or taste. On microscopical examination, nothing unusual was found, and chemical examination disclosed little else of importance besides a considerable amount of sodium chloride. The presence of the sodium chloride pointed to sewage pollution, as proved to be the case. To test the influence of the water upon those using it, a thorough census of all the families in this district was taken, and the number of persons using the water ascertained; also the number using water from any other source, and the cases, character of illness, and deaths which had occurred during the previous six months. This was done with the following result:—

"Eighty-seven families, consisting of 492 persons, occupy the district; forty families, comprising 219 persons, *used* water from the well. Among these occurred twenty-three cases of typhoid fever and one of diphtheria during the period taken. Forty-seven families, consisting of 273 persons, did *not* use the water. Among these occurred only two cases of typhoid fever during the same period. Among those using the water the ratio of sickness was one in every 9.12. Among those not using the water, one in 139.5; or fifteen times as much sickness from zymotic disease among the families using the water. It was ascertained that the *first case of typhoid* in the district, during the time considered, *occurred in the family occupying the premises on which the well was located.* This well was immediately closed, and *not another new case of typhoid had appeared* after two months in this section."

Dr. Stoddard, I suppose, infers that the alvine discharges from the first patient were thrown into the privy mentioned, and by drainage made their way into the well, and that this was the real source of the poison which was disseminated through this district.

Food.

BY W. B. SPRAGUE, M. D.

ALL organic matter grows by assimilation of other matter to itself. One characteristic of organized matter is that it has power to take matter wholly different from itself and make it like itself. Whatever is thus assimilated is *food* to that body which assimilates it. Every class of organized bodies has organs of assimilation peculiar to itself, which manifest a power to select certain substances better calculated to nourish the body than any others. One of the principal distinctions between the two kinds of organic matter (animal and vegetable) is that animals assimilate organized matter only, while vegetables live upon inorganic matter.

Organized matter exists in various elementary forms, called proximate principles. Some of the principal of these are albumen, gluten, caseine, starch, sugar, and fats. Different organic bodies contain these principles in different proportions. The first three named contain nitrogen, and are called nitrogenous, in contra-distinction from the rest, which are called non-nitrogenous, or hydrocarbons. The tissues of the body, and especially nervous and muscular tissue, contain nitrogen as an essential element. There is a constant process of waste and repair taking place in these tissues, and the food furnishes material to replace that which is broken down and carried off by the blood. If we are able to determine which of these principles our bodies most need, we can so select our food as to supply that principle in greater abundance than any other.

GLUTEN.

Gluten is the most important of all the nitrogenous elements of food, in that it is the only one capable of supporting life when given alone. This fact has been ascertained by experiments on lower animals. Gluten abounds in vegetable products, but does not exist in animal food. Wheat contains a larger percentage than any other grain,—twenty or thirty per cent. Rye, beans, oats, barley, and corn come next in order, though they contain only about one-eighth to one-third as much as wheat. Peas and rice contain about three and one-half per cent. Gluten gives to bread its light, porous character, and its occurrence in wheat in so much

greater quantity than in other grains accounts for the fact that wheat makes so much the lightest bread. It is highly nutritious, and in the treatment of certain diseases, in which it is desirable that the patient do not have non-nitrogenous food, it has been separated from the other elements of the grain and made into a very palatable bread by itself. The process of extraction is very simple. It is only necessary to knead it under a stream of water, when all the other elements of the flour will be washed away, leaving an adhesive, elastic, grayish-white mass of gluten.

ALBUMEN.

Albumen is a very important element of food, and is found in both the animal and the vegetable kingdom. A good example of almost pure albumen is the white of an egg. It constitutes a large percentage of the blood, and also of the various tissues of the body, hence there is a constant demand for it on the part of the system. It is found in small quantities in the grains, but abounds in the vegetables. That vegetable albumen makes tissue of a quality superior to that made from animal albumen is evidenced by the difference in the character of the flesh of carnivorous and that of herbivorous or graminivorous animals.

CASEINE.

Caseine is found in milk, peas, beans, and other vegetables. Vegetable caseine is usually called legumine, and the plants in which it abounds are called leguminous. Caseine is one of the principal ingredients of milk, and at a certain period in life it constitutes the sole nitrogenized article of diet. In the body it is converted into albumen. Milk also contains sugar and butter, and constitutes the only single article of food which contains all the principles which the body demands. It is the best of food for infants, but as the body develops, nature demands a stronger diet.

TISSUE-FORMING FOODS.

The nitrogenized elements are called *tissue-forming* elements, in contra distinction from the non-nitrogenous, which are supposed to be *heat-producing*. Though some believe that the non-nitrogenous foods are also converted into tissue, it is probable that the tissues are mostly formed from the former class. They are severally convertible, one into the other, and the presence of any one of them in the food supplies the demand, at least in part, for any and all of the rest. They are mostly digested in the stomach, while other foods pass into the small intestines before they are materially acted upon by the digestive fluids. An abundance of these elements is found in a strictly vegetarian diet, entirely free from the broken-down, poisonous elements which are necessarily always found in animal food on account of the constant waste of animal tissue.

FATS AND OILS.

Fats and oils are found not only in animal foods, but in nearly all of the grains, in some fruits and vegetables, and in nuts. Corn contains 8.8 per cent. of fat. A small quantity of fat is necessary for the proper nourishment of the system, but it is very difficult of digestion, and an excess is apt to cause dyspepsia in the course of time. An abundance for all the wants of the system is found in a vegetarian diet, and it is more easily digested when taken in this form, as its admixture is more complete than in animal food. When taken in excess, the fats float on the top of the food in the stomach, and are decomposed by the high temperature into various deleterious, fatty acids. These acids cause the disagreeable sensation known as "heart-burn." They seriously interfere with the process of digestion, and it is through them that dyspepsia results if an excess of fats is persevered in. What are known as "bilious attacks" generally owe their origin to this cause. We are in much more danger of taking too *much* fat than too *little*.

SUGAR.

We need sugar in our food, but are in great danger of using it to excess on account of its very agreeable flavor. It exists in sufficient quantity in many foods in their natural state. Much the same disagreeable symptoms and results are caused by the use of sugar as of fats. It is easily digested when taken in suitable quantities, but too much of it causes fermentation and the production of acids. When digested, sugar is converted into fat, and helps to form the adipose tissue of the body. There are three principal kinds of sugar; viz., saccharose, glucose, and lactose. Saccharose is cane sugar, and is that ordinarily used for sweetening foods. Glucose is identical with fruit sugar, and is found in all sweet fruits. All the sugars are converted into glucose in the body. Lactose is milk sugar, and its use as a food is insignificant. Saccharose is the sweetest of all, and is most soluble. Beet and maple sugar are saccharose.

STARCH.

Starch has nearly the same chemical composition as sugar, and is converted into sugar in the process of digestion. When we eat starch, or food containing starch, we notice

that after thorough mastication it tastes sweet, like sugar. This is because the saliva has converted a portion of the starch into sugar. Although an abundant and important article of diet, it may be said of this as of each of the other hydro carbons, it is insufficient of itself for the purposes of nutrition.

Prospects of Hygienic Education.

BY W. T. CURRIE, A. M., M. D.

IN a former article I spoke of the difficulties in the way of hygienic education. I will now call attention to points which cannot fail to encourage those who are bravely meeting these difficulties.

We have seen that all reforms and all improvements meet with opposition. This might discourage us, were it not for the records of history which show that they have succeeded in spite of all obstacles thrown in their way. Tramps may throw binding machines into the river, but such lawless measures do not prevent their use. So in the matter of education: people may oppose new methods, but notwithstanding this the car of progress will roll irresistibly onward. I am one of those who have faith in the people. I believe that, when the truth is once presented for their consideration, the best part of them will acknowledge and embrace it. When people once see that there are schools and colleges where their sons and daughters may attain both physical and mental vigor, I do not believe they will continue to send them where their bodies are sure to be ruined and their minds dwarfed.

We may safely accept the following as a law of universal application: Work of merit will, in the end, win approval. A gaudy painting, by one who knows nothing of the rules of art, may attract attention for awhile, and a picture of true merit may hang beside it almost unnoticed. But as days pass by, one is recognized as the work of a genuine artist, while the other is denounced as the daub of an uncultivated pretender. So it will be in the work of teaching. Grander than the work of any other man is that undertaken by the educator of the rising generation. The work he undertakes is to develop into perfection, and mold and fashion into beauty, a human being. We do not imagine that people will immediately distinguish between this work and the glittering shams everywhere presented to their view; but the contrast will become apparent as time moves on, and all works are tried in the grand crucible of *Value*.

The work of hygienic education will succeed because it lies directly in the line of the world's progress. It has been the fashion to laugh at Grahamites, but I believe that the prophecy of Graham will yet be fulfilled: "The time is coming when people will make pilgrimages to my grave." Graham flour is manufactured at every mill, and eaten by tens of thousands whose parents taught them to laugh at the name it bears. When I first advertised a hygienic school, I paid twelve cents a pound for oatmeal to supply the table. Now mills are multiplied throughout the country, and this article, sold at three cents per pound, is fast becoming a part of our nation's bill of fare. Fruit is becoming an indispensable part of every meal, and the rich contents of jars, preserved in a natural condition, is fast taking the place of our grandmother's pickles and preserves. Gymnastic exercises have even found a place in fashionable *female boarding-schools*. Physiology is admitted as a text-book in common schools, notwithstanding the protest of many physicians. These are only a few signs of the many popular changes that are going on among the people, all pointing in the direction of hygienic reform.

The hygienic educator is not content to sit still, and move only as he is forced by the great waves of public opinion; but he does something to guide and form this opinion, and thus anticipates and helps forward the universal progress.

Hygienic education is in harmony with the laws of Nature. These laws are powerful, and crush those who oppose them. This is shown in the death rate among the graduates of many of the foremost schools and colleges of this country. Eleven years have passed since I was a student in a theological seminary. One-half of the class in which I recited have closed their earthly labors. They were young men of promise, who ought to have been teachers of the way of physical as well as spiritual life. But for the want of a little instruction in the laws of health they were cut down before their work was half done. The advocates of a hygienic education expect to see their pupils avoid the calamity of an untimely death, and people will ask, after awhile, "Why is it that the graduates of these schools are so much stronger and healthier than those educated in the ordinary way?"

I spoke in my former article of the unfavorable estimate which people often put upon the examinations of hygienic schools. I said that the pupils would not show that they were amassing so much knowledge as those in the other schools of the country. Very

well; let it be so. Other tests than the ordinary ones are before long to be applied in the examination of students. Suppose we keep a record of each student who enters school. At the end of each year we will propose a new kind of examination. We will call in a physician to make a record of physical condition, a teacher of gymnastics to test their bodily strength, a grammarian to judge their off-hand writing and speaking, and a linguist to see what they can do at extemporaneous translation of Latin or German. After this we will have a chart made by a phrenologist, and renewed each year, showing the changes and growth of the brain. How do you think hygienic students would stand beside others in this kind of an examination?

Hygienic education will surely triumph; for, as education is *a growth*, those who are educated with a regard to the laws of life and health, will show a growth of body, mind, and soul, so far beyond all others that all candid observers will be compelled to admit that the system which develops such human beings must be incomparably superior to that which turns out the dwarfed, sickly, sentimental encyclopedias of the so-called illustrious schools of the present day.

Habits of German Authors.

BY J. H. WAGGONER.

MANY have wondered at the great amount of labor performed by German authors. The number of books produced by some of them is truly marvelous. A correspondent of the N. Y. *Independent* says it is all owing to *their habits*. The following is, in part, his description of the habits of the German literary man in regard to labor and diet:—

"The German author, moreover, owes a large degree of his productiveness to his simple diet and regular hours for sleep and rising. He rises early, and never touches any work until he has taken a cup of coffee and a biscuit. He never puts his brain and eyes into harness and under spur and whip without a little food to start with. At 10 he takes a light lunch, such as a sandwich of bread and cheese; and goes to work again, and sticks to it until about 1 o'clock. Then it is all over for that day. He has performed an immense amount of literary work. Six solid hours, and not a minute lost in painful digestion of ham and eggs, beefsteak, hot rolls, and blankety buckwheat cakes. As for hot bread, he never saw any, in all probability; for all the bread comes from the bakers, and is served cold twice a day. If by any oversight he should eat a couple of steaming soda-biscuits, it would cost him a whole day's work; for he never could bring himself to the belief that he has the capacity to digest hot bread. He would moan, and smoke, and declare, in spite of the papers, that the French are marching straight for Berlin. The dinner is plain but plentiful; the supper is light, with black bread as the staple. With the fiber and strength from one day's food he does the work for the next; hence digestion gives him no trouble or thought. He no more thinks of his stomach than of Babarossa's falcons. Of course, he smokes a good deal; but even this, I have noticed, he pushes off largely into the play-hours of the afternoon."

Although this might be somewhat improved upon, it is surely a great improvement upon the habits of the average author of the United States. Here the work, instead of being done in the early day, is done largely by lamp light. And as authors in this country are notably erratic, they generally care for little, in regard to diet, except the gratification of appetite. We can say, at the least, that warm soda-biscuits, and other indigestible food, are taken as a general diet.

Of all classes, authors and other men of sedentary habits of life need a plain and nourishing diet. Those who spend much of their time in the open air and in manual exercise will have stronger powers of digestion, and could therefore much better afford to live on "fashionable" food. If ministers lived on "farmers' fare," and took sufficient exercise of a proper kind and at proper seasons, they would need no "vacations," and would have minds capable of more clearly apprehending the truths of revelation and life's responsibilities.

Popular Errors —It is a popular error to think that the more a man eats the fatter and stronger he will become. To believe that the more hours children study the faster they learn. To conclude that, if exercise is good, the more violent the more good is done. To imagine that every hour taken from sleep is an hour gained To act on the presumption that the smallest room in the house is large enough to sleep in. To imagine that whatever remedy causes one to feel immediately better is good for the system, without regard to the ulterior effects. To eat without an appetite; or to continue after it has been satisfied, merely to gratify the taste. To eat a hearty supper for the pleasure experienced during the brief time it is passing down the

throat, at the expense of a whole night of disturbed sleep, and weary waking in the morning.—*Sel.*

Poison in Food.

BY J. S. GALLOWAY, M. D.

THERE is an idea in the minds of many persons that all foods contain poisons, and that without the presence of poisons in some form, all food would be indigestible. Without going back to trace up the origin of this idea, it may be well to think of it a little.

That very many of the dietetic substances that find a place upon our tables do contain poisons, or irritants little less mischievous, cannot be denied. Bi-carbonate of soda, bicarbonate of potash, carbonate of ammonia, vinegar, mustard, pepper, salt, and other kindred things, are in very general use, and the propriety of their use is rarely questioned by any one. But these are not the things referred to as poisons when the necessity for poisons in food is spoken of. The idea is that in food as given us by the Creator, unchanged by mechanical, chemical, or other processes, poisons do exist, and that their existence is a necessity to the perfection of the food.

That there is a semblance of truth in this cannot be denied; but that it is *only* a semblance is, we think, undeniable. Webster defines poison as "any substance which, when introduced into the animal organism, is capable of producing a morbid, noxious, or deadly effect upon it." Is this the nature of food, or of any essential constituent of it? It is true that foods in their most perfect state contain things which taken separately or in different combinations from those which exist in food, are poisons. Phosphorus, though found in considerable quantities in the bony and nervous tissues, and lime, which is combined with it in the bones, are, when taken alone or combined together, but uncombined with other substances, essentially poisonous. Carbon forms a considerable portion of the animal matter of the living body, and oxygen enters largely into its composition also; yet, combined together in the laboratory of the chemist, they are destructive to animal life. Nitrogen is an essential constituent of muscles, hair, nails, and other tissues of the body. Certain compounds of this with oxygen form the most active irritants, while with carbon and hydrogen it forms prussic acid, one of the most deadly poisons. A single drop of it placed on the tongue of a dog causes instant death.

Thus we might trace the whole round of chemical elements and chemical radicals. As they exist in the food prepared for us by divine wisdom, they are not in any sense poisonous. As we combine them in the laboratory of the chemist, many of them are of the most deadly nature.

The inference to be drawn from these and similar facts is that it is unwise and unsafe to attempt to improve too much upon any of the Creator's works, and especially upon those things which he designed for the nourishment of our bodies. Poisons are not found in food as prepared for us by his hand. Elements, and compounds of them, may exist in food as harmless and even essential constituents of it, while the same elements and the same compounds taken separately or in different compounds, of which they form a part, may be fatally poisonous. The important lesson for us to learn is to trust in the wisdom of the Creator, and to be willing to accept what has been given us, without presuming to be wise enough to improve upon anything he has adapted to our use.

The Liver Fluke.

THIS is a small parasite which, like the dreaded trichina, is common both in man and in animals which he frequently uses as food. It has been found in the squirrel, rabbit, dog, horse, and elephant, as well as in the sheep, the deer, and the ox. It is especially destructive to sheep, which seem to be more liable to it than most other animals, being frequently infested to such an extent that whole flocks are carried off by the disease to which it gives rise. It is stated that two million sheep die in England from this cause in a single year. Thousands of sheep annually die in this country from the same cause, without the real origin of the disease being suspected.

The "fluke" is a very small creature, being flat and oval in shape, very much like a leaf. At one end is a thickened conical portion, in which are situated the head and mouth. When taken into the stomach, these parasites soon find their way into the gall duct, where they subsist and flourish with the bile for their food. In a short time, their increased numbers cause obstruction of the duct, which occasions absorption of the bile into the system, indicated by yellowness of the skin and various other symptoms. The disease is known as the "rot," or the "liver rot."

When first affected with the disease, the sheep appears very much like a person suffering with the jaundice. At this stage, it fattens rapidly. The further effects of the disease are well described as follows in the *American Agriculturist*:—

"The sheep suffers first from jaundice, which causes the skin and eyes to become yellow. At this stage the sheep thrives and fattens rapidly, and the yellow color of the fat of many carcasses of mutton that are sold in market, is due to this bilious derangement. In a short time the sheep fails, the skin and eyes become white and bloodless, a watery tumor appears beneath the jaws, the abdomen swells from dropsy, the wool becomes harsh and easily parts from the skin, and after lingering some time, the sheep dies, completely rotten, with every organ diseased. A knowledge of the natural history of this parasite, teaches a simple and complete preventive. As the fluke passes the first stage of its existence in water, the eggs voided in the dung of the infected sheep being hatched therein, it is only in wet, undrained pastures, or in the neighborhood of ponds, that the sheep can take them into their system. Sheep that are pastured on dry fields are exempt. Wet pastures and meadows should therefore be drained and freed from stagnant water.

"The wide distribution of the fluke in America, is now a well-ascertained fact. It has been stated that it was not native to this country, and only existed in imported sheep. Flukes have been discovered in the liver of the hare, and in that of the deer in Minnesota, and we have examined a portion of a deer's liver, in which more than a hundred parasites were imbedded."

Tobacco and the Pulpit.

THE awful waste of money involved by the use of tobacco among all classes, has begun to attract grave attention, especially among women. They have been seriously embarrassed in all their Christian and benevolent work because of the lack of funds.

They see that the money that ought to go into these channels, and for home comforts, is going to the tobacco store, and that their husbands and sons are being polluted by the filthy weed.

They know that the tobacco store stands beside the saloon, that in the preparation *all the best brands of tobacco and cigars are prepared with alcohol*, and that in a majority of cases the first step toward drunkenness is the tobacco habit; and they tremble for the safety of their loved ones. It is natural that Christian women should look to their pastors under these circumstances for advice and aid, and expect them to preach against this enormous waste, and the personal defilement the habit brings.

But, alas, too many who claim to be teachers sent of God, are men of unclean lips, and come into their pulpits with the fumes of tobacco on their clothing, and are in no condition to teach personal purity. What can they say to the young men and boys of their parishes against this evil, when they themselves are guilty? Nothing at all. The majority of women hate tobacco smoke and are disgusted with the habit, and have little confidence in a minister who befouls himself with the filthy weed. They may not say a word, but down deep in their heart of hearts, they have little confidence in his profession of religion or his call to teach the word of life.

Now what we want to say is that women can remedy this evil if they set themselves to do it. Let them combine their efforts and refuse their support to men who are guilty of this vile habit. Constituting, as they do, more than two-thirds of the entire Christian church, the withholding of their moral and financial support would soon drive every man from the pulpit who uses tobacco; and this ought to be done. We want men of clean hands and pure hearts in the pulpit, for the pulpit must rebuke this sin and waste before it is put away.

The fact is, we may no longer be silent and indifferent. The tobacco nuisance is on the increase, and if it continues to gain upon us, the churches will soon become smoking rooms, where men will lounge, and smoke their pipes and cigars during the Sabbath sermon. Don't say, "Impossible!" A few years ago men had too much gallantry to smoke in the presence of ladies. How is it now? The old barriers of politeness and gallantry that used to hedge this indulgence in, and protect ladies from the annoyance of tobacco smoke, are being broken down.

Men without an apology puff the tobacco smoke in our faces on the street; the air of the railroad station house is thick with it, each drawing-room car has its smoking room that defiles the whole car, every train a smoking car, and on steamboat and ferry boat, in private parlor and public hall, young America without a grain of the politeness and gallantry of the past chivalric age, befouls himself and the air, God-given and pure, that we are to take into our lungs.

One moment the smoke is in his mouth, the next in the nostrils and mouths and lungs of pure-lipped women and children.

Smokers as a rule are selfish—do not consider the comfort of others. The tendency of the pipe is to savagism. The American Indians degenerated into barbarism, no doubt, through the influence of the pipe.

After developing a good degree of civilization, as the remains of works of art show, they drifted down into the grossest barbarism. Some time in the past they began to smoke the tobacco weed, generation after generation their children were tainted with it, and the elements of character common among the smokers of our day became the ruling and overmastering passion among them. The same characteristics are shown by the Turks. The pipe has for ages stood between them and civilization.

We cannot in this article discuss the relation of the tobacco habit to civilization at length, but it is a subject worthy of study, and we invite attention to it.

When the little boys that crowd our streets are seen with cigars and pipes in their mouths, and little children of six or ten, that ought to be about their mothers in the nursery, are puffing cigar-smoke in the faces of the crowd at every railroad station and street corner, it is time for thoughtful women to arouse themselves. Let us combine our efforts to overthrow the tobacco waste and curse, beginning *at the pulpit.* "Like priest like people." Demand that ministers be pure and true and thoughtful on this subject or leave the pulpit they are polluting.—*The Christian Woman.*

Death in the Dishcloth.—An acute observer of causes and effects writes to the *Rural World* the following observations concerning "dishrags," which we really think worthy of careful notice from a hygienic point of view:—

"If they are black and stiff, and smell like a barnyard—it is enough—throw them into the fire, and henceforth and forever wash your dishes with cloths that are white, cloths that you can see through, and see if you ever have typhoid fever again. There are sometimes other causes, but I have smelled a whole house full of that disease in one 'dishrag.'

"I had some neighbors once—clever, good sort of folks; one fall four of them were sick at one time with typhoid fever. The doctor ordered the vinegar barrel whitewashed, and threw about forty cents' worth of carbolic acid in the swill-pail, and departed. I went into the kitchen and made gruel—I needed a dishcloth and looked around and found several, and such 'rags'! I burned them all, and called the daughter of the house to get me a dishcloth. She looked around on the table. 'Why,' said she, 'there were about a dozen here this morning,' and she looked in the wood-box and on the mantel-piece, and felt in the cupboard. 'Well,' I said, 'I saw some old black, rotten rags lying around, and I burned them; for there is death in such dishcloths as those. and you must never use such again.' I took turns at nursing that family for weeks, and I believe those dirty dishcloths were the cause of all that hard work.

"Therefore I say to every housekeeper, Keep your dishcloths clean. You may only brush your head on Sundays, you need not wear a collar unless you go from home—but you must wash your dishcloths. You may only sweep the floor when the sun gets right; the windows don't need washing, you can look out of the door; the spider's web on the front porch don't hurt anything—but as you love your lives, wash your dishcloth. Let the fox-tail grass grow in the garden (the seed is a foot deep anyway), let the holes in the heels of your husband's foot-rags go undarned, let the children's shoes go two Sundays without blacking, let the hens set four weeks on one wooden egg—but do wash your dishcloths. Eat without a table-cloth, wash your faces and let them dry, do without a curtain for your windows and cake for your tea,—but keep your dishcloth clean."

Peregrinations of Pins.—The *London Lancet* has collected a number of most remarkable facts respecting the travels of pins in the human body. One case mentioned is that recorded by Dr. Stevenson, of Detroit, who had a lady patient seventy-five years of age who last year passed from the bladder a pin swallowed while picking her teeth forty-two years before. She had occasionally suffered pain in various parts of the body, and of late years had suffered considerable from irritation of the bladder, which entirely ceased after the expulsion of the pin.

A French physician reported the case of an insane woman who swallowed pins and needles in such numbers that they almost constituted a part of her daily diet. After death, fifteen hundred were removed from various parts of the body. Another physician mentions a case of a girl in whom needles were found beneath the skin, which they perforated, being then removed. She was closely watched, and three hundred and twenty needles were extracted within a year and a half. The needles invariably came out head foremost. It is very remarkable indeed to what extent the system will tolerate the presence of such horrid bodies as pins and needles of every description. In very few cases were they the cause of death.

LITERARY MISCELLANY

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

JUDGE NOT.

JUDGE not; the workings of his brain
And of his heart thou canst not see;
What looks to thy dim eyes a stain,
In God's pure light may only be
A scar, brought from some well-won field,
Where thou wouldst only faint and yield.

The look, the air, that frets thy sight
May be a token that below
The soul has closed in deadly fight
With some infernal, fiery foe,
Whose glance would scorch thy smiling grace,
And cast thee shuddering on thy face!

The fall thou darest to despise,—
May be the angel's slackened hand
Has suffered it, that he may rise
And take a firmer, surer stand;
Or, trusting less to earthly things,
May henceforth learn to use his wings.

And judge none lost; but wait and see,
With hopeful pity, not disdain;
The depth of the abyss may be
The measure of the height of pain
And love and glory that may raise
This soul to God in after days!

—*Adelaide A. Procter.*

A Lesson for the Times.

NUMBER TWO.

BY MRS E. G. WHITE.

ENTIRE abstinence from every pernicious indulgence, and especially from tobacco and intoxicating drink, should be strenuously taught in our homes, both by precept and example. Upon no consideration should wine be placed upon our tables. Our children should grow up to consider it a deadly evil, leading to misery and crime.

The youth of to-day are the sure index to the future of society; and as we view them, what can we hope for that future? These young men are to take a part in the legislative councils of the nation; they will have a voice in enacting and executing its laws. How important, then, is it that the voice of warning should be raised against the indulgence of perverted appetite in those upon whom such solemn duties will rest. If parents would zealously teach total abstinence, and emphasize the lesson by their own unyielding example, many who are now on the brink of ruin might be saved.

What shall we say of the liquor-sellers, who imperil life, health, and property, with perfect indifference? They are not ignorant of the result of their trade, but they become callous of heart. They listen carelessly to the complaints of famishing, half-clad mothers and children. Satan has no better agents by which to prepare souls for perdition, and he uses them with the most telling effect. The liquor-seller deals out his fiery draughts to men who have lost all control of reason and appetite; he takes their hard-earned money and gives no equivalent for it; he is the worst kind of robber.

We find in the special precepts given by God to the Hebrews, this command: "If an ox goad a man or a woman that they die, then the ox shall be surely stoned, and his flesh shall not be eaten; but the owner of the ox shall be quit. But if the ox were wont to push with his horn in time past, and it hath been testified to his owner, and he hath not kept him in, but that he hath killed a man or a woman, the ox shall be stoned and his owner also shall be put to death. If there be laid on him a sum of money, then he shall give for the ransom of his life whatsoever is laid upon him." "And if a man shall open a pit, or if a man shall dig a pit, and not cover it, and an ox or an ass fall therein, the owner of the pit shall make it good, and give money unto the owner of them, and the dead beast shall be his."

The principle embodied in this statute holds good in our time. The liquor-seller compares well with the man who turns a vicious ox loose upon his neighbors. The liquor-seller is not ignorant of the effects of the fiery draught which he deals out unhesitatingly to husbands, fathers, youth, and aged men. He knows that it robs them of reason, and in many cases changes them to demons. The liquor-seller makes himself responsible for the violence that is committed under the influence of the liquor he sells. If the drunkard commits murder, under the effect of the maddening draught, the dealer who sold it to him, aware of the tendency of its effect, is in the sight of God equally responsible for the crime with him who did the deed.

The liquor-dealer digs a pit for his neighbor to fall into. He has seen the consequences of liquor-drinking too often to be ignorant of any one of their various phases. He knows that the hand of the man who drinks at his bar is likely to be raised against

his own wife, his helpless children, or his aged father or mother. He knows, in very many instances, that the glass he hands to his customer will make him a raging madman, eager for quarrel, and thirsting for blood. He knows that he is taking bread from the mouths of hungry children, that the pence which fall into his till, and enable him to live extravagantly, have deprived the drunkard's children of clothes, and robbed his family not only of the comforts, but of the very necessities of life. He is deaf to the appeals of weeping wives and mothers, whose hearts are breaking from cruelty and neglect.

Crimes of the darkest dye are daily reported in the newspapers as the direct result of drunkenness. The prisons are filled with criminals who have been brought there by the use of liquor; and the blood of murdered victims cries to Heaven for vengeance, as did the blood of Abel. The laws of the land punish the perpetrator of the deed, but the liquor-seller, who is also morally responsible for it, goes free; no man calls him a murderer; community looks calmly on at his unholy traffic, because justice is fallen in the streets, and equity cannot enter. But God who declared that if a man owned a dangerous ox, and knew it to be so, yet let it loose upon his neighbors, if it caused the death of any man or woman, he should pay the penalty with his own life,—that just and terrible God will let fall the bolts of his wrath on the liquor-vender, who sells violence and death to his fellow-men, in the poisonous cup of the inebriate, who deals him out that which takes away his reason, and makes him a brute.

Oh, if men, formed in the image of God, would let reason hold sway in their minds; if they would remember that cursed is he who putteth the bottle to his neighbor's lips, and that no drunkard shall inherit the kingdom of Heaven; if they would count the cost beforehand of creating an appetite which has no foundation in nature,—how much misery, crime, and disease might be spared the children of men!

Parents who freely use wine and liquor leave to their children the legacy of a feeble constitution, mental and moral debility, unnatural appetites, irritable temper, and an inclination to vice. Parents should feel that they are responsible to God, and to society, to bring into existence beings whose physical, mental, and moral characters shall enable them to make a proper use of life, be a blessing to the world, and an honor to their Creator. The indulgence of perverted appetite is the great cause of the deterioration of the human race. The child of the drunkard or the tobacco inebriate usually has the depraved appetites and passions of the father intensified, and at the same time inherits less of his self-control, and strength of mind. Men who are naturally calm and strong-minded not infrequently lose control of themselves while under the influence of liquor, and, though they may not commit crime, still have an inclination to do so, which might result in the act if a fair opportunity offered. Continued dissipation makes these propensities a second nature. Their children often receive this stamp of character before their birth; for the appetites of the parents are often intensified in the children. Thus unborn generations are afflicted by the use of tobacco and liquor. Intellectual decay is entailed upon them, and their moral perceptions are blunted. Thus the world is being filled with paupers, lunatics, thieves, and murderers. Disease, imbecility, and crime, with private and public corruptions of every sort, are making the world a second Sodom.

For the sake of that high charity and sympathy for the souls of tempted men for whom Christ died, Christians should come out from the popular customs and evils of the age, and be forever separated from them. But we find in the clergy themselves the most insurmountable obstacle to the promotion of temperance. Many are addicted to the use of the filthy weed, tobacco, which perverts the appetite, and creates the desire for some stronger stimulant. The indifference or disguised opposition of these men, many of whom occupy high and influential positions, is exceedingly damaging to the cause of temperance.

The safety of society, and the progress of reform, depend upon a clear definition and recognition of fundamental truth. The principles of God's law must be kept before the people as everlasting and inexorable as the character of God himself. Law is defined as a rule of action. Civil law represents the supreme power of the State, regulating the actions of men, and restricting them from doing wrong under penalty of punishment. The good of society and the safety of man require that the law be respected. All enlightened law is founded on the law of Jehovah, given on Mount Sinai. To the inebriate, both the law of God and the law of man are meaningless. His senses are benumbed, he cannot comprehend the language of Sinai, and he tries to bring the law down to meet his debased standard rather than elevate himself to meet the exalted standard established by the rules of God's government.

If Christian men would protect their homes from the horrors of vice, let them respect the laws of God. Let them be jealous for the

sanctity of the ten precepts given for the government of mankind. Let them thus purify themselves, and decide to obey God at any cost to themselves. Then will they understand the mystery of godliness, and exclaim with David, "How love I thy law. It is my meditation all the day." "Open thou mine eyes, that I may behold wondrous things out of thy law."

The Human Hair.

BY MIRIAM WEBSTER.

No part of the human body, not essential to its vitality, has received more attention than the hair. Holy Writ is not behind profane writings in this mention. Poets have sung its praises, morphologists have displayed its structure, perfumers have furnished "dressings," quacks have grown rich by vending "invigorators" or "restoratives," and the "hair-dresser" has been an important character of every age.

Bible history shows that the early people of the world appreciated the value of this element of personal beauty. Absalom, the son of a great king, was noted for the beauty of his locks, even the weight of the clippings having been recorded for our amazement; and Samson's "braids" were the delight of his Delilah. The figures of speech in which the hair is the prominent object are as numerous as the very pages themselves. Solomon sings of the glory of the hoary head when found in the way of righteousness. The wise man does not seem to have been infatuated with blondes, for his figures and allusions all have reference to tresses that vie with the raven's wing, or even approach the dusky luxuriance of a purple tinge.

Grief was manifested by tearing the hair, or allowing it to go unkempt. The majesty of Divinity is represented by "pure white hair," as in Dan. 7 : 9; Rev. 1 : 14. In the Sacred Volume, there is frequent mention of the methods of dressing and adorning the hair, fashions which grew into such extravagance of vanity as to receive the condemnation of the apostles in later times.

The Greeks and Romans had many ceremonies and superstitions connected with the hair. Just before marriage they cut the hair of both parties, and consecrated the shorn locks to their favorite deities. They had many strange fashions for honoring the dead, by tearing, cutting, shaving, or defiling their hair. Shaving the head was always a sign of submission. Slaves had their hair cropped, and prisoners of to-day must relinquish their crowning glory. Recluses went into the cloister with shaven polls, indicating their renunciation of all the vanities of life. So great has been the expression of worldliness by the dressing of the hair that papal decrees and royal mandates have often been necessary to regulate the same within the bounds of religious moderation. To-day, all forms of propriety and most refined taste exact that the head shall be simply and modestly adorned with its natural covering.

No objects make prettier specimens for the microscope than the hairs of different animals; and these are so readily obtained and easily mounted that a child can have a large variety. Among these may be mentioned as curious the hairs of mice and bats. By microscopical examination we learn that a hair is a tubular structure; and chemical analysis reveals its composition of fats, salts, and gelatine. The use of the hair as a non-conductor of heat, is rarely questioned by the most ignorant; but its electrical functions are not so generally recognized. Its great importance in the economy of organization is indicated by the fact that in animals whose surfaces are not entirely protected by hair, these capillary appendages are most abundant in the vicinity of vital organs. Only a very small portion of the human body is destitute of hairs in some degree of abundance.

The proper care of the hair should be taught as much as the hygiene of the skin. The use of plastering pomatums and alkaline washes should be discountenanced. Keep the head clean by frequent brushings, and the use of pure, tepid water when the accumulations of dust defy the brush. Avoid violent braidings or rolling of the hair; this pulls the roots and injures the follicles. Crimping by the application of heat destroys the beauty and vitality of the hair. A healthful physical condition of body has, often, much to do with beauty of the hair. I have heard school-girls bemoaning the "falling of the hair," and the accumulation of dandruff, which could easily have been prevented by more reasonable attentions to diet, and the essential conditions of health that are predicated upon normal relations to air, light, and general cleanliness.

The prevailing modes that require such cushions of false hair, or other materials, are all destructive in their effects. The scalp is heated, and debility ensues Then diseased conditions vary only with the circumstances and general habits of the individual, but the one point holds for all,—loss of beauty, and death to this natural ornament, which no degree of art can ever replace, and which it can but poorly substitute.

European Beer Gardens.

MRS. WINSLOW, editor of the *Alpha* of Washington, D. C., who is now traveling in Europe, sends back the following description of the beer gardens so popular in France and Germany :—

"I went the other evening to an open-air garden ball to see the *Demi-monde*—to the Mabille. How surely does the devil steal the livery of Heaven for his hellish purposes! You cannot conceive, nor I describe, the brilliancy, the taste and artistic arrangement of everything. The unfortunate women were dressed in good taste, some very modestly so. In grottoes and gardens, tobacco, liquors, and all kinds of refreshments were served. For awhile everything was covered with a mantle of decency and beauty, and not in the least shocking; but oh! some of the dancing was sinful! It grew more and more indecent, till I was ready to faint. I said to Mr. Winslow: 'Let us go; I cannot bear any more!'

"We got home soon after 12 o'clock. Sick at heart, I could not sleep. I was in an agony of supplication all night, for light and strength and divine aid to do something for the redemption of these souls. O God! that anything made so beautiful as a woman, and heir to such a heavenly inheritance, should fall into such a degradation! It is too dreadful to know, much worse to see with your own eyes. And this is the most respectable of the many similar places in this beautiful city. The Mabille is supported mostly by the patronage of young Americans. This is part of the education and polish which American mothers send their sons abroad to receive. How corrupting! I feel as though I never should recover from the shock. What effect it must have on those who enjoy it. There were many American men present—some very young. How I groaned in spirit to see one youth with a pure face blush scarlet at the sudden advance of one of these professional dancers. The standard of womanhood is forever lowered in his imagination."

Weights and Measures.—It is thought that weights and measures were the invention of Phidon, the tyrant of Argos, who lived nearly eight hundred years before the commencement of the Christian era. Previous to this time, various portions of the body were used as measures by different nations, as the length of the finger, the foot, of the pace, of the forearm—called the cubit—and the stretch of the arms. Indeed this mode of measuring has never gone out of use entirely. The housewife almost invariably measures her skirt breadths by the length of her finger, and the Chinaman likewise uses his foot as a scale of length; long fingers and large feet count for no more than short and small ones.

At school, some of the old-fashioned standards are still referred to in the tables recited; as, "Three barley-corns make one inch." No doubt that human feet were longer two thousand years ago than now, but the barley-corn remains the same. Henry III. enacted a statute in 1266 that the English penny should weigh thirty-two grains of wheat, well dried, and out of the middle of the ear. Edward II. made a statute in 1328 by which it was provided that three barley-corns should make an inch.

At the present time, much more accurate standards are adopted. The English standard is the length of a pendulum which vibrates seconds at London. The French standard is the metre, which is one forty millionth of the earth's circumference.

Longevity of Authors.—The life of William Cullen Bryant, prolonged until he was near 84, has directed attention to the fact—for it seems to be a fact—that the pursuit of literature is favorable to longevity. A contrary opinion, however, has widely prevailed, owing no doubt to the early death of poets like Chatterton, Keats, Kirk White, Byron, and Musset. Our most distinguished authors are well on in years. Lowell is almost 60; Parke Godwin is 62; Holmes is close to 69; Whittier is 70; Longfellow, 71; Calvert (George Henry), 75; Emerson, 75; George Ripley, 76; Bancroft, 78; Herman Melville, nearly 60; Shelton Mackenzie, 70; Higginson, 55; Parton, 56; Walt Whitman, 59; Lydia Maria Child, 66; Julia Howe, 59; Harriet Beecher Stowe, 66; not to mention Gail Hamilton, who is popularly supposed to be 215. Among the literary Britons are John Ruskin, in his 60th year; Charles Reade, over 64; Wilkie Collins, 54; Robert Browning, 66; Tennyson, 69; Carlyle, 83; George Eliot, 58; Coventry Patmore, 65; James Martineau, 73; and George Henry Lewis, 61; while among the literary scientific men, Darwin is 69; Huxley, 63; Tyndall, 58; and Carpenter, 66. We might go all over Europe, and show the preservative power of professional exercise in ink. Authors generally have lived far beyond the average in all countries, unless, as in the case of Byron and Musset, they have grossly abused themselves by excesses.—*Sel.*

"We Passed That."—It is one thing to have an object in life; it is quite another thing to know when we are aiming at it. Many begin well, but after a time get off the course; then their life is more likely to go wrong than right. The following incident has its moral for all who are aiming to do right:—

During a beautiful summer's night, on one of our great lakes, the master of the boat thought that he might take a few hours' rest, and intrusted the rudder to the hands of his boy, a somewhat simple-minded lad. "Do you see that star straight before us?" he said to him, pointing to the pole-star.

"Yes."

"Well, you have nothing to do but to keep the boat straight in that direction."

"I understand."

The captain fell asleep. The boy did the same. The wind changed; the boat turned out of its course more and more, till at last it had made a semi-circle. The boy awoke. He was astonished to see behind his back the star which just now had been straight before him, but he did not the less continue with a firm hand to steer the boat toward the south, from whence it had first come.

Two hours after, the master in his turn awoke. He cast one glance upon the sky and another upon the boy.

"Well, stupid! what are you doing?"

"I'm still keeping always straight before me, as you told me."

"Ah, indeed! and the pole-star?"

"Oh, the pole-star! Why, we passed that long ago!"—*Youth's Companion.*

Encouragement.—Whenever you can conscientiously encourage any one, do so. You would not leave those plants in your window boxes without water, nor refuse to open the shutters that the sunlight might fall upon them; but you leave some human flower to suffer from want of appreciation or the sunlight of encouragement. There are a few hardy souls that can struggle along on stony soil—shrubs that can wait for the dew and the sunbeams—vines that will climb without kindly training; but only a few. Utter the kind word when you see that it is deserved. The thought that "no one cares and no one knows" blights many a bud of promise. Whether it be the young artist at his easel, the young preacher in his pulpit, the workman at his bench, the boy at his mathematical problems, or your little girl at her piano, give what praise you can, for many a one has fallen by the way for the want of that word of encouragement which would have "stablished their feet."—*Sel.*

Small Means.—We think that the power of money is, on the whole, overestimated. The greatest things which were done for the world have not been accomplished by rich men, or by subscription lists, but by men generally of small pecuniary means. The greatest thinkers, discoverers, inventors, and artists have been men of moderate wealth, many of them little raised above the condition of manual laborers in point of worldly circumstances. And it will always be so. Riches are oftener an impediment than a stimulus of action; and in many cases they are quite as much a misfortune as a blessing. The youth who inherits wealth is apt to have life made too easy for him, and so grows sated with it because he has nothing left to desire. Having no special object to struggle for, he finds time too heavy on his hands; he remains mentally and morally asleep; and his position in society is often no higher than that of a polypus over which the tide floats.—*True Citizen.*

A Chinese Inn.—An American lady thus describes a Chinese inn:—

"An earth floor, not even smooth. Walls festooned with cobwebs of great age, and the dust of many months. A very dirty square table, a high-backed chair, and two very narrow benches. A raised platform, built of bricks and mortar, with cavities for fire to be kindled in cold weather. Fires, when needed, are kept up day and night—and the platform serves for bed by night and sitting-room by day—bed-clothing furnished by lodgers. Attendance, hot water brought in by landlord, for tea and toilet purposes. Charge for six, seven hundred copper cash, equivalent to seventy cents."

Alfred's Clock.—Alfred the Great measured time by wax tapers. He employed every day six large wax tapers each divided into twelve sections, three of which burned one hour. Each taper would thus last four hours, and the six, twenty-four hours.

In order to prevent rapid wasting of the candles from the wind blowing the flame about, owing to the openness of his tent, he invented a lantern made of thin plates of cow's horn, which secured a steady and uniform light.

—Try to put well in practice what you already know: in so doing you will, in good time, discover the hidden things which you now inquire about.—*Rembrandt.*

—He that cannot bear with other people's passions, cannot govern his own.

Popular Science.

New Use for Electricity.—So many uses have been found for this wonderful agent that we are no longer surprised to learn of any new application, no matter how unexpected or novel. Inventors in every branch of industry are evidently intent on putting electricity through its paces in the most thorough manner possible, and exhibit the greatest sagacity in making it subserve their varied purposes.

The latest application noted is for the assistance of the horse-tamer. An ingenious horseman has discovered that by connecting the "bit" with a small battery placed in a convenient position in his vehicle he can instantly render quiet and docile the most fractious and vicious animal by the passage of an electric current through his mouth. A runaway team can by this means be brought to a stand-still in a moment.

Edison's Heat Measurer.—Mr. Edison seems to be making nearly all of the discoveries of any note nowadays, and nobody can tell where he will stop. He has recently constructed an apparatus for detecting and measuring quantities of heat so small as to defy other instruments of the most delicate character. "A carbon button is placed at one end of a rubber band; warmth on the rubber is transmitted to the carbon, which, in turn, by electricity, registers in a galvanometer the amount of heat. So delicate is this test that if the hand is placed near the rubber band the heat will cause an instant deflection of the galvanometer."

By means of this little instrument the most distant stars are found to send us rays of heat as well as of light.

Composite Photographs.—Mr. Galton, an eminent English scientist, has made a discovery which will prove of great service in the study of race characters and character signs in the physiognomy. Mr. Galton finds that by taking several photographs of different persons upon the same negative, a composite picture will be formed which, while unlike any one, is a perfect average of all.

One curious effect observed in this experiment is that the composite picture is better looking than any of its components. An effect similar to that produced by the photographic process may be produced by placing two separate pictures in the focus of a stereoscope, instead of duplicates of a single picture. It is necessary that the size and attitude of the two photographs should nearly correspond. In observing them, one or the other should be moved until the eyes exactly correspond. Most beautiful faces will often be produced in this way.

A Solar Cooking Stove.—A resident of India has invented an apparatus for cooking by sun-heat. The chief part of the apparatus is such an arrangement of common looking-glasses as will concentrate the sun's rays, in the focus of which is placed a copper kettle. A reflector two feet in diameter will boil three gallons of water in half an hour. This simple cooking apparatus will, it is thought, prove very serviceable in such countries as India, where sun-heat is plenty and fuel scarce.

Artificial Pearls.—Artificial pearls are now made in France that so closely resemble the genuine that none but experts can distinguish them from real pearls. The process is a very simple one. Hollow glass beads of various forms are lined with a peculiar gelatinous matter of a pearly coloring, which is found adhering to the scales of a certain fish. It requires twenty thousand fish to produce a single pound of this peculiar substance, but a very small quantity indeed, at an expense of less than two dollars, will make a string of pearls which so closely resembles a similar string of genuine pearls worth several hundred dollars as almost to defy detection. The artificial pearls are said to be superior to the genuine.

Eyes of Insects.—The compound eyes of insects are among the most wonderful objects in nature. In the common house-fly, the two compound eyes appear as large convexities on either side of the head. These convexities, examined with a microscope, are seen to be an immense number of hexagonal facets, or six-sided eyes, each being a distinct eye in itself, furnished with an iris, pupil, and perfect nervous apparatus. As the eyes of insects are immovable, their want of mobility is made up for by their immense number, some or other of them being turned to every point, so that the insect can see all around as readily as with a movable eye. The house-fly has 4,000 of these lenses; the dragon fly, 12,000; the butterfly, 17,000; and some beetles, 25,000.—*Sel.*

THE

HEALTH REFORMER

BATTLE CREEK, MICH., AUGUST, 1878.

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

Summer Diseases.

THE season has now arrived when summer diseases begin to prevail very extensively in some sections, and often give rise to a fearful degree of mortality. Dysentery, cholera morbus, and kindred diseases, for the next two months will figure largely in the bills of mortality. Notwithstanding the enormous loss of life occasioned every year by these diseases, every sanitarian is familiar with the fact that they all belong to the class of diseases known to be preventable. This being true, it is evident that all who are informed on this subject ought to be actively engaged not only in the work of prevention, but in promulgating a knowledge of the means of prevention. Careful attention to the following simple rules will be quite certain to afford ample protection from the bowel affections so common at this season :—

1. Make the diet simple and light. Avoid all articles of food that are difficult of digestion, as fat meats, food highly seasoned with condiments, rich cake and pastry, confectionery of all sorts. Animal food, if eaten at all, should be taken sparingly during the hot months; and the less the better. Bolted or fine flour bread should be eaten sparingly, and had better be discarded altogether in favor of that made from unbolted flour.

2. Avoid eating between meals and taking late suppers. For persons who are not engaged in severe physical labor, two meals are much preferable to more; and most people will perform harder physical labor on two meals than when taking more.

3. The diet should consist chiefly of ripe fruits and grains, with well-matured vegetables. Fruits and grains are the most wholesome and cooling diet for this season of the year. Vegetables in general are less digestible than fruits or grains. The greatest care should be taken to procure ripe fruits and well-matured vegetables. Fruit picked when green and afterward ripened to hasten its preparation for market, is premature and unfit for food.

4. The use of iced water is a very injurious practice. Iced cream is a most unwholesome luxury. It cannot be taken at any time without more or less injury to the stomach. During the hottest part of the season its use is absolutely dangerous. If very cold water is taken at all, it should be only sipped in small quantities at a time.

5. Avoid overheating the system by too violent exercise while exposed to the direct rays of the sun.

6. Be sure to take plenty of sleep. Late hours are especially detrimental at this season of the year, when the vital forces are at their lowest ebb.

7. Avoid all excesses of every sort.

8. With children, and especially with very young children, care of the diet is the most essential thing. Very great care must be exercised in changing the diet of infants. Unless required to do so from some unavoidable cause, young nursing infants should not be weaned during hot weather.

9. There is no room to doubt that the greatest share of mortality among infants comes from bad feeding.

Tobacco and Christianity.—The presiding Bishop of the New England M. E. Conference at Westfield, Mass., stated that "more money was smoked and chewed away by professing Christian men than was paid for saving the world." The Conference showed its disapprobation of the vile practice by voting that no transferred minister who used the weed should be received into membership.

Wholesale Lead Poisoning.

POISONING by lead is now being practiced to such an alarming extent that it certainly seems as though government authorities could not well witness the fact much longer without adopting energetic measures to repress so gross and outrageous an imposition upon the public. From the testimony of numerous and eminent authorities it has been established beyond doubt that a large share of the tinned ware now sold for cooking utensils is rendered dangerously unfit for any such use by the employment of lead in combination with the tin. The acids of fruits and some vegetables, and even water without the aid of acids, dissolves the lead, and by this means it is taken into the system. No one can estimate the amount of injury which is being done in this way.

We are glad to note that our State Board of Health are actively engaged in the investigation of this gigantic fraud, and we sincerely hope that their efforts may be pressed so vigorously as to accomplish some definite and effective results. We quote the following paragraphs from an abstract report of their recent meeting at Lansing, which was kindly forwarded to us by the Secretary, Dr. H. B. Baker :—

"Dr. Kedzie presented some results of his investigations on the subject of lead poisoning by means of tinned ware and other vessels containing lead. He said it is well known that there are substances actively poisonous when taken in large doses, that when taken in small but repeated doses often produce effects so obscure that they may be mistaken for the symptoms of some chronic disease. Lead, arsenic, antimony, and copper are examples. The chronic poisoning which may be caused by minute doses of any of these metals, and the possibility of mistaking such metallic poisoning for some disease of a different nature, should warn us against their use, or make us careful and guarded while using them. Vessels in daily use for preparation or serving of food are especially liable to affect the physical condition if they contain any material which will insidiously sap the foundations of health and strength.

"Culinary vessels which are cheap, durable, and convenient, and without injurious influences on the health, bear an important relation to the comfort and well-being of the people. Of all cheap metals for such use, tin fulfills these conditions better than any other. It is comparatively cheap, resists oxidation by exposure to air and water, has a white color, is not readily dissolved, except by strong mineral acids, and the only salt of tin which is actively poisonous is the chloride, which will never be formed in the domestic use of tin vessels. The readiness with which iron surfaces may be coated over with it contributes to its valuable uses.

"Unfortunately, while tin is comparatively cheap and safe, lead is cheaper and very dangerous. Yet the two metals readily unite, forming an alloy which may be used in place of tin, but which will generally oxidize and be dissolved by acids more readily than either metal of which it is composed. The danger of poisoning by the use of such vessels is very great. The attention of the State Board of Health has been called to this subject by a letter from Dr. Dorsch, of Monroe, who writes that he has seen cases of *paralysis agitans* which had been taken for chorea, although other symptoms of lead poisoning were present, and investigation showed in all cases that cooking and eating with tin spoons or in earthen and iron vessels with a coat of lead were the cause. The same is true with milk vessels. The acid dissolves the lead salts, and children are poisoned, dying by tubercles of the brain, meningitis, fits, and paralytic affections.

"Grown persons do not escape, although resisting longer. A similar danger arises from tea and coffee pots of earthen ware or composition metal, from tin sieves and tunnels, and almost all cooking utensils used by the poor. They are about as dangerous as the adulteration of food and spices, so common all over the country.

"The danger of lead poisoning is a matter of great importance, because so large a proportion of our population employ tinned vessels for culinary and table use. The alloy of tin and lead oxidizes much more readily than pure tin, and the oxide of lead is very soluble in acetic acid or vinegar, or lactic acid, forming sugar of lead. It also forms salts with malic and citric acids, which are contained in apples, cherries, gooseberries, currants, or any other acid fruits. When cooked

in vessels containing lead, or even placed in them for some time, they are liable to take it up and become very injurious thereby, because all salts of lead are poisonous. In this way a large portion of our daily food may be a vehicle of poison if prepared or contained in vessels containing a sensible amount; and this danger is greater because the compounds of lead are cumulative in their influence. A person may not be poisoned by one or two small doses, but minute doses taken for a long time will break the health and even destroy life.

"The Doctor said that of a large number of specimens of tin-plate, tinned iron, and other culinary articles examined by him, he found in almost every instance an alloy with lead, and it was often present in large quantities. It is an astonishing fact that a large proportion of the tinned wares in the market are unfit for use because of the large quantity of lead with which the tin is alloyed.

"TEST FOR LEAD.

"Place a drop of strong nitric acid on the tinned surface and rub it over a space as large as a dime. Warm it very gently till dry, and then drop two drops of a solution of iodide of potassium on this spot. The bright yellow iodide of lead will form on the spot if the tin contains lead. This test can be rapidly applied, and the results are decisive. The Doctor was informed that a peculiar kind of tin plate, the tinning composed mostly if not entirely of lead, was coming into general use for roofing eave troughs, and water pipes. The lead thus exposed would be in conditions favorable for oxidation, and a quantity of oxide and carbonate of lead would be washed away in the rain water, and deposited in the cistern with every storm. Susceptible persons may be poisoned by washing in such lead-charged water, and all persons drinking it even after it has been filtered will be in danger of chronic lead poisoning. Earthen vessels are usually glazed to overcome their porosity. In many cases, this glazing consists of fusible silicates of the alkalies, and alkaline earths. These have no injurious influence on the health. Oxide of lead when added to the alkaline silicates, borates, etc., makes a very fusible and closely adhering glazing, and is sometimes used; but its use is very dangerous, especially if the vessel contains acid substances. The glazing decomposes, lead salts from it are either dissolved or are mechanically suspended in the contents of the jar, and there is great danger of chronic lead poisoning. This danger is, unfortunately, very common.

"ENAMELED IRON VESSELS.

"Within a short time, an enamel has been successfully applied to vessels made of iron plate, the enamel or glazing taking the place of tin coating on tin-plate. As these vessels are coming into general use, it is a matter of public interest to know what would be their influence on public health. A culinary vessel, to be safe, must be impermeable by water and grease. Metals, especially where vessels are made without seams or joints, such as pressed tinware, glass, and many kinds of porcelain, are admirable in this respect. Glazed crockery, after the glazing is fissured, is very poor in this respect. If the new enameled ware shall prove satisfactory, it will be an important acquisition. At the present time, the most hopeful outlook for good, safe, and cheap culinary vessels lies in the direction of some fixed unabsorbent enamel for pressed iron ware which will maintain an unbroken surface under all conditions of domestic use.

"Another indispensable condition for a safe culinary vessel is that it shall not contain any poisonous material by which the food cooked or contained in it shall be injuriously affected.

"The specimens of granite ware which he had examined failed to reveal any poisonous or injurious substance. He regarded it as a safe material to use, but feared its power to resist the tendency to crack after it had been frequently heated. The marbleized iron ware presented very different results. The enamel was found to contain a large amount of lead, and even traces of arsenic were obtained from the enamel by the use of Marsh's apparatus.

"In a quart basin of this marbleized iron ware he placed eight ounces of water containing five per cent. of nitric acid, heated it boiling hot, and kept the whole in a warm place twenty-four hours, then evaporated the dilute acid to dryness, dissolved the residue in water, filtered, and from the filtrate pre-

cipitated the lead, obtaining in this way what was equivalent to twenty-three grains of lead. In a similar basin of marbleized iron ware eight ounces of vinegar (free from lead) were placed, and kept in a warm place twenty-four hours, and then treated in the same manner as the dilute acid. This resulted in obtaining what was equivalent to seven grains of lead. On powdering some of the enamel and heating it with concentrated acids, very distinct traces of arsenic were obtained. This was probably not present by design, but accidentally from being contained in some of the substances used in making the enamel. A culinary vessel which contains so much lead, and in such a state of feeble combination that eight ounces of ordinary cider vinegar can in twenty-four hours dissolve from a quart basin what is equivalent to seven grains of metallic lead, must be a very unsafe vessel for general use."

The valuable information contained in Dr. Kedzie's remarks ought to have a wide circulation. The common people ought to be so thoroughly informed on this subject that they will refuse to purchase any article to be employed as a cooking utensil which they do not know to be free from lead. The test which reveals the fraud is so very simple that any one can use it. We have applied it to numerous tinned articles, all of which we found to be alloyed with lead. We would advise every one who values his life and health to attend carefully to this matter.

Cold Lotions in Tuberculosis.—According to the *Revue des Science Medicale*, a French medical journal, Pogacnik, a celebrated physician, recommends as a remedy in consumption, the use of cold water in the form of sponging, preferring this mode of application to that of the cold douche, recommended by Brehmer and Sokolowski. The following is the mode of application which he directs:—

"On getting up in the morning, the patient himself sponges the entire body with a sponge dipped in water at 54½° to 77° F.; he ought afterward to rub himself energetically for five minutes with a large glove, and to wrap himself up to dry in a linen sheet. He should afterward get into bed for half an hour or an hour, and keep himself well covered until a little perspiration occurs; during this time it is necessary that the movements of the lungs should be reduced to a minimum.

"The author has been led to employ this treatment in tuberculosis by reason of the good effects he had obtained from it in engorgements of scrofulous nature. By means of the cold water, a regular action of the skin is provoked, and the patient is ultimately strengthened and rendered less susceptible to atmospheric variations.

"Little by little the appetite increases and the forces are restored, unless the lesions are too advanced.

"Hæmoptysis is not a contra-indication, and Pogacnik prescribes the lotions even when the douches cannot be borne.

"The lotions have the advantage over the douches of being more agreeable for the patient; of having a more prolonged and consequently more useful effect; of being very easy of administration, even among the poor, no apparatus being necessary; lastly, and above all, of not necessitating, like the douche, a walking exercise to procure reaction, an exercise which produces fatigue of the pulmonary apparatus."

Epilepsy and Indigestion.—Within the last five years, quite a number of epileptics have come under our observation, and we have noticed in every case a marked disturbance of the digestive functions. There is usually tenderness over the region of the stomach, and a feeling of discomfort in that region, if there are no more active symptoms. The tongue is also coated. All these symptoms are aggravated at the time of the paroxysm. We have often observed that an improvement in the digestion was accompanied by a corresponding decrease in the active symptoms of the disease, the paroxysms being either greatly diminished in severity or in frequency, or both.

Bromide of potassium and other bromides have been chiefly relied upon in the treatment of this disease. There is no doubt that these drugs will control the paroxysm; but there is certainly room to question whether simple control of the paroxysm does anything more than palliate the disease. Is there evidence that their use removes the cause of the malady? We have seen several cases in which

it seemed to us very evident that the disturbance of digestion occasioned by the bromide did more to precipitate the paroxysms than its influence upon the nervous system did to prevent them. In such cases a substitution of other remedies has been followed by recovery.

Iron has also been used to a considerable extent in conjunction with the bromides; but the renowned Brown-Sequard has discovered that iron is contra-indicated in this disease. It is well known that iron is very disturbing to digestion, and is not its adverse influence in this respect the reason why it is contra-indicated?

Jews and Oysters.—From the time of Moses, Jews have refrained from the use of oysters as food, as they are included in the list of prohibited creatures. No doubt this restriction has been considered a great hardship by the majority of the disciples of Judaism who mingle with the oyster-eating Gentiles of the present day who rejoice in their freedom from gustatory restraints. But a learned Jewish rabbi has found a way for escape from this enforced denial of the appetite so far as the oyster is concerned. He has been reading Darwin, and declares that in consequence of the theories of that eminent scientist *the oyster must be considered as a plant.* We hear about planting oyster-beds, which would certainly seem to countenance the idea that the product of the planting is an oyster-plant.

Music for the Insane.—Dr. Geo. M. Beard, of New York City, who has long entertained the idea that music might be successfully employed as a remedial agent, recently had an opportunity for testing the merits of the proposed remedy at the lunatic asylum on Blackwell's Island, New York. The music was furnished by a first-class pianist, Misses Annie Borie and Rosetti, and a military band of forty performers. The effects were almost magical. Wild, restless patients were soothed and quieted by plaintive strains and soft melodies. Boisterous, unruly maniacs, who came into the room in straight-jackets, marched back to their places as orderly as church-goers. Stolid, indifferent, hopeless melancholics were beguiled into smiles and even hearty laughter by the bewitching strains of waltzes, quicksteps, and other lively dance music. The general effect upon all was to restore them more nearly to a normal condition than they had been before in months or even years.

The conclusion drawn from the experiment was that music is a remedy of decided value in this class of cases. It certainly would be more humane and agreeable than the straight-jacket and the dark cell.

Cause of Consumption.—Dr. C. G. Polk affirms that the seat of tubercular consumption is in the medulla oblongata. He claims to have found in numerous examinations after death a uniform condition of the nerve center mentioned, consisting in atrophy of the part; and he believes that the lungs became affected through this means. It is well known that the chief nerve of the lungs, the pneumogastric, arises from the medulla, and hence it would be affected by disease of the nerve center, and would unquestionably affect the lungs.

Whether the lungs become affected on account of the disease of the medulla, or *vice versa*, is a question which seems to us unsettled. But the fact noted concerning the state of the medulla is certainly an interesting one. The stomach and liver, together with the other abdominal organs, receive their nerve supply from the source, through the same nerve; hence anything which affected the medulla would be sure to affect the stomach. This, then, will explain the almost constant association of weak or very defective digestion with tubercular disease. It also points very forcibly to the fact that disease of the lungs may be occasioned through long-continued disorder of the stomach. In most cases of consumption, the disease is preceded by disease of the stomach.

Sanitary Conventions.—We are pleased to note the fact that a series of Sanitary Conventions are to be held during the coming winter, the first to be at Coldwater, this State. We have political conventions, temperance conventions, religious conventions, and educational conventions; and why not have sanitary conventions as well? The project is a good one, and the people ought to give it a

most hearty support, as we sincerely hope they will do. We hope the State Board of Health will find it consistent with their other arrangements to give the people of this part of the State the benefit of a convention of this sort. We could safely promise a very large attendance at such a gathering. Indeed, we feel pretty certain that a sanitary convention at this place would be more largely attended by the common people than at any other place in the State of Michigan.

Hygienic Instruction.—During the last spring session of the Medical Department of Michigan University, Dr. Lyster, of Detroit, delivered a course of lectures on public health. We believe this is the first effort of the kind in any medical college in the United States. The subject is one which ought to be taught not only in every medical school, but in every educational institution in the land. No student ought to be allowed to graduate from any high school, academy, seminary, normal school, or college, without a thorough knowledge of how to preserve his own health, and of the principles of sanitary science.

Diet in Bright's Disease.—Physicians generally give too little attention to the influence of diet in the treatment of disease. In no class of cases is the effect of diet more clearly shown than in that most stubborn of diseases, Bright's disease of the kidneys. It has been observed repeatedly that a meat diet aggravates the symptoms in this disease. Dr. Johnson, of King's College Hospital, London, has been experimenting on this subject, and finds that a milk diet is much superior to a diet of any sort of meat. Even beef tea or fish would occasion a re-appearance of albumen in the urine, which would wholly disappear when only milk was employed. He treats nearly all his patients with a simple milk diet. It has been found that a diet of ripe fruits and highly nitrogenous grains will secure the same results.

The Turkish Bath.—In a report to the British Medical Association, Dr. Fleming, of Glasgow, gave an account of some experiments upon himself with the view of ascertaining the effect of the Turkish bath. He found that the amount of solids eliminated by the kidneys was increased, especially the amount of urea. The sweat also contained an increased quantity of waste matter, urea being abundant. This increase of the emunctory function of the skin he considered to be one of the most important effects of the bath. By this means the tissues could be actually washed by drinking water and then passing it from within out.

Sunstroke.—*Preventives:* Keep quiet on extremely hot days during the middle of the day. Avoid stimulating drinks of all sorts, and stimulating foods also. Abstain from iced water and iced cream. If obliged to be exposed to the direct heat of the sun, protect the head by a wet cloth in the hat.

Treatment: A person who is suffering with sunstroke should receive prompt attention. The application of ice to the head and spine, and cool affusion, are the essential measures of treatment. The application of electricity to the sympathetic nerves, and artificial respiration, are also useful measures in extreme cases.

Died of Fright.—An illustration of the influence of the imagination on the body recently occurred in Watertown, N. Y. A young man had a wound which was being treated by his surgeon with a lotion containing carbolic acid. He got it into his head that the acid was absorbed into his blood and poisoning him, and was so affected that he fainted and died.

Hydrophobia.—A French journal very humanely suggests, in view of the approach of the mad-dog season, that instead of slaughtering the dogs, people should wear large wire shields about their shins to ward off bites.

—A fact very commendatory to our State Board of Health is that it has secured for the State of Michigan better laws regulating the use of illuminating oils than have been adopted by any other State. Since their enforcement, accidents from this cause, which were before very frequent, are almost unheard of. The Ohio Legislature has recently passed similar though less efficient laws.

People's Department.

THE LOUD CALL, OR THE DISINTERESTED PARSON.

[A correspondent sends the following humorous rhyme, which he has reproduced from memory, for the People's Department, suggesting that it may aid digestion.—Ed.]

THERE lived a parson, as we're told,
But when or where we know not,
Who oft his snoring flock would scold,
Threatening that they to Heaven should go not;
But rather down to hell be hurled,
If they would not abjure the world,
And count as dross its filthy mammon,—gold.

It chanced at length, this goodly wight,
Who stoutly fought the Christian fight,
Elsewhere received a louder call.
What though the stipend was a trifle more;
To one who placed in wealth so little store,
This had no weight, you know, at all;
'T was not the cash, oh! no,
But 't was the Lord commanded;
And though 't was hard to go away,
Should he refuse the Lord to obey,
And be a careless servant branded?!
No, sure, so he *must* go.

The parting Sabbath now arrived,
And all his simple flock contrived
To hear their priest's farewell.
He plied them long in righteous strain,
Bade them from darling sins refrain,
And in sweet concord dwell;
To hate the world, in holy ways be bold,
And shun the soul's seducer,—glittering gold.

The service o'er,
Before the door
The parish gentry gathered round.
Smiling the good man came among them,
Seized on their offered hands, and wrung them.
"A saint on earth!" the grannies cried,
Then rolled their eye-balls up, and sighed,
And dropped their farewell courtesies to the ground.

Behind the rest,
To bid the priest good-bye,
In nature's sooty jacket dressed,
Old Cæsar came, a wag, and mighty sly.
Bowing, the stick of ebony began
A confab with the gold-despising man.

"And how good massa parson do?
Me hope me find him bery well."
"Well, Cæsar, well; and how do you?"
"Ah! massa, Cæsar hardly tell;
Dis good long twenty year,
Wid you he worship here,
And now be sorry from you flock you go."

"Ah! honest Cæsar, yes, it must be so.
I'm sorry, too, that I am *forced* away;
But then, you know, 't would never do,
The Lord's loud call for me to disobey."
"Who? massa, who you say?
De *Lord* call you away?
Massa, how many poun's a year
Do peoples pay for preaching here?
"Two hundred." "Todder place gib any more?"
"Why, Cæsar, yes, I think they offer four."
"Ah! may be 't is the Lord who call;
But do n't you think more loud you let him bawl,
Ay, call and call, till all be brue,
'Fore you come back from four to two?
De Lord he holler till he dumb,
'Fore massa parson eber come!"

Hydropathy for Felons.—A few years since, I had a very painful felon on one of my fingers, and having read somewhat of the healing and pain-killing effect of water treatment, I determined to try it. It not only speedily allayed the pain, but in a few days the finger was well. Since then I have recommended the same treatment to others. A young lady suffering from a felon, applied a poultice, made by an old physician who said that would "soon draw it to a head;" but the finger was so painful that she could not sleep. I recommended to try winding a strip of cloth upon it and immersing in a bowl of cold water as often as it grew painful. She did so, soon fell asleep, and the finger in a few days became well, without the felon "coming to a head." Let any one who has a felon, try the soothing remedial effects of cold water. Of all other remedies for a felon I have never found one to equal this.

MARK MILLS, JR.

The use of water for felons has long been recognized as one of the most efficient of remedies. It is best, however, to immerse the whole arm to the elbow in cool water instead of the finger only, during the early stages of the disease. This will frequently make an end of it without its "coming to a head." When suppuration has evidently taken place and it is necessary to encourage discharge of the confined matter, immersion in warm water is better. In this stage a simple bread-and-milk or linseed-meal poultice is preferable.

An Interesting Problem.—I handed the following mathematical problem to one of the college students to be solved. He gave the annexed answer. Young man—yes, or old either—consider this problem well, and see if it has any lesson for you. Here is the problem, with the answer:—

If a man expends annually $20 for tobacco, how much does this habit cost him in eighteen years at seven per cent., compound interest? *Ans.* $679.98.

That is a snug little sum to throw away on such a vile habit. Reader, do you use the weed? Look at these figures and resolve to save your money, and health, too.

D. M. CANRIGHT.

Questions and Answers.

Drinking at Meals.—B. F., Mich., asks: 1. Is it a good plan to drink at meals? 2. Do you advise that children should go barefoot in the summer?

Ans. 1. Drinking large quantities of fluid of any sort at meals is a very bad habit. It is, no doubt, one of the causes of indigestion. The reasons why it is objectionable are these: (1) Gastric digestion does not begin until the food has acquired a certain consistency through the absorption of its fluid portions. (2) The stomach is overtaxed by the imposition of so much unnecessary labor, so that digestion is retarded. (3) The use of cold drinks interferes with digestion by lowering the temperature of the contents of the stomach. Digestion cannot take place at a temperature much below that of the body. (4) The use of hot drinks is at first exciting, but ultimately produces relaxation and debility.

2. It is generally recommended that children should be allowed to go with feet unclad during the summer months; but we have often doubted if it were not productive of more harm than good. While it is necessary for the natural development of the feet that they should have unrestrained action, which is certainly secured when they are left entirely without covering, we think that the numerous chillings which children receive by exposure to cold in the morning and evening, to say nothing about sundry cuts, bruises, and other injuries which their feet are continually receiving, in a very great degree counterbalance the benefit which may be received through such a practice. If children are allowed to go barefoot during the heat of the day, care should be taken to dress their feet warmly when they are to be exposed to the cold and damp air of morning and late evening.

Catarrh.—C. E. J., Mich., asks: 1. How can catarrh be treated the most successfully at home? 2. My eyes are weak. What advice would you give me to strengthen them? 3. How can a poor memory be improved? 4. What are the best times for rising and retiring?

Ans. 1. Catarrh cannot usually be cured by any kind of local treatment. It requires both local and constitutional treatment. In most cases of catarrh, the liver and skin are inactive, and digestion is imperfect. These conditions must be removed by a careful dietary and by improvement of the general health. For local treatment, nothing is better than the nasal douche taken with care. An excellent preparation to use for this purpose is composed of one dram of common salt and ten drops of carbolic acid to a pint of water. Be careful that the acid is thoroughly mixed. The douche may be taken with the fountain syringe, care being used that the water is driven into the nasal cavity with only sufficient force to cause it to flow freely. A very excellent way is snuffing the solution into the nose from the hand.

2. You should consult an oculist in regard to your eyes, or they should be examined by some competent physician.

3. The memory can be improved very greatly by cultivation. The whole secret of memory is attention in the consideration of the things to be remembered. The more deeply any fact is impressed upon the mind, the longer it will be remembered. When considering that which is to be remembered, it should be examined in as many different ways as possible. Each one of the different senses should in turn be made to inspect it; and by that means the aid of all the different faculties will be enlisted for the purpose of recollecting it when required. Another aid to memory is careful and systematic analysis.

4. The best rule with reference to retiring and rising is to go to bed in the evening as soon as possible, and sleep until rested. The exact hours when sleep is taken is a matter of small moment. The amount of sleep taken is of great importance.

Ulcerated Beef Livers.—J. J. L., Wis., says: A butcher of our village says that all the cattle that he kills for beef have large ulcers in their livers. He claims that the disease of the liver does not hurt them for food. What is your opinion?

Ans. Everybody is aware of the fact that disease of the liver affects the system generally. No man is well when he is bilious. It is certainly reasonable to suppose that the disease of the liver would affect an animal in a similar manner. We do not care to eat the flesh of animals with diseased livers.

Tomatoes and Cancers.—T. A. M. asks: Do tomatoes ever cause cancers?

Ans. In our opinion they do not.

DIETETICS.

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

—Of the large quantity of food a man swallows, one-fourth supports him, and the balance he keeps at his risk.—*Abernethy.*

Wild Blackberries.—In many parts of the country this really excellent fruit grows in great abundance. This year the crop is especially promising. It is a great pity that any should be allowed to go to waste. They may be either canned or dried. Few fruits are either more palatable or more wholesome.

The Date Palm in America.—Gen. Stone, now engaged in the military service of the Khedive of Egypt, has sent to this country a lot of red date seed, which is to be planted in the Colorado desert. Gen. Stone thinks that in this region the date palm will flourish as well as in its native clime. If the experiment is successful, this vast waste will become one of the most produtive sections of the country.

To Cook Rice.—Mrs. M. E. McKee sends us the following recipe for cooking rice:—

"Prepare one teacupful of rice, and pour over it two teacupfuls of boiling water. Place it in a closely fitting covered pan over a kettle of boiling water or cooking vegetables, and it will cook as quickly as potatoes. This is a very convenient way of preparing it for breakfast. It is improved by adding a little milk just before it is taken up."

A New Danger.—Cases of lead poisoning are constantly becoming more and more common, on account of the increased frequency of the use of lead in connection with articles used for food or drink. "Dr. Alford details the particulars of a local outbreak of lead-poisoning which occurred in one part of the Taunton Rural Sanitary District, but in houses far apart. He analyzed the water, cider, preserved fruits, etc., but without detecting any lead. On careful inquiry, however, he found that the families affected had one thing in common; viz., they all had flour from the same mill. An analysis of this flour showed the presence of lead, and an examination of the mill revealed the fact that the holes in the stones had been filled up with lead. The lead was removed, and the disease gradually disappeared. Some of the cases were of a very severe form. It appears, on further inquiry, that it is by no means an uncommon thing for the holes in mill-stones to be filled with lead, a fact worth remembering."

Barley-Water.—At this season of the year, barley-water will often be found a most useful food for infants and invalids. For infants suffering from constipation and its resulting evils, it is an admirable remedy. It may be mixed with milk in proportion of one part of barley-water to two of milk. It renders the milk easier of digestion, preventing the formation of indigestible curds. Here are directions for making it:—

Wash two ounces of barley well, throwing away the washings. Boil with a pint and a half of water in a covered vessel for twenty minutes, then strain. It may be rendered more palatable as a drink by adding a little lemon-peel or lemon juice and sugar.

Graham Flour.—Many people erroneously suppose that Graham, the noted lecturer on vegetarianism and dietetics, was the inventor of wheat-meal, or flour which contains all of the nutritive elements of the grain, and which has for so many years been called by his name. The supposition is readily shown to be an erroneous one by the fact that the methods of grinding in use with the ancients, and with most barbarous nations even at the present time, were such as would produce only whole-grained flour. The ancients ground their wheat and other grains in mortars. The Mexicans, even so late as the discovery of their country by Europeans, produced flour in a somewhat similar manner by means of utensils called *metates*. Superfine or bolted flour is wholly a modern innovation.

Mr. Graham deserves great credit for the energetic measures which he used to secure the introduction of unbolted flour into general use, and he has been justly honored by the application of his name to that kind of flour.

The ingenious mechanism so uselessly employed in the process of bolting, furnishes not the only instance in which modern inventive genius has been the means of working great injury rather than good to the human race.

FARM AND HOUSEHOLD.

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

—Blackberries should be kept securely tied to stakes; train up three or four new shoots to form canes to bear next year; stop them when five feet high. Cut out the old canes when the fruit is off. If the "rust" appears, cut out the affected canes, and burn to prevent its spreading.

—The most cleanly method of preserving eggs, and one said to be as effective as any other, is to smear them with cotton-seed or linseed oil, and pack them, with the large end down, in dry bran or wheat chaff in a barrel, pressing the whole down closely, and heading the barrel. Kept in a dry, cool cellar, they will remain in good order for six months.

A Cheap Disinfectant.—A most excellent disinfectant for use in privy vaults, cess-pools, hen-coops, barn-yards, stables, and about neglected back doors, is a mixture of equal parts of freshly powdered quicklime and pounded charcoal. Strew the powder freely over the spot or substance to be disinfected. It must be renewed every day or two, unless kept tightly covered, and must be used freely.

Cleaning Sea-Shells.—Persons who are fond of making collections of shells will be thankful for the following hints: "Ordinary sea-shells can be cleansed sufficiently for cabinet purposes by washing in fresh water, using a good, stiff brush. If the shells have a rough, chalky appearance, and it is desirable to make them smooth, immerse for a few moments in diluted muriatic acid."

Marketing.—In marketing vegetables, remember that much depends on the attractiveness of their appearance. Don't heap them in a confused mass, but arrange garden stuff so that its good qualities shall be apparent. Oftentimes the best selections carried to market by themselves will bring more than the whole crop, good, bad, and indifferent, indiscriminately thrown together. A box of strawberries, each berry of nearly uniform size and appearance, will sell for more, and more readily, than the box that gives a confused look to the berries. The good marketer studies how to please his customers, and does n't grudge a little care in sorting or washing, in order that his wares shall show the best they are capable of.—*Scientific Farmer.*

Potatoes.—Many recommend putting salt into the water in which potatoes are boiled, but we do not think that the best way. Put potatoes into boiling water, and, as soon as done, pour off the water, remove the cover till all the steam has evaporated, then cover the kettle closely with a towel, and in a few minutes they will be very mealy.

To Clean Vessels that Have Contained Kerosene.—Wash the vessel with thin milk of lime, which forms an emulsion with the petroleum, and removes all traces of it. By washing a second time with milk of lime and a very small quantity of chloride of lime, and allowing the liquid to remain in the vessel about an hour, and then washing it with cold water, the smell may be removed. If the milk of lime be used warm instead of cold, the operation is rendered much shorter.

Remedy for Ivy Poison.—According to the *New York Medical Record*, Dr. L. A. Brown, U. S. A., of California, has found an infallible remedy for the eruption caused by ivy, sumach, poison oak, cassia, and other vegetable poisons.

The remedy is bromine. The Doctor claims to have used it with uniform success in more than forty cases. The eruption never extends after the first application, and immediately begins to diminish. The patient is usually entirely cured within twenty-four hours.

The bromine should be dissolved in olive oil, or some other unctuous substance, in the proportion of ten to twenty drops of bromine to an ounce of the unguent. Apply by rubbing on the affected parts three or four times a day, always applying thoroughly just before retiring at night. Twice a day cleanse the part thoroughly with castile soap.

The preparation must be kept very thoroughly stoppered, as the bromine evaporates quite rapidly.

News and Miscellany.

—In one county in Texas there are 2,000,000 goats.

—The Turko-Russian war cost Russia $750,000,000.

—It requires 50,000 persons to maintain order in Paris.

—The average wages of farm hands in Georgia is $8.08 per month.

—The silver coinage of the world amounts to about $1,200,000,000.

—The first books printed in Belgium were almanacs and prayer-books.

—On July 15 there were fifty-four deaths from sunstroke in St. Louis.

—Esquimaux dogs wear boots in winter, to keep the icicles off their feet.

—A very extensive volcanic action occurred in the Pacific Ocean in March.

—The importation of cotton goods has diminished three-fourths since 1860.

—It is affirmed that a breed of hogs with solid hoofs has been established in Texas.

—Regular instruction in practical cookery is a part of the new system in London public schools.

—Some Russians have discovered in Siberia an elephant so well preserved that its flesh was edible.

—The European Congress resulted in the preservation of Turkish nationality, at least for the present.

—A few days ago a violent snow-storm raged on Mt. Washington while at its foot the weather was the warmest of the year.

—The beer gardens in the vicinity of the Paris Exhibition cover as much space as the great Exhibition buildings themselves.

—According to careful calculation, it has been estimated that over 6,000,000 persons have died of starvation in South India during the past year.

—It is reported that 514 failures occurred in New York City during the first half of the present year, the liabilities being nearly $40,000,000.

—It is proposed to construct military projectiles on the principle of the boomerang, so that they may be made to render earthworks useless for protection.

—It is estimated that 16,000,000 acres of woodland are swept off every year by the needs of the country. At this rate our forests will soon disappear.

—"Old Probabilities," otherwise Gen. Myer, proposes to perfect his means for accurately predicting the weather by stationing a line of ships across the Atlantic Ocean, connecting them with the Atlantic cable, so that news of the state of the weather could be sent to his office at Washington from the sea as well as the land.

—The Croton aqueduct carries more water than any other in the world, and is but two miles shorter than the Julian aqueduct at Rome, the longest in the world.

—Gladstone considers that Disraeli has disgraced the English nation by his duplicity, and made a bad bargain besides, in the manner in which he stole Cyprus from the Sultan.

—Bald Mountain, in North Carolina, is frightening the inhabitants again with fearful groans and rumblings supposed to be caused by rocks falling down inside, the mountain being hollow.

—Reports from all parts of the country show this year's harvest to be one of the most abundant for many years. It will, it is hoped, for a time, at least, lessen the cry of hard times.

Literary Notices.

THE PHYSIOLOGIST. New York.

A journal devoted to teaching the laws of health. It is the organ of the Physiological Society. It is outspoken on all subjects,—too much so, it seems, to suit the taste of Mr. Comstock, who recently arrested the editor, a woman, on a charge which she claims to be unjust. We wish the journal prosperity in all its efforts for the benefit of humanity.

THE PLUMBER AND SANITARY ENGINEER. New York.

This new journal, now in its first volume, fills a place which has long been vacant. From the appearance and the character of the contents of the single number which has come under our observation, we are certain that the project is a good one. We hope that house-builders, architects, and all interested in sanitary reform, will patronize this excellent journal.

AMERICA NOT DISCOVERED BY COLUMBUS. By Prof. Rasmus B. Anderson, A. M. Chicago: S. C. Griggs & Co.

The publishers have just issued the second edition of this interesting little work, the author of which announces in his preface that he intends to show by numerous facts that Christopher Columbus was not the real discoverer of America, but that it was discovered by Norsemen several hundred years before. He gives evidence to prove that Columbus had been informed of the existence of land to the westward of Iceland, which country he had visited. According to the testimony of his son, cited by Prof. Anderson, he had on a voyage previous to the one on which he reached the main land of the American continent, sailed a distance of three hundred miles west of Iceland. It seems pretty certain from the facts adduced that New Eng-

land was really discovered by Scandinavians who gave to it the name of Vinland, and left behind them several traces of their visit which still exist. The work is well worth reading, and every scholar will wish to have it in his library.

PACIFIC MEDICAL AND SURGICAL JOURNAL. San Francisco.

This, the leading medical journal of the Pacific Coast, keeps even pace with its Eastern contemporaries. Each number contains a good store of valuable medical knowledge. The present number possesses the usual degree of interest, containing several valuable papers on various medical topics.

CHURCH AND SCHOOL. Lyons, Iowa.

This little paper is published in the interest of the Riverside Institute, a hygienic school located at Lyons. Our friend, Rev. W. T. Currie, A. M., the principal, recently spent his vacation week with us. We enjoyed his visit much, and were more than ever convinced that he is doing a good work, and is deserving of the patronage of the public. We hope that the school will flourish, and shall be pleased to place its journal on our list of exchanges.

THE BIBLE FROM HEAVEN. By Eld. D. M. Canright. Battle Creek: Review & Herald.

The elegant volume which bears this title is intended by its author as a defense of the inspiration of the Scriptures against the increasing tendency to skepticism of the present age. How he has succeeded, the reader can best judge by a perusal of the work. It seems to us to be the strongest argument in support of the authenticity of the Bible which we have ever seen. The author's style is clear and forcible. The work abounds in excellent illustrations, and cannot fail to make a deep impression upon the candid reader. It should have a wide circulation.

LEGAL RELATIONS OF INSANE PATIENTS. By Foster Pratt, M. D. Lansing: State Medical Society.

This pamphlet consists of the presidential address delivered by its author as president of the Michigan State Medical Association, before the last meeting of that body, at Lansing. It is, unquestionably, the most masterly paper which has yet appeared on this subject. It shows conclusively that the existing relations between the legal and the medical professions in reference to the insane are not only in the highest degree unsatisfactory and unphilosophical, but positively dangerous, not only to the reputation and pecuniary interests of the physician, but to the safety of the lives of the community.

The Doctor formulates the definition of insanity thus: "Insanity is an impairment of the natural judgment or will, caused by physical defect, disease, or injury, and causing irrational conduct," which seems to us to be the most concise and satisfactory definition we have ever met.

Everybody ought to read this paper, and every newspaper ought to give an abstract of its contents. The paper is written in the terse and forcible style of which its able author has such complete command. It exhibits much fine rhetoric as well as irresistible logic.

AMES' ODORLESS EXCAVATING APPARATUS. Boston: Rand, Avery & Co.

This pamphlet is a description of an ingenious apparatus for the cleaning of vaults, cesspools, and other receptacles of offensive matter which is chiefly the invention of that able sanitarian, Dr. Ames, of Massachusetts. For several years the Doctor has been at work perfecting this apparatus, and he has now succeeded in producing a mechanism which for simplicity, strength, and efficiency of execution, is far superior to anything of the sort heretofore constructed. The apparatus is already at work in several large cities, and is being rapidly introduced where it is not yet known. Its general adoption would greatly diminish the annual mortality, and its inventor should have the credit of saving more lives than half the physicians in America.

WHAT OUR GIRLS OUGHT TO KNOW. By Mary J. Studley, M. D. New York: M. L. Holbrook & Co.

This work, written by one who has had much experience in the instruction of girls and young ladies, is a valuable addition to the literature of hygienic reform. From the examination which we have given the work, we do not discover that the author is given to hobby-riding or extreme notions on the subjects which she treats. The work contains many valuable hints and much useful information for young ladies. The style in which the work is written is such as to interest the reader and hold attention. Every young woman ought to read it.

ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF WISCONSIN. Madison, Wis.

The second annual report of this Board shows that although so recently organized it is already doing most efficient work. The volume before us contains a large amount of very practical matter. We admire the taste of both the writers and the compiler in choosing a style which is easily intelligible to the common people. Every physician in the State of Wisconsin ought to procure a copy of the work and give it a careful study. The remarks of the President of the Board on disinfectants are the best we have seen.

PUBLICATIONS RECEIVED.

Maryland Medical Journal. Baltimore: Manning & Ashby. The Evolutionist. New York. Third Annual Catalogue of Riverside Institute. Lyons, Iowa. The Bee-Keeper's Magazine. New York: A. J. King & Co. Intra-Ocular Disease. By C. A. Robertson, A. M., M. D. Scientific Teaching. By Prof. W. T. Currie. Lyons, Ia.

Items for the Month.

SCHOOL OF HYGIENE.—The School of Hygiene will open its second session about Sept. 1. This year its facilities will be greatly increased. A larger corps of instructors will render a more extended course possible. The unexpected success of the school last year is ample evidence of the necessity for a school of this kind, and the future existence of the school, as well as its success, is assured.

There are hundreds of young men and young women in various sections of the country who are puzzled to know what to choose for a mission in life. They desire to be useful, and yet find most of the useful and honorable professions and pursuits so crowded already that they afford little encouragement to one of ambitious disposition. To such the cause of hygiene offers a mission second in usefulness and honor to none. Everywhere people are calling for instruction. They are eager to learn, and only want teachers. Here is room and ample scope for the most ambitious to give full employment to their fullest capabilities and to satisfy their highest ambition in the direction of usefulness.

No study has been so much neglected as hygiene. The world is just beginning to awaken to the fact, and those who are first to respond to the call for teachers of the science of healthy living will be the most certain to meet with complete success.

The School of Hygiene organized here in January last enjoys the honor of being not only the first but the only school of the sort in America. It is not a school for the teaching of a few worn-out hobbies, but it teaches hygiene in the longest and broadest sense of the term. The last session was a very interesting one, and it is expected that the next will be still more so. Numerous other subjects collateral to that of hygiene, as anatomy, physiology, chemistry, physics, and mental philosophy, receive the degree of attention necessary to make clear their relations to hygiene.

Every young man or woman interested in the subject should see advertisement in this number and send for circular.

☞ The plentiful harvest this year promises prosperity to the country and relief from the "hard times." Agents should be calculating on doing a driving business next fall. We are making arrangements to secure a thorough canvass of the whole United States with reform publications. Those who would like to engage in the work should let us hear from them. We want agents of some experience, and who have been successful. These will receive inducements such as will make it a paying business for them. The whole country is prepared to receive with favor this class of literature. The golden opportunity should be employed to the best possible advantage by all interested in the progress of reform.

☞ We would call especial attention to the advertisement, on the second page of cover, of Battle Creek College. This is undoubtedly the largest school in America which is conducted in accordance with the principles of hygiene.

The curriculum of study of this school presents a very complete course in all the English branches, the Natural Sciences, Ancient and Modern Languages, Mathematics, and the other branches taught in first-class colleges.

The School of Hygiene, a branch department of the College, affords the best advantages for obtaining a thorough knowledge of Physiology and Hygiene, together with Human and Comparative Anatomy, Chemistry, and collateral branches, of any institution in the country.

At the commencement of the next year's session, a new attraction will be added to the school by the organization of a Normal Department, which will make the institution one of the most complete in the country.

The rapidity with which this school has risen in public favor is almost unparalleled. The attendance last year numbered four hundred and seventy-eight, most of whom were young ladies and gentlemen.

☞ Subscriptions for the new journal, *The Sanitarium*, are coming in already. The first number will be ready in a few days. Every number will have something worth reading in it. The first number will contain a full description of the new building, with an interesting account of the dedication exercises. A specimen copy will be sent to any address on receipt of three-cent stamp.

☞ We are glad to be able to go to press with this number nearly on time, a good fortune which is in part at least due to the energy of the printers in putting the work through with the greatest possible dispatch after the copy was put into their hands. We hope to be on time hereafter.

☞ We are pleased to see that our friend Dr. Currie is succeeding very fairly in his efforts to establish a hygienic school at Lyons, Iowa. His card appears in our advertising columns this month.

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.

Plain Facts about Sexual Life. A work which deals with sexual subjects in a new and instructive manner. Printed on tinted paper and handsomely bound. 360 pp. $1.50. Flexible cloth, 75 cents. Pamphlet edition, 50 cents.

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. Bound in cloth, 50 cents. Paper covers, 20 cents.

Proper Diet 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. 15 cents.

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

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

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

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

Healthful Cookery. A Hand-Book of Food and Diet; or What to Eat, When to Eat, How to Eat. The most complete work on Hygienic Cookery published. 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. 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. 30 cents per package.

These tracts will be furnished, postage paid, at the rate of 800 pages for $1.00. A liberal discount by the quantity.

The Health Reformer. A monthly journal for the household. $1.00 a year. Specimen copies sent free.

Bound Volumes of the Health Reformer, $1.50 each.

Address, **HEALTH REFORMER,**
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School of Hygiene.

The Only School of the Kind in America.

This newly organized school offers every desired facility for the successful study of

Hygiene and Sanitary Science.

Instruction is given in the form of familiar lectures, illustrated by numerous experiments, charts, black-board drawings, etc., making subjects usually thought dry and uninteresting, really fascinating.

The attendance during the first session, of last winter, ranged from 70 to 150. A much larger class is expected next term.

LECTURERS:

J. H. KELLOGG, M. D.,
W. B. SPRAGUE, M. D.,
W. J. FAIRFIELD, M. D.

TERMS.

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