

GOOD HEALTH.

A JOURNAL OF HYGIENE.

MENS SANA IN CORPORE SANO.

VOL. 16.

BATTLE CREEK, MICH., MAY, 1881.

NO. 5.

ANATOMY OF THE BRAIN AND NERVES.

BY THE EDITOR.

THE structure of the nervous system is the most complex and delicate of any part of the body. Many portions of it, indeed,



FIG. 1.—A General View of the Nervous System.

are not yet perfectly well known, although many physiologists have devoted their whole lives to careful study of this part of the human organism. We shall not attempt to give any except the most thor-

oughly established facts, devoting little space to the consideration of complicated and disputed questions connected with the subject.

STRUCTURE OF NERVE TISSUE.—There are two distinct elements in nerve tissue, cells and fibers. The essential element of both



FIG. 2.—A View of the upper surface of the Brain, exposed by turning back the Scalp and removing a portion of the Cranium.

of these we find to be the same, the central part of the fiber being but a continuation of the cells, both being composed of the great basis of all forms of living matter, protoplasm.

These two elements of the nervous system are differently distributed in the body. The cells are collected in groups in the central parts of the body, which are termed *ganglia*, while the nerve fibers, associated in bundles, ramify to every part of the

body. So completely is the whole body permeated by these delicate filaments occupied in transmitting sensations and volitions, that if all the other tissues were removed, the nerves would still present an exact outline of the body.



FIG. 3.—Brain and Spinal Cord.

though in the latter class of existences there is nothing analogous to a nervous system.

DESCRIPTION OF THE CEREBRO-SPINAL SYSTEM.—The cerebro-spinal system is made up of ganglia and nerve trunks. The ganglia, or groups of cells, are chiefly to be found in the skull and spinal canal, constituting the brain and spinal cord, the central axis of this system, the nerve trunks emanating from these two great centers and extending to all parts of the body.

DIVISIONS OF THE NERVOUS SYSTEM.—Considered from the standpoint of function, the nervous system is divided into two classes, each of which has a distinct work to perform, viz., the *cerebro-spinal* system, and the *organic* or *sympathetic* system. The first mentioned is that with which we have most to deal, because this is the one which chiefly distinguishes man and animals from vegetables, and the higher functions of which distinguish man from lower orders of animals. The second class, or system of nerves, presides over the nutritive functions of the body, the processes of growth and repair, excretion, secretion, etc., which are sometimes termed the *vegetative* functions, because of their close analogy to similar functions in vegetables, al-

STRUCTURE OF THE BRAIN.—The brain is the largest mass of nervous matter in the body, filling the entire cranial cavity. Its weight is about forty-nine and one-half ounces in males, and forty-four ounces in

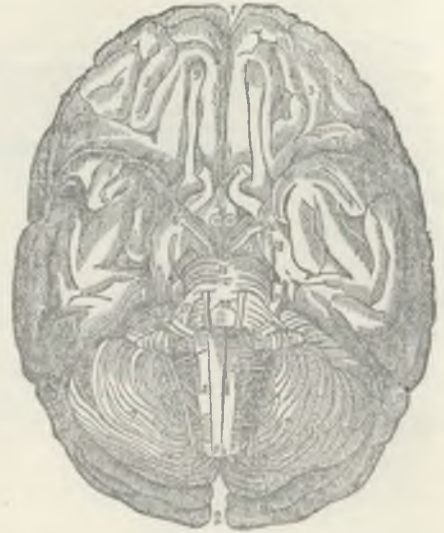


FIG. 4.—A View of the under surface of the Brain, showing the Origins of the Several Pairs of Nerve.

though females. It is inclosed by two membranes, the outer of which is closely applied to the inner plate of the skull, and from its toughness called the *dura mater*. This membrane abounds in blood-vessels, from which nourishment is supplied to both the brain and the skull, and by means of which the



FIG. 5.—The left half of the Brain, showing the Convulsions of the Cerebrum, one Lateral Ventricle, the *Arbor Vitæ* of the Cerebellum, etc.

blood supply of the interior and exterior of the cranium is in communication. Next

the brain is another delicate membrane, chiefly made up of blood-vessels which run down into the substance of the brain. Be-



FIG. 6.—A Horizontal Section of the Brain through its middle portion, showing the relation of the White Matter to the Gray, with many other points of interest.

tween this membrane and the *dura mater* is still another membrane so delicate in its structure that it has received a name which describes it as being like a spider's web.

The membranes of the brain divide it into a larger and a smaller portion. The larger portion, located in the upper and



FIG. 7.—A view of the Cranial Nerves, with their points of origin in the Brain.

front part of the skull, is called the *cerebrum*; the smaller portion, located in the back and lower part of the skull, is called

the *cerebellum*, or little brain. Each of these principal portions of the brain is subdivided by a fold of the membranous coverings into two lateral halves, each of which furnishes nerves to the opposite half of the body.

When the membranes of the brain are removed, its surface is found to be marked by numerous and quite deep depressions, which are due to the convolutions or foldings of its outer layers. The gray color of the mass is also noticeable. When cut, it is found that the gray substance extends but a little way into the mass of tissue, the central portion being white. Examination with a microscope shows that the gray substance is composed of nerve cells, while the white portion is made up of fibers, which are connected with the cells.

At the base of the brain, or its under side and central portion, are found a number of collections of gray matter or nerve cells, called the *central ganglia* of the brain.

At the lowest portion of the brain, just at its junction with the spinal cord at the *foramen magnum*, is a rounded body, known as the *medulla oblongata*, which may really be considered as the enlarged upper end of the spinal cord.

In the central portion of the brain is found a curious little organ about as large as a pea, the *pineal gland*, which the great philosopher Descartes supposed to be the seat of the soul. It is now known to be simply a gland.

From this exceedingly brief description it will be seen that the brain is really a collection of ganglia within the skull, and consists of several distinct groups of cells. Each group has its particular function to perform, its particular part of the work of the vital economy to control or direct. From each one go out nerve fibres which terminate in different ways, according to the functions to be performed.

—Evil thoughts are worse enemies than lions or tigers; for we can keep out of the way of wild beasts, but bad thoughts win their way everywhere. The cup that is full will hold no more. Keep your head and heart full of good thoughts, that bad ones may find no room to enter.

THE TOBACCO CURSE.

UNDER the head of "The Tobacco Problem," a pointed writer, Meta Lander, deals out most vigorous strokes against this gigantic evil. Of the use of tobacco, we may forcibly say in the words of Sacred Writ, "It is evil, and only evil, and that CONTINUALLY." As Shakespeare wrote of wine, "If thou hast no other name to go by, let's call thee devil!" so may we say of tobacco. Perhaps the well-known couplet is not far amiss,

"Tobacco is a poisonous weed,
It was the devil sowed the seed."

At any rate, if the evil one did not sow the seed, as the noted Dr. Clarke seems to more than half believe, he certainly has something to do in raising it, and in leading about seven-tenths of the civilized world to use it. O thou insidious demon, TOBACCO! enemy of finance, destroyer of health, and the gross perverter of morals! Well may the pure, the clean, the virtuous, of every land, pronounce against thee, and lay Titan strokes upon thy sottish pate. But we will not further forestall the article, which is from the *N. Y. Independent* of the 31st ultimo.

G. W. AMADON.

Can anybody deny that it is an expensive, unwholesome, uncleanly, annoying, demoralizing, perilous habit? Why, then, must it be touched so gingerly? Why must we approach it with deprecating bows and apologies, as if, after all, it was not much of an offense.

Alas! it is because this ugly brown idol is set up in high places; because it has more worshipers than any heathen god; because it is enshrined in many a heart as the dearest thing on earth. If, now and then, some fearless hand attacks it, not a few, even among those not its votaries, in their concern lest some good man may chance to get hit, stand ready to warn off the assailant. One is thus often reminded of the old slavery days, when many who were not practical partakers condoned the offense of such as were.

Are not those who use this narcotic in

its various forms as truly slaves as were our Southern negroes! Is not its bondage as oppressive as was theirs? Are not its fetters as tightly riveted?

This tobacco vice—for I can call it nothing less—extends to every nation on the globe and pervades every rank in society. The gray-haired patriarch is not too old, nor the boy of twelve too young to be its willing subject. Neither the filthiest slum nor the politest society is free from it.

It stalks defiantly through the streets, fouling the very air of heaven. It boldly sits in our legislative halls, both state and national. It enters the temple of the Lord, and even creeps up to the altar. It travels shamelessly on water and on land. In spite of special arrangements to imprison it, there is no such thing as shutting it away from the tell-tale air and the whispering breeze.

The office of the lawyer and of the physician and the sanctum of the minister are alike under its offensive cloud. The coarse, blustering swearer, and the refined elegant scholar are equally its victims. It finds its way to the fairest fireside, polluting its purity, wrecking the health of wife and mother, and often bequeathing to the children an enfeebled constitution, both physical and mental.

Its insidious spell has so fallen on the community that multitudes seem utterly insensible to its character and its consequences. Indeed, so potent is this spell that there is now and then a woman who, instead of being disturbed by seeing her father or brother, her husband or her lover, among the victims, will complacently smile upon his offense and gayly decorate the signs and symbols of his slavery.

Shall I be pronounced a fanatic, a monomaniac for writing thus? Yea, verily. But, though I am struck, still I will claim a hearing.

Look, for a moment, at this habit in its financial aspect.

Some years since, the annual production of tobacco throughout the world was estimated at four billions of pounds. Allow-

ing the cost of the unmanufactured material to be ten cents a pound, the yearly expense of this poisonous growth amounts to four hundred millions of dollars. Put into marketable shape, the annual cost reaches one thousand millions of dollars. This sum, according to careful computation, would construct two railroads round the earth, at twenty thousand dollars a mile. It would build a hundred thousand churches, each costing ten thousand dollars; or half a million of school-houses, each costing two thousand; or it would employ a million of preachers and a million of teachers, at a salary of five hundred dollars.

What more effective, pathetic appeal to the head and heart can be made than by these figures? Two millions of tons of tobacco annually consumed by smokers and snuffers and chewers, while from every part of the habitable globe are hands stretched out imploringly for the bread of life, which must be denied, for lack of means to send it.

In Great Britain alone there are not far from three hundred thousand tobacco-shops. England has obtained a larger revenue from this source than from all the gold mines of Australia. In Germany, Holland, Great Britain, and the United States, official figures show that it costs more than bread. In our own country we find, from the Internal Revenue Report, that above ninety-five million pounds of manufactured tobacco and one billion three hundred million of cigars are used in one year, at an expense of two hundred and fifty millions of dollars, while the taxes amount to one hundred and fifty millions.

In the city of New York alone above seventy-five millions of cigars are annually consumed, and at a cost of more than nine millions of dollars—enough cigars to build a wall from the Empire City to Albany.

How often will a man go through life without owning a house, when the money he expends on this narcotic, if put on interest, would be ample for the purchase of one! How many a family is cramped for the necessaries of life because the hus-

band and father will not give up his cigar! And how many a man is reduced to beggary who yet holds on to his pipe!

Wives there are not a few who are obliged to sacrifice their artistic tastes to this juggernaut. Books, music, pictures, excursions with the children to the seaside or the mountains, a thousand and one little refinements and brighteners of the dull routine of life—all are swallowed up by his rapacious maw.

But we have not yet done with figures. In a single Western town, three thousand and ninety-eight dollars were expended for tobacco, and for the support of churches and schools only two thousand seven hundred and twelve.

A Methodist pastor states that, while his whole society expended in a year only eight hundred and forty-one dollars for the support of the gospel and other church and mission work, sixty-seven of his church-members during the same time expended eight hundred and forty-five dollars for tobacco.

At a Methodist Episcopal conference held in Massachusetts, a few years since, Bishop Harris is said to have expressed the opinion that "the Methodist Church spends more for chewing and smoking than it gives toward converting the world."

In a small New England town, where the people felt too poor to sustain a minister more than half the time, the three traders in the town sold every year four and a half tons of tobacco!

Three hundred dollars a year for tobacco, and three dollars for Bible, tract, and mission purposes! One hundred dollars for tobacco, and one dollar for missions! Eighty dollars for tobacco, and twenty-five cents for home missions! Yet these are but samples of almost numberless cases. What a record to appear on the heavenly ledger!

The destruction of property from fires occasioned by throwing away the ends of cigars, or matches used in lighting them, comes properly under this head. It is impossible, of course, to ascertain how many fires, large and small, for which

there is no accounting, may have owed their origin to tobacco. Two or three well-known cases are given, as illustrating the peril to which all are continually exposed.

It was from the smoking of a plumber, that the Harpers' printing establishment took fire, consuming five blocks, at a loss of about a million of dollars, and throwing nearly two thousand people out of work.

By a spark dropped from a pipe, a dreadful fire was kindled in Williamsburg, destroying three vessels and six buildings, with the lives of three persons.

Says an insurance agent: "One-third or more of all the fires in my circuit have originated from matches and pipes. Fires in England and America are being kindled with alarming frequency by smokers casting about their firebrands or half-burnt matches."

Much might be said under this financial head as to the culture of this weed, but space allows only a few words.

"The tobacco plant," writes one, "is a great exhauster. Whether raised North or South, on the banks of the Danube or the Connecticut, it is all the same. It is a huge glutton, which, consuming all about it, like Homer's glutton of old, cries, '*More! Give me more!*'"

Says another: "A gum issues from green tobacco that covers everything it comes in contact with. We met recently a troop of men, fresh from the tobacco-field, who might pass for Hottentots. They looked as if they always burrowed in the ground, and in hands and face, as well as dress, were the color of wood-chucks."

Writes Dr. Humphrey: "What shall we say to raising tobacco—a narcotic plant, which no brute will eat, which affords no nutriment, which every stomach loathes till cruelly drugged into loathsome submission, which stupefies the brain, shatters the nerves, destroys the coats of the stomach, creates an insatiable thirst for stimulants, and prepares the system for fatal diseases?"

Prof. Brewer, in summing up the case, says: "The sole advantage is that an individual may grow rich from raising it.

But what one man gains is obtained at the cost of his son and his son's son."

"It is a culture," declares Jefferson, "productive of infinite wretchedness."

Writes Gen. John H. Cooke, of Virginia: "Tobacco exhausts the land beyond all other crops. As proof of this, every homestead, from the Atlantic border to the head of tide-water, is a mournful monument. It has been the besom of destruction which has swept over this once fertile region."

In confirmation of this, says a traveler: "The old tobacco-lands of Maryland and Virginia are an eye-sore, odious 'barrens,' looking as though blasted by some genius of evil."

Most eloquently writes Prof. Bascom: "Take the land, the sunshine, the rain, which God gives you, and set them all at work to grow tobacco; throw this, as your product, into the world's market; buy with it bread, clothing, and shelter, books for yourselves, instruction for your children, consideration in the community, and perchance the gospel of grace; pay ever and everywhere, for the good you get, tobacco, only tobacco—tobacco, that nourishes no man, clothes no man, instructs no man, purifies no man, blesses no man; tobacco, that begets inordinate and loathsome appetite and disease and degradation, that impoverishes and debases thousands and adds incalculably to the burden of evil the world bears; but call not this exchange honest trade, or this gnawing at the root of social well-being getting an honest livelihood. Think of God's justice, the honesty he requires, and cover not your sin with a lie. Turn not his earth and air, given to minister to the sustenance and joy of man, into a narcotic, deadening life and poisoning its current, and then traffic with this for your own good."

And what shall be said of cultivating this exhauster of the soil, this foulest, most destructive of poisons in our own beautiful Connecticut Valley, the land of the Pilgrims? A cruel matricide, which Christian hands, alas! join in perpetrating!

DIPHTHERIA.**PREDISPOSING CAUSES.**

ANYTHING which impairs the vital functions will predispose to an attack of any febrile or other disease. We do not purpose to mention here all the numerous causes of impaired vitality, but only some of those especially active in rendering the system liable to the disease under consideration.

"Taking cold" is a process very difficult to describe exactly, but is so common an occurrence that the phrase is significant to every one. In general, when a person has taken a cold, there is more or less congestion and irritation, if not actual inflammation, of the mucous membrane of the pharynx, and often of the nasal cavity itself. There is also usually present an increased secretion of these parts, and a tumid condition of the mucous membrane. This condition is particularly favorable, not only to the lodgment and development of the diphtheria germs, but to the development of the accompanying inflammation.

Chronic inflammation, or catarrh of the pharynx, as well as nasal catarrh, is also a powerfully predisposing cause of diphtheritic inflammation of those parts. When the mucous membrane is already affected by an inflammatory process, the presence of the diphtheria organisms is all that is required to convert the morbid process into a diphtheritic inflammation. Consequently those who are thus suffering should be exceedingly careful to avoid any sort of exposure to infection from the disease. Persons who have been subject to pharyngeal catarrh find the difficulty increased after an attack of diphtheria.

Insanitary conditions, by impairing the vital forces, and thus diminishing the vital resistance of the tissues, will produce a strong predisposition to diphtheria. As already shown, all sources of decay may be sources of diphtheria poisoning, so that insanitary conditions are both directly and indirectly productive of this dangerous malady. This fact is well worthy of repeated emphasis when the larynx becomes affected, while adults may suffer the same

amount of infection and invasion of the throat and larynx without any serious interruption of respiration. This is one cause of the greater fatality of the disease in children.

The disease is often more prevalent in the cooler seasons of the year than in the summer, but probably this fact is wholly due to the increase of predisposing influences of other sorts at those times, as increased frequency of colds and pharyngeal and nasal catarrhs; less free circulation of air in dwelling-houses greatly increasing the virulence of the poison wherever it may chance to be at work, and similar incidental causes. The disease has been known, in many instances, to extend its ravages in certain localities as widely and as fatally during the heat of summer as at any other season of the year.

The observations compiled by Dr. H. B. Baker, Secretary of the State Board of Health of Michigan, show an increase in the frequency of the disease during July and August. This may be due to the fact that the great heat of those months encourages decomposition and the generation of germs in unusual abundance.

Certain diseases, as whooping-cough, typhoid fever, and scarlatina, are liable to be followed by diphtheria, which is then known as secondary diphtheria. Children under ten years of age show a marked susceptibility to this disease. Between the ages of two and four years the susceptibility is greatest. Children under one year of age are not likely to have the disease. Very young children seem to be almost wholly protected against it by their infancy. Children are not only the most liable to take the disease, but they are likely to suffer the most severely. Adults, except in cases of extreme old age, suffer much less from the most serious results of the disease on account of greater size of the larynx. In children the larynx is so small that suffocation is imminent.

A mild or catarrhal form of the disease is very likely to be overlooked, or regarded as only an ordinary sore throat, by physicians. Some physicians contend that the catarrhal form of diphtheria does not exist.

We would call especial attention to the fact that epidemics of diphtheria are always accompanied and followed by numerous cases of sore throat, tonsillitis, etc. Dr. Arthur Downs, in an able article in the *American Medical Bi-Weekly*, takes the position that these affections at such times are "essentially identical with undoubted diphtheria." The reasons he gives for thus thinking are as follows:—

"1. These sore throats prevail correlatively with the unquestioned cases of diphtheria. 2. Under favorable conditions they may communicate the typical form of the disease. 3. The latter, also, in its turn, gives rise to these apparently trivial sore throats." Dr. Downs adds: "I can only repeat my conviction that, if the public generally, and medical men in particular, dropping the misleading name derived from a variable pathological appearance, would regard these concomitant 'sore throats' as essentially 'diphtheritic,' a great point would be gained toward the isolation so necessary, but at present so difficult to obtain. It is to this end that Dr. Thursfield, whose experience is second to none, strenuously urges the disuse of the modern term 'diphtheria,' and the resumption of the old name, 'contagious cynache.'"

PARALYSIS AND OTHER AFTER RESULTS.—Secondary affections of various sorts may follow any form of diphtheritic disease. The most common of these is paralysis. Paralysis of the soft palate and pharynx is the most frequent; but the disease may involve any part or the whole of the muscular system. This affection usually comes on after the local disease is cured, even as late as the fifth or sixth week. It usually appears in the second or third week, beginning so insidiously as to be scarcely noticeable, and gradually increasing until fully developed. The soft palate is first affected. The uvula hangs down, making it impossible to give the open sound of the vowel *a*. If the paralysis is of one side only, the uvula will be drawn over toward the healthy side. The patient finds difficulty in articulation, in swallowing, and in expectoration. The speech is thin and nasal. The sounds of syllables run into

each other, being sometimes almost unintelligible. The patient will sometimes complain of liquids getting into the nasal cavity in drinking.

Paralysis of the muscles of the upper and lower extremities, of the larynx, of the face, the eye, the neck, trunk, and diaphragm, and of other parts also, occurs in many instances, especially in the more severe cases, appearing a week or two after convalescence begins.

An important fact to be recollected is that one attack of diphtheria is no protection against subsequent attacks. Indeed, a person who has had diphtheria is often more susceptible to the poison and more liable to infection than if he had not suffered from the disease, on account of the chronic inflammation of the throat which frequently follows the disease.

TREATMENT.

The treatment of this disease has not usually been very satisfactory. The history of the various epidemics recorded shows a mortality of one in every two and one-half cases, or forty per cent in severe cases. In some epidemics, a rate of mortality as high as sixty and even seventy-five per cent has been reached. This makes the disease even more to be dreaded than small-pox or cholera. Even yellow fever scarcely exceeds it in fatality.

Notwithstanding the discouraging outlook for the treatment of this disease, there is reason to hope that the adoption of improved methods of treatment may greatly lessen its present fatality. Constant improvements are being made in the treatment of this as well as other diseases; and it is to be hoped that in the near future its terrible ravages will be stayed by a better application of remedies in its management. The plan of treatment which we shall recommend is based on practical experience in a large number of cases. To our personal knowledge it has been employed in a very large number of cases with remarkable success, no death occurring when the treatment was applied soon after the onset of the disease, and perseveringly employed. We have ourselves observed its efficiency in the treatment of

fully one hundred cases, and have never seen a patient lost that was thus treated. Yet it is not claimed that this or any other plan is a specific. We expect sometime to meet with a fatal case, since no method of treatment can be infallible; but we are thoroughly convinced that a great improvement can be made on the ordinary mode of treating this disease.

LOCAL TREATMENT.—As already observed, diphtheria is primarily a local disease. This being the case, its local treatment becomes a matter of the greatest consequence. Indeed, this portion of the treatment should receive first attention. This fact has been long recognized by one class of physicians, those who have believed the disease to be essentially local in character; and a great variety of remedies have been employed. Prominent among these has been the application of caustics of various sorts to the throat. Nitrate of silver, nitric acid, hydrochloric acid, iodine, caustic potash, pure carbolic acid, and various other caustics have been thus employed, but none so frequently or so extensively as the first named.

After dwelling at some length upon the evil results of cauterization, Oertel remarks as follows:—

“There can be no doubt, then, that the unfavorable results which have been obtained on all sides by cauterizations, more or less energetically practiced, must put a stop to this procedure, even if, in its stead, we should be obliged to resort to its opposite, the purely expectant and symptomatic treatment.” (*Ziemssen's Cyclopedia of Medicine*, vol. i., p. 673.)

Another author, eminent both as a teacher and as a practitioner of medicine, says:—

“A large proportion, if not the great majority, of the practitioners of this country have been led to discontinue the cauterizing and irritating topical applications which have been heretofore in vogue.” (*Practice of Medicine*,” by Austin Flint.)

“The use of a solution of nitrate of silver, and even of the solid stick, at one time met with considerable support, . . . but it is being gradually abandoned by those who have had experience of recent epidemics.

. . . In fact, the profession has given up the use of caustics altogether, being convinced that they rather aggravate than check the local process.” (*Diphtheria; its Nature and Treatment*, Mackenzie.)

Numerous other equally eminent names might be cited as opposed to the use of caustics in this malady, among whom are Profs. Janeway and Lusk, of Bellevue Hospital Medical College, New York. We have dwelt thus lengthily upon the subject of caustic treatment because this obsolete practice is still held to by physicians who have not had a large experience in the treatment of this disease, or who have become too thoroughly fossilized to be able to modify their ideas in accordance with the most advanced information on this subject.—*Home Hand-Book*.

ADAM CLARKE ON REFORM.

BY ELD. W. H. LITTLEJOHN.

It is the misfortune of the Health and Temperance cause that the influence of some very eminent men has been thrown against it. It would be difficult, for example, to estimate the injury done to the young men of the country by the intemperance of such a man as Daniel Webster. Such was his genius, and so commanding were his powers of oratory, that he has furnished the model upon which thousands of our young men have sought to mold their individual characters. Having learned, therefore, that many of his proudest efforts in oratory were made when more or less under the influence of intoxicants, they have very naturally fallen into the error of attributing his success to the use of stimulants. As a consequence—reasoning that like causes will produce like results—they have sought for inspiration in the decanter and found by a sad experience that the only resemblance they bore to Mr. Webster in the end was found in the fact that like him they had become slaves to a habit which disgraced their manhood and impaired their usefulness.

In view of these facts it is a pleasing as well as a profitable labor to undeceive the young by showing them that the use of

alcohol or stimulants of any nature is not necessary to, nor compatible with, the highest order of intellectual achievement. For this purpose it would be possible to introduce a large number of eminent men; but let it suffice for the present to call attention to two men whose names are familiar to every student of church history. I speak of John Wesley and Adam Clarke. Perhaps it would be impossible to find two men who had left the imprint of their characters more visibly upon the church to which they belonged, and the religious age in which they lived, than these two men have done. Both were voluminous writers, both were acceptable speakers, and both were untiring workers. The amount of work performed by each was simply prodigious. Mr. Wesley was perhaps the more commanding character of the two; but Mr. Clarke has left us in his commentaries and other works, which were the fruits of his scholarship, monuments which, should time last, will perpetuate for ages the name of one who though unfavorably circumstanced in early life made attainments in the world of letters, as well as that of theology, which will secure to him the grateful remembrance of those who shall reap the benefits of his toil.

It would appear from Mr. Clarke's own statements, as found in the subjoined extracts, that the habits of Mr. Wesley and himself were most abstemious in their character. Not only was liquor discarded by both of them, but their views of what constituted a thorough-going temperance reform was such that they not only rejected such narcotics as opium and tobacco, but that tea also was entirely excluded from their bill of fare as being an article so pernicious in its effects upon the system that no Christian man would be justified in its use.

In one of his works Mr. Clarke says: "Thirty-seven years ago I met with Mr. Wesley's 'Letter on Tea.' I read it and resolved from that hour to drink no more of the juice of that herb till I could answer his arguments and objections. I have seen that tract but once since; yet from that day until now, I have not drank a cup of tea

or coffee. For these things I mostly found a substitute in the morning; and when I could not, I cheerfully went without at breakfast; and in their place I never took anything in the evening. By this line of conduct, I have not only joined hands with God to preserve a feeble constitution, but I can demonstrate that I have saved several whole years of time which otherwise must have been irrevocably lost, and perhaps my soul with them; for I have often had occasion to observe that tea-drinking visits open the flood-gates of various temptations."

In the same book we have the following respecting the use of tobacco: "Concerning that abominable and fatal drain of human life, the pipe and the quid, I need here say nothing. My opinion has long since been before the public. I am sorry to say that I know several young men who are to this day murdering themselves in this way; but they are by me incorrigible. I leave them in the hands of God, and say to you, never imitate them; they disgrace themselves and would disgrace you."

In the foregoing every one must be struck with the extreme conscientiousness of the writer. It was enough for him to feel that he was incapable of answering Mr. Wesley's arguments against the use of tea, to insure his discontinuance of the same for thirty-seven years.

If Christian men at the present time, instead of racking their brains and torturing their ingenuity to invent some excuse for the continuance of a practice which squanders the Lord's means and wars upon the health of his servants, would only follow Mr. Clarke's example by abstaining from the use of that for which there is no logical defense, how short would be the conflict which is now going on between total abstiners and those who, while temperate as it regards the use of liquor, continue to encourage the employment of another article which simply serves to beget an appetite for the former.

Again: if all Christian ministers would bear as direct and positive testimony as did Mr. Clarke against the filthy habit of

tobacco-using, how long would it be before the church of Christ, at least, would be purged from its nauseating fumes?

Finally: if such reformers as Wesley and Clarke could perform through a series of years the mental effort required in the discharge of the arduous labors which devolved upon them, do we not find in that fact the most conclusive proof that the God of nature has so constituted us that we can labor for a longer period and perform a better quality of service when the brain is left in a normal condition than could be done were it stimulated into unnatural action? If so, then the two gentlemen in question have not only prolonged their own usefulness by their abstemious habits, but they have also left to the young men of our generation a most satisfactory solution of a vexed question, since they have demonstrated beyond a doubt that habits of the most rigid temperance are compatible with long life and years of mental exertion. Had they done nothing more than this, they would have been repaid a thousand times for their self-denial. Let all temperance workers emulate their example, and leave a life-record which will serve to illustrate over and over again the fact that good health and long life can be secured, and the maximum of labor performed only when a man acts in harmony with the laws of his being.

ALLEGAN, MICH.

TIGHT LACING.

[WE are glad to see that so influential a journal as the *New York Tribune* is so outspoken and sensible on so important a subject as the above, as is indicated by the following article written by the lady editor of the correspondent's department.—Ed.]

The trunk of the body is divided into three cavities, the chest, the abdomen, and the pelvis. The chest contains the heart and lungs; the abdomen, the stomach, the bowels, the liver, the spleen, the kidneys, and the pancreas; the pelvis, the bladder, and in the female the uterus. The chest is bounded by the ribs, the backbone and the sternum or breast-bone, so that its con-

tents, like the brain, are protected carefully from external injury. The abdomen is surrounded only by fleshy walls, and the pelvis is a bony cavity just below the abdomen. A stout muscle called the diaphragm separates the chest from the abdomen, but there is no separating wall or membrane between the abdomen and pelvis.

Probably very few of our young lady readers have ever seen even the semblance, except in wood cuts, of the human body when laid open so as to expose the internal organs. Many of them have, however, seen the inside of a pig, which very closely resembles the human animal in the arrangement of its internal parts, and most have seen, or may easily see, the viscera of a chicken, if they will carefully remove the surrounding walls without disturbing the arrangement of the organs. In the human body, as in the chicken, these internal organs lie closely together upon and alongside each other, so that the cavities of the trunk are completely filled, and there is no waste room. When the lungs are fully expanded they not only fill, but greatly enlarge, the chest, causing the ribs to spread apart and the abdomen to contract; when the lungs contract, the diaphragm descends into the abdomen a little way, depressing the stomach and the organs below it. Respiration thus causes a continual expansion and contraction of these cavities.

Now when one compresses the chest, as is done in tight lacing, the ribs being tied down cannot expand, the lungs cannot be filled with air, consequently the blood cannot be purified as it should be. The upper parts of the lungs being comparatively free have all the office of respiration forced upon them, and the lower parts become congested to a degree, ultimately diseased, and sometimes actually adhere to the walls of the chest. This compression below the waist prevents the rise of the stomach and bowels in respiration, and crowds all the organs of the abdomen down upon the helpless and delicate organs of the pelvis, producing the most frightful derangements, disorders, and diseases.

As if this were not enough, and as if women were bent upon utterly destroying the very citadel of their nervous systems, and making healthful wifehood, motherhood, and childhood an impossibility, in addition to this barbarous compression, nearly all the weight of the clothing is hung upon the hips and pulls and coaxes and compels the organs of the abdomen to complete the destruction of the organs of the pelvis. Just at the present time fashion dictates slight draperies around the lower part of the body, but the weight is kept up with heavy fringes, flounces, passementerie, and the like.

It is estimated by intelligent physicians that four-fifths of American women are at this writing suffering from some one or other of the threescore diseases peculiar to their sex, and this suffering is mainly caused by that instrument of torture, than which the Inquisition devised nothing so cunningly and so slowly cruel, the corset.

Suppose, now, that you put a corset nicely fitting on a pig or a chicken, and draw it tightly around them. Soon the muscles compressed would lose all elasticity, the blood would become poisoned, and the animals sicken and die. Would anyone dare to eat the carcass of an animal thus treated? And yet women seem to think that a human body thus abused may become the parent of normal and healthy infancy, and itself enjoy immunity from disease. But says one: "I don't lace tight." Perhaps not; but you surround yourself with a network of unnecessary bones and satinets, which prevents the full and free play of the intercostal and abdominal muscles; and this is proven by the fact that every woman who wears a corset says she would "fall all to pieces" if she should lay it aside. If she should lay it aside and exercise properly, and wear her clothing suspended entirely from her shoulders instead of from her hips, in a short time her muscles would become elastic and firm, and hold her up without any aid of whalebone and silecia.

The fact is that men are as much to blame for tight lacing in women as women are, perhaps more. If men admired women shaped like the Venus di Medici—the ideal

feminine form—corsets would soon go out of fashion; but the slender waist, the long, heavy, intolerable train with all its weight and cumbersome is even more fascinating to them than to the ladies. And it is said that there are even men who wear corsets and lace themselves.

We do not propose to argue the question. We simply place life and death before our young women readers, and implore them to choose life that they may live. Especially we beg mothers to give this subject their earnest attention and banish from their daughter's wardrobe all instruments of deformity and tight lacing. We earnestly advise them to acquaint themselves thoroughly with such physiological knowledge as will enable them to teach their daughters everything necessary for them to know in order to become healthful women, and to train them in such habits of dress and living as will be conducive to health and not destructive to it.

HOME-MADE SICKNESS.

WERE it not that the human constitution has an enduring quality compared with which the toughness of the mule is sweet infantile tenderness, the atmosphere of the average city home in cold weather would make the city lively with funeral processions. A visitor needs merely to pass the front doors of most houses to discover odors that do not seem traceable to any particular article, yet which have an oppressive effect upon respiration; sometimes a similar effect is experienced where no odor is perceptible. Occasionally the residents of a house, returning from church, theater, or party, notice this peculiarity of the atmosphere, and promptly say all sorts of bad things about the plumber, who probably deserves them all; but no one seems to think that the air of the house should be changed once in a while during the winter.

The air of an unoccupied house, with no connection whatever with the sewers or other sources of disease, is utterly unfit to breathe; for it is continually being robbed of its oxygen by carpets, furniture, floors, walls, and everything else that is suscep-

tible of decay. What, then, must be the condition of the atmosphere of a house where half a dozen people and an equal number of gas-burners or lamps are daily assisting at the work of deoxygenating the air and loading it with impurities?

There are many houses in which people who are cold would be warmed quicker by leaving a window open for two minutes than by hugging the fire; for impure air greatly lessens physical warmth. But who ever sees a window open in New York, even for a minute, unless for the purpose of being washed? Continuous ventilation is never thought of by more than one builder in a hundred, so but few people can hope always to breathe pure air indoors in cold weather. An occasional opening of doors and windows throughout the day, however, the work being done most thoroughly just before bedtime, would put an end to thousands of cases of sickness and debility that come from no cause but impure air.—*New York Herald.*

"OLD ABE IS DEAD."

BY G. C. TENNEY.

PARAGRAPHS with the above heading were to be seen in many of the papers a few weeks since. The subject of the notice was the famous war eagle of the Eighth Wisconsin Regiment. The bird was captured in the northern part of Wisconsin at the beginning of the war, and was presented to the regiment and accompanied it through all its campaigns. Many stories are told, and believed by the credulous, of his courage and enthusiasm in battle and his sagacity in camp. Since the war he has been quartered in the Capitol at Madison, and has been an object of interest and curiosity to visitors until his late decease. According to the post-mortem he died of pneumonia. But it is probable that a more critical examination would have revealed the fact that he died of melancholia induced by the contemplation of his humiliation, both as an individual and also as a representative of that proud race which was once the chosen emblem of our national spirit and ambition. No

longer permitted to follow his poetical amusement of looking the sun out of countenance, but tethered to a humble roost, he was but the object of vulgar curiosity. And he read in his own unhappy experience the fate of his family's renown.

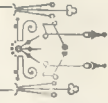
Once the American Eagle ranked with the British Lion or the Russian Bear. Armies would rally at its warning cry; the nation stood ready to uphold its honor. How are the mighty fallen! The scream of the eagle has died on our shores and another *squeal* fills the land. The soaring pride of our country has been eclipsed by the greed for gain. Old Abe is left to languish in durance, while the prowess of the nation upholds the reputation of the hog. An affront is offered to his swineship by the people of the old countries who protest that they do n't want any more measly pork or trichinæ. These being prime ingredients of a good (?) porker, their repudiation by those audacious Europeans causes a panic in the ring. His devotees cry out in terror. Doctors declare that hog cholera is in no way related to what we call cholera, and that trichinæ are harmless if properly cooked. Boards of trade pronounce the hog sound in body (with some unimportant exceptions). A new administration takes charge of our government, and the vigor of its initial fulmination through its Minister of State is directed against those menial enemies of American prosperity who close their mouth to the much honored hog. Our national representatives abroad are instructed by telegraph to check at once these symptoms of insubordination, and to hold themselves in readiness with an emphatic protest to any future signs of disrespect to American pork.

Old Abe survives the shock about two weeks and then he dies. A few of us cherish his memory; but some shout, "The king is dead, long live the king!"

—A young lady being taken to task for tight lacing, said that she resorted to the practice on purely economical grounds. "How is that?" asked her reprovener. "Why," she replied, "I lace tightly simply to prevent waistfulness!"



TEMPERANCE AND MISCELLANY.



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

THE SIFTING OF PETER.

A FOLK-SONG.

"Behold, Satan hath desired to have you, that he may sift you as wheat."—ST. LUKE 22 : 31.

In St. Luke's Gospel we are told
How Peter in the days of old
Was sifted;
And now, though ages intervene,
Sin is the same, while time and scene
Are shifted.

Satan desires us, great and small,
As wheat, to sift us, and we all
Are tempted;
Not one, however rich or great,
Is by his station or estate
Exempted.

No house so safely guarded is
But he, by some device of his,
Can enter;
No heart hath armor so complete
But he can pierce with arrows fleet
Its center.

For all at last the cock will crow
Who hear the warning voice, but go
Unheeding,
Till thrice and more they have denied
The Man of Sorrows, crucified
And bleeding.

One look of that pale suffering face
Will make us feel the deep disgrace
Of weakness;
We shall be sifted till the strength
Of self-conceit be changed at length
To meekness.

Wounds of the soul, though healed, will ache;
The reddening scars remain, and make
Confession;
Lost innocence returns no more;
We are not what we were before
Transgression.

But noble souls, through dust and heat,
Rise from disaster and defeat
The stronger,
And conscious still of the divine
Within them, lie on earth supine
No longer.

—H. W. Longfellow, in *Harper's Magazine*.

A SERVICE OF SONG.

A STORY FOR YOUNG LADIES.

BY HOWE BENNING.

OUTSIDE, a long, low stretch of sandy beach, lying prone for miles under low-scudding November clouds. Beyond, a restless, murky expanse of waves tossing continually white crests between the two darknesses. Shoreward, a reedy swamp-land, with sluggish green creeks oozing through shriveled sedges. And lying between, as it were, prone almost as the sands, brown as the withered rushes, a mere speck on the dreary waste, a tiny hut with its wavering line of smoke speaking of human life and needs within.

A more desolate and dreary picture it would be difficult for even a painter's imagination to conceive, and impossible to represent. But those who might have been fascinated by the scene on canvas had no eyes for its real grandeur; for as the threatening clouds swept lower over the brown earth and the tossing sea, even sending out spiteful dashes of half-frozen rain as precursors of the coming storm, a light carriage drawn by two handsome horses dashed into view along the road leading from the beach. Moved by some girlish freak of seeing the ocean in its November coloring, Marian Laird had ordered the coachman, and, accompanied by her friend Clara Dunning, rode out from the distant city to this lonely place. Warmly wrapped, and carried away by the unusual sight, the girls had failed to notice the nearness of the storm until the coachman called their attention and suggested their immediate return home. But his caution came too late. Before they could even get off the sands, the first drops had fallen and the darkness seemed to be sweeping down upon them.

"It's going to be a dreadful shower, Rodney; what can we do?" asked Marian.

"I don't see nothin' for it, miss, 'less you run into this old shanty here we're comin' to. Mebbe it'll keep you dry."

"But what will you and the horses do?"

"It comes pretty low from the west, miss, and I guess if we get up close as we can to the east side of the old thing, we'll manage to keep off a little. Anyway, I don't see no better."

"Drive on quick, then," ordered Marian. "It'll all be in the line of our adventures," she added gleefully to Clara. "I've always wanted to see the inside of one of these shanties; now's our chance."

"I hope there are not more than a half-dozen small children here, or our chance for getting inside will be a limited one," remarked Clara, as the carriage stopped at the low door of the hut, that seemed smaller than ever in its nearness; but a sudden gust of wind bearing larger and more furious drops in its chilling folds stopped all hesitation, and the girls pushed open the creaking door and entered: a man, dirty and uncombed, with an old cloak over his shoulders, rushed out and joined Rodney and the horses panting under the eastern eaves.

"No children at all here," muttered Clara; for the girls stood alone in a tiny untidy room, with a furious fire blazing in a little stove in one corner, and a heap of broken boards sending up a salt moisture beside it, and every available spot and corner of the walls pasted over with pictures cut from the illustrated newspapers, most of them from the *Police Gazette*, and many covered with the grime and dust of years.

Everything was so utterly new to these girls, brought up amid the daintiest surroundings, that they were silent from sheer surprise.

"Are we all alone here, I wonder?" then said Clara in a whisper. A groan seemed to answer so near at hand as to make both start and turn in its direction.

"What you doing there, Ned?" a harsh voice called out. "Why didn't you bring me the water, as you promised? Ain't it enough that it's nothing but water, that you must begrudge me even that?" And then the voice muttered on; too low to be

understood, but sufficient to guide the girls in the direction of the speaker.

For after her first frightened start at the sudden voice, Marian had stepped to the open door of a second tiny room, and sought to see in the dim twilight who might be speaking. As her eyes became wonted, she could see in a corner, a few feet from her, the tall posts of a bedstead, and sitting upon it, waving too and fro, the outline of a human figure. The room was very small, and its one window was shaded by a thick shawl hung over it. Marian was a girl of nerve, and she stepped across and drew back the shawl and fastened it on a nail. Then the twilight became clearer, and she could see in the wild, unkempt figure on the bed the wreck of a woman, once large and tall, and whose erect figure even now, and a certain poise of the head and flash of the eye, spoke of a once vigorous and spirited nature.

"That's good of you," said the woman, fixing her sharp glance, that made Marian involuntarily remember the Ancient Mariner and his "glittering eye," upon her. "That's good of you, and there ain't much that's good left. Ned never'll do that—says the light's too clean a thing for me."

"And can't you get up yourself?" asked Marian, pityingly.

"Oh, not now, not now. It's more than one turn of the seasons since my feet's been on the floor. I just sit here and starve. Yes, starve!" as she saw the girls start; "but it's not always for the lack of food. Sometimes I can't eat, though there's a plateful before me. It won't let me."

"It? What do you mean?" asked Clara.

"The snake, miss. There's a snake in my throat. I swallowed it twenty year or more ago, and it's been living and growing in me ever since. When I go to eat, it comes up in my throat and tries to get the food, and chokes me and makes me feel so sick. Oh, so sick! I can't tell you. Then I feel it crawl down again. Oh, it's terrible, terrible!"

It was terrible, certainly, to see the poor sufferer now, with her large features working convulsively, and her large bony fingers writhing aimlessly in the air. The girls

felt sick at heart at this their first close introduction to misery.

"Aren't you afraid of her?" whispered Clara.

But the woman, who, after her violent outbreak, had closed her eyes in weariness, so making more sharply defined the gaunt grimness of her features, now opened them and seemed to scan more closely her unwonted visitors, then she put out her fingers and touched gently the fur wrap of Marian, who stood nearest.

"I used to be like you," she suddenly exclaimed, lifting her glance to Marian's face.

"Did you?" asked the girl. "How did you come here, then?"

"I don't know," said the woman, wearily; "I used to wear shining dresses, and soft cloaks, and jewels on my fingers and neck. They are all gone now. I let them go, one at a time. Shall I tell you what for?"

"Yes, do," said Marian.

"I wanted them to drink, miss, and I drank them up. That was before the snake got into my throat, you must know. Now that chokes me off so that I can't drink, even when Ned leaves me a drop, and that isn't often. I used to have a great table full of shining things, and there was always red glasses, and how they sparkled and trembled, and I loved them. I learned to love them better than my children; the minister said better than my soul. Perhaps I did. I never see them now. Do you, miss?"

Marian started quickly. "I do not think I shall ever see them in my hand again," she said, quietly. And this from self-contained Marian Laird, who had often declared all temperance pledges "absurd and useless!"

The woman's head had sunk back against the high post, and she looked very tired. The storm was passing on; its clatter was less incessant upon the windows of the outside, and the light was brightening. Clara gathered her garments about her and sat down beyond the doorway. Marian stood still by the bedside, her eyes taking in the wretchedness of the room, the gauntness of its inmate, and her heart

aching with the throbbings of that "universal pity" whose beginning is in the Infinite Love. What were all vows uttered hitherto in church or in secret by this girl, to the unuttered one that now ascended to the Divine Ear!

The woman looked up again presently. "Are you here still?" she asked.

"Yes; is there nothing I can do for you?" asked Marian, bending over her.

"No, nothing. If you could only make me forget; but that you can't. You're good to ask it, though," she said, more calmly than she had yet spoken. "My old father he used to say to me when I was growing up like you, gay and happy, 'My girl, let your life be a service of song;' and some way, you standing there so straight and strong, put me in mind of it. But I never did, more's the pity. I'll give over the word to you now, but don't you fail on it, will you? I did, though."

"Marian, it's almost stopped raining," called Clara, "and Rodney's motioning us to come out. Do let's hurry; I'm sure I shall stife here!"

Marian stooped for one moment toward the poor, half-crazed woman. "God help you," she said, and turned to follow Clara.

"Did you see the old lady within, miss?" asked Rodney, as they drove away in the misty chill.

Marian wondered at the title. "Yes; do you know anything of her?" she asked.

"Happen so, yes. She belonged to the quality once herself, miss. Her husband was —," naming a high official, "and she had servants in plenty to wait on her, but she took to drink, miss. First to wine, and when that was n't strong enough, to brandy, like a common woman. By-and-by the shame took her, and she ran away from children and home, and they lost track of her for a long time, till she turned up here with this Ned. Not much of him either. He 'buses her as he likes, I guess; but he says she's got no mind left, and it's likely not, by this time. Bad case, miss. Go 'long, Prince," to his horse; "don't be heady like a woman"—and the story was ended.

(To be continued.)

WHAT IS THE CHIEF END OF WOMAN?

BY MRS. C. F. WILDER.

DO N'T you remember the question in the Catechism, What is the chief end of man? I have often wished we had had one asking, What is the chief end of woman? Then we, the poor, weak, blundering half of humanity, could have followed a guide-post which all our life would have pointed in some definite way. As it is, the index seems to be set on a pivot, and points in the direction the popular voice indicates. Just now it would be difficult to discover that direction. The men seem to have dropped the subject of woman's mission, as a problem that it will do to think about before arriving at the solution. They are still searching for a theorem, we feel confident. Just now the murky atmosphere of their own political world is so heavy that it is all they can do to mark out the paths for their own feet to walk in. They are through laughing at us over the result of the ballot on the subject of education in Massachusetts. They have cried until they are hoarse against the sins which so easily beset us in regard to love of dress, spending "precious" time in fancy-work, painting daubs with which to torment our æsthetic friends; decorating plates and platters to hang upon our walls until they look as if broken out with majolica measles, and all the other foolish ways in which "women run wild." But in taking away all these, our loves, what do they offer in place?

They sometimes refer us to Paul and tell us to be "keepers at home." "Women were created for helpmeets for men." "They are the mothers of the nation." Sometimes we find something more definite, as the following: "A woman should not marry until she is able to cut and make her own, her husband's and her children's garments." Probably that article from which we quote was not only read by every man who took up the papers in which it was published, but we doubt not that it was re-read aloud to the wife, and read with marked emphasis. If this *is* the chief end of woman, why are n't we told so in our girlhood, and why are not we prepared for our work?

What sent my mind to this subject was a remark made by my "John" the other day, showing how very little men know about this thing of woman's work. The children had been very fretful for several days, and added to the labor of the housework, was the care for them, and my anxiety, as I knew nothing but illness caused their fretfulness. One night I actually was too tired to sleep, and in the morning I said so to John.

"Why not leave something undone while the children are ill?" was his reply.

After he had gone to the office I thought, "Why not?" But what? Shall I leave the dishes unwashed? Too absurd. Shall I leave the floors unswept and the room not dusted? If a speck of dust is on a chair-round, John never fails to see that round, and is annoyed by it. His eyes say, "What! all day, and not time to dust a chair-round?" How about the bed-rooms, the kitchen-work, the cooking and mending? John is *very* particular about the making of his bed. If the kitchen-work is undone, he asks if Bridget has returned. As to the cooking, would n't he say, "Men must eat if they work." A hole in the sock or a missing shirt button—why, I'd rather have a Kansas thunder-storm, and so would most wives.

A woman's housework is never done, and this never-endingness is something to think about. We have not a power of mind or a skill of body which our daily life does not draw upon. Is this our mission? To be a wife, a home-keeper, a mother—is this the chief end of woman? I think it may be to some of us, and if it is, should we not be able to fill our place with knowledge and wisdom? How many of us do this? Knowledge and wisdom,—the very things we cannot have, because to obtain them we fail to have the leisure and opportunities for culture. The husband, so long as the wife is amiable, thrifty, efficient, and places before him three good meals each day, kindly lets her alone. Of his business affairs he talks over to her only its trials: he does not read aloud to her, or discuss with her the leading articles in his favorite papers. He goes elsewhere to find intellectual companionship.

He does not provide her with papers and books suitable to her needs. And, alas! too many women have no taste for books, for reading, and no desire for higher thoughts in preference to lower thoughts.

But should not the husband, if he does not care for his own comfort or his wife's benefit in this matter, should he not, for the sake of the children, give the wife the leisure and the opportunities for culture? Should not the mother, for the sake of the little ones, prepare herself to answer their questions about the "number of legs of the spider;" "the reason why a fly can walk on glass and not tumble off;" "What is the moon, mother?" "Do tell me about the birds, how can they fly?" "How are their bones different from ours?" All these questions and hundreds of others are asked by the little ones of intelligent mothers. By-and-by, it will be, "What may I read?" "Why can't I read this?" "What is the use of reading that?" Unfortunate the child searching for light, if he is led by a blind mother.

A spirit of martyrdom is a very good thing—when it is absolutely necessary. But would n't it be more sensible to save the "martyrdom" for something of genuine importance? If we are doing unnecessary work, which, if left undone, would save us vitality, strength, and time, isn't it a work of supererogation for us to go on in this self-denying manner? If we are breaking our backs over pie-crust, crullers and doughnuts, aren't we foolish, when the substitute of oat-meal, cracked wheat, and apple-sauce would be so much better? If for five, ten, or fifteen dollars, the spring or fall sewing and mending could be done, and thereby for a whole season the last straw be saved from going on our already heavy load, would we not better deny ourselves the extra thread lace, or even one dress, and carry a lighter heart and less burdened shoulders?

If our little girls look just as sweet in a plainly-made sack apron, why don't we oftener save ourselves the time and labor of the plaiting, the embroidery, and the doing up of laces? And our older children!—How many mothers have sat up

far into the night, putting "blind stitches" into the trimming on their daughter's clothes? I know mothers who have done this, who are now taking the rest of which they deprived themselves for the sake of their children,—taking the long rest from which their sorrowing children call them in vain.

The plea of the mothers, one and all, is, "My husband likes the pies and dainties; he can't do without them. My children must look like other people's children." And silently they add, "There is no way but for me to go on in my path of self-abnegation."

I read this article over, then took my baby from her cradle; and as I smoothed down her dress, covered with puffs, tucks, and embroidery, I said to myself, "Consistency, thou art a jewel!"—But then, *she is the baby.*

What is the chief end of woman?—*Advance.*

What it Costs to Smoke.—What it costs to smoke is shown by the following computation, upon the basis of a weekly expenditure of \$1, the amount (\$26) being brought in as capital at the end of every six months, at seven per cent per annum, compound interest. It amounts at the end of

5 years to . . .	\$304 96	35 years to . . .	\$7,511 08
10 " . . .	735 15	40 " . . .	10,900 07
15 " . . .	1,341 97	45 " . . .	15,680 59
20 " . . .	2,193 91	50 " . . .	22,423 98
25 " . . .	3,405 37	55 " . . .	31,936 19
30 " . . .	5,108 56	60 " . . .	44,354 11

Tyranny of Fashion.—Richard the Third had a humped back, and, as ancient story goes, humping became fashionable during his reign. The courtiers, the lords, the ladies, and the under gentry wore each a fashionable crook in the back; so that the English of that day were a "crooked generation" sure enough. Be this, however, as it may, in point of ridiculous absurdity it hardly exceeds what is frequently seen among ourselves.

Though we would be called a Christian people, it is a fact, as notorious as sad, that an anti-Christian deity is worshipped

among us in town and country, and by immense numbers of all classes and both sexes. Look where you will, you will see all ranks bowing, cringing, bending the knee—to what? *To Fashion*. This is the goddess of their idolatry. They yield implicit obedience to her laws, however absurd and barbarous; and though she changes as often as the moon, they follow her in all her changes, and ape her in all her freaks—humping when she humps.—*Sel.*

Children Poisoned with Tobacco.—In one of the schools of Brooklyn, a boy thirteen years old, naturally very quick and bright, was found to be growing dull and fitful. His face was pale, and he had nervous twitchings. He was obliged to quit school. Inquiry showed that he had become a confirmed smoker of cigarettes. When asked why he did not give it up, he shed tears, and said he had often tried, but could not. The growth of this habit is insidious and its effects ruinous. The eyes, the brain, the nervous system, the memory, the power of application, are all impaired by it. "It is nothing but a cigarette," is really, "It is nothing but poison." German and French physicians have recently protested against it, and a convention of Sunday and secular teachers was recently held in England to check it. It was presided over by an eminent surgeon of a royal eye infirmary, who stated that many diseases of the eye were directly caused by it. Parents, save your children from this vice, if possible. Do not allow them to deceive you. In future years they will rise up and bless you for restraining them.—*Christian Advocate.*

Wanted Something to Sweeten his Mouth.—A temperance exchange states that Mussey relates the following case:—

"Several years ago, a man applied to me for advice, and commenced a narration of his symptoms, in which I soon interrupted him by saying, 'Sir, you use tobacco.' 'Yes,' he replied, 'I chew a little.' 'Well, sir, do you think it does you any good?' 'No,' said he, 'I think not. I believe, on the whole, it hurts me.' 'Very well, then, why do n't you stop it?' 'Because a man naturally wants a little something, you know, to sweeten his mouth after dinner.' 'Pray, sir, what do you eat for dinner, if that nauseous thing will sweeten your

mouth?' The great difficulty with all sinners is that they are governed by appetite and not by reason—they are led by the law of sin in their members, rather than by conscience and the blessed will of God."

Descent of Man.—Two French savants have for the last twelve months been keeping nine pigs in a state of habitual drunkenness, with a view of testing the effects of different kinds of alcoholic liquors, the Prefect of the Seine having kindly put some sties in the yard of the municipal slaughter-houses at the disposal of the savants, in order that they might conduct their interesting experiment at the smallest cost to themselves. Pigs were chosen for the experiment because of the close resemblance of their digestive apparatus to that of man. The pig who takes absinthe is first gay, then excitable, irritable, combative, and finally drowsy; the pig who has brandy mixed with his food is cheerful all through till he falls to sleep; the rum-swilling pig becomes sad and somnolent almost at once; while the pig who takes gin conducts himself in eccentric ways, grunting, squealing, tilting his head against the sty door, and rising on his hind legs as if to sniff the wind. These experiments, taken in connection with the pig's well known personal peculiarities in feeding and his obstinate refusal to travel the correct path, go far to show that man was evolved from the hog rather than from the monkey, as some have surmised.—*Journal of Science.*

The Quaker and the Drunkard.—A Quaker was once advising a drunkard to leave off his habit of drinking.

"Can you tell me how to do it?" said the slave of the appetite.

Quaker. "It is just as easy as to open thy hand, friend."

Drunkard. "Convince me of that, and I will promise, upon my honor, to do as you tell me."

Quaker. "Well, friend, when thou findest any vessel of intoxicating liquor in thy hand, open the hand that contains it before it reaches thy mouth, and thou wilt never be drunk again."

Surely this was a simple remedy. The toper was so pleased with the plain advice that he followed it and became a sober man.

POPULAR SCIENCE.

—An effort is being made to introduce the English skylark into this country.

—Egyptian mummies have become a matter of merchandise within the last few years.

—The Panama canal is now an assured project, and will probably be ready for use in about seven years.

—A large share of the ivory used at the present time consists of the tusks of fossil mammoths brought from Siberia.

—The last heard from Stanley, the African explorer, was last December, when he was seen near the Congo river.

—To prevent corrosion of steel pens, soak them half an hour in a solution of sulphate of copper, then dry slowly.

—A company of mounted soldiers at the Cape of Good Hope were struck by lightning, ten men and several horses being instantly killed.

—The experiment of manufacturing sugar from beets in this country has proved a failure in every instance. The sugar made was excellent in quality, but the cost of production was so great as to make the business unremunerative.

—It is stated by M. De Lesseps that the opening of the Suez canal has increased the rain-fall in the surrounding country to a remarkable extent. Previous to 1870, rain fell only about once in a year, while now it falls at least twice in a year.

Instantaneous Photography.—A process of instantaneous photography has recently been perfected, whereby that art is so greatly enlarged that objects in motion can be easily pictured. Horses trotting, cattle grazing, people laughing, walking, or running, are distinctly taken, and without the stiff unnatural expression so generally unavoidable when obliged to remain in one position the usual length of time. A preparation of gelatine is used, instead of collodion, as a medium for the chemicals employed in making the negatives by this process.

A New Theory Concerning Earthquakes.—According to *Nature*, a new and somewhat bold hypothesis has been propounded by Dr. Novak, of Pesth, as to the cause of earthquakes. He considers that, besides the rotation of the earth on its axis and its revolution round the sun, a multiplicity of motions of the earth appear in space, in virtue of which the earth's axis, and with it the equator, shift their position. This causes a variation of the forces influencing the earth's form (centrifugal and centripetal force), and the earth has the tendency to adapt itself to this change. He also considers a change of the form of the earth to occur through the shifting of the pole and the equator, and that this may have effect some time afterward, where the earth's crust is weak.

Origin of the Word "Canada."—The origin of the word "Canada" is curious enough. The Spaniards visited that country previous to the French, and made particular search for gold and silver, and finding none, they often said among themselves, "*Aca nada*"—there is nothing here. The Indians, who watched closely, learned this sentence and its meaning. The French arrived, and the Indians, who wanted none of their company, and supposed they also were Spaniards come on the same errand, were anxious to inform them in the Spanish sentence, "*Aca nada*." The French, who knew less of Spanish than the Indians, supposed this incessantly recurring sound was the name of the country, and gave it the name of "Canada," which it has borne ever since.

Aztec Ruins.—The Arizona *Silver Belt* describes one of the finest and least known of the Aztec ruins. Originally it was three stories high, but only two of them remain. It is built under a cliff, and of rock. The adobe clay of the country was used for mortar, and it has become exceedingly hard. There were no Diston brick trowels in those days, as the marks of the fingers of the primitive masons were as plainly visible as if the work had been done a few days ago. Digging down through the *debris* on the floor, small ears of corn were found, having kernels about the same size and shape as Egyptian corn. No part of the world, outside of those countries which have religious or classical associations connected with them, presents so interesting a field for archæological research as Arizona.

Aerial Telegraphy.—Professor Loomis recently conducted a series of experiments in the mountainous regions of West Virginia, which successfully demonstrated that telegraphy without wires is practicable. The mode of operating consists in running a wire up to a certain altitude or until it reaches a particular current of electricity. This same current may be reached at any distance away by another wire, and communication thus established. It has been fully ascertained that telegraphic communication takes place through the ground and not over the wires, and this same communication continues when the natural electric currents are used. This mode of telegraphy requires but very simple apparatus. Professor Loomis telegraphed to parties eleven miles distant by merely sending up a kite, at each end of the distance, until they reached the same required current. Attached to each kite, instead of the ordinary string, was a fine copper wire, which connected with a Morse instrument, by means of which the message was sent. Professor Loomis has a scheme on foot for a series of experiments from a point on one of the highest Alps to a similar position in the Rocky Mountains. All the funds necessary to carry on the experiments have been promised.

A Remarkable Machine.—A machine has been invented by Dr. Mosso, of Turin, which measures thought. It is called the plethysmograph, and its revelations are based on the fact that thought creates nervous action, which consumes in its performance a certain quantity of blood, and that quantity may be measured. In an address before the American Association of Paris, Professor G. F. Barker describes the machine and its working as follows:—

The forearm, for example, being the organ to be experimented on, is placed in a cylinder of water and tightly inclosed. A rubber tube connects the interior of the cylinder with the recording apparatus. With the electric circuit by which the stimulus was applied to produce contraction, were two keys, one of which was a dummy.

It was noticed that, after using the active key several times, producing varying current strengths, the curve sank as before on pressing down the inactive key. Since no real effect was produced, the result was caused solely by the imagination, blood passing from the body to the brain in the act.

To test further the effect of mental ac-

tion, Dr. Pagliani, whose arm was in the apparatus, was requested to multiply two hundred and sixty-seven by eight, mentally, and to make a sign when he had finished. The recorded curve showed very distinctly how much more blood the brain took to perform the operation.

Hence the plethysmograph is capable of measuring the relative amount of mental power required by different persons to work out the same mental problem.

Indeed, Mr. Gaskell suggests the use of the instrument in the examination room, to find out, in addition to the amount of knowledge a man possesses, how much effort it causes him to produce any particular result of brain-work.

Dr. Mosso relates that, while the apparatus was set up in his room in Turin, a classical man came in to see him. He looked very contemptuously upon it, and asked of what use it could be, saying it could n't do anybody any good.

Dr. Mosso replied: "Well, now, I can tell you by that whether you can read Greek as readily as you can Latin."

As the classicist would not believe it, his own arm was put into the apparatus, and he was given a Latin book to read. A very slight sinking of the reserve was the result.

The Latin book was then taken away, and a Greek book was given to him. This produced immediately a much deeper curve.

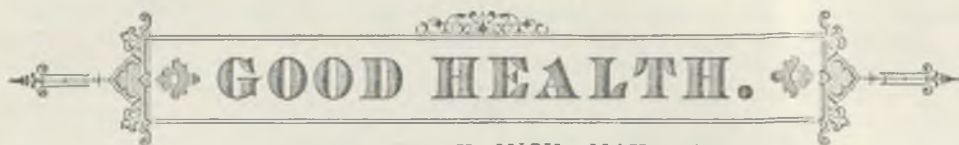
He had asserted before that it was quite as easy for him to read Greek as Latin, and that there was no difficulty in doing either. Dr. Mosso, however, was able to show him that he was laboring under a delusion.

Again, this apparatus is so sensitive as to be useful for ascertaining how much a person is dreaming.

When Dr. Pagliani went to sleep in the apparatus, the effect upon the resulting curve was very marked indeed.

He said afterward that he had been in a sound sleep, and remembered nothing of what passed in the room—that he had been absolutely unconscious; and yet every little movement in the room, such as the slamming of a door, the barking of a dog, and even the knocking down of a bit of glass, were all marked on the curves.

Some times he moved his lips, and gave other evidences that he was dreaming. They were all recorded on the curve, the amount of blood required for dreaming diminishing that in the extremities.



BATTLE CREEK, MICH., MAY, 1881.

J. H. KELLOGG, M. D., EDITOR.

TERMS, \$1.00 A YEAR.

• THE PORCINE INDUSTRY.

PROBABLY the great reason why the American people generally, and especially farmers, are unwilling to believe in the reality of the danger from the use of pork, is the fact that the business of raising hogs is very remunerative, and one of the great industries of the country. A well-known educator of Illinois, once remarked on the subject of swine raising, that "the average Western farmer toils hard, early and late, often depriving himself of needed rest and sleep—for what? To raise corn. For what? To feed hogs. For what? To get money with which to buy more land. For what? To raise more corn. For what? To feed more hogs. For what? To buy more land. And what does he want with more land? Why, he wishes to raise more corn—to feed more hogs—to buy more land—to raise more corn—to feed more hogs—and in this circle he moves, until the Almighty stops his hoggish proceedings."

Some other means of turning the hog into money must be found. It will not do to eat the hog simply because it is profitable to raise him. Perhaps he would do well as a scavenger.

FALSE HAIR AND HAIR DYES.

THE ungainly masses of unnecessary material which fashion has heaped upon the heads of those who bow to her authority, are a frightful cause of diseases of the scalp and brain. The immense loads of hair, jute, or other material, which are attached to the head, cause a great increase of the temperature of the brain and scalp. The blood-vessels become congested, both externally and internally. The result of

this constant surplus of blood is disease of the scalp and of the brain itself. Headache is an almost constant symptom of the injury which is being wrought by this improper treatment of the head.

In consequence of the disease of the scalp, the hair soon becomes diseased, loses its brilliancy and color, becomes dry and harsh, and in many cases is lost altogether, complete and incurable baldness ensuing.

The congestion of the brain—which at first occasions only headache—when continued, produces structural disease of that organ. The blood-vessels become weakened, and sometimes ruptured, when the patient either dies of apoplexy or lingers a miserable paralytic.

When the head is encumbered with an unnatural mass of hair, and the brain is clogged by the excessive amount of blood and supernatural heat which result, the mind cannot act freely and naturally; hard study, deep thought, and continued mental exercise are impossible. This is the reason why fashionable young ladies find study so hard for them, and apparently injurious. The incubus of such a prodigious weight as many a fashionable lady carries upon her cranium, would be quite sufficient to eclipse the mental powers of the most brilliant genius. No wonder that woman has sometimes failed in mental competition with her brothers in the schools. The wonder is that she lives and possesses even a modicum of mental vigor. Under equally favorable circumstances, woman should be man's peer in mental power and development; but if she wishes to secure and maintain the equality of the sexes, which so many earnest women are just now demanding,

she must throw away her chignons and waterfalls, shake off her "rats and mice," and don a simpler, healthier head-gear.

The real hair that is sold to those whose tresses are considered too scanty, is chiefly obtained from the bodies of dead persons, whose graves are plundered for the purpose by wretches who earn their living by this means. Vermin of various kinds often adhere to the hair, and infest the heads of those who wear it. Various imitations of hair also become the means of conveying loathsome parasites to the scalps of those who wear them.

The use of hair dyes is a practice which the chemist and experience have both shown to be imminently dangerous. All hair dyes are poisonous. No matter how strong the assertions of their harmlessness, they are utterly false. So-called vegetable hair dyes, hair invigorators, tonics, etc., are contemptible swindles. They contain mineral poisons. The greater portion of them contain lead. The effect of their use is not only to destroy the hair, and induce disease of the scalp, but to produce paralysis. Many cases of chronic headache have been occasioned by the use of these poisonous mixtures; and in a number of cases, insanity has been the result.

The use of these vile compounds, which are so widely sold and used, is usually as absurdly foolish as harmful.

COOKING DOES NOT DESTROY TRICHINÆ.

We have always maintained that the constant assertion made by the newspapers that no danger from trichinæ need be apprehended, provided pork was always well cooked, was a dangerous error, and hence are gratified to find in the London *Lancet* the following statement of facts which cannot be disputed:—

"It is commonly believed that ordinary cooking will destroy trichinæ and render infested meat innocuous. Without doubt, as has been stated in the daily press, 'the encapsuled parasites cannot survive a certain elevation of temperature, and death renders them harmless.' Is it, however, correct to say that a 'complete means of

protection is furnished by the heat incidental to cookery?' Considerable doubt is thrown on this statement by M. Vacher, of Paris, whose authority is of considerable weight. He affirms that the protection given by cooking is quite illusory, and that in the thorough cooking of an ordinary joint of meat the temperature in the center is not sufficient to insure the destruction of the parasite. He took a leg of pork of moderate size and boiled it thoroughly. A thermometer placed within it at a depth of two inches and a half, registered, after half an hour's boiling, 86° Fah.; after boiling for an hour 118°; after an hour and a half 149°; and after two hours and a half, when the joint was thoroughly cooked, 165°. This temperature M. Vacher maintains is insufficient, and we must remember that at the center, which is still further from the surface than the bulb of the thermometer was placed, the temperature would not be so high. 'Trichinæ would escape almost entirely the action of boiling water' in cooking. M. Vacher's note was communicated to the Chamber of Deputies, and, no doubt, has influenced the decision of the French Government to prohibit entirely the importation of American pork."

WHISKY IN AFRICA.

WE are still often met with the argument that alcohol in some form is necessary to fortify the system against the disadvantages of certain climates,—to prevent freezing in the arctic regions, and to counteract the effects of heat and malaria in torrid regions. The following extracts from a work entitled "Savage Africa," by Winwood Reade, present the testimony of a man who had tested both plans, total abstinence and brandy drinking, and to his entire satisfaction:—

"When one sits down to table with Anglo-Africans, he observes now and then their faces twitch spasmodically, as if they had received an electric shock. These facial contortions are the relics of intermittent fever. At the same time, you become aware that a grosser disease is present among your companions. One of

them will attempt to catch a spectral fly, which day and night is glittering before him; another directs your attention to a swarm of bees in a corner of the ceiling; and a third whistles to a black dog which no one can see except himself.

"That which would be very amusing were it not so sad, is the assurance with which some cadaverous ensign informs some fresh comers that it is impossible to live in that climate without brandy-and-water. His bloodshot eyes, his trembling hand, his deadened appetite, belie his words; but he still drinks on. Brandy-and-water is certainly the most prevalent and fatal cause of disease on the west coast of Africa. 'Died of brandy-and-water' is a common phrase."

"I shall contest that belief, which, strange to say, is almost universal amongst traders and military men, that brandy taken frequently and in small quantities is necessary for the preservation of health in Africa. I do not deny that brandy, used continually as a medicine, has the power of stifling fever. The common coast phrase being 'a bottle of brandy ahead of the fever' is not an incorrect one; and if a man has a strong constitution he may continue this practice for two, or in some cases, for three, years. He then breaks down with *delirium tremens* or some horrible disease of the liver. The poison which has so long been smouldering in his system bursts into life and fury; his debilitated system struggles faintly and vainly to throw it off. In an incredibly short space of time it seizes his vital parts. Yesterday he was drinking his brandy-and-soda, and advising neophytes to take that kind of medicine. To-day he is a corpse.

"This climate has always proved more fatal to our nation than to the Dutch, the French, and the Portugese. It is on account of our debauchery.

"Our fathers and grandfathers know that in their young days the Indian climate possessed the same ill-fame as the West African climate bears now. That was the age in which officers drank brandy pawnee to preserve their health—

an age which has, happily, passed away. Sir Emerson Tennent, in his great work on Ceylon, says: 'The abuse of brandy at former periods is commemorated in the records of those fearful disorders of the liver, derangements of the brain, exhausting fevers, and visceral diseases which characterize the medical annals of earlier times.'"

SANITARY CONVENTION AT BATTLE CREEK.

IN response to an invitation from the citizens of the place, the second Sanitary Convention of the season was appointed by the State Board of Health to be held at Battle Creek, March 29 and 30. At a meeting of citizens to arrange for the meeting, the following persons were elected as officers for the convention:—

Rev. D. F. Barnes, President; George Willard, Vice President; Prof. J. C. Spencer, Vice President; L. McCoy, Vice President; Rev. Dr. Sidney Corbett, Vice President; Edward Cox, M. D., Vice President; Judge B. F. Graves, Vice President, and J. H. Kellogg, M. D., Secretary.

FIRST SESSION.

The Convention met at 3 P. M. promptly, and was called to order by the Secretary.

An appropriate prayer was then offered by Rev. D. C. Jacokes, of Pontiac.

At the conclusion of the prayer, Mayor E. C. Nichols delivered an address of welcome in which he warmly commended the objects of the convention in very well chosen words. He remarked that the work of sanitarians "differs somewhat from those of an earlier generation. In that quaint but doubtless veracious history of New York, written by Diedrick Knickerbocker, it is stated that the North American Indians, when discovered by our ancestors, were in a state of deplorable ignorance and destitution. But no sooner did the benevolent inhabitants of Europe behold their sad condition than they immediately went to work to ameliorate and improve it. They introduced among them rum, gin, brandy, and other comforts of life, and it is astonishing to read how soon the poor savages learned to estimate these

blessings ; they likewise made known to them a thousand remedies by which the most inveterate diseases are alleviated and healed ; and, that they might comprehend the benefits and enjoy the comforts of these remedies, they previously introduced among them the diseases which they were calculated to cure. Happily, modern philanthropy does not follow that precedent. The aims of sanitarians are to investigate and apply preventatives rather than curatives, and by intelligent presentation of the cause and source of local disease to so inform the public intelligence and quicken the public conscience, that preventative sanitation may precede infection."

Rev. D. C. Jacokes, D. D., member of the State Board of Health, then addressed the Convention on behalf of the Board. The object of his remarks was to explain the nature of the work of the Board, and to remove certain erroneous impressions which exist in the minds of the people respecting it. The doctor's remarks were exceedingly practical in character, and were listened to with great interest on the part of the audience. The following incident related, well illustrates the point which the speaker endeavored to make clear respecting the work of the Board :—

"Here is the scarlet fever ; some people have an idea, 'Well, the little chicks must have it, and they might as well have it first as last.' I never had it. I never want it. When I look into the face of a little child, I don't want to think he must have it. We want to see how you can help it. Just as quick as it comes, we want to tell you to go to the doctor right off. It is the business of the State Board of Health to study these cases and point them out to the people all over this State. Let me illustrate to you. While in the city of Detroit I had two little tracts on diphtheria. I met two gentlemen, and one of them said, 'How do you do?' I replied, 'I am well.' I said, 'How do you do?' He said, 'Very well ; but diphtheria is up in our neighborhood, and I am afraid I am going to lose my children.' I put my hand in my pocket and gave him one. He said, 'Thank you.' I said, 'take that home and let your wife read it.' The

other man said, 'I guess they will have to have it ;' so he did not take it. My friend took his paper home, read it, and his wife read it. They both studied it thoroughly and just applied the needed prevention ; and that family are all alive to-day. Right side of him, within fifteen feet of the house where he is, the man who said 'they must have it,' lost the only child he had. We want to know how to prevent, and not how to cure. I received a letter from a doctor a while ago (and will tell you as a secret), giving me a regular trimming. Said he, 'What are you doing? You want to take the bread out of our mouths!' I have found quite a number of that class."

The Rev. Mr. Barnes, president of the Convention, made a very able address in which he remarked, "It was a wise remark of the late Dr. Finney, President of Oberlin College, that it was impossible to get one converted who had cold feet. If there be unhealthy conditions of the body, a want of proper circulation, or if there be disease, the mind and spirit will be affected out of sympathy, if for nothing more."

Hon. Leroy Parker, member of the State Board of Health, in an able paper entitled, "Legal Measures for the Prevention of Casualties," called "attention to the thousands of lives lost in accidents on railroads and steamboats, in burning theaters and falling grand-stands, by guns not known to be loaded, and by kerosene cans filled with illuminating oil inefficiently tested, by steam-boiler explosions, and by poison administered by mistake, and asks what per cent of these were preventable. It is only when disasters like the Pacific Express collision at Jackson, the falling of the grand-stand at Adrian, or the falling of the Tay Bridge, that the people are aroused, and demand that some one be held responsible for the lives lost. In a few days all is forgotten."

In answer to the question, "What additional legislation is needed?" the writer said, "In the case of railroads, a more perfect and uniform system of signals ; signals when approaching bridges to warn the men on top of the train ; employes should be examined to ascertain whether they are

afflicted with color-blindness; an automatic car-coupler. A complete system of inspection of steam boilers should be required. There should be an inspection of the boilers and hulls of craft on our inland lakes not touched by the United States Inspection Laws.

"A more rigid inspection of petroleum must be insisted upon. The statutes must be backed up by a healthy public sentiment, and the eagerness with which we strive to prevent accidents should show the value we place upon human life."

The second session of the Convention was held at 7:30 P. M. The principal paper of the evening was a very important one by Dr. H. B. Baker, Secretary of the State Board of Health, entitled, "The Systematic Study of the Causes of Sickness and Death." As it would be impossible to make a brief abstract of the paper which would at all do it justice, we omit further mention of it here, but shall give our readers portions of it at some future time.

The first session of the second day of the Convention opened with a paper by Dr. A. F. Kinnie, of Ypsilanti, on "Points in the Physiology of Alcohol." The paper was an able defense of total abstinence based upon the physiological effects of alcohol, and was well supported by the remarks of Profs. Prescott and Vaughan. We shall give our readers a considerable portion of this paper hereafter.

This was followed by an able and very practical paper by Mr. Jno. K. Allen, of the Office of the State Board of Health, entitled, "Personal Sanitary Responsibilities."

A very interesting discussion followed this paper, by means of which several important facts and interesting ideas were brought out.

In the afternoon three very able and instructive papers were read. "Consumption: Is it a Contagious Disease?" by Bela Coggeshall, M. D., of Flint; "Medicinal Nostrums in their Relation to Public Health," by Prof. A. B. Prescott, M. D., of Ann Arbor; and "Evils which Result from the Administration of Nostrums to Young Children," by Dr. Amos Crosby, of Albion. As we shall draw largely upon

these important papers in future numbers, we will not give them further notice at this time.

One of the most important features of this session was the report of the committee on Criminal Abortion, through its chairman, Dr. E. Cox. The report closed with the following resolution, which was unanimously adopted:—

Resolved, That the State Board of Health be requested by this Convention to correspond with Municipal Boards of Health, physicians, civil authorities, and such others as it may deem proper for the purpose of obtaining information relative to criminal abortion, to publish in documents and newspapers all things relative thereto, proper to be published, and that sanitarians, educators, social scientists, civil authorities, and others, be requested to communicate to the Board all information in their possession relative to the same; and that the clergy and press be earnestly solicited to acquaint themselves with the subject, and to educate their hearers and readers as to the prevalent causes, consequences, and moral depravity of this great curse of the nineteenth century."

The resolution was ably discussed, and important observations made by Rev. J. Morgan Smith, of Grand Rapids, Rev. D. C. Jacokes, and Judge B. F. Graves.

At the last session, in the evening, the large audience gathered in the opera house listened to able papers by Dr. Geo. E. Ramsey, of Lansing, and Dr. Foster Pratt, of Kalamazoo, entitled, "The Health Service of the State," and "Sanitary Rules vs. Medical Theories." The closing feature of the program, and a most enjoyable one, was an address by the Rev. J. Morgan Smith of Grand Rapids, Mich. The paper contained much good sanitary advice very wittily presented.

The Convention was by all acknowledged to be the most successful ever held in the State.

—A cargo of lard recently received at Lyons, France, from New York, upon examination was found to be infested with trichinæ to an alarming degree.

"ARBOR DAY."

Gov. JEROME has issued the following proclamation, which we think should receive the attention of all who are interested in the sanitary welfare of the citizens of the State. Trees are among the most useful of sanitary agents, in more ways than one. It has been very conclusively shown that depriving a country of its trees is certain to subject its inhabitants to a great increase in the frequency of certain diseases, through the influence upon meteorological conditions.

To the People of the State of Michigan :

WHEREAS, at the session of the Legislature for the year 1881, the following resolution was adopted, to wit :

"Resolved, That the Governor be, and is hereby requested, to call attention of the people of the State to the importance of planting trees for ornament, protection, and shade, by naming a day upon which this work shall be given special prominence, to be known and designated as "Arbor Day."

Now Therefore, Pursuant to the foregoing resolution, I do hereby designate

THURSDAY, THE 28TH DAY OF APRIL, 1881, to be known and observed as "Arbor Day, and recommend the general observance of the same throughout the State.

Medical Use of Figs.—The experiments of Prof. Bonchut show that the milky juice of the fig-tree possesses some digestive power, and also delays the decomposition of animal tissues. Prof. Billroth employed a poultice of dried figs cooked in milk to a very foul smelling cancer, with the effect of entirely removing the foul odor, although all other deodorants had failed. Mr. G. P. Needham of Washington, D. C., is making energetic efforts to introduce the cultivation of the fig-tree into all parts of this country. He claims that it can be grown as easily as the peach, and will produce a much more remunerative crop. We have just received from him a thrifty looking tree which we shall plant and tenderly care for by way of experiment. We refer the reader to the column devoted to book notices for a notice of Mr. G. F. Needham's little pamphlet on fig culture.

What Becomes of London Horses.—Mr. Gough, the renowned temperance orator, tells a story of an English capitalist who has made a fortune by buying up the sick and dead horses of London. The flesh is sold for "cat meat;" the hair, hides, and bones, are put to their usual uses; the nostrils and hoofs are made into gelatine; the blood is employed in the manufacture of ketchup, to which it is supposed to impart a delicious flavor, and the livers are burned and used in the adulteration of coffee.

A Case of Nicotine Poisoning.—The extremely poisonous character of nicotine is well shown by the following paragraph which we clip from an exchange:—

"A rather unusual case of poisoning by nicotine has occurred lately in a Paris suburb. The victim, a man in the prime of life, had been cleaning his pipe with a clasp-knife; with this he accidentally cut one of his fingers subsequently, but as the wound was of a trivial nature he paid no heed to it. Five or six hours later, however, the cut finger grew painful and became much swollen; the inflammation rapidly spread to the arm and shoulder, the patient suffering such intense pain that he was obliged to betake himself to bed. Medical assistance was called, and ordinary remedies proved ineffectual. The sick man, questioned as to the manner in which he cut himself, explained the use to which the pocket-knife had been applied, adding that he had omitted to wipe it after cleaning the pipe. The case was now understood, and, the patient's state becoming alarming, he was conveyed to the hospital. There the doctors decided amputation of the arm to be the only hope of saving the patient's life, and this was immediately done."

Animal Food.—"Now then," said a physician cheerily to his patient, "you have got along far enough to indulge in a little animal food, and—" "No you don't doctor," interrupted the patient; "I've suffered enough on poor gruel and slops, and I'd starve sooner than begin on hay and oats."—*Ex.*

A Sure Cure for Trichinosis.—An exchange states that "a lot of valuable hogs, belonging to Michael Simpson, at South Framingham, Mass., were so badly affected by trichinæ that orders were given to kill them." As boiling has been proven to be ineffective, we heartily recommend this method of exterminating the parasite, and would suggest that in order to make a sure thing of it, the whole porcine race should be either exterminated or exclusively devoted to the manufacture of axle grease.

Tea a Stimulant as Well as Beer.—The English papers report that some of the large agriculturists of that country have been trying the experiment of substituting cold tea for beer as a drink in the harvest field, and claim that it is a good substitute. It seems to be overlooked that tea is a stimulant as well as beer. It is, in fact, true that a pint of tea, as usually made, contains a larger percentage of stimulating elements than an equal quantity of beer. A story is told of a cavalry horse that was fed oats with which a small quantity of tea leaves was mingled, and suffered with marked symptoms of delirium tremens. An English physician of eminence has asserted that there are many "tea drunkards" among the laboring classes of England; and Dr. Bock, an eminent physician of Leipsic, charges tea-drinking with being the cause of much of the nervousness and ill-health of English and American women. We see no advantage in exchanging one poison for another. Let us have a thoroughgoing reform which discards all stimulants and narcotics.

A New Adulterant.—The French government has recently discovered that salicylic acid is being largely used in that country as a means of preserving various articles used as food. Measures have been taken to put a stop to the business at once.

We have recently learned that a recipe for preserving fruit in which salicylic acid is the principal ingredient, is being sold quite extensively in this country. The fraud should be stopped at once.

Sewer Gas.—The importance of good sewers, and especially of the thorough ventilation of sewer pipes connected with buildings, is well shown by the results obtained by the authorities of one of the largest London Hospitals who recently "took measures to ventilate all the drains and sewers in connection with their institution, and previous to which movement pyæmia and erysipelas had almost driven the medical staff to despair. When the whole of the ventilation was completed, and as soon as the pressure was removed from the traps of the closets and lavatories, no fresh cases were found to occur, and for months the hospital wards were free from both erysipelas and pyæmia. Suddenly, however, there was a fresh outbreak of these diseases, but it appeared that the epidemic was confined to one of the surgical wards, built apart from the main building on the pavilion plan, and having only one story. Close investigation proved that the ventilation pipe in this wing had been stopped by a careless workman; and, on this being remedied, all traces of the epidemic disappeared."

Poisonous Fish.—It ought to be generally known that canned meats of all kinds are liable to be rendered in the highest degree unwholesome, and even poisonous, by a peculiar kind of decomposition which often occurs. Canned fish, especially, may wisely be looked upon with suspicion. An exchange reports the case of a whole family poisoned by eating canned salmon. In the case of one of the members of the family the disease was fatal. Such instances are growing quite numerous. Only a few days ago we were consulted by a gentleman who was suffering acutely from pain in the bowels, which could be traced to nothing but the use of raw oysters. Shell-fish are particularly liable to be poisonous. In some parts of the world it is unsafe to eat oysters on account of their noxious character which is acquired from their food. The oyster is a scavenger, living upon the organic filth which is always abundant in the water of the localities in which they abound.

Trichinosis.—The Sanitary Committee of Massachusetts have recently received a report respecting trichinosis in hogs, from which it appears that of 2700 hogs examined recently 154 were found to be infected with trichinæ. Most of the hogs examined were from the West.

In Boston it is found that rats are affected with these parasites to a very great extent. Of fifty rats caught in a Boston slaughter-house, only twenty were found healthy. In another slaughtering establishment, forty rats which were caught were all affected. Rats in stables were also found to be affected.

Cleaving unto Dust.—The eminent commentator, Dr. Adam Clarke, was no friend of tobacco. He tells of a congregation that was once much amused when the officiating clergyman paused to "take a pinch of snuff" while reading a psalm which contained the words, "my soul cleaveth unto the dust."

Better Diet Needed.—We quote the following from an excellent cotemporary, the *Lansing Republican*: "An intelligent and candid correspondent of the *New York Tribune*, who is traveling in the Southern States, writes of the morals and manners in Mississippi very much as the editor of the *Republican* described them four years ago. He says that 'eating is no comedy, but a martyrdom. The table is supplied with hot bread, no milk, four dishes of meat for supper, and strong black coffee.' Is it any wonder that men should grow rebellious upon such a regimen? The late Horace Greeley remarked that 'Texas needed 50,000 good cooks in order to become half civilized;' and the great revivalist, Elder Knapp, once left a village in Ohio in disgust, after a week's campaign, 'because the Holy Spirit (he said) would never come to a people who fed its messengers on such abominable beefsteak and coffee.'"

—Not long since, in an arbitration case, an engineer was thus examined as to his professional experience and capacity, so-

called: "How long have you been in the profession?" "Twelve years." "Are you thoroughly acquainted with your work, theoretically and practically?" "Yes." "Do you feel competent to undertake large constructions?" "Yes, most certainly." "In what engineering works have you been engaged during the last twelve years?" "The manufacture of iron bedsteads."

We fear that many professed first-class plumbers would make similar irrelevant replies, if they were subjected to a test as to their capacity.—*Sanitary Engineer*.

A Fable.—There is an ancient fable which tells us that while Noah was planting the vineyard the devil approached him and inquired what he was doing. "Planting a vineyard," replied Noah. "Hum!" grunted Satan, "what's the use of a vineyard?" To which Noah gave answer that "its fruit is sweet and good, and its wine gladdens the taste." Whereupon Satan, seeing here a good chance for speculation, proposed that they work it on shares, which was agreed upon, and immediately the devil brought a lamb, a lion, a hog and a monkey, and mingled their blood with the soil. Therefore, if a man eats only of the fruit of the vineyard he is as innocent as a lamb; if he drinks wine he imagines himself a lion and falls into mischief; if he drinks habitually he becomes as selfish and unmannerly as a hog; if he gets drunk he jabbbers and jumps about, and is silly and nasty like a monkey.

—The *Lancet* announces that "the Aromatic and deodorizing water-closet" has been patented and put on the market in England. "Aromatic" is pretty good, but not hard to beat. One of our subscribers is now perfecting a "Koproœuodmotikion," with balm of a thousand flowers attachment, which will entirely destroy the sale of the Aromatic Closet in this country.

The Psophokeodaleundron is also proposed as a substitute for the ordinary closet-trap, and will undoubtedly be a success, if eau de cologne can be obtained at a sufficiently low price.—*Sanitary Engineer*.

—An English paper of recent date states that "Dr. Ballard, of Welbeck, has carefully investigated the cases of 70 persons made ill through eating ham, and has found it free from trichinæ, but infected with a minute microscopic fungus not hitherto imagined to be poisonous, which, getting into the systems of ham-eaters, plugs up the minute vessels, and the result is fatal."

—Several English butchers have recently been prosecuted for such "innocent mistakes" as having in their possession "half a ton of totally rotten meat for sausages and saveloys; old sheep's carcasses for canning, not fit for dogs to eat; putrid horse-flesh, richly colored with yellow ochre, and other similar delicacies."

—An exchange states that pellagra, a disease which probably arises from the ergot fungus of corn and rye, is prevailing very extensively in Italy. Over 70,000 cases have occurred in Lombardy.

—The British Government proposes to stop the issue of the rum ration to officers.

—A cremation society has been organized in New York City.

LITERARY NOTICES.

WOMAN'S WORDS.

This is an illustrated review of what women are doing, edited by Mrs. Juan Lewis, Philadelphia, Pa. *Woman's Words* is published in the entire interest of woman's advancement, social and moral progress. Each number contains a portrait of some one of the many noble women of our land. The April number, which is before us, presents its readers a portrait, autograph, and biographical sketch, of the late Lucretia Mott. Few means are better calculated to inspire woman to higher ideas of life and usefulness than the excellent journals published in her behalf, of which this is one. Subscription price, \$1.00 per year.

HOW WE FED THE BABY, TO MAKE HER HEALTHY AND HAPPY; WITH HEALTH HINTS. By C. E. Page, M. D. New York: Fowler & Wells.

This treatise advocates a reform in the alimentation of infants, strongly opposing the common practice of frequent and unsystematic feeding.

The following extracts will serve to show something of the author's ideas:—

"I am far from asserting that infant mortality would wholly cease with the adoption of this system, confining infants from birth to two or three meals a day, although it is my belief that it would preserve the lives of three-fourths of the healthy-born infants who die before entering the third year. There will still be occasion for the exercise of care to guard against excess and improper substances, and there can be no absolute security against disease without due regard for all the laws of life. But since it can be clearly shown that an infant will be perfectly nourished on three moderate meals, and since it is evident that there is the minimum of danger with this number, as compared with a greater number, it seems to me that there can be no sound argument in favor of more frequent feeding, as a rule."

The book also contains various excellent hints concerning the ventilation, clothing, baths, and the general care of infants. Paper, 50 cents; cloth, 75 cents.

THE VEGETARIAN ALMANAC.

Through the kindness of Mr. Heron, of Belfast, Ireland, we have a copy of this unique pamphlet. It is the third issue of the annual published by the Vegetarian Society in the honor and support of vegetarianism, and, like both the other issues, is full of interesting and instructive reading matter, setting forth the advantages of a vegetable diet, and especially presenting the moral aspects of the flesh-eating habit. It contains many very attractive illustrations. We sincerely wish for it a large circulation.

—D. M. Ferry & Co., of Detroit, Mich., have issued, this year, a very attractive Seed Annual, a copy of which we have received. The number and variety of vegetables illustrated and described is very extensive, as also is the catalogue of flowers, seeds, and roots in that department of the work. To all persons interested in horticulture and the cultivation of flowers, the Annual will prove an excellent encyclopedia of information. We recommend it to our readers.

—We have received a copy of the April number of *Our Best Words*, edited by J. L. Douthit, Shelbyville, Ill. We are glad to see that it is still to be published, for we consider it a most excellent family paper, one that is not afraid to speak the truth and the whole truth in behalf of many of our most needed reforms. We hope the paper may be long sustained.

THE NORTH AMERICAN REVIEW for May contains a striking article by the Hon. David Dudley Field on "Centralization in the Federal Government." That our polity is rapidly advancing in the direction of centralization is demonstrated by the author; but whether centralization is really a formidable evil or only a bugbear is a question which men will probably continue to decide according to their several political pre-

dilections. Whatever the reader's bias, Mr. Field's paper will command his respectful attention, and it will be read with interest and profit. The second article is upon the new revision of the Bible, by the Rev. Dr. Schaff, of the American Committee of Revision. Mr. Justice Strong writes of "The Needs of the Supreme Court," and advocates the establishment of a court of appeals, intermediate between the United States Supreme Court and the circuit courts. The Hon. George Q. Cannon, the first adviser of the President of the Mormon Church, and delegate to Congress, makes a vigorous defense of "Utah and its People." The question, "Shall Americans Build Ships?" is considered by Mr. John Roach, the ship-builder, who brings forward a large number of facts to prove that the people of the United States must build ships if they would hold a place among maritime nations. The other articles are "The Life-Saving Service," by the Hon. S. S. Cox; "The Ruins of Central America," by M. Charnay; and finally, an attack on evolution, written in a vein of the finest irony, and entitled, "What Morality Have we Left?"

A NEW INDUSTRY; FIG CULTURE AT THE NORTH.

We have received a little circular under the above title, setting forth the fact that fig culture in the Northern and Middle States may be successfully carried on, and giving full directions for planting, protecting, and propagating the tree. This is a worthy enterprise, and we recommend our readers to a perusal of the circular, which may be obtained of G. F. Needham, Washington, D. C.

SMITHSONIAN REPORT FOR 1879. Washington: Government Printing Office.

The report for 1879 contains, in addition to the usual official reports, a number of very interesting papers, among which are "James Smithson and his Bequest," an illustrated article concerning "Savage Weapons at the Centennial Exhibition," and numerous valuable papers on "Anthropology."

The managers of the Smithsonian Institute are very greatly aiding the cause of science in this country by the publication of these reports, since most of the matter contained in them is such as is not readily accessible to the majority of scientists in any other way.

DETROIT LANCET. Detroit: Leartus Connor, Editor.

This is one of the most excellent of western medical journals. It is ably conducted, printed in good style, and always full of interesting matter. The April number contains, among other valuable articles, a paper on Trichinosis—a report of five cases, by Geo. E. Ranney, M. D.; "Studies on the Nature of Malaria," by H. C. Wyman, M. D.; and the address delivered at the Commencement Exercises of Detroit Medical College, by Prof. A. B. Lyons, M. D.

FIFTEENTH ANNUAL REPORT OF THE LOUISVILLE HOUSE OF REFUGE.

The above-named institution has been in operation fifteen years, with excellent results. According to the report, one thousand three hundred and fifty-eight persons have been admitted since the opening of the house. During the present year there have been but two deaths among the inmates, the number of which at the present time is two hundred and five. Undoubtedly the good health of the inmates is chiefly due to the excellent management of the intelligent superintendent, Mr. Caldwell, who was a guest at the Sanitarium a year or two ago.

MARYLAND MEDICAL JOURNAL. Baltimore: Md.

This journal is continually improving in interest, and the April number contains many interesting articles which furnish abundant evidence of the progression of medical science.

THE MICROSCOPE, AND ITS RELATION TO MEDICINE AND PHARMACY.

This is the first number of a new journal started in the interests of microscopy in medical practice, edited by Prof. Chas. Stowell, M. D., and Mrs. M. R. Stowell, M. S., both of whom occupy prominent positions in the State University at Ann Arbor. The field in which this journal aims to work is one full of interest to every physician, yet one in which there is a general lack of information. The names of the editors is ample guarantee to insure for this new journal the success it deserves.

THE VOICE.

This is a monthly devoted to voice culture, musical and elocutionary, with especial attention to stuttering and other defects of speech. It is the organ of the Music Teachers' National Association, and aims to give practical instruction in the use, improvement, and restoration of the voice, in reading, speaking, or singing. It contains much of interest to everybody, but is especially of value to every one afflicted with any vocal defect. It is edited by Edgar S. Werner, Albany, N. Y., and its contributors include leading voice specialists both in this country and in Europe. Subscription price, \$1.00 per year.

—Through the kindness of Thomas F. Wood, M. D., Secretary of the Board, we have received a copy of the "First Biennial Report of the North Carolina Board of Health," which evidences the fact that, although the Board is but two years old, it is a thoroughly progressive organization, and one of which the State may well be proud. The report contains many interesting and valuable articles, including tables, compiled by the Secretary, of the meteorological records, prevailing diseases, and conditions of public buildings of each county in the State.

Publishers' Page.

The recent Sanitary Convention held in this place was the most successful ever held in this State. The Michigan State Board of Health have inaugurated these conventions as a new feature of sanitary work, and the enterprise bids fair to prove one of the most practically useful of all the various important services rendered to the public by this department of the civil service of the State.

We received a few days ago a telegram from Eld. S. N. Haskell, who stands at the head of the Health and Temperance work in New England and California, ordering one thousand copies of the April number to be sent to the depositories of the California and New England H. & T. Societies. These are to be used in an effort to obtain new subscribers. Several other H. & T. and T. & M. Societies are operating upon the same plan, and are meeting with good success. We are grateful to these friends of health and sanitary reform, and hope they will meet with such good results as to encourage them to continue their efforts in this direction.

We have received several good suggestions from various friends respecting means of improving the interest in the journal, and would be glad to hear from all who have anything to offer on the subject. We want to make a journal to meet the wants of the people as nearly as possible.

We begin with this number a new department devoted to the interests of the Sanitarium and its patrons. This will be a very interesting department to all who are acquainted with the institution, and especially to its old patrons, as it will be made a medium of communication between old patients. Those who wish to have this department added to their copies of the journal, should address the editor to that effect.

The Sanitarium has increased its facilities for the present season by the addition of twenty new rooms in addition to its two large main buildings, and six cottages. Quite a proportion of these are already spoken for.

The managers of the Sanitarium are to be congratulated for having secured the services of Mrs. L. M. Hall, who has recently consented to fill a position of responsibility in the institution. Mrs. Hall's long and varied experience, as well as her natural abilities, admirably adapt her to fill the position in a manner creditable to herself and profitable to the institution.

We would again call attention to the "Prepared Foods" or "Invalid Foods" advertized in another column. These articles are meeting with very great favor wherever they have been introduced, and already the demand calls for larger producing facilities, which are now being introduced. Every one who needs anything of the sort is delighted with these articles. We have them constantly in use at the Sanitarium, and for certain cases think them al-

most indispensable. They are prepared by a process which relieves the stomach of a part of its work, and so are adapted to all cases in which there is slow digestion, or in fact, almost any form of dyspepsia. Send for a package on trial.

We have many times been requested to recommend an electric battery for home use. We have hesitated to do this for two reasons; first, electricity is a powerful agent which may be used in such a way as to do harm instead of good; second, as a general rule, batteries are so constructed that they are liable to get out of order very easily, and thus become a source of vexation and of no use. The first of these objections the author of the Home Hand-Book has endeavored to remove by giving careful directions respecting the use of this remedy in cases to which it is applicable; the second, we have removed by suggesting such changes in the batteries as ordinarily constructed as have resulted in the production of a really simple, yet effective, instrument, which can be afforded at a very reasonable price. After a thorough trial we do not hesitate to pronounce this battery, which is known as the "Sanitarium Battery," as the most effective and reliable for family use of any with which we are acquainted. We have tried it in competition with batteries costing three times as much, and it did not suffer at all by the comparison. We can recommend them most thoroughly, and have made arrangements to have them manufactured expressly for us so that we may be able in the future to supply the demand. We have just received a lot of twenty-five, and can fill orders promptly. The battery will be sent by freight or express, all ready to run, on receipt of \$12.00. Those who wish a supply of battery fluid, to save trouble in getting it at the drug store, should send \$1.00 extra.

Seasonable Advice.—Now is the time for those who wish to keep healthy during the hot weather to make proper preparations for so doing by attending to the condition of their surroundings. Every house and its premises should undergo a thorough overhauling at once, before the sultry, germ-generating weather comes. Never rest until every nook and corner which can possibly be a breeding place for germs is thoroughly cleansed and disinfected. Eternal vigilance is the price of safety against the inroads of the enemies of human life which lurk in every dark cellar filled with damp, moldy debris and decaying vegetables, in uncleansed cesspools and privy vaults, in wells contaminated with organic matter, in unventilated and sunless sleeping apartments with dank, moldy walls, around back dooryards strewn with garbage from the kitchen, wherever there is organic matter undergoing decomposition. Clear out, clean up, ventilate, and disinfect at once, before the fell destroyer gets a foothold in your dwelling.

There has been such a large increase of subscribers since New Year's that it has been necessary to print several editions of the first numbers of the year in order to send back numbers to all who wished. This is the reason why a few orders recently received have not been filled with the usual promptness.

We beg to state that Mr. A. Persing is no longer authorized to receive subscriptions for this journal, or to receive money for us on any account.